



THE UNIVERSITY
OF ADELAIDE
AUSTRALIA

AN INVESTIGATION INTO THE
MENTAL HEALTH NEEDS
OF ADOLESCENTS IN RURAL AREAS
OF SOUTH AUSTRALIA

Thesis submitted in fulfilment of the requirements for the
Degree of Doctor of Philosophy

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October 2010

Discipline of General Practice
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ABSTRACT

Background & Aims

Recent statistics indicate that up to 20% of Australian adolescents experience the burden of having a mental health problem. International research has suggested that inhabitants of rural areas are at particular risk of mental health morbidity due to their location. Prior Australian research on the subject of rural mental health has tended to have an adult focus, neglecting adolescents. This PhD project sought to gain a deeper understanding of the mental health needs of adolescents in several rural areas of South Australia, and investigate how the experience of ‘rurality’ influenced mental health and wellbeing. Specifically, this project investigated: the mental health and wellbeing of adolescents; the perceptions held about adolescent mental health needs as described by both human service providers practicing in rural South Australian communities and the adolescents residing in them; and finally, comparing the mental health and wellbeing of adolescents observed over the past four to eight years.

Methodology

A mixed-methodological study design was employed, with four separate studies undertaken. Two qualitative studies were initially conducted and they utilised individual interviews and focus group discussions to collect information from 38 rural human service providers and 44 adolescents about the mental health needs they could identify in their communities. In conjunction with this, two quantitative studies were conducted which investigated the mental health and wellbeing of 332 rural adolescents via a questionnaire. Results from this questionnaire study were then compared to existing South Australian data collected in 2001, 2003 and 2005, the aim being to investigate differences in mental health and wellbeing between groups across the three different time periods.

Results

A qualitative study of human service providers in four rural townships identified five major influences on adolescent mental health care in local communities: Community and Society Factors; Youth Issues, Indigeneity; Service Delivery and Utilisation; and Occupational Factors. Significant gaps in mental health service delivery were identified and better implementation of existing resources was identified as being more important than the absence of resources *per se*.

Framework Analysis of qualitative data collected from focus groups with rural adolescents identified three overarching concepts perceived as having an impact on mental health: Recognition and Knowledge; Social Problems; and Accessing Care. Adolescents proved to be highly knowledgeable about the mental health problems in their communities and made six recommendations for improving future service delivery. Their main concerns centred on – reducing the stigma of mental health issues in their rural communities, and importing ‘younger’, less ‘formal’, mental health staff.

The final two studies employed a questionnaire to investigate self-reported mental health and wellbeing. Amongst the adolescents sampled (N=332), gender differences were evident according to measures of psychological health and psychological distress. Male participants reported significantly lower levels of self-esteem ($p<.001$), trait anxiety ($p<.001$) and perceived stress ($p<.001$), than their female peers; but also indicated higher levels of psychological distress (as determined by GHQ score), than females ($p=.023$). Both gender groups tended to demonstrate low to very low levels of suicidal ideation, but females reported twice the level of suicidal ideation ($p=.006$) than their male peers.

In terms of wellbeing and health risk behaviours, female participants were found to drink more frequently than males ($p=.010$), were more likely to use prescription and non-prescription drugs ($p<.001$; $p=.020$), smoke ‘socially’ ($p=.004$) and participate in ‘risky’ sexual behaviour ($p=.004$).

In comparison to existing South Australian data collected in 2001, 2003 and 2005, participants in this study tended to demonstrate significantly poorer levels of psychological health, as determined by social alienation (Yr 10, $p<.001$ & Yr 12, $p=.036$), negative mood (Yr 11, $p=.035$ & Yr 12, $p<.001$) and GHQ (Yr 11, $p=.002$ & Yr 12, $p<.001$) scores. However, they reported significantly lower levels of suicidal ideation than those observed in existing 2001 data (Yr 10, $p=.005$). Participants in the current study also reported significantly less participation in health risk behaviours, with drinking frequency (Yr 10, $p=.002$), tobacco (Yr 10, $p=.002$) and marijuana use (Yr 10, $p=.035$) being more frequently self-reported amongst participants sampled in 2001.

Conclusions

Using mixed-methods made it possible to undertake a comprehensive investigation of the mental health needs of adolescents in rural South Australia. Qualitative findings indicated that both human service providers and adolescent consumers of mental health care were concerned about the occurrence of mental health issues and gaps in existing service delivery in their communities. Participants provided several recommendations to improve local mental health services and encourage adolescents to access help in the future.

Quantitative findings of this PhD project suggested that the psychological health of adolescents sampled in 2008/9 was poorer than that observed in existing 2001, 2003 and 2005 data; whilst participation in health risk behaviours was less frequent in the 2008/9 sample.

Collectively, the results of this study are relevant to future rural mental health policy, and particularly in geographically similar communities in other states of Australia. In order for improvements to be made which will benefit the mental health of adolescents in rural currents, it is necessary for policymakers and stakeholders to consider not the *amount* of resources available, but rather, how existing health resources are being *managed* within rural communities.

STATEMENT OF AUTHORSHIP

This work contains no material which has been accepted for the award or any other degree or diploma in any university or other tertiary institution to Marijeta Kurtin and, to the best of my knowledge, and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Marijeta Kurtin

Date:

ACKNOWLEDGEMENTS

Completing this PhD project has been a challenging, yet also very personally fulfilling life experience for me. However, it would simply not have been possible without the help and support of so many people. Therefore, I really need to express my deepest thanks and sincere gratitude to the following people:

My Supervisors

Firstly, I thank my principal supervisor – Dr Chris Barton (Discipline of General Practice, The University of Adelaide), for his ongoing support and commitment throughout my candidature, and in particular his research skills and great attention to detail, which I believe have added greatly to the quality of this thesis. Chris, I know that you are just as happy as I am to see me finally complete this project, and I wish you all the best with your new endeavours and new academic position.

Secondly, I must acknowledge Professor Tony Winefield (School of Psychology, University of South Australia). Tony, I thank you for your guidance and unwavering support over the years. You have supervised me in some capacity for the past six years now, and I feel that I have learnt so much from you during this time, even if much of it has been about the English Premier Soccer League. I will sincerely miss working with you, but know that we will continue to keep in touch.

Last but certainly not least, I express my gratitude to Dr Jane Edwards (Hawke Research Institute, University of South Australia). Jane, I cannot express how glad I am that you agreed to come on board and help supervise me.

You have such a wealth of knowledge about rural culture and the de facto mental health system, which has added so much to this project. I have also appreciated the constant encouragement within your e-mails, especially over the past year when I needed it the most.

At this point, it would be remiss of me if I did not acknowledge Dr Nicole Moulding (School of Social Work and Social Policy, University of South Australia). Nicole, thank you for your efforts as my initial principal supervisor, and the part you played in the early conceptualisation and development of this research project. I think we have all missed your involvement in this project, and hope that things are going well for you in your new position.

Funding Providers

I thank the P.H.C.R.E.D. program and the Discipline of General Practice at The University of Adelaide for the Divisional scholarship they awarded me from 2006-9.

Secondly, I thank the Australian Rotary Health Research Fund and the Rotary Club of Holdfast Bay for the scholarship awarded to me in 2008-9. In particular, I acknowledge the late Mr Max Dillon, without whom I am told, such a scholarship would not be possible. I sincerely hope that he would be satisfied with what this project has achieved. I would also like to express my gratitude to the entire Rotary Club of Holdfast Bay, who has hosted me on two occasions in their clubrooms.

Thank you for your hospitality and genuine interest in this research project. You are doing such great work in the community, and I wish you every success in your future projects.

People who have helped along the way...

Dr Jonathan Newbury (Spencer Gulf Rural Health School), Dr Andrew Killcross (Port Augusta Hospital) and Ms Raelene Fuller (Eyre Peninsula Division of General Practice) for their invaluable assistance with the recruitment of rural GPs. ‘Dropping’ your names helped immensely.

Ms Kathy Vidov, for her ‘research assistance’ and graphic design skills. We spent so many late nights working on the figures and images throughout this thesis, not to mention the conference posters. Thank you for being so fussy and for not saying no to my ideas, despite knowing how difficult they would be to physically implement.

Ms Beth Nixon for the hours and hours of verbatim transcribing she conducted. This greatly assisted the data analysis for Studies 1 and 2 (Chapters 3 and 4).

Mr Tom Sullivan for his statistical expertise and assistance with the data analysis for Studies 3 and 4 (Chapters 5 and 6).

Mr Phillip Thomas who edited this thesis in accordance with ASEP Standards for ‘Language and Illustrations’ and for ‘Completeness and Consistency’.

Staff and Students in the Discipline of General Practice

I am so grateful to Ms Nicky Bennett (Discipline of General Practice) who helped put this huge document together. Thank you also for the day-to-day support you have provided to all the students in the DGP. Despite being busy at reception, you always find time for us.

I would like to thank the following PhD and Honours students in the Discipline: Dr Joanne Dollard, Dr Susan Selby, Ms Karina Bria, Ms Kerrie Pickering, Ms Kui Muraya, Mrs Fiona May, Dr Heather Tan, Dr Rosie King, Dr Antonina Mickocka-Walus and Ms Kellie Chugg. I have enjoyed getting to know you all, and I thank you for being so pleasant to share an office with.

Additionally, I acknowledge Dr Karin Ried and the DGP Student Writing Group, and also the Postgraduate Students' Qualitative Research Methods Group for the extremely valuable feedback they have provided about my written work over the years.

Finally, I must acknowledge Professor Nigel Stocks (Head of Discipline) for being so flexible with the changes to my candidature, and for ensuring such excellent resources and supports were available to all students within the DGP.

The School Leavers Study Research Team at UniSA

I would like to acknowledge the research team from the *University of South Australia's Longitudinal Investigation of School Leavers Study*: Professor Tony Winefield, Professor Helen Winefield, Dr Anne Hammarstrom, Dr Paul Delfabbro, Professor Maureen Dollard, Associate Professor Jacques Metzger, Dr Carolyn Boyd, Ms Sarah Anderson and Ms Silvia Pignata. Thank you all for your support and encouragement with my PhD project, and I thank the Chief Investigators especially, for allowing me to use their data for Study 4 (Chapter 6).

My Family, Friends and Work Colleagues

I extend my gratitude to my Mum and Dad, and to my siblings, Mato and Sal, for the combination of encouragement and (well-intentioned) criticism you have all offered to me throughout my candidature. You have kept me grounded and reminded me (many times) that there are bigger things in life than a PhD.

As well as my immediate family who have lived with me and my PhD every day for the past four years, I must acknowledge my extended family in Croatia who have always provided me with kind words of encouragement and ‘phone support’. I especially acknowledge my grandmother.

I acknowledge my friends (who at times I have neglected), my work colleagues at OARS SA, and the students in the 2010 Master of Psychology program at The University of Adelaide. You have all been invaluable supports to me.

My Participants

Finally and most importantly, I need to acknowledge the participants who facilitated the success of this research project. I cannot express how deeply grateful I am for the wonderful insights you have provided to me about everyday life in your rural communities. I thank you for giving up your time to come and talk to a stranger from Adelaide, about such sensitive issues. Without your involvement, I would not have been able to complete this project.

Finally, I express my sincere gratitude to the school Principals and teaching staff who embraced this study. I thank you for distributing questionnaires, chasing up consent forms and for welcoming me so warmly to your school.

CHAPTER 1

THE MENTAL HEALTH OF RURAL ADOLESCENTS: A LITERATURE REVIEW

1. Preamble

Over the past decade it has become increasingly clear that mental health problems cause a great burden not only to the individual, but also the community at large. This was officially recognised by the Department of Health and Ageing in 1997, when the first major epidemiological study of mental health was undertaken. The *1997 National Mental Health and Wellbeing Survey* was a general household survey of the Australian population aged 16-85 years and focused on the more common or high prevalence mental disorders, namely affective disorders (including depression), anxiety disorders and substance use disorders. In 2007, this study was repeated, and *The Mental Health of Australians 2: Report on the 2007 National Survey of Mental Health and Wellbeing* was published. This second report indicated that an estimated 3.2 million Australians (20% of the population aged between 16 and 85) had a mental disorder in the twelve months prior to the survey.

The subsequent *Burden of Disease and Injury in Australia* study indicated that mental disorders constitute the leading cause of disability burden in Australia, accounting for an estimated 24% of the total years lost due to disability (Australian Institute of Health and Welfare [AIHW], 2010). Indeed, mental health has attracted much political attention and is now recognised as a critical national public health issue, especially since it was formally recognised by the Federal government as one of eight National Health Priority Areas (NHPAs). The National Health Priority Areas initiative was Australia's response to the World Health Organisation's global strategy, *Health for All by the year 2000* and its subsequent revision (Hall & Taylor, 2003; WHO, 1981).

The initial 1996 set of NHPAs included: cardiovascular health, cancer control, injury prevention and control, and mental health. Diabetes mellitus was added in 1997, followed by asthma in 1999, arthritis and musculoskeletal conditions in 2002 and obesity in 2008 (AIHW, 2010).

Yet despite this national and international recognition about the importance of mental health, there is much that remains unknown. In particular, it is very difficult to find any statistics pertaining to adolescents and the prevalence of mental health problems in this age group. Furthermore, there is little research into the lived experience of people with mental health problems, especially for those in rural communities. While understanding about mental health has come a long way through public education, mental health morbidity is still not as easily admitted to as physical illness. The current research seeks to address the gaps in knowledge prior researchers neglected to fill in regarding the mental health of rural Australians, and in particular, the mental health of rural adolescents. The prevalence of mental health problems for rural South Australian adolescents will be more deeply investigated, as well as the efficacy of rural mental health services for this target group.

1.1 The prevalence of mental illness

The National Mental Health Report (2010) distinguishes between mental illness and mental health problems. According to this report, 'mental illness' is a term describing a diverse range of behavioural and psychological conditions. In 2005, the most common illnesses included anxiety, depression and alcohol dependence disorders, with 18% of the adult population experiencing symptoms within a 12-month period (Department of Health and Ageing, 2006). Furthermore, it was noted that approximately one third of these individuals would experience two or more conditions simultaneously (Andrews, Henderson & Wall, 2001).

Furthermore, approximately 0.4 – 0.7% of adults were affected by psychoses at any given time. Approximately 40,000 adults were in regular contact with a mental health service for schizophrenia, with a further 18,000 seeking mental health support for a severe mood disorder (Department of Health and Ageing, 2006).

Mental health ‘problems’ on the other hand, included issues which interfered with a person’s cognitive, emotional and social abilities to a lesser extent than a clinically diagnosed mental illness. Trauma and grief are two life experiences that have been identified as causing a great deal of burden to an individual (Department of Health and Ageing, 2010). Indeed, this distinction is particularly important because most prevalence data are based on mental disorders and do not include mental health ‘problems’. As a result of this, prevalence data are likely to underestimate the burden and costs of mental health problems to the community.

In 1998 the Australian Bureau of Statistics approximated that one in six Australian adults had a mental disorder. This included 1,300,000 people with anxiety disorders, 778,000 with depression or other affective disorders, and 1,041,000 with substance use disorders. Adding these numbers gives more than the total number of individuals affected because some people had more than one mental disorder (Ozdowski, 2001). Mental disorders were highest in the 18 to 24 year old age group with a figure of 27% (ABS, 1998). The most common mental or behavioural problems in 1998 were mood and anxiety problems with prevalence of 45% each. Females reported the highest rate of mental or behavioural problems overall in each five-year age group surveyed by the ABS, with the exception of those aged under 18 years where adolescent males emerged as having higher rates of mental and behavioural disorders (ABS, 2001).

These figures changed slightly in 2007 with ABS statistics indicating that one in five Australians had a mental health disorder. As with the earlier survey, prevalence of 12-month mental disorders was the highest amongst young Australians. In 2007, more than one quarter (26%) of people aged 16-24 years and a similar proportion (25%) of people aged 25-34 years, had a 12-month mental disorder compared with 5.9% of those aged 75-85 years old (Department of Health and Ageing, 2010). This observation supports recent research which indicates that mental health morbidity is now being associated with a younger age of onset (Aird, Najman, & Shuttlewood, 2004; Eckersley, 2006). Data collected in 2007 provided more meaningful mental health information than the previous Mental Health Report, because mental health disorders were now clearly grouped into three specific categories: anxiety disorders, affective disorders and substance use disorders. In 2007, across all age groups, there were 3.2 million people who had a 12-month mental disorder. In total, 14.4% (2.3 million) of Australians aged 16-85 years had a 12-month Anxiety disorder, 6.2% (995,900) had a 12-month Affective disorder and 5.1% (819,800) had a 12-month Substance Use disorder (ABS, 2009). Similar to the findings in 1998, females across all age groups reported highest rates of anxiety and affective disorders. However, males across all age groups tended to self-report higher rates of Substance Use, especially alcohol. These latest findings build on the earlier 1997 Mental Health Survey, which did not specifically address substance abuse as a mental disorder.

1.2 Prevalence of mental health problems amongst adolescents

Prevalence data on mental health problems for adolescents are not as detailed or as easy to find as they are for the adult population. However, the child and adolescent component of the National Survey of Mental Health and Wellbeing of 2000, indicated that 14% of children and adolescents have mental health problems (Sawyer, Arney, Baghurst, Clark, Graetz, Kosky, Nurcombe, Patton, Prior, Raphael, Rey, Whaites & Zubrick, 2000a).

This report is still considered to be a key report by Australian mental health researchers because prior to its publication, no information existed at a national level about the prevalence of child and adolescent mental health problems. Importantly, this investigation occurred as the child *and* adolescent component under the National Mental Health Strategy, which provides information about not only the prevalence of mental disorders, but also the degree of disability associated with such disorders (Sawyer et al., 2000a & 2000b). To date, an adolescent-specific mental health report has not yet been published in Australia. This is largely because ‘adolescents’ are either grouped under the umbrella of ‘children’ or as ‘youth’. In many reports commissioned by the Department of Health and Ageing, adolescents appear in the age groups for ‘children’ 0-15 years, or ‘youth’ 16-24 years.

Participants in the National Survey of Mental Health and Wellbeing of 2000 included approximately 4,500 children and adolescents aged 4 to 17 years. Inclusion criteria for adolescents (aged 13-17 years) included mental health problems identified using the ‘Youth Self Report’ scale containing 112 items, to measure self-ratings of behavioural problems (Achenbach & Edelbrock, 1987). The Youth Self-Report scale has been widely used internationally amongst children and adolescents aged 11 to 18 years of different cultural backgrounds, and found to have acceptable reliability and sound validity. The major construct measured in this scale is Aggression, and participants are asked to respond to statements following a Likert scale. In the National Survey, adolescents were considered to have a mental health problem if their score was in the ‘clinical’ range on this scale. However, the survey could not be generalised to Aboriginal and Torres Strait Islander children due to too few participants from this cultural group being recruited.

Furthermore, anxiety disorders were not included in the survey because assessment of anxiety disorders is very complex and according to the researchers, their inclusion would have required another group of disorder to be dropped. However, Sawyer et al. (2000b) argue that the exclusion of anxiety disorders from the survey was unfortunate, because anxiety disorders are very common among children and adolescents. Had they been included, a higher prevalence of mental health morbidity may have been reported (Sawyer et al., 2000b).

Specific problems most frequently identified by adolescents who participated in the study included delinquent behaviour and aggressive behaviour with 12% and 8% of all adolescents scoring in the clinical range on each of these scales. The next most frequently identified problems were attention problems and somatic complaints with 7% of all adolescents surveyed scoring in the clinical range on each of these scales. In some areas, the proportion of adolescents scoring in the clinical range on these scales varied from that identified by parents. For example, substantially more adolescents scored in the clinical range on both the *Delinquent Behaviour Scale* and on the *Anxious/Depressed Scale* when information was obtained from adolescents rather than parents, with figures of 12% versus 6% and 7% versus 4% respectively.

Significant relationships between the prevalence of mental health problems and demographic characteristics of children and adolescents were identified. Children and adolescents living in sole-parent, step/blended or low-income families were more likely to have mental health problems. Furthermore, both males and females living with parents who were not in paid employment had a higher prevalence of externalising problems than those in families where parents were employed.

Also, the health-related quality of life of adolescents was found to be affected by experience of mental health problems. Adolescents with more problems reported more pain and discomfort, lower self-esteem and greater difficulty with school and peer activities (Figure 1).

Figure 1: The health-related quality of life of adolescents according to adolescent self-reports.

NOTE:
This figure is included on page 7
of the print copy of the thesis held in
the University of Adelaide Library.

Source: The National Survey of Mental Health and Wellbeing: The Child and Adolescent Component, 2000a, p.37.

Adolescents with more emotional and behavioural problems lived in less cohesive families and were perceived by their parents to have a large impact on family activities. Also, parents of adolescents with more problems experienced greater limitation in the time available for their personal needs than did the parents of adolescents who had fewer emotional and behavioural problems. Taken together, the above information suggests that as adolescents experience an increasing number of emotional and behavioural problems, they tend to experience increasing difficulties in other social areas of their lives (Sawyer et al., 2000a). The report's authors make the important point that while this is the case, it is not possible to determine whether mental health problems cause these other difficulties or whether the opposite is true. Clearly, a reciprocal relationship is likely to exist. It could be that the impact of mental health problems reduced cohesion between family members, yet it can also be the case that family problems may exacerbate mental health problems. Furthermore, it is important to note that both mental health problems and lack of family cohesion may be influenced by abuse, but this was not assessed in the report.

It has now been a decade since the publication of the Child and Adolescent component of the National Mental Health Survey in 2000. In that time, there has not been a second national survey which specifically investigates the prevalence of mental health morbidity amongst adolescents.

1.3 The mental health of rural adolescents

Most studies investigating the mental health of adolescents living in rural areas is international in character, with a large body of literature emerging from Europe and the United States in the past decade (Due et al., 2009; Levin et al., 2009). Recent statistics from the United States estimate that 6 to 9 million children and adolescents have serious emotional disturbances.

Research has indicated that approximately 21% of children and adolescents aged 9-17 years experience symptoms of mental health problems that cause some level of impairment in a given year (United States Public Health Service, 2000). According to a study conducted by Angold, Erkanli, Farmer, Fairbank, Burns, Keeler and Costello (2002), the prevalence of mental health problems among rural adolescents does not differ significantly from metropolitan adolescents. Angold et al. (2002) investigated differences among White and African-American rural adolescents and found similar prevalence to those of metropolitan adolescents with figures of 20.5% and 21.9% respectively. These figures also challenge the popular belief that African-American adolescents generally show higher prevalence of mental health problems. Contrary to expectations, Angold et al. (2002) found an excess of depressive disorders among the White adolescents sampled (4.6% compared to 1.4% African-American adolescents).

Burns, Cottrell, Perkins, Pack, Stanton, Hobbs, Hobby, Eddy and Hauschka (2004) also studied depressive symptoms among a group of rural adolescents in the United States. Their study sought to characterise the longitudinal stability of depressive symptoms and health risk behaviours on the basis of clinical assessments. Participants were identified from having a previous risk screen from their clinic's medical records, and then scored for depression and risk behaviours at a later date. It was apparent that adolescents who had high baseline depression scores previously had higher rates on follow-up of sexual activity, drug abuse, violence, tobacco, problems with school, a history of physical/sexual abuse and a high total risk score. These results suggest that the depressed adolescents were also likely to have other risk behaviours that had significant impact on their health. Similarly, Fergusson's and Woodward's (2002) longitudinal study of rural adolescents in the United States found significantly increased risk of major depression, anxiety disorders, nicotine dependence, alcohol abuse, suicide attempt, educational underachievement, unemployment

and early parenthood. Collectively, this research supports early research in the United States by Puskar, Lamb and Bartolovic (1993), who found that rural adolescents have significant problems with stress and coping. According to Puskar et al. (1993), such findings challenge the myth that rural communities tend to have less stress due to their location.

1.4 The mental health of rural Australian adolescents

Most Australian studies on mental health issues have focused on adults, and of the existing research into adolescent mental health, even less research specifically investigating the mental health of rural adolescents exists (Kilkinen et al., 2007). According to recent ABS statistics, young people living in Australia's rural areas make up 29% of the total population of 15-24 year olds (ABS, 2003b). Young people living in rural Australia have higher death and hospitalisation rates than those in metropolitan areas. Furthermore, the death rates of young males from accidents, injuries and suicide increase markedly with increasing geographical remoteness (ABS, 2003a; AIHW, 2010). In 2004-2006, there were about 4,600 excess deaths annually outside Australian capital cities (or *major cities*, as termed by the *Australian Standard Geographical Classification Remoteness Area classification* by the ABS, 2006). According to the AIHW (2010), the causes of death contributing most to this excess included: coronary heart disease (20% of excess deaths), 'other' circulatory disease (17%), chronic obstructive pulmonary disease (9%) and motor vehicle accidents (8%). Suicide, which has been found to be consistently more common outside *major cities*, contributed 4% of the excess, amounting to approximately 187 deaths. The majority of these suicides occurred in young males aged 20-24 years. Injuries contributed 80% of excess deaths amongst 15-24 year olds outside *major cities*, and 55% of excess deaths among 25-44 year olds. These injuries amongst rural youth were largely preventable, and include motor vehicle accidents.

Whilst the AIHW (2010) report acknowledges that between the years of 1997-2006, mortality rates in urban and rural areas fell, the mortality gap between *major cities* and *other (rural) areas* has remained stable, with death rates in *other areas* exceeding those of *major cities* by at least 10% annually.

It is also important to note that Aboriginal and Torres Strait Islander peoples (i.e. Australia's Indigenous people) are more likely than the total population to die from the external causes mentioned above, and are over-represented in rural locations of Australia. Aboriginal and Torres Strait Islander peoples make up some 26% of Australia's rural population, but only 1% of Australia's urban population (AIHW, 2010). In the period 1998-2000, there were 1,613 deaths of Indigenous Australians attributed to external causes, accounting for 16% of Indigenous deaths, compared to 6% of deaths in the total population (ABS, 2002). As a proportion of all Indigenous deaths, suicide accounted for 4.3% (2.0% for the total population), transport accidents 4.2% (1.6%), and assault 2.0% (0.2%) (ABS, 2002). In terms of Aboriginal and Torres Strait Islander youth, the death rate was almost four times the rate for other young Australians during 2002-4, and the injury death rate was almost five times that of other young people. Indigenous young people had higher hospital separation rates for injury (1.7 times the rate for other young Australians), asthma (1.3 times) and diabetes (more than 3 times). Young Indigenous Australians were also more likely than other young Australians to experience health risk factors such as obesity, physical inactivity, smoking, imprisonment, and lower educational attainment (AIHW, 2007). Therefore, it is highly evident that Indigenous adolescents experience a greater risk of morbidity, which is only further exacerbated by their rural location.

In terms of mental health disorders experienced by youth in the wider Australian population, the 2007 *Young Australians* report indicated that since 2003, mental disorders account for 50% of the total disease burden experienced by young people (AIHW, 2010). In 2004-5, there were over 47,000 hospital separations for mental disorders, with over 50% linked to psychoactive substance use, schizophrenia and depression (AIHW, 2007). Collectively, these data indicate further research is needed on Australian adolescents' mental health, particularly those who reside in rural and remote areas, where many risk factors impact on their health and wellbeing.

1.5 Mental health policy in Australia

Over the past two decades, there has been an increasing degree of attention paid to mental health issues among Australians, and also to the adequacy and provision of mental health services. Such awareness led to the development of the National Mental Health Strategy between 1991 and 2003. Adopted by all Australian Health Ministers in April 1992 the Strategy aimed to:

‘promote the mental health of the Australian community and, where possible, prevent the development of mental health problems; reduce the impact of mental health problems on individuals, families and the community; and assure the rights of people with mental illness’ (Department of Health & Ageing, 2005, p.12).

This Strategy was the first attempt to coordinate nationally the development of public mental health services which had previously been the responsibility of the eight State and Territory governments since Federation in 1901. All governments committed to undertake agreed upon action within their jurisdictions and formulate collaborative policies and also service relevant developmental issues requiring national attention.

According to the findings of the 2005 National Mental Health Strategy's annual report, spending on mental health in 2003 was \$3.3 billion, representing a 69% increase in spending in real terms over the decade since 1993 (Department of Health & Ageing, 2005).

Following the National Mental Health Strategy, and the subsequent election of the Labor Party in 2007 which ended eleven years of Liberal Party rule, a new mental health agreement was forged in 2006. On July 14 2006, the Council of Australian Governments (COAG) endorsed the *National Action Plan for Mental Health 2006-2011*. This new Action Plan was based on the recognition that, after a decade of national reform, the federal government had to give greater impetus to the reform process. Leaders of all federal and state/territory governments focused on mental health and agreed to a plan to reform mental health services that addressed not only health needs, but made commitments to activities in other key areas: housing, employment, education and correctional services. Backing this agreement, a total of \$4.1 billion was committed to a wide range of initiatives over the 2006-11 period, representing the largest collective investment in mental health by any Australian government to date (COAG, 2006).

While the Plan is a 'whole of government' responsibility, Health Ministers were assigned the task of reporting annually to COAG on its progress. The second annual report, describing the progress made in 2007-8 was recently published. According to this report, a 25% increase in mental health spending was agreed to occur nationally, with a \$5.5 billion commitment now to be made during the 2006-2011 period (COAG, 2009).

At this point, it would be remiss not to mention the Better Access to Mental Health Care initiative, which features as part of COAG's National Action Plan 2006-11. The purpose of the Better Access initiative was designed to improve the treatment and management of mental illness in the community, and improve treatment options in primary

care settings. Better Access encourages General Practitioners (GPs) to work more closely and collaboratively with psychiatrists, clinical psychologists, and allied health care professionals (registered psychologists, appropriately trained social workers, and occupational therapists). Under this initiative, GPs are encouraged to refer patients who present with mental health concerns to appropriate mental health staff for intensive, short-term, Medicare*-subsidised mental health services. Depending on their needs, patients are eligible for up to twelve (or eighteen in exceptional circumstances) individual and up to 12 group allied mental health services per calendar year (Department of Health and Ageing, 2008).

In the first 27 months of operation of the Better Access initiative, almost 1.4 million people living with mental illness across Australia accessed nearly 6.8 million Medicare-subsidised primary care mental health services (Department of Health and Ageing, 2009). These services were provided by approximately 38,000 psychiatrists, GPs, clinical psychologists and other allied mental health care professionals. The average number of treatment sessions attended by patients was five (Department of Health and Ageing, 2009). According to this department, one of the great benefits of this scheme has been that psychiatrists can see additional new patients and be more readily accessible to treat patients with more complex and long term mental health care needs, now that alternative primary care treatment services are available.

* *Medicare* is Australia's universal health care system introduced in 1984 during the Hawke Labor government by the Department of Health (now the Department of Health and Ageing). Medicare works on the proviso that all Australians contribute to the cost of health care according to their ability to pay. It is financed through progressive income tax and an income-related 'Medicare levy'. Medicare provides access to: free treatment as a public (Medicare) patient in a public hospital, and free or subsidised treatment by medical practitioners including general practitioners, specialists, participating optometrists or dentists (for specified services only).

Importantly, Medicare data has indicated that approximately 80% of Medicare claims for Better Access services were for urban areas (Department of Health and Ageing, 2009). Not only does this reflect the higher concentration of population and professional mental health staff in these areas, but also highlights the difficulties that Australians living in rural and remote areas have in accessing primary care mental health services.

1.6 Rural mental health services

While figures have indicated that all States and Territories have met their commitments to protect mental health resources over the course of the National Health Strategy (and the more recent COAG National Action Plan), surveys conducted investigating the extent of mental illness, have indicated that a high level of need still exists and is widespread, and in particular, in rural and remote areas. The recognition of these immense needs in rural and remote areas occurred over a decade ago, and led to the endorsement of the National Rural Health Strategy in 1994, later revised in 1996. According to the Strategy, rural and remote Australia is characterised by a severe shortage of mental health services for treatment and aftercare of patients.

In light of this, the Commonwealth recommended that special priority be given to ‘rural mental health services’. This call for action on behalf of the Federal government allowed for the development of community mental health teams in the early 1990s. Since then other rural health strategies have been proposed but not a national initiative. However, it should be noted here that a recent announcement by the newly re-elected Labor Party (as of September 7th, 2010) revealed that \$1.8 billion would be set aside to improve health services in *regional* areas of Australia (TDA, 2010). At this early stage, it is unclear as to what this means for improving mental health care services in rural areas.

According to Fuller, Edwards, Martinez, Edwards and Reid (2004), rural South Australian communities endured difficulties in access to mental health care prior to the development of community mental health teams in the 1990s, and unfortunately, they still continue to do so today. Previously, access to specialist mental health care outside of psychiatric hospitals was deemed 'difficult' and formal/specialist mental health care in rural non-metropolitan regions of South Australia was 'almost non-existent'. While formal/specialist mental health care is now available, albeit very limited in rural areas, there were no mental health beds in hospitals outside Adelaide in 2001. However, current information from South Australia's Department of Human Services has revealed that there are a very small number of 'sub-acute' beds in Whyalla and Port Augusta (2 and 1 respectively) that are dedicated beds for people with mental health problems. It should be noted, however, that these beds are not available for children and adolescents exclusively, but rather *any* mental health patient. Adolescent patients who need to be detained must still be transferred to the Women's and Children's Hospital in Adelaide.

Fuller et al. (2004) state that in the early 1990s, the number of visiting psychiatrists in rural South Australia was equivalent to one psychiatrist per 186,000 people. The ratio of psychiatrists per person recommended by the Australian and New Zealand College of Psychiatrists was one psychiatrist to 7,500-10,000 people. The former statistic was clearly well below the recommended ratio and far below the overall South Australian ratio at the time, consisting of one psychiatrist per 9,200 people. According to WHO standards of one psychiatrist per 10,000 people, there should be 42 psychiatrists outside metropolitan Adelaide, as population statistics indicate that approximately 420,000 South Australians reside there. A recent report published by the National Rural Health Alliance of Australia has indicated that as a proportion of 'allied health' services received in 'major cities'

(of which mental health services are categorised), inhabitants of 'rural' and 'remote' areas, only received 24% and 9% of services respectively. The report also acknowledges that these figures themselves may be overestimated, because they assume the presence of allied health services in the community, which in more remote areas, are unlikely to exist (NHRA, 2009).

According to Fielke (2005), the only resident psychiatrist operating in rural South Australia recently returned to Adelaide. It is important to note, however, that the Rural and Remote Mental Health Service of South Australia (2005), operating out of Glenside Hospital in Adelaide, do provide limited psychiatry outreach services to rural South Australian areas. In his paper, Fielke (2005) cites John Hoult (1994) who reflected on the sorry state of rural mental health services:

'We offer our sympathy to those who suffer from serious mental illness and to their relatives in rural South Australia. The situation reflects an awful neglect, an embarrassment to the South Australian government with not a single thing to praise in the rural services except the perseverance of staff, who have to go to work each day facing an impossible task. Leave Adelaide and you leave behind mental health services'

(Hoult cited in Fielke, 2005, p. 1).

Fielke (2005) argues that what John Hoult's assessment of South Australian mental health services suggests, is that the specific needs of rural South Australia were not being met. However, it is important to note that today, seven community-based mental health teams in regional South Australia do provide outreach services to smaller, more remote communities. The lack of psychiatrists available to rural inhabitants does not reflect a specific neglect of mental health as much as it reflects the difficulty of obtaining specialist care in any rural or remote setting.

At this point, it would be remiss not to mention the most recent planning described by the South Australian government under the COAG National Action Plan for Mental Health 2006-2011 (described in part 1.5). According to the South Australian contribution of the most recent COAG progress report (2007-8), efforts were made to ‘[assist] rural communities to cope and thrive through times of drought’ (p. 64), although these efforts were not specifically outlined. Furthermore, it was stated that an additional twenty community outreach workers, and three psychiatrists for Child and Adolescent Mental Health Services (C.A.M.H.S.) were employed to assist in reducing waiting list times for adolescents. However, whether these staff would be providing adolescent mental health care in metropolitan or rural South Australia was not disclosed. As well as this, funding for a new ‘state-of-the-art 129-bed specialist mental health centre’ (p. 66) to be built in metropolitan Adelaide was outlined (COAG, 2009).

Whilst this national plan claims to be a ‘landmark in the history of mental health policy of Australia’, the improvement of rural mental health and mental health service delivery does not appear to be a ‘key action area’ in the latest progress report. It is apparent, judging by South Australia’s contribution to this progress report, rural mental health needs, and particular rural adolescent mental health needs, have not been adequately addressed. This is despite national research highlighting the great need for improvement in this area.

1.7 Rural ‘culture’ and its implications for mental health care

During the mid-1990s, when national attention was focused on improving mental health in rural areas, the ‘culture’ of rural towns was examined. The studies by Griffiths (1996) have been instrumental in shaping understandings of rural culture. Griffiths (1996) argued that rural areas of Australia house their own distinct cultural milieu, and mental health professionals working in rural areas often have limited local knowledge, which

impacts on their competency to work in rural areas. Furthermore, they may be required to contend with out-dated and inflexible service delivery models that are perceived to be ill-equipped to meet local needs. Griffiths (1996) also argued that where a strong rural cultural identity exists, mental health professionals' lack of understanding of the local culture may foster a mistrust of their intentions and also a mistrust of the contribution of their profession. Griffiths (1996) suggested mental health professionals working in rural areas need to pursue actively the process of building trust and rapport with their clients.

Furthermore, it has been argued more recently that rural settings are often sparsely populated, socially isolating, yet still highly-visible settings, often referred to as 'fish bowls', where the comings and goings of inhabitants are easily viewed and scrutinised (Geldens, 2007). This in itself, may actually prevent rural inhabitants accessing help from a health professional who is easily identified as providing a 'mental health' service which is highly-stigmatised in Australian culture. According to Griffiths (1996) it was suggested that it was the mental health service provider's responsibility to ensure that their visiting clients were protected from exposure to the general community. More recent literature has suggested that having off-street car parking facilities where an individual client's car cannot be identified by passers-by or perhaps working out of a multi-function health centre, are practical considerations which may need to be adopted by mental health staff who work in rural communities (Crawford & Brown, 2002). If one considers the adolescents as a target group, who are still forging their own sense of identity and very vulnerable to the potential criticisms of their peers, it is likely that the possibility of being seen to access a local, easily-identifiable, 'mental health' service, is a risk of personal invasion that many may not be willing to take (Crawford & Brown, 2002).

Additionally, the historical precedent of rural communities ‘making do’, has led to the present day belief, especially amongst farming communities, that they need to be self-sufficient and independent. In their South Australian study, Fuller et al. (2000) argued that the cultural characteristics of rural and remote communities influence the experience of mental health problems, and the traditional isolation of rural settlements has produced a culture of ‘self-reliance’, as people are used to meeting their own needs with no outside help. From conducting interviews with 22 key informants, Fuller et al. (2000) found that this culture of ‘self-reliance’ had two effects. Firstly, a ‘stoic’ culture was found to exist, where one was not allowed to admit to many ‘weaknesses’, with farmers being the least honest about how they felt (Fuller et al., 2000). Secondly, mistrust tended to be formed against any outsiders, especially those from ‘the city’. Fuller et al. (2000) argued that mental health issues tended to remain unacknowledged and when they were, tended to be misunderstood. Community understandings of mental illness were often stigmatised, with community members often equating mental health problems with psychiatric disorders requiring detention. Considering that adolescents, who reside in rural areas, are often the children of farmers for example, the extent to which this ‘stoic culture’ and mistrust toward ‘mental health’ professionals is transferred generationally needs to be considered. It has long been known that a great deal of social learning is done in the family setting (Bandura, 1969).

1.8 The ‘stigma’ associated with mental health service use

Goldney, Fisher, Dal Grande and Taylor (2005) investigated the ‘mental health literacy’ of a group of approximately 3,000 South Australian adults. Mental health literacy basically describes the knowledge and beliefs one has about mental disorders (Jorm et al., 1997).

Mental health literacy encompasses: the ability to recognise mental illness, knowing how to seek mental health information, knowledge of risk factors and causes of mental morbidity, knowledge of professional help available, and attitudes that promote recognition and appropriate help-seeking within the individual.

Research into community mental health literacy has been considered very important because of the problematic relationship more mental health literacy has on the stigma of mental illness. Results of the study by Goldney et al. (2005) found that there had been an increase in mental health literacy, especially in regard to depression among South Australians living in metropolitan and rural areas between 1998 and 2004. While this was deemed 'positive' the results of their study also indicated a lack of significant change in psychiatrists and/or psychologists being perceived as therapists of choice in depression management.

This finding is particularly noteworthy, as it questions whether increased mental health literacy has actually done anything to curb the social stigma associated with mental health morbidity. Indeed, despite the positive results of Goldney et al. (2005), mental health professionals are still commenting on the stigma associated with mental illness, and the impact this has on help-seeking behaviour (Golberstein et al., 2008; Judd, 2006; Rickwood, 1994, 2002). Research at the international and Australian level has suggested that up to 50% of individuals who suffer from a mental health problem, do not access professional help because they are fearful of the stigma associated with accessing help from a known 'mental health' professional (Andrews et al., 1999; Bland et al., 1997).

Barney et al. (2006) differentiate between two types of stigma that are important to the context of help-seeking – ‘self stigma’ and ‘perceived stigma’. Firstly, self-stigma is said to exist when people hold negative attitudes about themselves as a result of internalising the stigmatising ideas that society has about mental illness (Larson & Corrigan, 2010). For example, an individual with clinical depression may attribute their illness to personality factors or having an ‘overly-sensitive’ nature. This particular type of stigma often drives individuals to keep their mental health problems to themselves, as they do not wish to highlight their ‘weakness’ to others. The second type of stigma defined by Barney et al. (2006) is perceived stigma, which relates to the belief that other people hold stigmatising ideas. Consequently, individuals high in perceived stigma may believe others will respond to them critically if they are seen to be seeking professional help (Larson & Corrigan, 2010).

Research has also found that the influence of significant others and family in particular, play an important role in help-seeking behaviour (Henderson et al., 1992; Komiti et al., 2006). Barney et al. (2006) investigated the role stigma plays in help-seeking behaviour amongst a random sample of 1,312 adults aged 18-89 years, recruited from the general community in New South Wales. Participants completed a questionnaire providing a depression vignette, describing the experience of a fictional character called ‘John’. The questionnaire investigated self- and perceived-stigmatising responses, source-specific help-seeking intentions, current depressive symptoms and depression experience, and also collected basic demographic information.

The study found that self-stigma and perceived-stigma about help-seeking for depression was common amongst participants, and that both types of stigma reduce the likelihood of help-seeking from *any* professional source.

The researchers found that the inhibitory effect of self-stigmatisation to be particularly strong, with the effect of self-stigma persisting for a wide range of help sources: GPs, counsellors, psychologists, psychiatrists and complementary practitioners. Whilst Barney et al. (2006) acknowledge that historically the GP has often been considered as the least embarrassing, or the least potentially stigmatising option for help for mental health problems, they argue that concerns about accessing a GP were still evident in their study. According to these researchers, such stigmatising beliefs are especially problematic because GPs may be the only feasible source of help in terms of cost and access. This becomes especially pertinent for inhabitants of rural and remote areas, where the GP is often the only option for help.

The results obtained by Barney et al. (2006) seem to confirm the findings of research into stigma associated with mental illness conducted in rural areas over a decade ago. Dunn (1996) has suggested that health services in rural communities are valued differently. The local hospital, community nurse, home carer, ambulance and Royal Flying Doctor Service are all highly valued, while services associated with mental health may not be seen as essential and become 'stripped of their legitimacy' (p.9). Griffiths (1996) stated that stereotypical attitudes toward mental health workers are often perpetuated in rural townships. Fuller et al. (2000) noted that the conventional understanding of mental health problems as implying 'irremediable insanity' leads to a fear of what happens to people who become clients in the mental health care system.

It is therefore understandable, that inhabitants of rural areas in particular, may feel more comfortable to access their GP for support for their mental health concerns. However, research conducted by Wrigley et al. (2005) has argued that it would be dangerous to become complacent about the relative willingness of rural inhabitants to

consult their local GP for support over any other mental health service provider. Firstly, many people often present to their GP for a somatic or physical, rather than psychological complaint. If the GP is not adequately trained or the somatic complaint is complex, the possibility of giving an incorrect diagnosis and potentially missing the underlying mental health problem becomes highly likely (Judd & Humphreys, 2001; Komiti et al., 2006).

If it is not the GP who is asked to provide mental health support, it could also be ‘quasi-professional’ mental health staff that may be considered as another low-stigma option. Quasi-professional staff such as counsellors, community volunteers, and people from the Church, may advertise themselves as appropriate avenues for support, despite only receiving minimal training (if any). While a dependence on such quasi-professional staff results can result in less quality of care for mental health problems, Fuller et al. (2000) argue there is much care that can be provided by ‘generalist’ health and other human service workers with support from mental health specialists. They state that ‘models that capitalise on the appropriate use of a broad range of helpers, such as ministers and rural financial counsellors, should be explored’ (Fuller et al., 2000, p.152).

1.9 Defining ‘Adolescence’

According to the World Health Organisation (WHO), ‘adolescence’ has been defined as the period of life ranging from 10-19 years of age (WHO, 2006). This definition was adopted in 1998 at the South Asia conference on adolescents and has subsequently been adopted by most other United Nations organisations. The WHO’s definition of adolescence considers the overlapping concepts of ‘youth’, ‘adolescence’ and ‘young people’, which have all been used interchangeably throughout the literature.

In accordance with the WHO the following will be distinguished: ‘adolescence’ as the period of life from 10-19 years of age, ‘youth’ as between 15-24 years of age and ‘young people’ as encompassing people aged between 10 and 24 years (WHO, 2006). Adolescence has been described as the developmental period between childhood and adulthood, beginning with physical changes associated with puberty and culminating in the acquisition of adult roles and responsibilities (Bee & Bjorklund, 2000; Kang & Chown, 2004; Patton & Viner, 2007). According to the famous psychologist Erik Erikson, and his eight stages of psychosocial development, the main developmental task of adolescence involves the search for one’s own sense of identity which will lead them into adulthood (Erikson, 1968). This is largely sought out through the development of peer relationships. Erikson defines adolescence as occurring between the ages of 12 and 18 years.

It is out of the scope of the current research project to review the multitude of literature on the definition of adolescence over the past century, hence definitions from health experts who have reviewed the field of adolescent health will be relied upon throughout this thesis. As explained by Kang and Chown (2004), authors of a widely-utilised ‘GP Resource Kit’ utilised in Australia, adolescence is a biologically universal phenomenon. It is a time of life where immense and rapid physical, emotional and intellectual changes occur. However, the concept of ‘adolescence’ is defined differently according to culture, and may be not even exist as a concept in many (Steinberg & Morris, 2001). The ultimate life transition during this phase is that from the dependent child to the independent adult (Kroger, 2007).

This transition does not always occur smoothly and is in fact greatly influenced by socio-cultural factors including socioeconomic status, cultural background, family upbringing/breakdown, physical/sexual abuse and neglect, homelessness and other personal life experiences, including education and employment opportunities (Bee & Bjorklund, 2000; Kang & Chown, 2004; Kroger, 2007; Patton & Viner, 2007; Steinberg & Morris, 2001).

All of these factors influence the successful negotiation of adolescence. The 2007 national report into the health and wellbeing of Australian children and adolescents highlights the fact that adolescents and ‘young people’ today (aged 12-24 years) are living in a culturally diverse population (AIHW, 2007). Not only are they required to adapt to the changes going on in their bodies, but also to the fluid nature of Australian society. The AIHW (2007) report highlights a number of historical changes over recent decades which have played a role in the shaping of adolescents: greater participation of women in the labour force, falling fertility rates, smaller family size, a rising national divorce rate, an increase in the number of one-parent and blended families, and an increasingly multicultural society. In conjunction with these changes, rural adolescents themselves also face unique challenges related to their locality. For example, adolescents from rural areas may be required to ‘out-migrate’ or face the prospect of moving away from home for the first time in order to access higher education or future employment (Geldens, 2007). Declining populations and loss of services, higher levels of poverty due to the fluctuating fortunes of agriculture and the effects of drought, indicate a range of changes to rural areas which significantly impact the adolescents residing there.

It is no surprise then, that as a result of these changes the characteristics of young people today are also changing: they are enrolled in full-time education for longer, are increasingly in part-time or casual employment (as opposed to full-time), and their age of first time marriage has also increased (Kroger, 2007). Taken together, all of these changes indicate that young people are living at home for longer, have less job security and have families later in life. According to the AIHW (2007) report, understanding the influence of these broad social issues on the health and wellbeing of young people is crucial in the effective formulation of government policies.

1.10 The influence of ‘Rurality’ on service utilisation for adolescents

Adolescents face administrative, psychological and financial problems when trying to use health services. However, these can be further compounded by the ‘locality’ that an adolescent resides in. ‘Rurality’ has been defined as a rural characteristic or trait, and more importantly, refers to the *experience* of residing in a rural setting (Cloke & Little, 1997). In terms of mental health care, rurality greatly impacts on not only the capacity for access to assistance but also use of existing services. Rurality can be conceptualised as a barrier that adolescents face when trying to access care for their mental health concerns. It can also be considered to be a ‘causative’ influence on mental health status. According to Kang and Chown (2004) this lack of access to services is a significant contributor to adolescent morbidity and mortality. Because the GP is often the first point of assistance for adolescents seeking help, the New South Wales Centre for the Advancement of Adolescent Health (CAAH) released a handbook for GPs describing and recognising the unique health needs adolescents face. According to the handbook, adolescents (aged 12-17 years) have unique health problems and ‘ill health in adolescence is largely the result of psychosocial rather than biological causes’ (CAAH, 2004, p.7).

Confidentiality is the most commonly cited barrier preventing rural young people's access to appropriate health care (Greeno et al. 1999; Murray et al., 2004; Sawyer et al. 2000a; 2000b). According to the New South Wales CAAH (2006), specific concerns regarding confidentiality include that the GP may disclose private information to parents, that there is a lack of privacy in the waiting room and that the reception staff working within a practice will not protect their confidentiality. Secondly, the attitude and communication style of the GP often deter young people from accessing of mental health services. Many young people fear that their GP will hold an unsympathetic or authoritarian attitude toward them.

A very important logistical concern of adolescents includes the clinic environment and its accessibility. The nature of the clinic can have a negative impact on the young person and the comfort they feel toward using the service. Many young people feel intimidated by the formal clinical setting and waiting room and appointment booking procedures, and when this is coupled with the perceived lack of sensitivity by the reception staff, it is understandable that many adolescents forego receiving professional help for their mental health concern (Boyd, Aisbett, Francis, Kelly, Newnham & Newnham, 2006).

Cost is a major drawback to accessing health care because many young people do not understand the Medicare system, few young people have a Medicare card, and young people have difficulty meeting the costs of medical care, especially if practices do not bulk bill (Rickwood, Deane, Wilson, 2002; Rickwood et al., 2007). Young people are usually still financially dependent on their parents, or are on a low income, further exacerbating their ability to receive health care (Caldwell, Jorm, Knox, Braddock, Dear & Britt, 2004).

Many young people simply do not believe they can access a GP without immediate payment or their parents finding out. For rural adolescents in particular, who may live in a very remote area, the added cost of travel to a health care facility is a barrier which needs to be overcome. The associated practical issue of transport to appointments is also something which needs to be considered. In rural areas there is limited public transport, and it is almost essential to have access to a vehicle. By law, adolescents are not granted their (provisional) driver's licence until they are over seventeen years of age, so they either need to rely on their parents or friends to take them to appointments. Characteristics of young people also may prevent them from accessing appropriate health care. Many young people have a poor understanding of their own health needs, and lack the knowledge about available health services and how to use them (Tylee, Haller, Graham, Churchill & Sancu, 2007).

Because adolescence is often a time of great personal exploration, young people may engage in particularly risky behaviour, of which they may not understand the long-lasting health consequences (Pedersen, Samuelsen & Wichstrom, 2003; Sawyer et al., 2000b). Building on this theme, adolescents often have great difficulty in expressing their health concerns because of the sensitivity of many of their health issues, especially mental health issues, and feel self-conscious and anxious about being asked personal questions (Kang & Chown, 2004). Consequently, it is not unusual for young people to defer treatment until a crisis stage is reached. Often, adolescents are very reluctant clients, often brought along to appointments by parents or other caregivers.

Taken together, these data indicate that a high level of sensitivity is needed on the part of the General Practitioner or mental health professional in order to provide effective health care.

It is also important to note that while adolescents face barriers in accessing appropriate health care, GPs themselves face barriers in being able to provide effective health care to young people (Haller et al., 2009). Specifically, it is not uncommon for GPs to have inadequate training in managing psychological problems facing many adolescents. They may lack confidence, knowledge and skills in communicating with adolescents; they may experience time constraints and inadequate remuneration for providing longer consultations to young people and may experience increased concerns about medico-legal issues (Caldwell et al., 2004; Eley & Hunter, 2006; Griffiths, 1996).

1.11 Current service utilisation by adolescents

Previous surveys have found that only a small proportion of adolescents with mental health problems attend specialised services to get help (Bourke, 2003; Brady & Kendall, 1992; Burns et al., 2004; Eley & Hunter, 2006; Fergusson & Woodward, 2002; Greeno et al., 1999; Puskar et al., 1993; Quine, Bernard, Booth, Kang, Usherwood, Alperstein & Bennett, 2003). According to results of the National Mental Health Report (2005), only one quarter of adolescents experiencing a mental disorder actually seek assistance from a health service. Therefore this data suggests that three quarters of adolescents with a mental disorder do not receive any form of treatment (Department of Health and Ageing, 2005). According to Sawyer et al. (2000a), why this is the case is not known. Sawyer et al. (2000a; 2000b) suggest that perhaps parents of children feel that services are too expensive or that sufficient services may simply not be available. For adolescents, school-based counselling is most often used (16%); while for children it seems that the family doctor or paediatrician is the first point of contact (11% for each). Interestingly, for both children and adolescents, psychiatry services were used by only 3-5% of participants.

Barriers cited by parents regarding service use were varied. Approximately 50% of parents claimed that help was too expensive or did not know where to find help, 46% stated that they believed they could handle their child or adolescent's emotional or behaviour problem themselves, while 42% of parents claimed they had asked for help but had not received it and 37% claimed that they had to wait a long time to access help. Interestingly, only 6% of parents claimed they did not access help for their child's behavioural or emotional problem because of 'being afraid of what your family and friends might think'. Overall these statistics indicated that logistical reasons seem to prevent parents from accessing appropriate care for their children, rather than the stigma associated with mental health problems. However, it is important to note that this may not necessarily be the case. Social stigma, coupled with a culture of 'making do', may actually prevent parents from admitting that stigma was an issue to accessing appropriate care.

Adolescents with mental health problems gave somewhat different reasons than their parents for not attending mental health services (Figure 2). Approximately 40% of the adolescents surveyed preferred to manage their mental health problem themselves, approximately 18% believed no one could help them, 17% did not know where to get help and approximately 15% were afraid of what others would think if they did access help (Sawyer et al., 2000b). It is apparent from the responses of the adolescents surveyed, maintaining their privacy was obviously a huge concern. Indeed, the responses adolescents gave seem to be more reflective of the social stigma associated with mental health morbidity. The authors themselves acknowledge this, arguing that it was also possible that the parents surveyed gave politically correct responses, since they did not want themselves perceived as inadequate or to admit that they did actually care what their neighbours thought.

Figure 2: Barriers preventing adolescents from accessing mental health care.

NOTE:
This figure is included on page 32
of the print copy of the thesis held in
the University of Adelaide Library.

Source: The National Survey of Mental Health and Wellbeing: The Child and Adolescent Component, 2000a, p.43.

Sawyer et al. (2000a) reported three key findings in the child and adolescent component of the National Survey of Mental Health and Wellbeing. Firstly, adolescents (aged 13-17 years) reported a high prevalence of mental health problems with 19% scoring in the clinical range on the Youth Self-Report scale administered. Importantly, the authors of the report note that in some areas the proportion of adolescents scoring in the clinical range often varied from that identified by their parents, such as on the delinquent scale with 12% of adolescents scoring in the clinical range, as compared to only 6% when information was obtained from parents.

This was one of a few differences, suggesting that adolescents were more aware of mental health problems than their parents (Sawyer et al., 2000b). Additionally, a strong relationship was reported between mental health problems and health-related quality of life with many adolescents scoring in the clinical range on the scales also holding lower self-esteem scores. There was an increase in difficulties experienced during social activities with peers in school. Furthermore, a significant relationship was apparent between adolescents' mental health problems and health-risk behaviours.

The Youth Risk Behaviour Questionnaire investigated suicidal ideation and suicidal behaviour, drug use and behaviours relating to body weight. The findings of the report indicated that 25% of adolescents with a very high level of emotional and behavioural problems had reported making a suicide attempt in the 12 months preceding the survey. For those adolescents who experienced a very low level of emotional or behavioural problems, less than 1% had reported an attempt (Sawyer et al., 2000b). Moreover, 50% of adolescents with a very high level of emotional and behavioural problems reported smoking or drinking during the previous month prior to survey completion, with 30% subsequently reporting at least one episode of binge drinking.

Upon a closer examination of the health-risk behaviour statistics, it is apparent that females reported a higher prevalence in 14 out of 16 health risk behaviours identified (Sawyer et al., 2000b). This finding in itself is noteworthy as it helps to dispel the perception that male adolescents are more commonly identified as being 'delinquents'. However, smaller percentages of females had engaged in marijuana use and suicide attempt requiring treatment than male participants. Such findings allow for a further examination of gender differences in mental health morbidity in the future.

Indeed, these data represent a shift from the past two decades, where health risk behaviours were more commonly associated with adolescent males (ABS, 2001; Sawyer et al., 2000a).

While the Child and Adolescent component of the National Survey of Mental Health and Wellbeing provided a useful representation on the prevalence of mental health problems among Australia's youth, it did not provide any insights into the demographic factors associated with mental illness, and especially how demographic, social and cultural factors influence an adolescent's experience of mental health problems.

1.12 Acknowledging the gaps in 'youth' mental health

It is clear from the research presented in the preceding sections, that adolescents who reside in rural areas of South Australia face particular health risks, and for those who experience the burden of having a mental health problem, face barriers in accessing help. Professor Patrick McGorry, a renowned youth mental health researcher, clinician and advocate for the youth mental health reform agenda, argues that early and effective intervention targeting the vulnerable group of 'young people' aged 12-25 years should be a national priority. According to McGorry et al. (2007), focussing on improving the mental health of young people is one of the 'best buys' for future mental health reform, because at no other time in the lifespan are the full benefits of any intervention likely to occur. Professor McGorry was awarded '2010 Australian for the Year' for his 27-year contribution to youth mental health in Australia, and for his work in the founding of *Headspace*^{*}, the National Youth Mental Health Foundation.

* Headspace website: <http://www.headspace.org.au>

McGorry, Purcell, Hickie and Jorm (2007) have posited four levels of service delivery which they believe are required to best manage mental health problems amongst Australian youth aged 12-25 years. It is important to consider these posited reforms because adolescents are also captured in the category of 'youth' proposed. These levels include the following: (i) *improving community capacity* to deal with mental health problems (i.e. provision of professional training); (ii) *increasing primary care services* (GPs, school counsellors, community health workers, and non-government youth workers); (iii) *enhancing primary care services* (GPs collaborating with specialist mental health providers), and (iv) *development of specialist 'youth-specific' mental health services* (especially in providing assessment, treatment and recovery services).

It is important to acknowledge here that the reforms proposed by McGorry et al. (2007) are in part being addressed by the Better Access to Mental Health Care initiative mentioned earlier, which has in its first 27 months of implementation resulted in improved primary care mental health treatment alternatives. It needs to be highlighted, however, that the success of this program has largely been experienced in urban as opposed to rural areas.

In considering how primary mental health care can be improved in rural and remote settings, it is necessary to consider the work of Lambert and Hartley (1998) in the United States, who published in this area over a decade ago. According to these researchers, linking primary care with psychiatric care has long been promoted as a method of improving rural mental health services (Hartley et al., 2010). However, they acknowledged that this is a challenge, given that few mental health providers, and particularly psychiatrists, work in rural areas. Additionally, they commented on tensions in the way rural primary care and psychiatry tend to view each other.

Lambert and Hartley (1998) argue that from the perspective of psychiatry, rural primary care providers fail to detect mental illness amongst their patients, or do not adequately treat it. Conversely, primary care providers are able to detect disorders, but often do not diagnose them either as a protection for the confidentiality of the client, or because there are few specialists to consult with.

Lambert and Hartley (1998) reviewed 53 national programs where primary care and psychiatry were ‘successfully’ linked in various rural settings. They found that lessons learned from these programs were not simple ones, and could not be easily reduced to a ‘how to’ list. Rather, what drove organisations to collaborate with each other and integrate primary care and psychiatry was whether or not it was perceived to be in their interests to do so. The presence of perceived gains (in services or staffing) for each party needed to outweigh the ensuing loss of autonomy for integration to be successful. Importantly, Lambert and Hartley (1998) also found that motivation to integrate primary care and psychiatry in rural settings could not be mandated, or likely to occur due to a potential increase in funding alone.

Returning to the Australian context, McGorry et al. (2007) have highlighted the gap in mental health care service delivery for youth. Indeed, where the mental health care system needs to be strongest, it is actually weakest. This becomes especially evident when one considers the risk factors faced by rural youth, and the access and utilisation that this target group has. These posited reforms are desperately needed, especially the collaboration of primary care with specialist mental health care providers. Yet, it remains to be seen as to how achievable they are for rural and remote locations which at the moment, struggle with providing generalist mental health care.

As suggested by Lambert and Hartley (1998), improvement in rural primary mental health care is influenced by many factors; there is no ‘how to’ list to indicate how this can be easily achieved.

1.13 The current research project

Currently, in Australia studies investigating the mental health needs of rural adolescents are lacking. The proposed research plans to investigate the mental health issues experienced by adolescents living in rural and remote areas of South Australia specifically. Furthermore it examines how locality, or ‘rurality’, influences the experience of mental health problems and the seeking of care for those problems. South Australia’s unique geography and demography need to be considered here. South Australia is the fourth-largest of Australia’s states and territories, spreading across 983,482 km² (ABS, 2010a). It is highly central in its location and is bordered to the north by the Northern Territory, to the east by Queensland, New South Wales and Victoria, to the west by Western Australia, and along the south, by sea - the Great Australian Bight and the Southern Ocean. South Australia’s coastline is 5,067 kilometres in length, while its border length is 3,185 kilometres (ABS, 2010a).

The population of South Australia is approximately 1.6 million (ABS, 2010b). Whilst it is not unusual for the majority of a State’s population to be concentrated in the capital city, or its major cities, South Australia is virtually considered to be a ‘city-state’ because approximately 75% of its entire population is concentrated in metropolitan Adelaide, whilst the remainder of the population (some 400,000 individuals) sparsely populate the rest of the state, which uniquely features a combination of coastline and pastoral districts in the south, and arid desert in the north (ABS, 2010b).

‘Rurality’ in this PhD project will be considered according to the Rural, Remote and Metropolitan Areas (RRMA) classification system developed by the Department of Primary Industries and Energy in 1994, and the then titled Department of Human Services and Health (now Australian Government Department of Health and Ageing). Seven categories are included in this classification – two metropolitan, three rural and two remote categories. The classification for each is based on Statistical Local Areas (SLAs) and allocates each SLA in Australia to a category based primarily on population numbers and an index of remoteness. The index of remoteness is used to allocate non-metropolitan SLAs to either the rural or remote zone.

Each index of remoteness for each non-metropolitan SLA is calculated using a formula which incorporates ‘distance factors’ related to urban centres containing a population of 10,000 persons or more, plus a factor called ‘personal distance’. Personal distance relates to population density and indicates the ‘remoteness’ or average distance of residents from one another. Throughout this thesis, the RRMA index of each township that is mentioned will be specified.

For this PhD project, the researcher has chosen to focus on adolescents aged 12-19 years. This age group was decided on after taking into consideration the biological and psychosocial changes experienced during this period of life. Despite the WHO’s (2006) definition of adolescence beginning from ten years of age, it was felt that South Australian ten year olds may not be experiencing the immense psychosocial changes of adolescence at this early age. This decision was largely based on consideration of Erikson’s fifth stage of psychosocial development ‘identity versus role confusion’, described as occurring during ‘adolescence’ or, as Erikson specifies, between 12 and 18 years of age (Erikson, 1968). In Erikson’s view the adolescent’s central task is to define a personally chosen self.

Considering the fact that South Australian ten year olds are usually in grade five (primary school), it was felt that they were not likely to be as aware of these personal identity challenges as secondary school students typically aged between 12 and 19 years might be.

1.14 Thesis rationale, aims and structure

Currently in Australia, the highest prevalence of mental disorders occurs amongst youth aged 18 to 24 years. Amongst young people today, mental illness is also considered the leading cause of disease burden. International research has indicated that the mental health of young people seems to be declining, with the prevalence of anxiety and depression in particular, being associated with younger and younger age. Adolescence precedes adulthood and is a period of life that is fraught with personal change, requiring great adaptation and building new personal resources to carry the individual from a life of previous dependence to independence. Adolescence can be a particularly vulnerable time for young people as they struggle to forge a new sense of identity. It is for this reason, that improving the mental health of adolescents has been regarded as a ‘best buy’ for improved mental health outcomes for Australians in the future.

Individuals who reside in rural areas face particular risks to their mental health and wellbeing. These risks are elevated for adolescents considering the great life change they are experiencing, and the barriers they encounter in accessing professional help for their health care. Whilst great progress has been made in recent decades to increase public awareness of mental illness, mental health morbidity is still stigmatised. In rural communities especially, mental illness is often not admitted to and the experience of ‘rurality’ often exacerbates the suffering of individuals who have a mental health problem.

Previous rural mental health research in Australia has focused on adults and neglected the experience of adolescents. In South Australia to date, little research has been conducted which investigates the mental health needs of adolescents who reside in rural areas. Additionally, improving mental health services in these areas has been regarded as a national priority in the past. Yet little South Australian research has been conducted in this area. This thesis addresses this paucity of research and investigates what needs currently exist, and more importantly, what improvements can be made to adolescent mental health services in rural areas of South Australia. This PhD project uniquely involves the participation of mental health professionals and adolescents themselves in addressing this deficit in knowledge.

This thesis aims to:

- 1) Determine what mental health needs exist for adolescents who reside in rural areas of South Australia
- 2) Determine whether existing services can cope with the nature of these mental health needs
- 3) Determine whether existing services are able to cope with the volume of these mental health needs
- 4) Provide adolescents with a 'voice' to describe their mental health needs in their own words
- 5) Collect recent data about the psychological health of adolescents in 2008-9
- 6) Collect recent data about the physical health and health risk behaviours of rural adolescents in 2008-9
- 7) Investigate claims that suggest the mental health of adolescents seems to be worsening.

Structure of this thesis

This thesis is presented in seven chapters and describes the results of four separate studies which were designed to address the paucity of research into the mental health needs of adolescents in rural areas of South Australia. It should be noted that each study is written up separately. In other words, they have their own introduction, methods, results, discussion and conclusion components. An overall conclusion collating the contributions of each of these studies is described in the final chapter of this thesis.

This chapter (Chapter 1) describes what is currently known about the mental health of this target group, and describes the existing national and international literature in this area. This chapter highlights the importance of conducting such research and provides a foundation for the four studies that can be built on, and addresses the deficit of knowledge which has existed for so long. The second chapter details the methodology which was specifically employed to conduct this investigation, and provides justification for using these particular methods. Different epistemological positions and research traditions are explored, and the benefits of utilising a ‘multi-method’ investigation are discussed.

The chapters which follow - Chapters 3, 4, 5 and 6 - provide a complete description of the rationale behind conducting each individual study, the methodology employed and the original results which were obtained. All these studies provided a unique contribution to the overall research project and were conducted sequentially, so each study built on the knowledge gained in the preceding study.

Chapter 3 presents the findings of a qualitative study involving human service providers who live and work in various areas of rural South Australia, and who currently provide mental health support to adolescents.

During focus group discussions and interviews, human service providers were asked about their perceptions of the mental health needs of adolescents in their communities. The next study described in Chapter 4 builds on the data collected in the preceding chapter, by also collecting rural adolescents' own views on their mental health needs. Whilst previous research has often addressed adolescent mental health needs in the past, few studies have actually involved adolescents as participants, and provided them with a 'voice'. This is a unique contribution to the existing Australian literature about adolescent mental health service delivery.

Chapters 5 and 6 describe two interrelated quantitative studies. The study described in Chapter 5 employed questionnaires completed by 338 adolescents, the objective being to gain specific information about the psychological health and wellbeing of rural adolescents in 2008-2009. Recent data specific to adolescents in rural localities sampled from in this project, have been difficult to come by in the past. Chapter 6 describes the results of the final study conducted as part of this broader PhD project. In this study the quantitative data collected in Chapter 5 was statistically compared to existing data, which had been collected from a sub-sample of rural participants recruited as part of a larger longitudinal study about the employment of young people. The *University of South Australia's Longitudinal Investigation of School Leavers* has been ongoing since 2001, and has tracked the employment experiences and wellbeing of some 2,500 adolescents (recruited from both metropolitan and rural areas) from Year 10 onwards (Winefield et al., in progress).

Finally the last chapter, Chapter 7, presents the integrated findings from each of the four studies, and describes how this new information has uniquely and significantly contributed to the existing body of knowledge about rural adolescent mental health needs more broadly, and then specifically, for South Australia. This concluding chapter also provides recommendations on how to improve existing adolescent mental health services in rural South Australia, as well as some suggestions for future research in this area.

CHAPTER 2

RESEARCH METHODOLOGY: THE VALUE OF UTILISING A 'MIXED METHODS' APPROACH FOR MENTAL HEALTH RESEARCH

2.1 Introduction

In the previous chapter, the research questions, aims and rationale for conducting this research project were outlined. This chapter will describe the methods used to address the research questions and provide justifications for their use. The goal of this chapter is to outline how the research project as a whole was conceptualised, and it will provide insight into the sequence of all four studies and how the results of each preceding study informed the research questions and aims/objectives of the next. Finally, it will become apparent that a mixed methods approach was integral to the success of the research project.

2.2 Overview of methodology

The overarching aim of the research was to ascertain what mental health needs exist amongst adolescents residing in rural communities of South Australia, and to investigate the impact that '*rurality*' has on an adolescent's mental health. Realising this aim was aided by the execution of four separate, yet interrelated, studies.

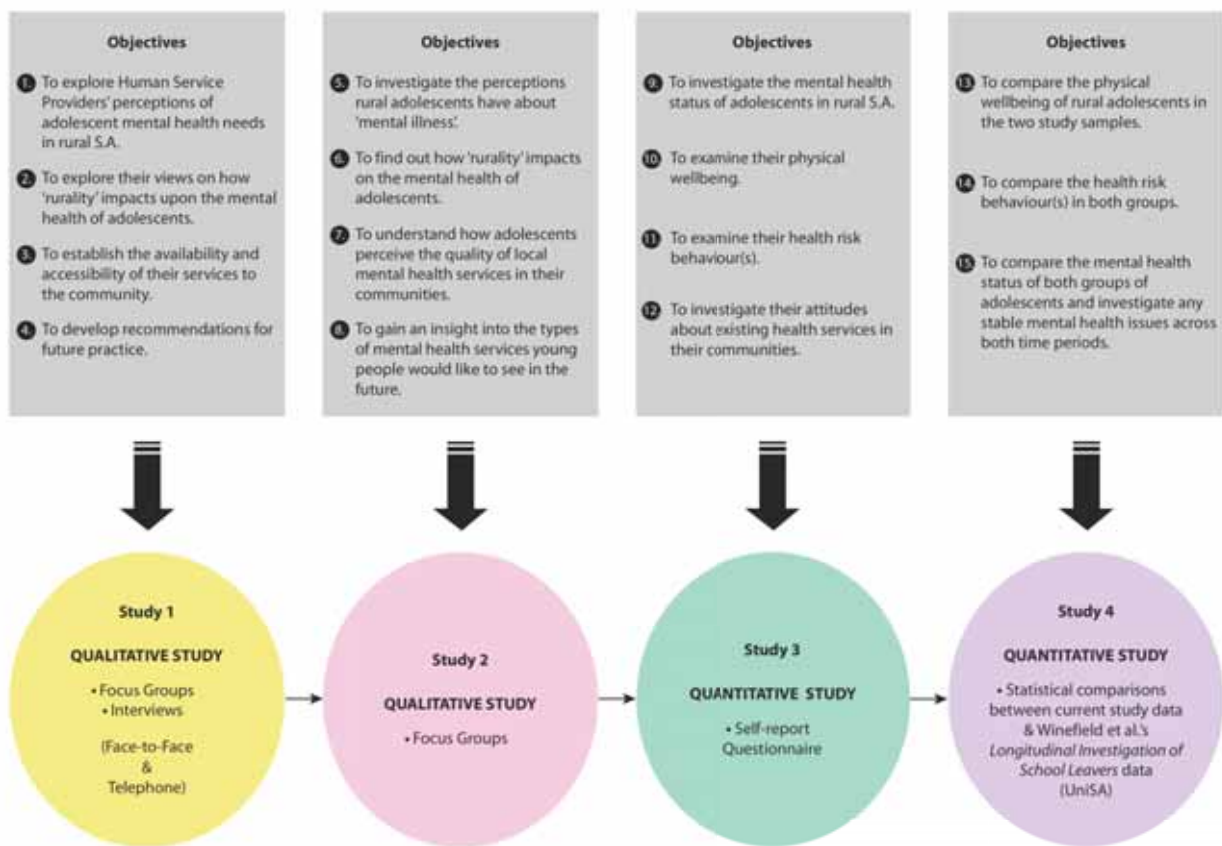
Studies 1 and 2 were qualitative studies incorporating focus group discussions and individual interviews with human service providers and rural adolescents, in which the mental health needs existing in their communities were discussed. What kinds of improvements and facilities they would like to see implemented in their communities in the future were also considered. For human service providers the question of 'improvements' centres around the *experience* of providing care/delivering a service to youth in their communities.

This included more training and upskilling for human service providers, and improving the physical layout of existing mental health services to accommodate adolescents. For the adolescent participants, ‘improvements’ related to facilities or resources they felt were needed in their rural communities, which would benefit youth. These included recreational facilities such as skate parks, upgrades to sporting clubs and the recruitment of ‘younger’ mental health staff.

The results of these two studies then informed the scope of Studies 3 and 4 - quantitative studies involving data collected using self-report questionnaires. Specifically, the findings of Studies 1 and 2 helped with the prioritisation and refinement of items featuring in the questionnaire used in Study 3, particularly in items concerning the use of health services and mental health knowledge (Appendix H). In Study 4, the findings of Study 3 were then statistically compared to existing data collected by researchers involved in the *University of South Australia’s Longitudinal Investigation of School Leavers*, at the Centre for Applied Psychological Research in the School of Psychology (Winefield et al., in press).

A pictorial representation of the sequence of all four studies and their interrelationships is shown in Figure 3 below.

Figure 3: The sequence of the four studies conducted.



2.2.1 Epistemology and social research

Epistemology is a branch of Philosophy which is concerned with the theory of knowledge and how knowledge is generated, or ‘how’ we know ‘what’ we know (Greco & Sosa, 1999). Prior to describing the methods used in this PhD project, it is first of all necessary to describe how epistemological positions can influence and define the nature and scope of research methods.

2.2.2 Positivism, Empiricism, Behaviourism and quantitative methods

Positivism is the epistemological position which suggests that the only authentic knowledge is that which is based on the relationship between the world and our understanding and perception of it (Yu, 2003a, 2003b). Kirk and Miller’s (1986) definition of Positivism states that ‘the external world itself determines absolutely the one and only correct view that can be taken of it, independent of the process or circumstances of viewing’ (p.14). One of the goals of research for Positivists is to produce knowledge that is completely objective, so one of the ‘rules’ is that personal distance is preserved. It is unbiased and according to Willig (2008), ‘based on a view from ‘the outside’, without personal involvement or vested interests on the part of the researcher’ (p.3). Positivists follow the natural science approach where theories and hypotheses are tested and verified or falsified. Thus ‘measurement’ is often the key to Positivism and the scientific framework (Holloway, 1997).

Empiricism as a branch of philosophy is closely related to Positivism, and asserts that knowledge of the world must be derived *a posteriori*, and is dependent upon sense experience (Gupta, 2006; Morick, 1980). So it is one’s sense perception which provides the basis for knowledge acquisition, and knowledge proceeds through the systematic collection and classification of observations (Gupta, 2006).

Empiricism entails that knowledge can only be gained, *if at all*, by experience. The role of experience and evidence collected to the formation of ideas is emphasised, whilst the notion of innate ideas is discounted (except in so far as these might be inferred from empirical reasoning, as in the case of genetic predisposition) (Chomsky, 1988; Morick, 1980). In terms of scientific enquiry, empiricism emphasises those aspects of scientific knowledge that are closely related to ‘evidence’, especially as discovered via experiments (Chomsky, 1988; Gupta, 2006; Morick, 1980). According to this view, simple observations are combined to develop more complex ideas and theory follows from these observations. That is, essentially, theory is constructed to make sense of the data collected through observation (Solomon, 2001).

Willig (2008) argues that sense perception alone is not uncontaminated and does not provide one with direct access to ‘the facts’. Rather, the more we know about a phenomenon the more detail we perceive when we observe it. She states: ‘perception is inevitably selective and people can be trained to observe the same phenomenon in different ways, depending on the purpose of the observation’ (p. 3). Modern-day empiricists argue that knowledge acquisition depends on the collection and analysis of data, rather than the initial sense perception. According to Willig (2008), empiricists today do not believe that purely theoretical work leads to the ‘truth’, but rather, that all knowledge must ensue from data. Science itself can be considered as methodologically empirical in nature. This is because all hypotheses and theories must be tested against one’s observations of the natural world, rather than resting solely on *a priori* reasoning, intuition or revelation.

It would be remiss not to mention the role of Behaviourism at this point. Behaviourism emerged from Positivist and Empiricist traditions, and became a powerful force of Psychology in the early 20th century.

Behaviourism sought to ally itself with the older, well established and the more respectable science of Physics. John B. Watson, the pioneer of Behaviourism, saw Psychology as the science of behaviour, and a purely objective, experimental, natural science (Schultz & Schultz, 2004). For Watson the goal of Psychology was the prediction and control of behaviour (Samelson, 1981). Watson believed Psychology needed to restrict itself to the objective study of behaviour with only the most stringent objective methods to be used (Brewer; 1991; Buckley, 1989). This included: observation, with and without the use of instruments; testing methods; the 'verbal report' method; and the 'conditioned reflex' method (Watson, 1913). Watson argued for Psychology to discard the use of mentalistic concepts and instead employ behaviour concepts such as 'stimulus' and 'response'. Behaviourism did not allow for introspection on the part of the researcher to take place. Watson dissected complex human behaviour in terms of how a research subject reacted or responded to a particular stimulus or situation (Watson, 1913). He was essentially continuing the atomistic and mechanistic tradition established by early British empiricists. Behaviourism and its early psychological experiments have heavily influenced the direction of modern day Psychology and in particular the research methods utilised.

Collectively, Positivism, Empiricism and Behaviourism are epistemologies that have undoubtedly impacted on the development of quantitative research and quantitative methodologies. Broadly, quantitative research involves the systematic scientific investigation of quantitative properties and phenomena and their relationships (Gillham, 2005). With quantitative research, the aim is to determine the relationship between two variables (the independent variable and the dependent variable) within a population. Quantitative research designs can be either descriptive (where subjects are measured once) or experimental (where subjects are measured before and after a particular treatment).

The outcome of descriptive studies is to establish associations between variables, whereas experimental studies imply causality (Hopkins, 2006). Quantitative research is an iterative process where evidence becomes evaluated, and theories and hypotheses are refined so that advancement in knowledge can be made.

This PhD project incorporates two studies whose methodological designs are heavily influenced by Positivism, Empiricism and Behaviourism because they are *quantitative* in nature. Studies 3 and 4 employ a questionnaire to measure psychological and physical wellbeing. In line with the Empiricist school of thought, hypotheses were generated and tested. The deployment of a self-report questionnaire to investigate this sensitive research area was important, because the research student could not directly influence the results obtained. What was achieved was an objective account of each participant's current mental health and wellbeing at the time of questionnaire completion (Hopkins, 2000). Also, because the sampling technique employed ensured that a 'cross-section' of participants was sampled from a wide variety of schools and townships in both of these studies, across different time periods, this benefits the generalisability and reliability of the results obtained.

2.2.3 The criticism of Positivism, Empiricism and Behaviourism

Today's post-positivists argue that there cannot be a 'complete' objectivity or truth, but that findings are more likely to be true if all steps to maintain validity have been followed (Holloway, 1997). In the 1960s the traditional view of 'science' was criticised by both social and natural scientists who did not accept the emphasis of one's social world as being disconnected from the individual. Natural scientists also criticised this 'mechanistic' view of the world presented by Positivists and argued that objectivity itself may be futile for scientists (Masih, 2002). Whilst it is strived for, one's personal opinions, biases and opinions are found to inevitably intrude.

Therefore researchers themselves cannot be seen as completely removed from the research outcome; their influence on the research is unavoidable (Holloway, 1997). In line with these overarching criticisms of Positivism and Empiricism, it is necessary to consider feminist scholars' criticisms of traditional scientific methods. The feminist critique was important in that it showed how particular forms of research were tied to gender and power relationships (Birke, 1999). They argued that because previous scientific work had found women to be statistically inferior to men in terms of moral development, intelligence and conversational style, inequalities between the sexes were perpetuated in society (Barr & Birke, 1998). Feminist scholars therefore questioned the epistemological and methodological foundations of 'male science'. Willig (2008) argues that the two most important arguments put forward by feminists included:

i) The 'male' as the norm – Young, white, middle-class men were often the typical 'prototypical' subjects of research, and as a result findings for this group were generalised to the population as a whole. When women were used as subjects in research, they were often measured against this male 'prototype' and continually found to be lacking in performing at the same level as men (Birke, 1999; Butler, 1993).

ii) The God trick – 'Male science' aimed to be 'objective', meaning that the researcher had to remain detached from their subject matter. Procedures were developed to ensure that the researcher did not influence participants and 'contaminate' any data collected (Harding & Hintikka, 2003). This included: minimal contact between the researcher and participants, blind or double-blind procedures for data collection and analysis, as well as attempts to 'neutralise' the research environment.

Feminists argued that this attempt to be 'objective' obscured the fact that the researcher's identity and standpoint actually do shape the research process and findings (Haraway, 2004; Harding, 1991). Willig (2008) states it is impossible for a researcher to position themselves 'outside of' the subject matter because the researcher will inevitably have a relationship with, or be implicated in, the phenomenon that he/she is studying' (p. 6). Haraway (1988) refers to attempts to pretend otherwise as the 'God's eye view'. The alternative to this 'God's eye view' is for the researchers to reflect on their own standpoint in relation to the phenomenon they are studying and to attempt to identify the ways in which such a standpoint has shaped the research process and findings (Haraway, 1988).

2.2.4 The rise of Social Constructionism

In light of the critique provided by feminist scholars, social constructionism has now become an influential approach (Burr, 2003). Social constructionism differs to the traditional scientific method in that it takes into account human perception is mediated historically, culturally and linguistically and is not a direct reflection of one's environmental conditions. Instead, it must be understood as a specific reading of these conditions (Lowenthal & Muth, 2008; Searle, 1995). Research from a social constructionist perspective is concerned with identifying the ways of constructing social reality that are available in a culture, to explore the conditions of their use and to trace their implications for human experience and social practice (Hacking, 1999; Searle, 1995).

The social constructivist position has greatly aided the development of the qualitative research approach, which focuses on how individuals and groups view and understand the world and construct meanings out of their experiences.

However, it should be noted that within early psychological research of the 19th century, occurring before the Behaviourism movement which has continued to influence much of Psychological inquiry, researchers such as Wilhelm Wundt relied on introspective (qualitative) reports as well as observed behaviour (Schultz & Schultz, 2004). According to Wundt, Psychology was the science of conscious experience and therefore must involve observations of conscience experience (Wundt & Pintner, 1912). However, Wundt realised that only the person having such an experience could in fact observe it. He decided that the method of observation must necessarily involve introspection or ‘internal perception’ - the examination of one’s own mental state (Dobson & Bruce, 1972; Wundt & Pintner, 1912). In considering the history of psychology and the research traditions of the 19th century, it is clear that the importance of qualitative research approaches was recognised early on.

The qualitative approach has long been defined in reference to quantitative research methods, with researchers often conceptualising qualitative research as simply ‘non-quantitative’ and devoid of measurement (Denzin & Lincoln, 2002; Patton, 1980). In the past there has also been the perception amongst some disciplines that qualitative research is ‘non-authentic’ or less scientific than quantitative research (Crabtree & Miller, 1999; Creswell, 2003; Denzin & Miller, 2007).

More recently the qualitative ‘method’ of research has become recognised in its own right, with many researchers now realising that undertaking qualitative analysis can be just as rigorous as quantitative analysis (Kirk & Miller, 1986; Mays & Pope, 2000). Pope and Mays (2008) argue that qualitative research investigates not only the personal meanings, but the *interpretations* individuals attach to their experiences within their social worlds.

Due to this focus on interpretation, it is necessary for social researchers to question common sense ideas and assumptions and recognise that qualitative research seeks to understand social phenomena by asking questions and by doing this by studying individuals in their usual environments. Quantitative research is usually conducted in artificial environmental situations, so lacks the depth this personal connection offers. Besides being naturalistic, qualitative methods question the notion of objective knowledge. People interpret their world and this constitutes 'knowledge'. Qualitative methods are about uncovering this interpretation (Marks & Yardley, 2004). This also helps us understand behaviour, because people act on the way they interpret things. Interpretation is thus not a distortion of the understanding of behaviour, but central to it. Therefore qualitative research can be used to uncover social processes and access particular areas of life which are not open to quantitative research, as *experiences* cannot be quantified (Hammersley, 1992). Table 1 describes the overall differences between qualitative and quantitative research approaches which were considered in the formulation of this PhD project.

Table 1: Differences between qualitative and quantitative research.

(Adapted from Miles & Huberman (1994), p. 40).

Qualitative Research	Vs.	Quantitative Research
Aim of the analysis is to provide a complete, detailed description.		Features are counted and classified and statistical models are constructed in an effort to explain what is observed.
Recommended during earlier phases of research projects.		Recommended during latter phases of research projects.
It is not necessary for the researcher to know precisely what they are investigating in advance.		It is necessary for the researcher to know clearly in advance what they are investigating.
Research design emerges more clearly as the study progresses.		All aspects of the study are clearly designed before data collection occurs.
The researcher acts as the data collection tool.		The researcher uses tools such as questionnaires and physical equipment to collect numerical data.
Data collected takes the form of words, language, pictures, objects, culture.		Data collected takes the form of numbers and statistics.
Qualitative data is rich, time consuming, and less able to be generalised.		Quantitative data is more efficient, amenable to the testing of hypotheses and theories, but misses contextual detail.
The researcher becomes subjectively immersed in the subject matter, and becomes part of the research by proxy.		The researcher is objectively separated from the subject matter.

2.3 Multi-method or 'Mixed' methods?

In social science research, quantitative and qualitative aspects of scientific investigation are usually considered as distinct from one another. However, it is now becoming more common for these two 'opposing' approaches to be seen as going hand-in-hand (Chow, Quine & Li, 2010). The philosopher, Thomas Kuhn, based on his analysis of the history of science almost fifty years ago argued that 'large amounts of qualitative work have usually been prerequisite to fruitful quantification in the physical sciences' (Kuhn, 1961, p.162).

O'Cathain, Murphy and Nicholl (2008) argue that one needs to be careful in the description of 'multi-method' or 'mixed' methods research approaches, arguing that often the terms are used interchangeably, when they are really separate constructs. 'Multi-method' approaches are those which use either multiple methods of the same type of research, i.e. qualitative or quantitative within a *single* study. Often in 'multi-method' projects researchers may 'borrow' sampling techniques or analysis techniques typically associated with one type of research methodology, for use in another. The term 'mixed' method refers to the combination of qualitative and quantitative components of a single study (Creswell & Plano-Clark, 2007).

Pope and Mays (2008) believe quantitative and qualitative approaches can complement one another. They write that 'One simple way in which this can be achieved is by using qualitative research as the preliminary to quantitative research. This model is most likely to be the most familiar to those engaged in health and health services research' (p. 5).

Indeed this was the rationale behind the current study, with the research team seeking to conduct an exploratory study, to be conducted sequentially, with the results of the two preliminary qualitative studies informing the development of the self-report questionnaire featuring in the quantitative Studies 3 and 4. The sequential design of the current ‘mixed methods’ research project is similar to that previously described by Creswell and Plano-Clarke (2007).

Table 2 below describes eight justifications behind the ‘combination’ or ‘integration’ of qualitative and quantitative methodologies. A tick has been placed next to the justifications which were: firstly, applicable to the current research study; and secondly, those which motivated the decision to employ a ‘mixed’ methodology for the current research project.

Table 2: 'Ways of combining qualitative and quantitative methods'.

(Pope & Mays, 2008, p. 104).

1. Findings from different methods are checked against each other.	✓
2. Qualitative research facilitates quantitative research by generating hypotheses for testing or generating items for a questionnaire.	✓
3. Quantitative research facilitates qualitative research by identifying people to participate in the qualitative enquiry.	---
4. Qualitative and quantitative research are used together to provide a bigger or richer picture.	✓
5. Quantitative research accesses structural issues whereas qualitative research accesses processes.	✓
6. Quantitative research emphasises the researchers' concerns whereas qualitative research emphasises the subjects' concerns.	✓
7. Quantitative research helps to generalise qualitative findings.	---
8. Qualitative research facilitates interpretation of findings from quantitative research.	✓

NB: ✓ indicates components which directly corresponded to the methodology employed by the current study.

O’Cathain, Murphy and Nicholl (2008) argue that in designing ‘mixed methods’ studies, researchers need to be clear as to their reasons for doing so. They outline that a ‘mixed methods’ approach may be utilised with the following intentions:

- i) *Complementarity* – to uncover different perspectives and for more of a ‘picture’ of a particular issue to emerge.
- ii) *Development* – where one method is used to aid the other, for example when focus groups are utilised to aid the development of questionnaire items.
- iii) *Triangulation* – where the findings of two different methods are compared and agreement is sought.

While all three principles can be linked to this thesis, the major reason for using the current ‘mixed methods’ approach was to ‘triangulate’ the findings of the four studies. The focus groups conducted with the human service providers and adolescents hoped to provide an insight into the types of mental health issues perceived by those who dwell in these rural communities. The quantitative questionnaire aimed to indicate what types of problems were evident, and then the fourth study’s comparison with the Winefield et al. data was to establish if there were any stable patterns in four cohorts of participants at four different time periods from 2001 to 2009. According to MacKenzie and Knipe (2006), if social research is to be fully effective, both approaches need to be applied, arguing that, ‘it is unduly impoverished research, which eschews the use of either qualitative or quantitative research methodology in favour of one, singular approach’ (p.200).

2.4 'Triangulation' defined

Bryman (2008) argues that triangulation enhances the confidence or validity of social research, which has previously been overrepresented by 'single-method' research, susceptible to the limitations of that one, particular, single method. According to Bryman, the term 'triangulation' 'derives from surveying, where it refers to the use of a series of triangles to map out an area' (p. 1). Bryman (2008) suggests that triangulation is greatly associated with the measuring practices of early social science research and quotes Webb (1966), a proponent of the early empiricist unobtrusive 'scientific approach' who argued that 'once a proposition has been confirmed by two or more independent measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through a triangulation of measurement processes' (Webb et al., 1966, p.3).

Indeed the concept of triangulation is not a new one, with the value of the comparison of findings being recognised early on, especially in regards to the validity of a particular study. Denzin (1970) extended the traditional view of 'triangulation' to include:

- i) *Data Triangulation* – gathering data through several sampling strategies, so that slices of data at different times and social situations, as well as on a variety of people, are gathered.
- ii) *Investigator Triangulation* – the use of more than one researcher to gather and/or interpret the data collected.
- iii) *Theoretical Triangulation* – the use of more than one theoretical position in interpreting data.
- iv) *Methodological Triangulation* – the use of more than one method of data collection.

According to Bryman (2008), what Denzin produced was a distinction between *within-method* triangulation and *between-method* triangulation. In the case of within-method triangulation, researchers may employ two different quantitative psychometric scales to measure depression, or may conduct individual interviews or case studies to find out about the personal impact of depression to one's everyday life. In contrast, between-method triangulation utilises differing research methodologies to determine how far the findings of each converge and upon which conclusions are then drawn. Bryman (2008) states that this often involves quantitative and qualitative approaches or 'multi-method' research.

For the current research project, both *within* and *between-method* triangulation were considered as important goals to be reached. However, considering the exploratory nature of the research project at hand – to investigate what mental health needs existed in rural communities in South Australia – it was thought that when qualitative and quantitative approaches were combined, they could collectively provide a more complete set of findings, than could be found via the administration of each approach alone (*between-method triangulation*).

2.5 The role of the 'researcher' in the current study

In an effort to address the 'God's eye view' phenomena coined by feminist scholars, it is necessary to point out the researcher's role in this thesis. Firstly, the PhD candidate acted as the primary researcher, collecting all data for the study. The student is female, in her mid-twenties and white. The researcher spent the majority of her life residing in rural areas of South Australia and Victoria. Prior to undertaking this PhD project the researcher completed her Honours degree in Psychology at the University of South Australia.

These characteristics of the researcher undoubtedly influenced the conceptualisation of the research project and certainly the data obtained. Obviously, due to her prior studies in psychology, the researcher had a great interest in mental health. Additionally, because her Honours thesis was concerned with premature school leaving amongst adolescents in South Australia, the researcher had also developed a great interest in youth issues.

The research student was able to relate very well with the human service providers and the adolescents who participated in this research project. She is professionally trained and also works as a volunteer in a mental health counselling service. Working with adolescents has made her very aware of many of the social and cultural issues impacting on inhabitants of rural towns in South Australia. She is also close in age to the study participants. The researcher had visited many of the communities sampled in the current study throughout her childhood and often disclosed that she herself had ‘grown up’ in and around some of the towns studied. This aided the researcher during focus groups and interviews because she was able to understand some of the social complexities often described by participants. Equally importantly, participants may not have treated her as an ‘outsider’ because she had indicated to them that she was familiar with their town.

Because the researcher was relatively close in age to the adolescent participants interviewed (up to 10 years older), this helped to break down any communication barriers and she was treated in a very friendly manner by all participants, who might have been threatened to share some information with someone they perceived as more of an ‘adult’ or ‘authoritarian’. While the researcher’s age seemed to be an advantage as far as the adolescent participants were concerned, some human service providers did question her interest in this particular area of mental health, considering her age.

At times the researcher did feel as though human service providers may have been more comfortable sharing information about their work with someone who they perceived to be more 'authoritative'. However, the researcher tried to counter this by providing background knowledge of herself, her academic background and professional experience.

2.6 Ethics

This research was conducted with approval from relevant ethics bodies. Approval for Study 1, a qualitative study involving focus groups and individual interviews with Human Service Providers working in rural communities in South Australia, was initially sought from The University of Adelaide's Human Research Ethics Committee in June, 2006. On July 21st, 2006 this study was provisionally approved pending some minor changes to participant information letters and consent forms. The approval number for this study was: H-094-2006 and full approval was obtained on July 31st, 2006.

Ethics approval for Studies 2, 3 and 4 was sought simultaneously, as these three studies involved the same samples of participants. Because these studies required the PhD candidate to recruit adolescents from secondary schools across several townships in rural South Australia, it was necessary to obtain ethics approval from three organisations: The University of Adelaide's Human Research Ethics Committee, Catholic Education South Australia (for Catholic schools) and the Department of Education and Children's Services South Australia (for government schools).

In April of 2007, applications were submitted for consideration to DECS South Australia and Catholic Education SA. In early May 2007, a third ethics application was submitted to The University of Adelaide's HREC.

On May 21st, 2007, Catholic Education SA fully approved the studies to take place within their schools in the rural communities proposed. In late June of 2007, DECS South Australia officially rejected the studies proposed and did not grant permission for the research to take place in government secondary schools in rural South Australia.

In early July of 2007 the HREC at The University of Adelaide invited the PhD candidate and her Principal Supervisor to address the committee to discuss some concerns about maintaining the confidentiality of the adolescent participants attending the proposed focus group discussions, and also the safeguards put in place should any participants become distressed as a result of participation. Both the PhD candidate and Principal Supervisor attended this meeting on July 9th, 2007, and addressed the concerns of the committee who subsequently granted full-approval for the study on July 17th, 2007. The approval number for this study was: H-056-2007.

The only ethics committee the PhD candidate and her supervisory panel had yet to receive approval from was DECS South Australia. After the initial application was rejected in June of 2007, the application was revised and submitted once more in early August 2007. Unfortunately, this application was again rejected on the same grounds as previously – that the research would not be appropriate to undertake in government secondary schools in rural South Australia, and may be more appropriate for community health centres. In an effort to ascertain what aspects of the proposed research concerned the Student Welfare and Wellbeing Coordinator of DECS, to the extent that the study was rejected a second time, the Principal Supervisor and PhD candidate wrote to the Department requesting a meeting so all parties could discuss concerns face-to-face. It was important for the research team to express to DECS South Australia their reasons for undertaking the study and to highlight to them how the results of this study could benefit DECS South Australia.

This meeting was scheduled on September 3rd, 2007. During this meeting the research team reached agreement with DECS to conduct the study as long as it was subject to some minor amendments to the questionnaire. Assurance had to be given that local mental health staff in the rural communities proposed were prepared (and able) to consult with any distressed adolescents. Full approval to conduct the study in government schools was granted from the Department of Education and Children’s Services on October 24th, 2007. Table 3 below describes the timeline for ethics approval for Studies 2 and 3.

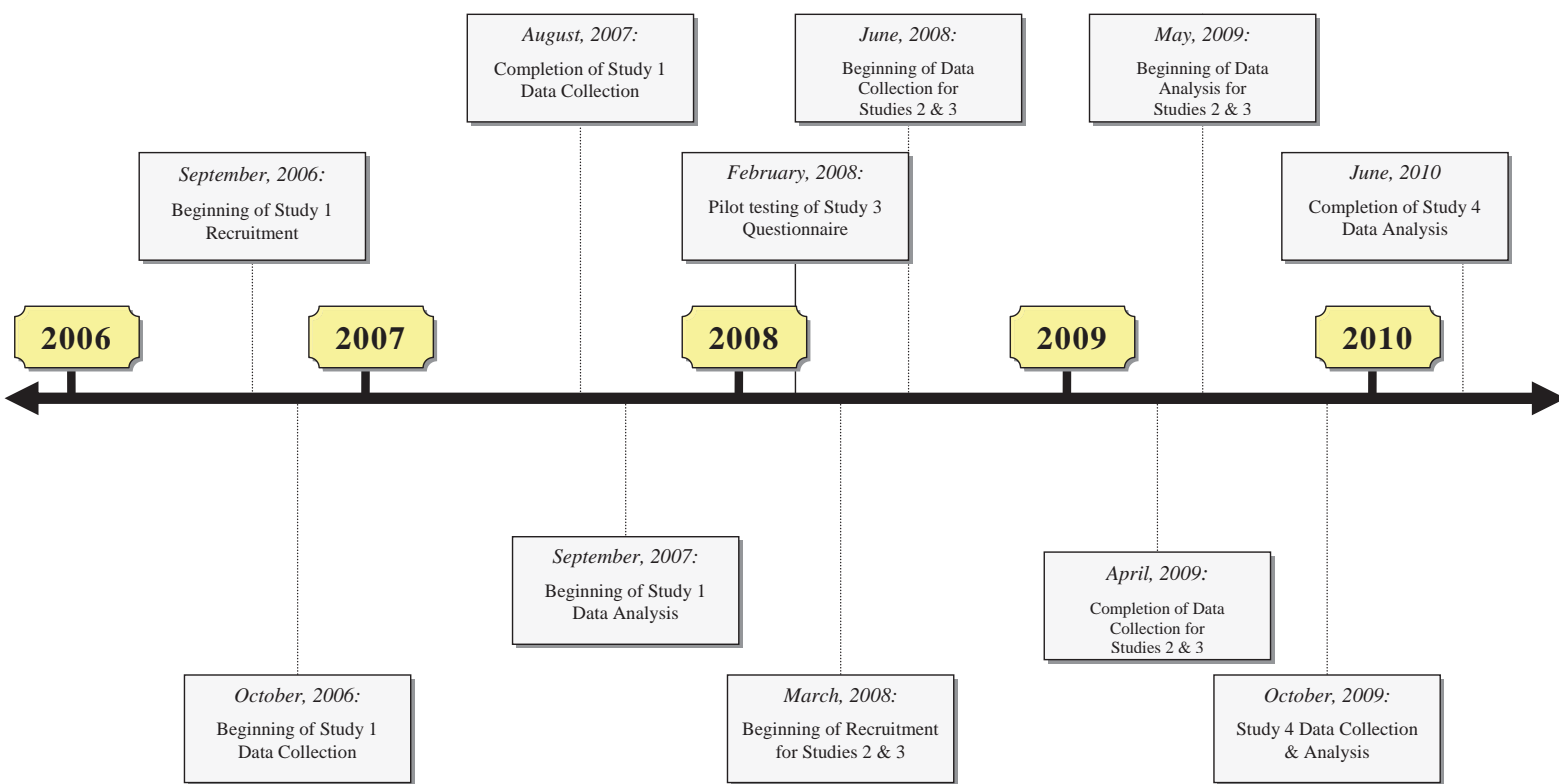
Table 3: Timeline for ethics approval for Studies 2 and 3.

Month, Year	Milestone
April 2007	- Application to DECS SA - Application to Catholic Education SA
May 2007	- Application to U of A’s HREC - Approval from Catholic Education SA
June 2007	- Rejection 1 from DECS SA
July 2007	- Meeting with HREC - Approval from HREC
August 2007	- Rejection 2 from DECS SA
September 2007	- Meeting with DECS SA
October 2007	- Approval from DECS SA.

2.7 Data collection

As mentioned previously, data for the series of studies that make up the PhD project were collected sequentially, over a period of approximately four years as presented in Figure 4 below.

Figure 4: Timeline of PhD project.



2.8 Conclusions

A 'mix' of both qualitative and quantitative methodological approaches was implemented in this thesis. Qualitative interview data were collected through focus groups and individual interviews, both face-to-face and via telephone. Quantitative data were collected through the implementation of self-report questionnaires. The mixed methodology enabled a very comprehensive investigation to be put into operation. The current study benefited from a mixed methodology in that it was able to integrate quantitative, numerical, prevalence data, and furthermore obtained qualitative information about participants' experiences, or their 'stories'. This brief chapter provided an overview of the rationale behind the utilisation of a 'mixed methods' approach to data collection for this research project, and presented the unique contribution each approach offered. Please note that the following chapters provide a more specific description of the methodology utilised in each of the four sub-studies.

CHAPTER 3

HUMAN SERVICE PROVIDERS' PERCEPTIONS OF THE MENTAL HEALTH NEEDS OF RURAL SOUTH AUSTRALIAN ADOLESCENTS: A PRELIMINARY EXPLORATORY STUDY

1. Introduction

This chapter will describe the findings of an exploratory study in which the aim was to gain an insight into rural human service providers' perceptions about the mental health needs of adolescents in their communities. This chapter describes why the study was conducted, the methodology employed and the significant results that emerged. Finally, the chapter concludes by providing an overview of how current findings fit with prior research in this area, and provides some recommendations for improvements to existing adolescent mental health services in rural South Australia.

Background

As outlined in the literature review, as many as 14% of children and adolescents in Australia currently experience a mental health problem (Sawyer et al., 2000a). However, there is little information available on the mental health of adolescents in rural areas. Most of the published research reporting the prevalence of mental health morbidity in adolescents living in rural areas is international, mostly from the United States. These studies have found that adolescents in rural areas have an increased risk of major depression, anxiety disorders, nicotine dependence, alcohol abuse, suicide attempt, educational underachievement, unemployment and early parenthood.

According to Griffiths (1996), rural Australia differs markedly from the urban sector in terms of health. She outlines five health domains with a higher incidence rate or level of severity which affect rural communities: incidence of male youth suicide, alcohol abuse, domestic violence, chronic disease and socio-economic disadvantage. Furthermore, Griffiths (1996) suggests that there is an inter-relatedness of health concerns with demographic characteristics and what really needs to be understood are the economic pressures and their impact on health provision. The rural domain houses a distinct cultural milieu which means that mental health professionals with limited local knowledge, lacking the competencies appropriate to rural work and/or hampered by inflexible service delivery models, may not only be ill-equipped but more importantly, seen to be ill-equipped to meet local needs (Caldwell et al., 2004; Fraser et al., 2002). Thus, mistrust can easily grow when mental health professionals are applying his/her interventions to adolescents.

According to Griffiths (1996), mental health professionals working in rural and remote areas need to understand what rural life is like in order to provide effective assistance. Due to the sparsely populated nature of Australian rural settings, social isolation compounded with high visibility (as compared to metropolitan services), rural inhabitants may be discouraged from seeking help. Furthermore, the historical precedent described by Griffiths (1996), that of 'making do' in the past, has led to the present day belief of rural inhabitants, especially in farming communities, that they need to be self-sufficient and resilient and not rely on others. This indicates there are certain barriers that rural inhabitants face in trying to access appropriate mental health care.

Griffiths' (1996) arguments assume that mental health 'professionals' are present in rural areas. It is often difficult for people living in rural and remote areas to access formal/specialist help and support for their mental health concerns because often there are no mental health 'professionals' in their community. However, 'informal' support exists through local human service providers, including police officers, clergy, school counsellors and teachers, Aboriginal health workers and financial counsellors. Although their expertise in mental health may be limited, these individuals often find themselves being the first port of call for emotional support during difficult times (Fuller & Broadbent, 2006). Some of these informal supports may not be available to adolescents, who are less likely to have contact with these types of community members than their adult family members.

While prior Australian research has indicated the presence of risk factors and inadequate support services for adults living in rural areas, there has been a paucity of research into adolescents' mental health needs, and how 'rurality' impacts on their needs. Much of the research that was available when this study began was based on the mental health needs of rural communities in the eastern states with no South Australian, adolescent-specific research being readily available (Alston et al., 2006; Aoun, 1997; Barnes & Rudge, 2003; Bourke et al., 2004; Cockburn & Bernard, 2004; Dudley, 1998; Judd, 2002; Judd, 2006).

Furthermore, because South Australia is virtually a 'city-state' where most of its population live in Adelaide, there are few specialist mental health services operating beyond the metropolitan area. In the eastern states, however, the existence of many more and much larger regional centres means that there are likely to be specialist services outside metropolitan areas that some adolescents can access.

The different settlement patterns of South Australia and the eastern states provide an additional basis to investigate the needs and experiences of adolescents living in rural areas of South Australia. More specifically this study aims to identify the mental health issues that human service providers perceive to be most important for adolescents in four rural centres in the Spencer Gulf, Eyre Peninsula and Limestone Coast regions of South Australia. It also wants to provide an insight into the challenges and opportunities for providing primary mental health care to adolescents.

Contribution of the present study

This study aimed to develop an understanding of the mental health issues experienced by rural South Australian adolescents, and to determine whether current services are coping adequately with the volume and nature of mental health needs. The specific contribution being made to the current body of knowledge is that the needs and services for this particular group of South Australians were identified, based on the perceptions of mental health service providers. In light of the very important role human service providers play in rural communities of South Australia, it was hoped that by initially undertaking an investigation with this group, a more comprehensive study could occur. Then the results of this research could inform the development and direction of future studies related to this PhD project, that focused more on the adolescents themselves.

Two specific research questions were investigated in this study:

- 1. What are the perceptions of rural mental health service providers about the mental health needs of adolescents living in their communities?*
- 2. What opinions do they hold about the availability and accessibility of local mental health services?*

Therefore, the study had the following objectives:

- To explore service providers' perceptions of the mental health needs of adolescents in their area;
- To explore service providers' views of how 'rurality' impacts on the mental health of adolescents;
- To identify how workers perceive the role of their organisation;
- To establish the availability and accessibility of their service to the community;
- To establish whether current resources enable them to meet demand effectively; and,
- To investigate whether collaboration networks exist and the potential for building on them.

2. Method

Study Design

A study design that was qualitative in nature was utilised. Data were collected through focus group discussions and one-on-one interviews, either face-to-face or via telephone, with human service providers who provided mental health care to adolescents in their communities. This study had an exploratory and evaluative nature and therefore the thematic analysis of the qualitative data was deemed adequate for making sense of the data in light of the research questions.

Ethical Considerations

Ethics approval for this study was obtained from The University of Adelaide's Human Research Ethics Committee in July 2007 (approval number: H-094-2006). Participation in the study was voluntary, with informed consent being obtained from all mental health service providers. Due to the fact that the participants of this study lived in small, rural communities and could have been easily identified, any personally distinguishing data such as name of workplace were not reported or published.

Additionally, each participant received an ID number, further protecting their identity in published material concerning the study's results. Furthermore, copies of the data collected including files of digital recordings and transcriptions were securely stored electronically on the firewall-protected Discipline of General Practice server at The University of Adelaide, with access restricted via password. Finally, hard copies of the transcribed recordings were stored under lock and key in the Discipline's offices.

Sample

Participants

Participants included 35 human service providers working in and around four rural townships in South Australia: Port Lincoln, Whyalla, Port Augusta and Mount Gambier (Figure 5). This group was augmented by three recruited health workers from mental health services in Victoria because they provided some cross-border services to individuals living in the Greater-Green-Triangle region of South Australia (indicated by the shaded area in Figure 5). It is important to note that the human service providers targeted for recruitment could be involved in either formal/specialist mental health service provision, i.e. employed by a mental health service, or informal mental health care. In other words they provided support to adolescents but were not employed as a mental health service provider. The latter group is often referred to as the 'lay' or 'de facto' mental health care sector (Blank et al., 1995). The geographical area serviced by these providers ensured that the clientele consulted resided in rural or remote areas. Each of the rural townships visited had a Rural, Remote and Metropolitan Areas (RRMA) classification of 4 (small rural centres), except for Whyalla, whose RRMA was 3 (large rural centre) (Rural Doctors Workforce Agency, 2006).

Figure 5: Map of locations, including areas serviced by participants.



Recruitment Strategy

In order to achieve maximum variability of responses, a broad range of potential participants was targeted. Specifically, these included youth workers, financial counsellors, school counsellors, psychologists, psychiatrists, nurses and GPs. Initially, it was planned to recruit approximately 20-30 participants from community health centres, general practices and hospitals in the four main regional centres.

The study used a combination of purposive and snowball sampling (Table 4). Purposive sampling involved identifying rural mental health service providers from an online health services resource database provided by the Department of Health and Ageing (Human Services Finder, <http://www.hsfinder.sa.gov.au/accesspoint>). Individuals listed in this resource were initially contacted via telephone and the study was explained to them verbally. If service providers indicated they were interested in participation, some written recruitment information describing the study in greater detail was mailed to them by post or e-mail. During this telephone call, service providers were also asked if they could suggest any colleagues who they believed may be interested in taking part (snowball sampling).

General Practitioners were identified from three South Australian Division of General Practice membership lists: the Yorke Peninsula Division of General Practice, the Mid-North Division of General Practice, and the Limestone Coast Division of General Practice. Initially, GPs were contacted directly about the study and they were either mailed information to their practice, or their Practice Manager was contacted and their assistance with recruitment requested. Unfortunately, this method of recruitment did not prove at all fruitful, in that only one GP was recruited in this manner. Following this poor recruitment outcome, the Head of each Division of General Practice was consulted and their help also requested. The Head of each Division then contacted on behalf of the researcher GPs they knew of who had a particular interest in mental health, resulting in five more General Practitioners being recruited.

Table 4: Participation recruitment by sampling method.

Sampling Method	Recruitment Strategy	N
Purposive	Department of Health & Ageing resource database	19
Snowball	Recruited participants inviting their colleagues	8
Purposive	Direct contact with General Practice	1
Purposive	Head of each Division of General Practice	5
Snowball	Recruited participants suggesting Victorian services	3
Snowball	University of Adelaide staff suggesting rural GPs	2
<i>N</i>		38

Selection and Exclusion Criteria

In order to be included in the study, participants were required to be: (a) currently working in a human service position and providing mental health care to adolescents in a rural South Australian community, (b) living in a rural South Australian community, and (c) give their full consent to participate in a focus group discussion/interview. There were no specific exclusion criteria, except that participants needed to meet all inclusion criteria.

Data Collection

Semi-structured Interviews and Focus Groups

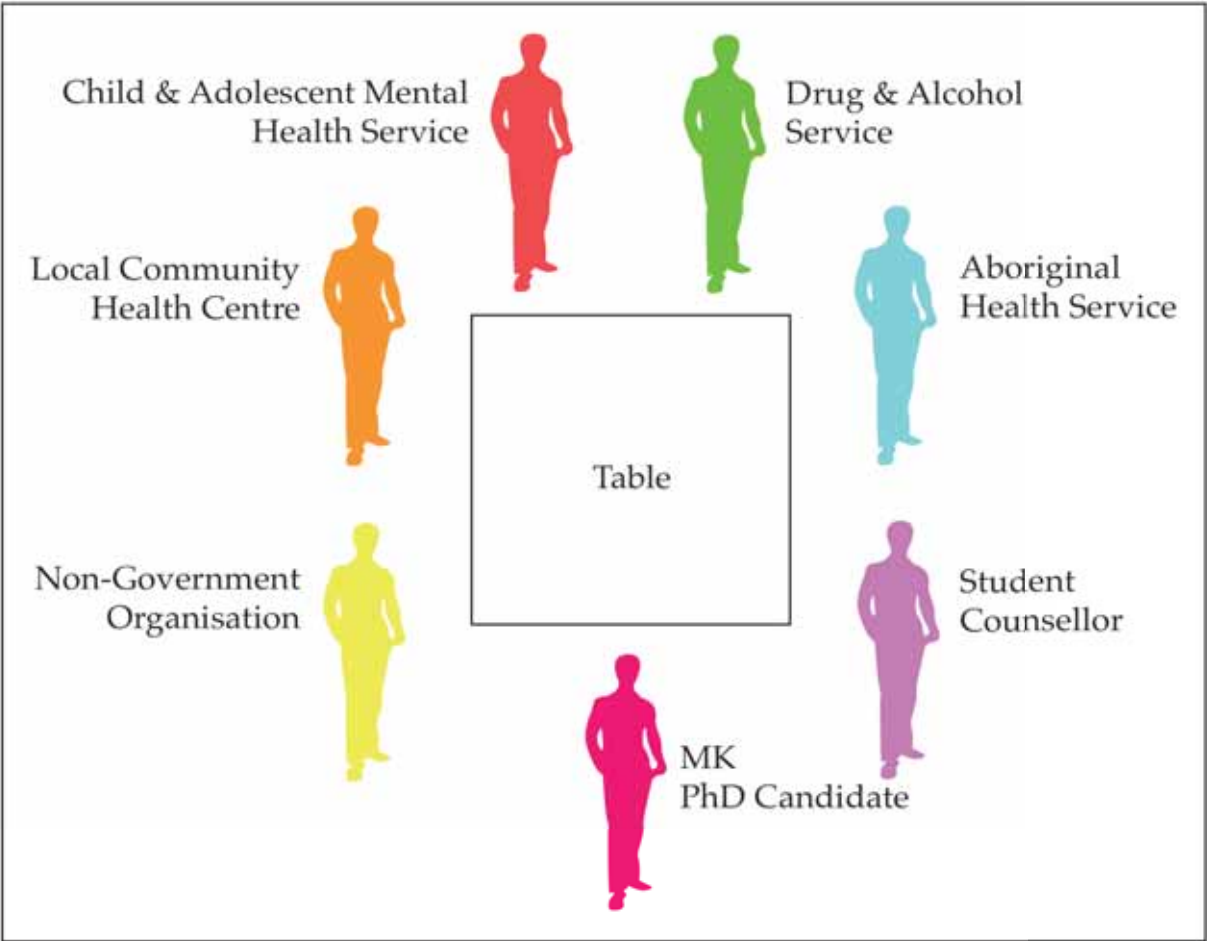
A semi-structured interview/focus group guide was developed according to the methods described by Krueger (1998) and Morgan and Scannell (1998). Focus group discussion was chosen as the primary method of data collection because it allows the researcher to obtain many views in a relatively short period of time (Willig, 2008). Additionally, focus groups allow researchers to gain an insight into the collective views expressed by the group, and also view the ways in which group members can be influenced by each other in a group setting (Morgan & Scannell, 1998).

Considering the fact that mental health service providers in rural areas rarely have the opportunity to get together in a group situation, a focus group was considered as a highly appropriate method of collecting data. During focus groups, the following issues/questions were discussed (Appendices A & B):

- Nature of mental health problems and influence of ‘rurality’
- Role of their organisation in providing care
- Opinions on the availability and accessibility of services
- Improvements to current service delivery
- Adequacy of resources
- Referral systems
- Collaboration networks

The original plan was for each focus group discussion to contain between six and eight participants. This is the ideal number of group members to have in order for free-flowing discussion to occur (Morgan & Scannell, 1998). For a multiplicity of views to be gleaned from participants and also in an effort to secure the representativeness of the views obtained, the research student endeavoured to invite six to eight participants from *different* local organisations, with government and non-government organisations also being represented. This form of selection ensured that no particular type of human service providers were overrepresented at focus groups.

Figure 6: Pictorial illustration of a typical focus group.



For participants who were unable to attend focus group discussions, a face-to-face or telephone interview was conducted instead. The exact same questions were asked during these interviews. Furthermore, due to the fact that rural General Practitioners often have limited spare time, they were not invited to participate in focus group discussions, but rather, individual interviews. In addition to the above topics discussed by focus group attendees, GPs were also asked about the level of mental health training they had received and their feelings of personal competence in being able to diagnose and treat adolescents with mental health problems. Victorian participants were also specifically asked about their perceptions about the capacity of Victorian services to accept clientele from South Australia, and the burden associated with this.

Focus groups and individual interviews occurred throughout October 2006 to August 2007. Each focus group lasted approximately 60 minutes, while face-to-face interviews ranged between 45 and 65 minutes. Telephone interviews tended to be shorter but ranged in length from 16 to 70 minutes (Table 5). Three participants did not consent to their interviews being recorded, but allowed the researcher to take notes. The remaining focus groups and interviews were all digitally-recorded and transcribed verbatim.

Table 5: Data collection summary.

Transcript No.	Interview Type	Method	Service Base	Date	Duration (mins.)
1	FG	F--F	Port Lincoln	13/10/2006	63
2	FG	F--F	Port Augusta	06/12/2006	49
3	FG	F--F	Whyalla	12/12/2006	76
4	FG	F--F	Mount Gambier	19/02/2007	65
5	I	F--F	Port Augusta	06/12/2006	35
6	I	T	Port Lincoln	09/02/2007	49
7	I	T	Loxton	02/05/2007	20
8	I	T	Port Lincoln	19/04/2007	21
9	I	T	Port Lincoln	12/04/2007	16
10	I	F--F	Port Augusta	18/04/2007	48
11	I	F--F	Port Lincoln	20/08/2007	31
12	I	F--F	Port Lincoln	06/12/2006	50
13	I	T	Port Lincoln	05/04/2007	70
14	I	F--F	Port Lincoln	14/12/2006	43
15	I	T	Port Augusta	22/03/2007	22
16	I	F--F	Whyalla	16/04/2007	62
17	I	T	Victoria	27/02/2007	20
18	I	T	Victoria	27/02/2007	30
19	I	T	Victoria	27/02/2007	16

Please note: FG = Focus Group, I = Interview, F--F = Face-to-Face, T = Telephone

Data Analysis

Transcripts were returned to participants to verify the accuracy of dialogue prior to the data being analysed. Four participants returned transcripts with amendments to be made, which were largely grammatical in nature or related to the clarification of inaudible dialogue. Two participants directly contacted the research student with requests for particular parts of dialogue to be removed from their transcript, out of fear that their confidentiality could be compromised if particular information was published.

A thematic analysis was undertaken when the above process was completed. This involved first reading and re-reading hard copies of the 19 transcripts to familiarise herself with the data. Ritchie, Spencer and O'Connor (2008) have argued that this process is a crucial activity because it helps to build the foundation for the overall analytical structure. Initial coding of the data was exploratory in nature, with a large number of statements and concepts being identified. Initially, coding of data centred around the topics/questions discussed during focus groups and interviews (Pope, Ziebland & Mays, 2006). As the coding process continued, a hierarchical coding scheme was developed, with key themes being identified and further defined (Joffe & Yardley, 2004). The 'splicing' technique described by Dey (1993) was used to form the coding hierarchy, with multiple sub-themes being 'fused' together to form broad, overarching themes. The research student then discussed the coding scheme and emergent major themes with two supervisors who had been supplied with the transcripts. These two supervisors engaged in their own coding. Their emergent major themes were compared with those of the research student. The emergent thematic structures from the three coding schemes were discussed and revised and coded further until a consensus had been reached by all three parties. The program NVivo 7 (QSR International, Sydney, Australia) served as the data management tool.

Audit Trail

To ensure the quality of the methodological approach utilised in this study had integrity, the research student kept an audit trail reflecting the decisions made during the research process (Bowen, 2009; Willig, 2008). The researcher kept a notebook and several Microsoft Word documents outlining the decisions made in coding and analysing the transcripts. During transcription the research student also kept a record of significant changes in voice tone, any body movements or expressive gestures made and interruptions during focus groups and interviews (Bowen, 2009; Gillham, 2005). This phase of the transcription process aided in the interpretation of dialogue and provided insights into what the data meant. In addition to this, a record was kept of all human service providers and organisations who were initially invited to participate in the study, along with the various recruitment challenges experienced.

3. Results

A total of 38 participants were interviewed. Of these, eight were General Practitioners in private practice in rural communities, while the remaining 30 participants identified themselves across 14 positions, with three participants working in Victoria but receiving referrals from South Australia (Table 6). The four focus groups were attended by 24 human service providers, while 14 individual interviews were conducted with eight GPs and six human service providers who were either unwilling or unable to attend a focus group discussion in their town.

Table 6: Occupations of participants.

Occupation	N
Aboriginal Health Worker	2
CEO/Manager (Non-Gov. Org.)	4
Victorian CEO/Manager (Non-Gov. Org.)*	1
Clinical Nurse	1
Drug & Alcohol Counsellor	3
General Practitioner	8
Mental Health Academic	2
Mental Health Nurse	1
Psychiatrist	1
School Principal	1
Social Worker	4
Victorian Social Worker*	2
Student Counsellor	3
Student/Researcher	1
Team Leader (Govt. Org.)	1
Youth Worker	3
N	38

*NB: These Victorian service providers were receiving South Australian clients at time of interview.

Demographic Characteristics

Age and Gender

Human service providers ranged in age from 20 to 64 years and the average or mean age was 44 years. For General Practitioners the mean age was 46 years, with the age range being smaller, 33 to 52 years. The majority of participating human service providers were female (80%), whilst all of the recruited General Practitioners were male (Table 7).

Years in Current Position and Years of Experience

At the time of interview, human service providers had spent on average, six years in their current employment position, ranging from one year to 30 years across the group. General Practitioners had spent an average of eight years in their current position, ranging from 18 months to 15 years. For both groups – human service providers and General Practitioners, the average number of years of experience in their field of mental health was approximately 15 years. What was evident, however, was there were variations in the amount of experience the human service providers had, ranging from one to 47 years. General Practitioners reported less variation, with years of experience ranging from four to 30 years (see Table 7).

Table 7: Demographic characteristics of sample.

	Human Service Providers	General Practitioners
Gender	20% Male 80% Female	100% Male
Age (years)	44	46
Years in Current Position	6	8
Years of Experience	15	15

Codes

Using NVivo 7 (QSR International, Sydney, Australia), ninety sub-themes or codes emerged from 560 pages of transcript coding. These 90 codes were then organised into five overarching themes which had a direct impact on adolescents' mental health, or their capacity to access mental health care while living in a rural setting. These five overarching themes were labelled: Community and Society Factors; Youth Issues; Indigeneity; Service Delivery & Utilisation; and Occupational Factors (Figure 7).

Figure 7: Pictorial representation of initial codes and overarching themes identified.



Each overarching theme and initial code was given a definition with the inclusion of transcript data being conditional upon meeting such a definition. Each one of the five overarching themes was further consolidated to form its own hierarchical structure.

3.1 Community and Society Factors

Definition:

This overarching theme includes all factors from rural communities and society generally, which all work to affect the mental health of adolescents.

This included statements about rural lifestyle and society, with service providers often commenting on the links between ‘resilience’ (the culture of self-reliance) and the stigma associated with mental health issues in their communities. For example:

‘You know....a lot of the depression and anxiety and stresses, really, they don’t bring those out in the open because they’re expected to cope full stop. If they come and see a mental health nurse, you know they’re deemed as “nutty” or “mad”. It took a long, number of months for people to feel comfortable about coming to see me. And, it takes a while, they...they don’t come and see me very often for the simple reason, because you know, it’s a small town, a small community. Everybody talks; everybody knows everyone’s business... You know, there is that stigma as well’.
(112SP30, Mental Health Nurse, Lines 343-372).

Service providers argued that rural adolescents were very aware of the financial burdens experienced in their families, particularly among farming families. It emerged that the impact of the drought on the mental health of these adolescents was described as a major concern.

For example:

'They hear all the time in the media how terrible it is. They hear, how many times, it's dry, we're in a drought. If we have that rammed down their throats everyday, relentlessly, everyday, in every news, it may impact on the kids you know. And, for some, if that's their future...that's what they've got in their head. Like, my Gosh, Dad gets into trouble too you know?'

(FG1SP09, Youth Worker, Lines 303-312).

Boredom was cited as a significant problem in the rural communities. Service providers argued that adolescents had little or no recreation activities available to them, and what was available, such as sport, for example, often incurred a cost:

'The further I get away from [TOWN NAME] with my work, the less available sporting activities are, because the cost to actually get to those...Most people travel up to 100 kilometres to go to a netball or football game, and the high cost of petrol is actually going to isolate more and more of my clients. I know that's already happening. Kids say, "I can't afford it, my parents can't take me".'

(FG1SP03, Mental Health Nurse, Lines 257-252).

The service providers related 'boredom' more broadly to changes in society, such as the reduced time busy parents were spending with their children and the lack of positive adult role models available. Often, adolescents tended to engage in 'problem behaviours' as a result of being 'bored' or not having an adult's guidance. This is illustrated by the comment below:

*'Parents don't think, "oh well, what can I do with them on the weekend?" But like on the weekend, if the kids have been with their mates just drinking and a couple of other things, there's only those three things to choose from in their mind. Whereas if the parents or somebody could expose them to going to do a bit of um swimming, or spear fishing or sports on the weekend...you know? It's easy to get depressed if you haven't got stuff to do...sitting around bored. If you've got some little thing...that you don't have to do, but you enjoy doing. You need to find those things. But how do you find those things if you're an adolescent and there's no one encouraging you?'.
(FG1SP04, Youth Worker, Lines 230-241).*

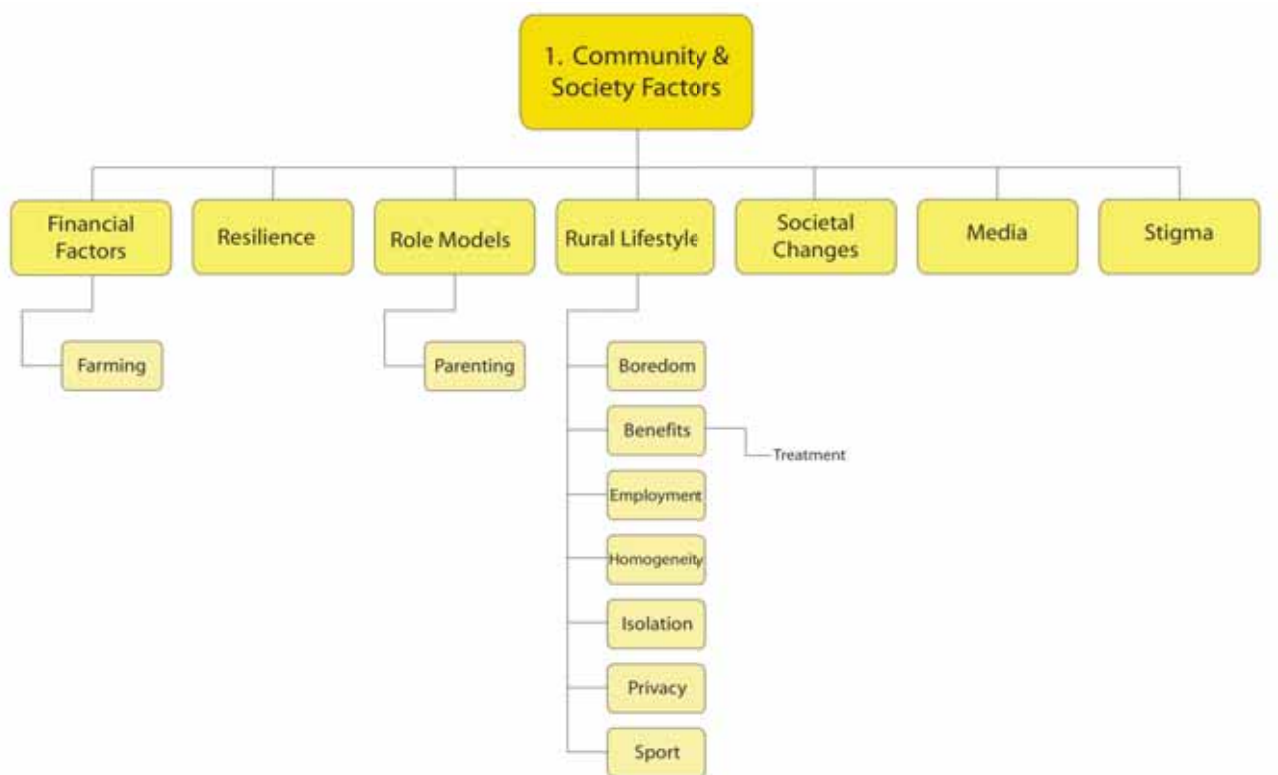
In addition to these 'negative' community and society factors which wielded an impact on the mental health of adolescents, service providers indicated that there were particular benefits associated with living in rural towns. These benefits included: a greater sense of community and 'mateship', an increase in local support and awareness, affordable housing and amenities, resilience and independence than exists in urban settings. Service providers argued that treatment benefits could also be experienced by those with mental health problems, due to the close contact service providers have with each other:

'We've got certain students that um, we get together as between all the different groups in the town, and basically case-conference that adolescent. So that we're all on the same page, you know? It's basically just information sharing, but it gets everyone in the same direction. Everyone's trying to do the right thing for that person. There's just that open-sharing of ideas and that this is working well at school, maybe you could try this, and this is what's working well at home, try that and this is what we're doing at C.A.M.H.S. and this is what's working well for us and you just, getting that common goal together...that common theme I guess. Everything working with that person...' (FG2SP02, Student Counsellor, Lines 1296-1311).

Figure 8 describes the hierarchical structure of the overarching theme *Community and Society Factors* and its relevant sub-themes.

NB: To prevent overlap of material, not all sub-themes were discussed at length in the preceding section, only those sub-themes contributing most to the analysis.

Figure 8: Hierarchical structure of overarching theme 1.



3.2 Youth Issues

Definition:

This overarching theme includes all of the different mental health and behavioural problems discussed by the human service providers and the social and cultural issues which impact upon the mental health of adolescents.

Service providers did not only consult with adolescents who had clinical disorders such as major depression or anxiety disorders, but also with those experiencing social problems stemming from their family situation. According to the service providers, adolescents were often coping with the breakdown of the family unit or witnessing violent acts within the home. As a consequence adolescents engaged in criminal activity, which is demonstrated in the following quote:

*'Some kids go so what? Send me back to [DETENTION CENTRE]. In fact, I'm going to break this window because I want to go back there now. Because that's way better than being at home, and everybody's drunk and all these visitors come and abuse me, and there's no food in the morning, I can't sleep at night, I can't concentrate at school, I haven't got a decent bed. If I am at home, someone might come in my room and do all sorts of things. Gee, [DETENTION CENTRE] sounds pretty good'.
(FG1SP04, Youth Worker, Lines 1130-1135).*

Self-harm amongst both sexes was identified as a major issue, with service providers commenting that adolescent males tended to use more overt ways of harming themselves, such as hanging, shooting and burning. On the other hand females engaged in other methods such as cutting and, more recently, body piercing.

*'I think there's um, a huge amount of self-harm...is an issue. And um, overt self-harm. You know, cutting and that, burning...you know, that sort of stuff. And, other things like um, drinking and drugs and piercings and stuff that perhaps isn't so easily connected to self-harm, but probably in...in some people's, young people's minds it is...is achieving that as well. I've had young people that are saying "oh you know, I'll just get another piercing when I'm feeling not so good", and that sort of stuff'.
(FG3SP06, Social Worker, Lines 132-144).*

The central concern that participants had was the effect of excessive drug and alcohol consumption in their communities. Participants commented that whilst in the past, excessive drinking was traditionally associated with young men and 'male culture', drinking amongst young females had reached new heights and perceived as 'more of a problem'.

*'I've had um, two or three girls that have sort of been proud of the amount of alcohol they've drunk...the stats certainly tell us that there are more 14-19 year old girls who binge drink than boys, surprisingly enough. And the binge drinking then escalates from the 19-25 year olds in the male area. But girls now are far exceeding boys in binge drinking. It's...it's a significant issue and the mentality is that you go out to get written off. "I'm going out to have a good time" equals becoming absolutely legless. And the other mentality too is, you don't start counting...when I say to young people and what did you drink? They will tell you what they drank after they leave home. I then have to say, how much did you have to drink before you left home?'
(FG4SP02, Drug & Alcohol Counsellor, Lines 592-630).*

Similar to the above statement, one General Practitioner commented that the problem of alcohol abuse had become so pervasive, he argued that ‘the biggest problem...the biggest problem for mental health in rural areas, probably if not Australia, is under-age drinking’ (GP002, Lines 832-836).

Service providers often grappled with the co-morbidity of drug addiction and mental health problems, arguing that drug use was often a form of self-medication for mental health problems. For example:

‘What I’m starting to learn, just lately, is that I get these lads in and the first thing that we do is try to help them with their drugs. As soon as they start doing a bit better with the drugs, they get worse. They have issues coming into their head, and they need counselling; they need anger management. See...with the kids I’ve been working with, I had the opinion that because they are on these drugs, they have the mental health issues, but I’m starting to see that maybe...they had the mental health issues, and that’s why they’re getting on the drugs.’ (FG1SP04, Youth Worker, Lines 565-579).

A social problem commonly encountered by the service providers related to interpersonal relationships, with many adolescents not possessing the social skills to effectively manage peer and romantic relationships. Service providers also found that adolescents often engaged in highly intense Internet relationships.

‘The problem is dealing with relationships. Some of them have, seem to have quite intense relationships...Internet relationships I have to say. From you know, this is the one for me who’s from Western Australia and then next week I’m with this equally wonderful person from Sydney. And they’re so free to share this information...about themselves, that they become so open to other people that they get so worried and confused as to why that’s all come back on them and everybody knows about it and you know...it just becomes word of mouth at the school’. (FG2SP01, Clinical Nurse, Lines 217-238).

Finally, the openness of sexual relationships and in particular, same-sex attraction was also noted as a significant issue amongst adolescents. Service providers were concerned that the age of adolescents participating in sexual activity was falling, and that there seemed to exist a lack of understanding about the role of sex in romantic relationships. For example:

'I think in terms of the relationships too, I think there's a lack of "well, I can be in a relationship without this being totally sexual" ...And I think that...you know, when you talk to young people it's like...you just about, I mean they might have been in a relationship for two days and you just have to be talking about contraception with them...because you know, there's...there's no chance that it would be anything other than that? I really think that there's a lack of understanding or how else can you have a relationship if it doesn't involve that?'
(FG3SP06, Social Worker, Lines 900-924).

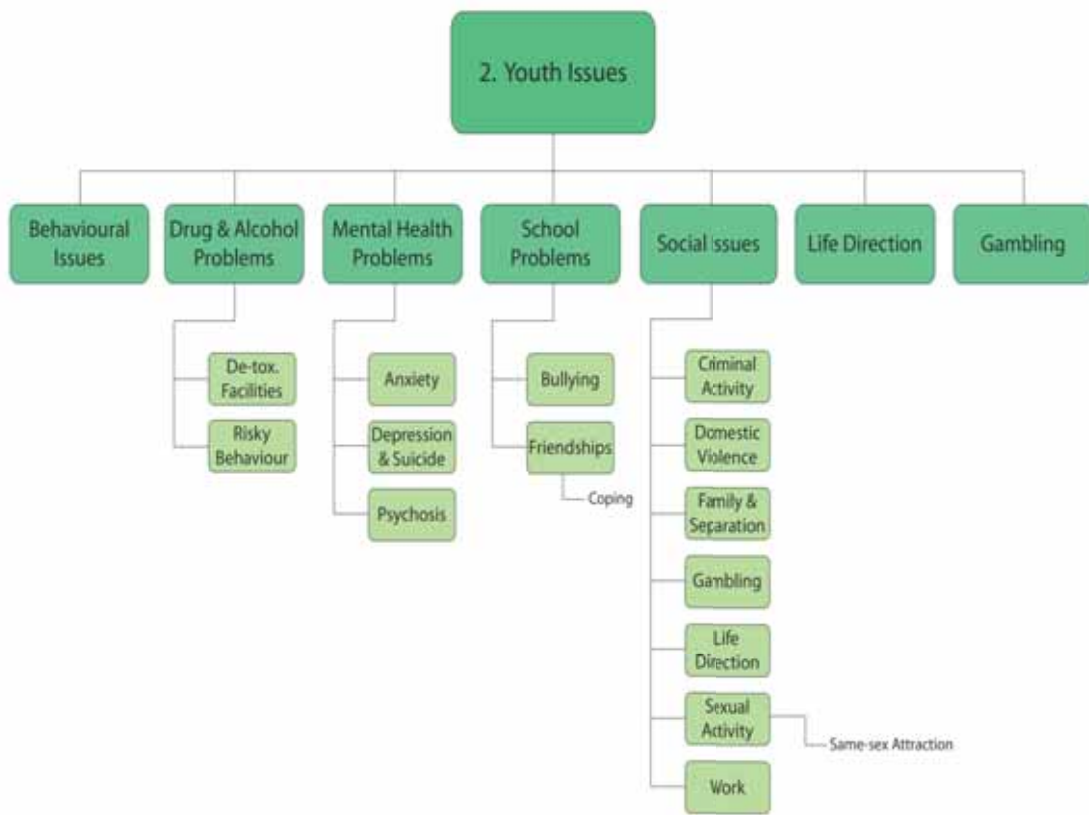
Of particular concern to service providers in one of the four towns was the effect a popular TV program had on a group of adolescent girls in their town. This particular TV program featured a popular female bisexual character who, service providers argued, seemed to glamourise same-sex attraction. Service providers were not sure if such TV shows aided adolescents in their sexual expression, or popularised or trivialised an important lifestyle decision.

'There has been a bit of a problem in [TOWN NAME]. I think with um, a particular female group that's been preying on others and that's been a concern...Kids say that a lot of that, from their perspective it all started from, funny enough, a TV show called [TV SHOW NAME] where they felt that there was a character...a female character who was bisexual...and that became very attractive to these girls, and suddenly they decided they were bisexual. You know, and that was it. So without really even understanding their sexuality, or...you know, 'it looks cool on TV, I think I'll become bisexual'.
(FG3SP04, Student Counsellor, Lines 772-799).

Figure 9 describes the hierarchical structure of the overarching theme *Youth Issues* and includes the relevant sub-themes.

NB: To prevent overlap of material, not all sub-themes were discussed at length in the preceding section, only those sub-themes contributing most to the analysis.

Figure 9: Hierarchical structure of overarching theme 2.



3.3 Indigeneity

Definition:

Aspects of indigenous culture which impact upon the mental health of indigenous adolescents and their access/use of existing services.

Whilst a number of rural cultural factors were identified as potentially impacting on the mental health of adolescents generally, there were specific indigenous cultural factors considered important to the mental health of indigenous adolescents, and their ability to access services. Out of respect, it was thought best to keep these issues specifically identified as pertaining to indigenous culture, distinct. In particular, participants commented on the impact the difference between Indigenous and Western culture has on the therapeutic relationship between client and service provider. Often there were communication barriers which needed to be overcome.

The most significant difference identified was that:

*'Mental health within the indigenous community simply doesn't exist'
(FG2SP03, Manager (N.G.O.) Line 260-261).*

From the perspective of the service providers interviewed, it was considered a 'shame job' to be seen as having a mental health problem, let alone accessing help for one. Participants also suggested that the majority of mental health problems experienced by the indigenous adolescents they consulted with were the result of grief and loss. In indigenous cultures of Australia, it is the practice that after someone in the community dies, they are no longer acknowledged and their name is not mentioned again. Consequently, cumulative effects of grief and loss were passed on generationally:

'The thing that I see with a lot of those families...is that because they've never dealt with their grief and loss, they've not thought that "well I'm grieving, but I'm neglecting to look at what my kids are feeling", you know? And it just goes on and on. But we're older people; we've got a bit more life skills than them. They don't know what they're feeling, and this isn't...it's not a Band Aid treatment you know, that you can give to anyone. I say to my kids you know, "when you lose someone you carry them in here"' [pointing to chest].

(FGISP03, Aboriginal Health Worker, Lines 853-864).

Of particular concern to the service providers in the present study was the lack of mental health staff who had specific training in providing care to indigenous community members. Added to this the lack of indigenous-specific health services caused great disappointment. According to I2SP10, a mental health academic, the lack of indigenous-specific services and training in South Australia is largely due once again to a lack of understanding of indigenous culture.

'Fundamentally, it's about assessment. If an Aboriginal person here walks into mental health what are they going to do? They pull out the Western forms; they pull out the...fill out the bit of paper and see if you're a core client. If you're really, really unwell, we'll shoot you off to Adelaide to Glenside and then they'll re-assess you again with Western-type forms. They have no notion, no understanding, there's no liaison...All these things are just wrong'.

(I2SP10, Mental Health Academic, Lines 924-936).

I2SP10 argues that in providing care to the indigenous community, service providers would need to be deeply engaged in the culture, and provide services in a non-Western manner. He argues:

*'One of my dearest friends and colleagues is ah [NAME]. And he says...he's spent the last two or three years out on rural, remote communities...and he has consultations under a tree! He is deeply engaged in the culture of what they're doing. And I understand it. But he has a huge battle with his contemporaries'.
(I2SP10, Mental Health Academic, Lines 949-961).*

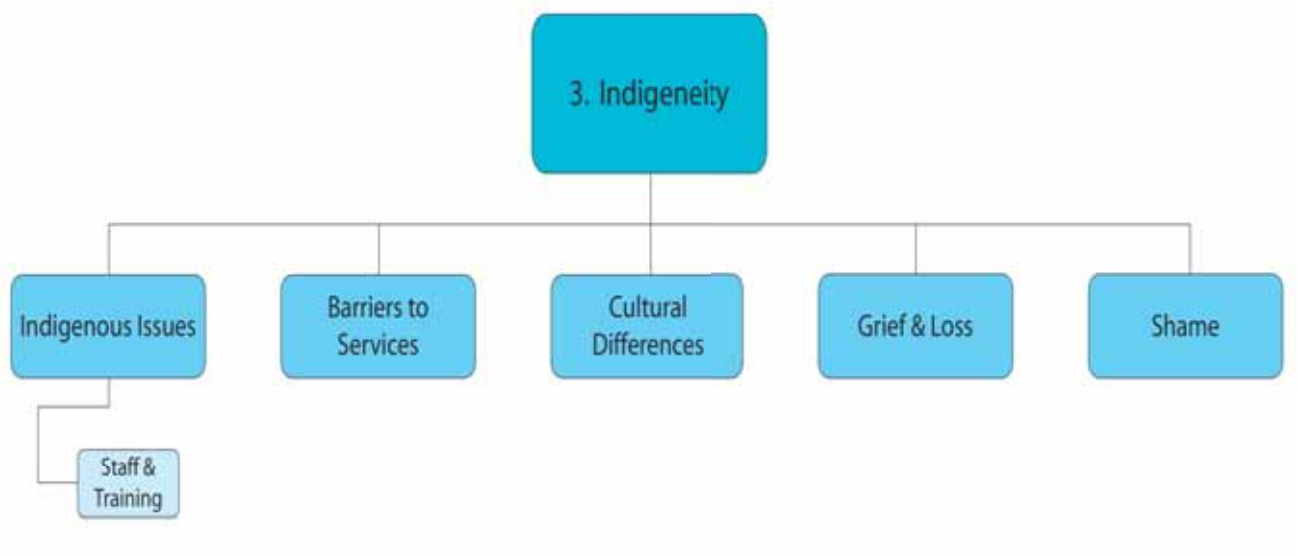
Currently in South Australia there is no training scheme that trains indigenous mental health staff. According to I2SP10 there is not much likelihood of developing such a scheme or policy.

*'I mean, where do you start? What are you going to say? Who do you want to train? Who would you like to train? General Practice? Don't be silly. No way. Nurses? No, don't be silly. So, where's the start? And this is the issue that I was...I'm reflecting on'.
(I2SP10, Mental Health Academic, Lines 969-985).*

Figure 10 provides an overview of the hierarchical structure of the overarching theme *Indigeneity*, including the sub-themes.

NB: To prevent overlap of material, not all sub-themes were discussed at length in the preceding section, only those sub-themes contributing most to the analysis.

Figure 10: Hierarchical structure of overarching theme 3.



3.4 Service Delivery and Utilisation

Definition:

This overarching theme describes factors identified which affect the appropriate delivery and utilisation of existing mental health services.

Sub-themes in this overarching theme included: financial barriers to accessing services, communication barriers, long waiting times, distance and travel factors (for consumers) and most importantly, bureaucracy and administration issues service providers encountered. Comments within this overarching theme were often contentious and invoked heated discussions during focus groups, when respondents held positions that were at odds with each other. In particular, participants held very strong opinions about the availability of training and up-skilling for rural staff. The biggest difficulty experienced was travelling to Adelaide to participate in training. This was often very difficult to do, due to the cost incurred and impact of extended time away from work. For already understaffed and overstretched mental health services, time away was unaffordable.

At times, service providers tried to organise for the training to take place with small groups of providers in their town, but this was not cost-effective for the training organisation:

*'They brought the training down here, and there was nine people attended the training, and then they rang me up the following week and said 'well, we need more than nine people' ...And when you think about the sort of professional group that we're in...I thought nine was a pretty good attendance. And then they don't want to come back...because they wanted fifteen, and so that's an issue'.
(FG4SP03, Manager (N.G.O.), Lines 1592-1604).*

As a consequence much frustration was experienced by participants who believed such organisations were out of touch with their rural staff:

'My title is a Student Counsellor and parents think you're a shrink or counsellor, but you know, I'm not. I have no training...and to get a week to go out and do training is...you might as well have asked for a year off! I know I'm under-skilled in this area, and training is not easy to get in a remote area. I think the people in head office are a bit delusional at times. I've just applied to do re-training in my teaching area as well, and they said, 'yes, we'll pay for it, three hours a night, Wednesday nights, for the next three years...in Adelaide. And that's their acceptable solution for that. They certainly don't make it accessible and they don't make it easy for rural areas...it just shows how much they don't understand.'

(FG2SP02, Student Counsellor, Lines 738-762).

In terms of service utilisation, participants often recognised the need for service providers to be more 'youth-friendly' and to try to establish rapport with adolescents, in order to enable them to feel comfortable enough to access help for their mental health problems. I1GP01 argues:

'Because their issues are often complex and because it's so important to build that relationship, if you get off on the wrong foot, or you don't have time, you may never see that young person again. Often you only have a small window of opportunity. If you're running late, or you may not seem as friendly or...or whatever. You often just get that one chance'.

(Lines 533-547).

Similarly, I2GP02 argues:

'The first, of the three most important principles for dealing with children and adolescents is...rapport. Second principle's rapport, and the third one is rapport too. At the first interview, I'm not particularly interested in doing anything else but establishing rapport with that adolescent'.

(Lines 209-216).

Service providers also indicated that in trying to build a relationship with their adolescent clients and establish rapport, they often had to find novel, indirect methods of interviewing. For example:

*'When I could not get kids to talk to me, I used to clean the stove. It didn't matter how nice and clean it was already, I used to make out I was cleaning the stove. And they would ask me questions and just talk to me and we would have a better relationship the next day. It's too confronting to just sit with them and say, "tell me about this"'.
(FG1SP04, Youth Worker, Lines 1448-1456).*

The physical set up of existing mental health services was also regarded as problematic, with waiting rooms or entrances of services deemed 'non-friendly' to youth. Participants noted that adolescents were very concerned about their confidentiality, and wary of reception staff or the visibility of waiting rooms to the general community. Participants stated that slight changes could be made to existing services to encourage youth to utilise them more:

*'When you go to the mental health unit, there's a great big note on the door and it says stop! Well, it shouldn't say stop. It should say welcome! But the sign on the door says, "Stop! Report to reception". So those are the simple, little things that people with mental illness don't want to know about it. A lot of it's got to be, "change the bloody sign". It will take you two minutes''
(I2SP10, Mental Health Academic, Lines 687-700).*

FG1SP09, a youth worker, suggests that an increase in adolescent utilisation of mental health services may be improved if service providers ‘start maybe changing the way they work, by going to young people’ (Line 515-516).

School counsellors indicated that it was highly important for service providers to try to engage with adolescents through the school environment, and increase their profile by getting involved with schools and school events. As suggested by FG3SP04:

‘If we’ve got them there, just come there once um....and, you know the kids will know who you are and that... just be involved in some of the school activities...we have a health week and things like that. Those sort of things really do make it you know, because you can say, “Remember, they came out”... “Did they? Oh, yeah!”
(FG3SP04, School Counsellor, Lines 1295-1302).

Service providers acknowledged the need to increase their involvement with youth in their community, and recognised that there local health services were lacking for this particular group. Using local resources, I1GP01 became involved with establishing an adolescent health clinic in his local community. He describes his experience below:

‘Looking at the way we set it up, it probably wasn’t ideal. It was on a Wednesday morning...you know, when some people would probably be at school, um I sat in an office there and waited for people to come to me. We involved the health workers, but at that stage they hadn’t really had any training in adolescent health. So, I put on a day’s training. But...it’s kind of fizzled out by this stage’.
(Lines 710-725).

This General Practitioner has since then become involved in an adolescent health clinic that operates directly out of the local secondary school. It has proved to be very successful in that many students now use this facility.

The service providers also argued that bureaucratic barriers put in place by the State health system prevented the successful delivery of mental health services to adolescents in their rural communities. They argued firstly, that the notion of ‘adolescent mental health’ itself was a ‘grey area’, compared to the well-defined ‘children’s’ and ‘adult’ health services. I2GP02 argues:

‘The thing is...the crazy arrangement of the State...zero to eighteen is child and adolescent, eighteen to sixty-five is adult...Over sixty-five is elderly So, if you have a seventy- year- old patient in rural areas, you’ve actually got to send them to Adelaide to [NAME WITHDRAWN] because the current service doesn’t deal with kids under eighteen, or with adults over sixty-five. Theoretically, it’s just a crazy system’.
(Lines 1304-1319).

Consequently, rural service providers discovered that it was often easier for adolescents to access appropriate mental health care once they had reached eighteen years of age. For example:

‘It’s really difficult for the under...the adolescent...under eighteen. Once they do hit eighteen it’s fine, because we can get them into that Rural and Remote system. But under eighteen (makes noise and gives thumb down sign)’.
(FG4SP02, Drug & Alcohol Counsellor, Lines 963-966).

Finally, service providers argued that the single-most important bureaucratic barrier which affected the appropriate delivery of adolescent mental health services in their communities was the ‘imposition’ of ‘city’ models of health. These, they argued, were not appropriate for their rural settings. I2GP02 describes his experience of approaching the State health department to collaborate with local health services in his community to develop a program for adolescents with mental health problems:

I went to Adelaide and said we have major problems over here. They said, how much money can you provide us and we will...we will do a research basis to find out what your problems are. I said, well hell, I know what the problems are.

People are killing themselves and we’ve got a whole group of kids who are out of control and we don’t have any help. And they said oh well, um...the answer will be, we’ll find a solution in the city and when we’ve found that...when we’ve found how to do it in the city we’ll apply that model to you.

That was...that was what I got from the bureaucracy and the academics and I thought, well...you know, unless I do it myself, it ain’t going to happen’.

(I2GP02, Lines 602-624).

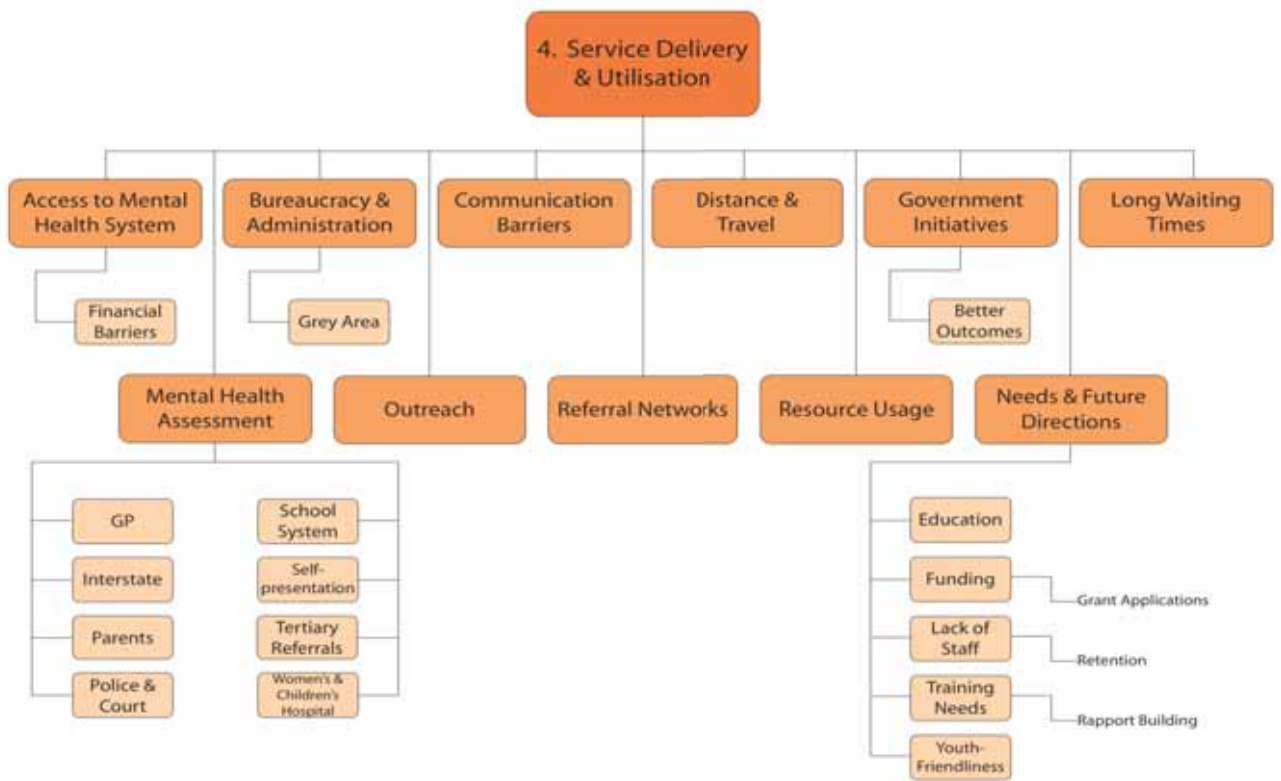
This recognition of the lack of understanding about these rural settings from the State health department was also reflected by service providers who were not General Practitioners:

*'I think the problem with services in the country is it's based on a city model. CAMHS works very well there, but when you translate it here...no. Currently, we provide a bit of a service to [TOWN NAME] and provide a bit to [TOWN NAME]...If we had a more generalist worker out there that was maybe getting support from the specialist services, it'd work better. Organisations get built up around the city culture where you get a quantity going through, whereas in the country, you know, you might...we might have five mental health clients in [TOWN NAME], you might have ten alcohol ones. We need to have a full-time worker that can deal with young people in a more generalist way'.
(FG4SP03, Social Worker, Lines 1253-1270).*

Figure 11 below describes the hierarchical structure for the overarching theme of *Service Delivery & Utilisation*.

NB: To prevent overlap of material, not all sub-themes were discussed at length in the preceding section, only those sub-themes contributing most to the analysis.

Figure 11: Hierarchical structure of overarching theme 4.



3.5 Occupational Factors

Definition:

Important factors which are related to the vocation of human service. These factors impact on the successful delivery of mental health services, and influence the individual experience of providing care to adolescents.

Some of the sub-themes in this overarching theme included: GP burden, confidentiality, perceptions of competence, time constraints and collaboration. During focus groups, several participants commented on the difficulties associated with keeping up with who was still working in their town and which services still operated. These difficulties often hampered their ability to refer to others and form effective relationships and collaborations with other local organisations. Participants also indicated a need for more local events where providers could network and new partnerships could be forged. FG1SP04, a youth worker, suggests:

'I think it would be valuable for me anyway, if some of us from our organisations, even if it was just twice a year, we didn't really have an agenda, but we'd need to have something to get us talking, and we could just talk and get as many people as we can. I'm still finding out services here that I didn't know, and I've been doing this job for eight years now. It's embarrassing. I want to find out more. I know there's probably something more out there that I can use for my clients.'
(Lines 1387-1393).

Related to this comment was the issue of use of resources. Resources were defined as the physical supports service providers could draw upon when needed, and included extra staff, equipment and facilities, and financial assistance.

The issue of financial assistance was particularly contentious during focus groups, with participants adopting one of two views: firstly, there was a clear need for more financial assistance to improve the performance of existing services; or secondly, that financial assistance was not necessary but that current resources had to be better managed. I1GP01 holds the former view:

*'From a funding point of view, money's running out. We've got very small grants. The majority of what we do is just people's generosity and time. We've been surviving off...really just crumbs of money which last a few months, and then run out. There's no sustained funding'.
(Lines 497-502).*

I2SP10, a mental health academic, thought differently:

*'You know, for ten years, we've been screaming at the government to supply money. It's not all the case. It just isn't the case. The money we have must be better managed, and we've got to get more staff training, up-skilling current mental health workers, up-skilling nurses. We've got to talk about things that...that don't cost anything. I am not convinced that we just need to throw more money at resources'.
(Lines 325-332).*

One of the most important issues concerning the vocation of human service involved the time constraints and burden experienced by the participants. Service providers' caseloads were often described as being unmanageable, and prevented them from engaging in educational and health promotion activities with the youth in their communities. FG3SP06, a youth worker, states:

*'We don't do a lot of promotion because we don't have time. We physically don't have the time to get out of the office and away from the client work. I mean, ah, all of us have a much larger caseload than would be recommended for the amount of time that we're at work...Um and there's a waiting list that I don't even want to talk about because it is just so horrific'.
(Lines 1343-1354).*

Indeed the waiting list of adolescents for mental health services ranged from between three to six months at the time of interview, and varied with each town. On many occasions service providers had to prioritise their clients, with ‘non-urgent’ cases moved further down the list. This great need for mental health care often resulted in the General Practitioner being required to provide care:

‘I feel bad being put in that position. Because I think in a rural area it’s the same as everything. Because nobody is going to stand up and provide the services so the GP is usually – and that’s true of a lot of things. I think the major issue is GPs. That’s been identified in this area, that there’s not enough mental health workers are available during peak periods. You can identify the periods in the week which are going to be more of a problem and in some of those periods there’s no mental health resource available at all. It’s just left to the GPs to provide the service’.

(110GP04, Lines 194-207).

While it was acknowledged by all participants that General Practitioners provided a great deal of mental health care in their rural communities, and were often perceived to be the ‘first port of call’ for mental health problems, concerns were raised about the level of mental health training they had received. Four of the eight GPs interviewed participated in formal psychiatric training as part of their postgraduate medical training. Despite this, all GPs interviewed felt they were personally competent in being able to treat adolescents who present with mental health problems. For example:

‘I suppose I’ve had not a great deal but a limited amount of education on it – not a great deal at all. I know I haven’t developed my own technique. I feel comfortable [consulting with mental health patients] to a point. And really, the mental health services are only interested in the top end...of the more psychiatric illnesses, and the rest has to be dealt with in our practice.

(110GP04, Lines 194-207).

At the time of interview, GPs were aware of a federal government initiative offering mental health (psychological) training to General Practitioners, known as the *Better Outcomes in Mental Health Care Initiative*. This initiative enabled them to participate in two training sessions from which they could then refer their mental health patients to allied health professionals who deliver focused psychological strategies. These patients were then able to obtain up to 12 sessions with an allied health professional at no cost to them, with the General Practitioner being reimbursed by Medicare for each referral to this program. Some contention about the success of this initiative was evident, with some GPs arguing it was very well received:

'Because of the new mental health initiative, many GPs have been persuaded to go back and do mental health training. I could actually give you those figures if you want them, because I've probably got them somewhere, of the number of GPs who have done level one training, which is just six hours of basic anxiety and depression understanding and then another group have done psychological training.

Now, the people who have most taken up the training, are RRMA three to six, the ah...country towns of probably less than ten thousand people. They have the biggest uptake and I think that's because these GPs were dealing with mental health problems, so they're really going to want to learn it.

Now the reason for doing that training was, in fact... to theoretically earn more money through the government, but in actual fact...nobody charged the numbers, which indicates to me the GPs were hungry for the knowledge'.

(I2GP02, Lines1153-1185).

A mental health academic, however, does not believe that the Better Outcomes initiative was successful, arguing that the federal government needs to look at restructuring the health care system so that GPs and allied health professionals can work alongside each other. Some GPs do not want the burden of providing mental health care:

'No they're not well trained, not at all. I'll quote off the top of my head now. The Better Outcomes training session was, I think, a two-day workshop of which... I think, seventeen per cent of GPs took up. The phase two part, to qualify for the actual Medicare bonus, if they saw anybody in mental health, they were qualified to do this, was about three per cent.

So, they never came back. Why? Because a Band-Aid's easier, or a broken hip is easier. All these things are easier. And less time consuming. So, I think the answer with that is about allied health working inside General Practice. This is a huge national thrust we have. We're going to put psychologists, social workers, OTs, all these people inside this notion of GP Plus, that's why it's called GP Plus.

We are finally recognising the fact that GPs are not going to and cannot and don't want to do all that work as well.

(I2SP10, Mental Health Academic, Lines 584-614).

Generally the service providers interviewed indicated that the only way the burden they experienced could be reduced, would be to employ more mental health staff to service their areas. If this were to occur the benefits would be two-fold because an increase in staff would benefit the adolescents. In short, it would give them more choice.

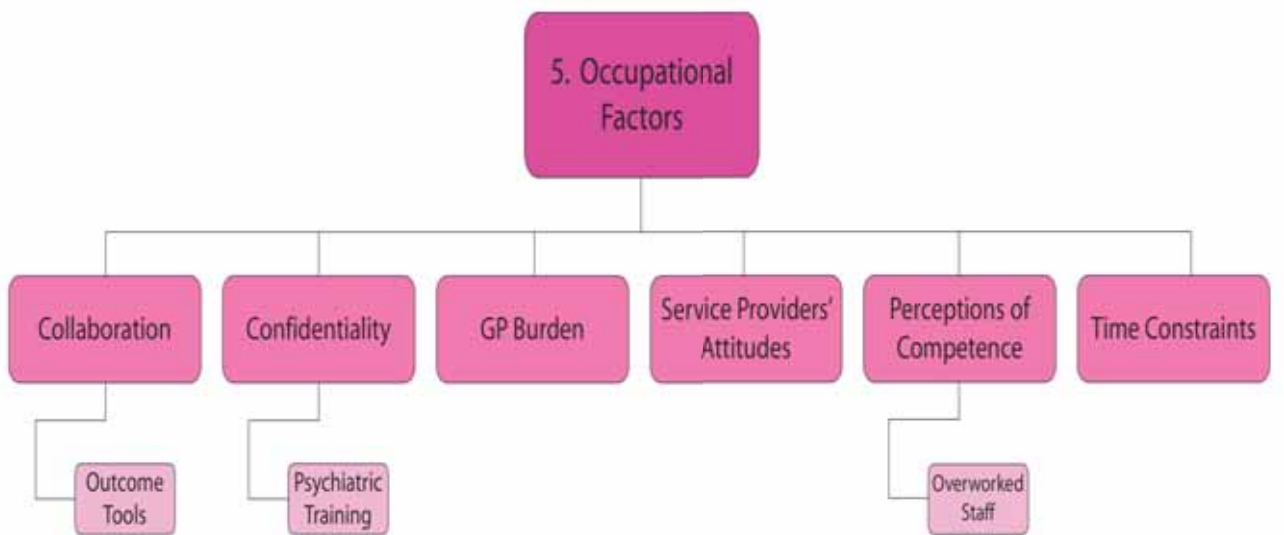
Service providers often felt that adolescents may not be seeking or continuing with their mental care because they may not like existing staff available. The following quote describes this situation:

'If we all tried to counsel with somebody in this room there might be one person who clicks with us. But there's not very many choices in this room. You get a couple of choices and that's it. Sometimes I click with a kid and make time to talk to them, but what about the other kids I don't click with? Where do I put them? Where do they get their counselling?'
(FG1SP04, Youth Worker, Lines 583-592).

Figure 12 describes the hierarchical structure of the overarching theme *Occupational Factors*.

NB: To prevent overlap of material, not all sub-themes were discussed at length in the preceding section, only those sub-themes contributing most to the analysis.

Figure 12: Hierarchical structure of overarching theme 5.



4. Discussion

This study aimed to address the question of what human service providers working in rural areas of South Australia thought were the mental health needs of adolescents in their area. After conducting focus groups and individual interviews with a variety of practicing human service providers, it emerged that significant mental health problems were being identified by the participants of this study. Furthermore they perceived significant gaps existing in current mental health services in their communities.

4.1 Mental health problems amongst rural South Australian adolescents

Human service providers agreed that the major mental health problems experienced by adolescents in their area included major depression, anxiety disorders, self-harming behaviour and suicide, and drug and alcohol abuse/dependency. These observations are not surprising because they reinforce what the existing literature states, in that rural adolescents face an increased risk of the above conditions, especially suicide (ABS, 2004; Angold et al., 2002; Fergusson & Woodward, 2002; Puskar et al., 1993). Suicide during adolescence is documented as the most common cause of traumatic death in Australia (Dudley et al., 1997). Anderson et al. (2004) concluded in their study of 1,000 year ten students that those from rural areas were significantly more likely to endorse suicidal ideation than their metropolitan counterparts, and that this was consistent across both genders. Prior research has suggested that young males (aged 15-24 years) living in rural communities are particularly at risk of suicide, with figures indicating that suicide rates in towns with populations exceeding 4,000 increased four-fold, while rates in towns with populations under 4,000 increased 12-fold (Dudley et al., 1997). Considering that the rural towns sampled here comprised three 'small' regional centres and one 'large' regional centre, this study confirms that suicide is a critical issue for adolescents in regional and rural Australia.

Human service providers were observing male adolescents choosing more overt means of suicide than their female peers, which has also been reported in the literature. It emerged that firearms and hangings were the top two methods of suicide for males, with poisoning being described as the preferred method for females (Dudley et al., 1997).

4.2 Drug and alcohol use

Drug and alcohol abuse/dependency was also considered by human service providers in this study to be critical, particularly the co-morbidity of drug and alcohol dependency with mental health problems. The National Rural Health Strategy has suggested that this particular co-morbidity is more acute in rural locations (Australian Health Ministers Conference, 1994; Barnes & Rudge, 2003). Anderson et al. (2004) found that the rural adolescents in their study tended to consume more alcoholic drinks and more marijuana than their urban peers. They argue this may relate to the limited opportunities for organised entertainment in small rural communities, where a single hotel or pub becomes the 'focal point' for social interaction, compared to metropolitan areas where there is simply 'more to do'. While this finding is pertinent to the current study, the perception of human service providers was that alcohol use is now a serious health issue for many female adolescents. This finding reflects changing social norms in Australia generally, and rural and regional Australia specifically, where rural cultures were often perceived as distinctly 'masculine', and where alcohol consumption was regarded as one of the hallmarks of adulthood, particularly amongst men in farming communities (Anderson et al., 2004; Dunn, 1996; Fuller et al., 2000; Griffiths, 1996).

4.3 Barriers faced by adolescents

Participants in this study argued that rural adolescents faced particular barriers preventing them from accessing mental health services. Aside from the obvious barrier of distance and the associated financial burden, other challenges including social ones were regarded as significant, with the biggest non-physical problem preventing adolescents from accessing local mental health services being stigma. The effects of stigma are very well documented in prior research. A recent study investigating mental health literacy amongst 3,000 South Australian residents found that whilst there had been an increase in mental health literacy generally, especially in regards to depression, results also indicated a lack of significant change in psychiatrists and/or psychologists being perceived as therapists of choice in depression management (Goldney et al., 2005). This finding is particularly noteworthy, as it questions whether increased mental health literacy has actually done anything to curb the social stigma associated with mental health morbidity.

As a consequence of these barriers, participants felt that not enough adolescents were accessing care, and that more could be done to make services ‘youth-friendly’ and more accessible. Others have reported that only one quarter of adolescents who are suffering a mental disorder actually seek assistance from a health service (Department of Health & Ageing, 2005). As many as three quarters of adolescents with a mental disorder do not receive any form of treatment (Boyd et al., 2006). According to the participants in this study the organisation and manner in which existing services were delivered were regarded as factors that are amenable to change in order to encourage adolescents to utilise existing mental health services. Prior research has also suggested this, indicating that the physical nature of health services can have a negative impact on a young person and the sense of safety they require to access help (Boyd et al., 2006).

Studies have found that adolescents may feel intimidated by a formal clinical setting, waiting room and appointment booking procedures, and when coupled with a perceived lack of sensitivity by reception staff, many adolescents forego receiving professional help (Boyd et al., 2006; Kang & Chown, 2004).

Service providers in this study were acutely aware of this, indicating that friendly staff and accessible, discrete services were highly desirable for young people in the rural areas they serviced. This was initially suggested by Griffiths (1996) who argued that due to the sparsely populated nature of rural settings, social isolation and lack of privacy/anonymity (compared with metropolitan services); rural residents may be discouraged from seeking help.

4.4 The importance of ‘informal’ mental health service providers

A strength of this study was the inclusion of ‘informal’ mental health service providers as participants. This allowed for a deeper insight into their role in the rural community, and investigated the perceptions they held toward the mental health needs of adolescents in their geographic area. An analysis of the interviews with these individuals revealed that informal providers are providing a significant level of mental health care to rural adolescents, especially for depression, drug and alcohol abuse/dependency and social issues concerning interpersonal relationships. This involvement stems largely from the unmet needs of adolescents from formal/specialist sources of care. Formal child and adolescent mental health services in some towns had waiting lists of up to six months. For adolescents grappling with a mental health problem, six months is often far too long to wait to receive help and may in fact be too late. Griffiths (1996) argues that whilst the mental health expertise of informal providers may be limited, these individuals often find themselves being the first port of call for emotional support during difficult times.

Also, because of the high degree of stigma associated with mental health morbidity in the geographical area covered in this study, it could be that rural residents, especially adolescents, may feel more comfortable visiting an ‘informal’/ ‘generalist’ health provider, rather than a ‘formal’ service provider.

This was a very strong finding in the study by Fuller et al. (2000), who argued that adults residing in rural communities in South Australia’s northern and western areas were far happier to use sources of care that did not have a ‘mental health’ label attached to them. These included, for example, rural financial counsellors or religious ministers.

4.5 The overstretched nature of South Australian mental health services

The fact that South Australian mental health services are currently overstretched and understaffed is well recognised by the State government, with new policies being recently put in place to try to address this deficit and improve residents’ mental health (South Australian Department of Human Services, 2001). However, it was not surprising to the researchers to learn that some South Australian residents were being referred to mental health services in neighbouring Victoria and more specifically, the Greater Green Triangle region. While it is important to acknowledge that it is easier for residents of parts of south-eastern South Australia to cross the border and travel a shorter distance to Victoria (rather than Adelaide) to access their mental health care, it should be noted that if existing South Australian mental health resources were increased (i.e. more outreach services) or perhaps organised differently (i.e. better local staff integration), these people may not be required to travel such distances. Furthermore, discussions with the three Victorian human service providers who were providing mental health care to South Australian residents at the time of this study, revealed a sense of unease and dissatisfaction.

Not only did these additional referrals increase the burden of their workload, they also presented them with the difficulty of trying to keep track of which human service providers their South Australian clients had seen, as they were obviously more familiar with the organisation and capabilities of the Victorian health care system. The impact that this shuffling around between services between States has on continuity of care for mental health clients needs to be considered.

4.6 The role of the General Practitioner in providing mental health care to adolescents

Despite the fact that the General Practitioner has been cited as the major mental health care provider to rural residents, the results arrived at in this study indicated that only three of the eight GPs interviewed actually provided mental health care to a significant number of adolescents in their area. Such a finding is surprising, considering that participants perceived that significant numbers of adolescents in their towns were experiencing mental health problems.

Prior studies have suggested that some adolescents do not visit their GP for fears that their confidentiality may not be maintained; that their GP may disclose their problem to their parents (Kang & Chown, 2004). Other studies have suggested that adolescents may be fearful that their GP may be unsympathetic towards them, or hold an authoritarian attitude. Early research into GP perceptions of barriers young people face in accessing care, has indicated that both urban and rural GPs are indeed aware of these barriers (Veit et al., 1995). However, Veit et al. (1996) have also indicated that confidentiality barriers, especially in reference to accessing specialist mental health care, was more pronounced in rural settings. Further research is needed, however, to determine if these explain this paucity in GP visits for mental health concerns in the rural settings described in this study.

Also noteworthy is the fact that when GPs were asked to comment on the impact a rural lifestyle may have on rural adolescents' mental health, they tended to identify positive, protective factors of rural communities, such as a greater sense of community, closer friendships and an increase in physical activity due to the strong emphasis placed on sport. This 'optimism' leads to questions about the ability of GPs to recognise potential social problems faced by young people in their communities, and this impacts on their ability to establish good relationships and provide effective care to their adolescent patients who may have mental health problems.

4.7 Study limitations

This study involved qualitative interviews with a small, self-selected group of human service providers working in rural communities in South Australia. Whilst this group provided outreach to a wide geographical area, further research is needed to determine if the views expressed can be generalised to more remote locations. In addition only a small number of GPs were able to be recruited. As the gatekeeper to many mental health services, particularly for more severe mental health conditions, it would have been advantageous to collect data from a larger group of GPs. Of those who did participate, there were strong concerns about their confidentiality being maintained, which is understandable considering that GPs in these towns could be easily identified. It is unfortunate that all GPs recruited were male. It would have been beneficial to the study to have female GPs represented. Three female GPs were invited to participate in the study but they declined due to work commitments or lack of interest.

One potential limitation of the study could relate to the impact the research student herself may have had on the participants, and the information divulged by them. While every effort was made to ensure that focus group and face-to-face interview participants felt comfortable enough to share their thoughts and opinions, she could nonetheless have inadvertently prevented this. Participants may have perceived her as an ‘outsider’. The research student was some 20-30 years younger than the vast majority of participants recruited and neither was she a member of their local community. Instead, she was from the ‘the city’. Considering that service providers operated in small communities where they were probably already known to each other and were members of the ‘rural culture’, this is possible. These two differences may have prevented the participants from feeling as though they could connect with the interviewer, let alone feel understood by her. The research student did go to great efforts to try to connect with each participant, by introducing herself, describing her own rural background, and importantly, remembering each participant’s name and using verbal and non-verbal forms of encouragement.

Efforts made to increase participants’ comfort levels included the strategic selection of venues for focus groups and face-to-face interviews. All focus groups were conducted in ‘neutral’ settings, places in their local towns where no particular organisation was explicitly represented or supported. Such venues removed the possibility of ‘ownership’ or ‘power’ struggles amongst the participants. Face-to-face interviews were always conducted in venues chosen by the participants - usually their place of employment or a convenient public place to meet, such as a café.

One potential criticism that could be made of this study is the using multiple methods of data collection – that is, focus groups, face-to-face interviews and telephone interviews.

While some may argue that this may introduce a slight limitation into the research design, it does not detract from the central purpose - to understand participants' perceptions of adolescent mental health needs in their communities. Rather, it can be argued that these multiple methods of data collection allowed for *between-method* triangulation of data to occur and was therefore a strength, rather than a weakness of the study (Denzin, 1970; Thurmond, 2001).

4.8 Study strengths

Considering that few studies have focused on adolescent mental health needs, and no research has been undertaken in South Australia that concentrates specifically on *rural* adolescent mental health needs, this study provides a significant contribution. It not only provides: (i) an overview of what mental health needs are perceived, (ii) an insight into the experience of providing care for this group of individuals, but also offers (iii) some recommendations to try to improve existing services. These types of findings could not have emerged from a quantitative research methodology.

The exploratory nature of this study justified the use of the semi-structured interview technique. Questions were used merely as a 'guide' or 'trigger' to allow participants to speak freely and openly about the research topics. This allowed the research student to gain an insight into the participants' experiences, and the meanings they attached to particular events and situations. While it is reasonable to argue that semi-structured questions often result in information being collected that is 'off-topic' and may not be of particular relevance to the central research question, the richness of the data collected is of great value. The 'unstructured' nature of the interview questions allowed for the stimulation of discussion and debate during focus groups. This gave the research student an opportunity to observe the interaction of group members, and take note of specific topic areas causing tension within the group.

A quantitative approach utilising a questionnaire would have been much easier for the research student to organise. However, considering the fact that the research student was concerned with examining the experience of providing care and shared understandings, a quantitative approach would simply not have been appropriate.

In addition to the richness of information collected during focus groups and interviews, the research student was also exposed to the 'culture' of each town and due to physically travelling to each one, could observe the physical characteristics and landscape of each.

5. Conclusion

This study identified the mental health issues perceived to be most important to formal and informal human service providers in four rural centres in South Australia. The most common mental health problems seen by these human service providers included depression, anxiety disorders, self-harming behaviour and suicide, and drug and alcohol abuse/dependency. On completion of this investigation, it became apparent that there were significant gaps in the manner in which current mental health services are being delivered to adolescents. Not only was there a shortage of mental health staff currently available to service this region, but of the existing staff, most had taken on a caseload they found difficult to manage. Service providers were frustrated by the delivery of local mental health services, and felt burnt out and overburdened. This undoubtedly will have an effect not only on their physical abilities to provide care, but also on the quality of care received by adolescents. The human service providers also identified particular barriers or problems adolescents face in accessing their mental health care, including physical and social impediments.

While this study provided an insight into the current situation of adolescent mental health care in rural South Australia, it is evident that more work must be done to reduce the burden experienced by current staff and to improve the availability and accessibility of services for adolescents.

6. Recommendations

In light of the findings generated by this study, the following recommendations for successful adolescent mental health service delivery have been developed:

① *Engaging with young people:*

Participants in this study indicated that service providers needed to do more to engage with young people initially, even if this meant trying out novel ideas and utilising non-traditional methods of care.

② *Establishing rapport:*

Building rapport with adolescent clients was deemed essential, due to the small window of opportunity service providers often had to work with.

③ *Changing the layout of services to make them ‘youth-friendly’:*

Not only does the physical appearance and layout of existing mental health services prevent adolescents from accessing care, but also the way in which services are delivered. Currently, mental health staff are waiting for adolescents to come and see them. Rather, mental health services need to be seeking the adolescents and increasing their public profile to present as being ‘youth friendly’ i.e. increasing their presence within schools, local community events. This may mean adopting more of a Primary Health Care approach to service delivery, and seeking to address the root cause of health problems, such as social problems, within local communities.

④ *An increase in mental health staff:*

As already indicated, there is a need for more rural mental health staff. The high turnover and poor retention of existing staff leaves adolescents with few local options.

⑤ *Increasing collaboration and networking events between existing service providers:*

Due to high staff turnover, it is often difficult for service providers to keep up with who is providing what service. Therefore, regular local mental health networking events should be considered as very important to maintaining good links, so that collaboration between existing services can be facilitated. It will also to prevent any overlap.

CHAPTER 4

THE MENTAL HEALTH NEEDS OF RURAL SOUTH AUSTRALIAN ADOLESCENTS FROM THEIR PERSPECTIVE

1. Introduction

This chapter describes the findings of a study conducted to establish what mental health needs exist amongst adolescents in rural communities in South Australia, according to the adolescents who reside in them. The chapter will outline the rationale behind conducting this study, the methodology employed, data collected, and conclusions and recommendations made by the adolescents regarding to how existing mental health services can be improved to encourage access and service utilisation in the future.

Background

Many studies have been published both nationally and internationally on adolescent mental health needs. This research has often involved the recruitment of mental health professionals to discuss and shed light on the adolescent mental health problems they have identified (Andrews & Wilkinson, 2002; Burns et al., 2004; Hayhoe & Fuller, 1999; Marron, 2002). This is similar to Study 1 which involved 38 human service providers working in townships in rural South Australia, and sought to provide an overview of the adolescent mental health problems they currently provide care for.

However, whilst these studies have been very informative, it is somewhat unfortunate that few studies exist which incorporate adolescents as participants speaking about their mental health problems and health service needs.

When this study was conceptualised much research had been done involving adults as participants and more recently, studies investigating mental health literacy across various age groups of South Australians did exist (Fisher & Goldney, 2003; Goldney et al., 2007a, 2007b; Jorm et al., 1997). Goldney et al. (2009) published a paper tracking the depression-related mental health literacy of South Australians from 1998 to 2008, and found that generally, improvements in depression-related mental health literacy occurred.

Interestingly, Goldney et al. (2009) found that the percentage of people with 'high' mental health literacy who resided in *rural* areas increased significantly between 1998 and 2004, and again in 2008. Rural participants had previously demonstrated lower mental health literacy than their metropolitan counterparts in 2004. According to Goldney et al. (2009), the recent observation of a significant increase in 'high' mental health literacy individuals in rural areas could be attributed to recent government mental health initiatives for rural South Australia. Media campaigns announced funding increases of between \$2.2 million and \$10.1 million to assist inhabitants of drought-devastated areas cope with drought-related emotional effects and encourage help-seeking.

In considering adolescents specifically, a recent project entitled 'Getting Through', conducted by the Youth Affairs Council of South Australia briefly consulted with adolescents about ways to respond to young people's mental health issues and improve existing mental health services (YACSA, 2006). Whilst some useful recommendations were made in this report and it included the opinions of adolescents, it did not provide information about adolescent mental health needs in *rural* South Australia. At the time this study was conceptualised, very little research existed that focused solely upon the needs of *rural* adolescents in South Australia. For this reason, the study was developed – to investigate what mental health needs exist but to include only rural, South Australian, adolescents as participants and provide them with a 'voice'.

Contribution of the present study

The goal of this study was to: 1) investigate the perceptions rural South Australian adolescents have about the mental health needs existing in their communities; and 2) find out how they perceive the availability and accessibility of existing mental health services in their communities. This study builds upon the findings of Study 1 which involved human service providers who currently provide care for adolescents in rural communities of South Australia with mental health problems. The current study sought to broaden the previous investigation and sample the adolescents who access these local health services in question. Previous South Australian research about young people's mental health needs in rural areas has neglected to include them as participants. This study will contribute to existing knowledge in the area of rural adolescent mental health needs by providing adolescents with a 'voice' and informing the direction of the next two proposed studies in this overall project.

The following research questions were addressed:

- 1. What perceptions do adolescents residing in rural South Australia have about the mental health problems experienced by their peers?*
- 2. What opinions do they hold about the availability and accessibility of local mental health services?*

The study had the following objectives:

- To gain an insight into the experience of 'rurality' and its influence on mental health;
- To investigate how adolescents in rural South Australia perceive the quality of existing mental health services;

- To ascertain the types of health and community/support services young people would like to see in their communities; and
- To develop an understanding of the recognition and knowledge young people have of mental illness/mental health.

2. Method

Study Design

A qualitative study design was utilised and all data were collected via face-to-face focus group discussions, with small groups of adolescents who attended rural secondary schools in South Australia. Focus groups have become increasingly popular in health services research, and it is now widely recognised that the interaction between group members helps not only to generate large amounts of data in relatively short periods of time, but also allows for 'rich' data to be collected (Rabiee, 1999, 2004). Finch and Lewis (2003) describe the process of focus group participation with participants initially presenting their views and experience, listening and reflecting on what has been said by others, with additional material then being triggered in response to what they have heard from others. Additionally, focus group members can comment on what other members have said and ask for clarification where required. Thus, focus groups have been described as synergistic (Stewart & Shamdasani, 1990), where the group works together and this interaction between members drives and generates the data that is collected.

Many researchers including Thomas et al. (1995) argue that focus group participants should not know each other prior to the focus group taking place as this may introduce an element of group bias to the data collected. However, other researchers such as Krueger and Casey (2000) and Kitzinger (1994, 1995) argue that focus groups work best when the group is fairly homogenous.

Krueger (1994) suggests that focus group members should possess similar characteristics, i.e. gender, age, ethnic background and socio-economic status. Indeed, the latter stance has been adopted here. Considering that this study aimed to understand adolescents' perspectives about mental health needs in rural communities, it was thought necessary to consult with their adolescent populations. Also, because the majority of towns of interest were rural communities with a RRMA classification of 3, with populations of less than twenty-five thousand (as described in Chapter 3), it is possible that the adolescents involved in this study would be known to each other. Due to the sensitive nature of mental health issues to the South Australian community at large, it was considered very important to emphasise the homogeneity of group members, in order to ease any qualms potential participants may have had about talking about this sensitive community issue.

With these considerations in mind it was decided that adolescent participants from the same year level, and same school, within each town, would be sampled for each focus group discussion. The towns to be sampled included those used in Study 1.

Ethical Considerations

Because adolescents were being sampled from both government and non-government secondary schools in South Australian rural communities, ethics approval was conditional upon meeting the requirements of three different ethics committees: The University of Adelaide's Human Research Ethics Committee (HREC), the Department of Education and Children's Services South Australia (DECS SA) and Catholic Education South Australia. After a lengthy application process (see Chapter 2), ethics approval was received in October of 2007 (approval number H-056-2007).

Participation in the study was voluntary with informed consent not only being sought from the participants themselves, but also their parents/guardians as the majority of the adolescents were less than eighteen years old at the time of recruitment (Appendix C). Each focus group participant was assigned an ID number to protect their privacy. Copies of the data collected, including audio files of the digital recordings and transcriptions were securely stored electronically on the Discipline of General Practice server at The University of Adelaide, with access restricted via password. Finally, hard copies of the transcribed recordings were stored under lock and key in the Discipline of General Practice's offices.

Sample

Participants

Initially, one focus group discussion per secondary school in each rural town was planned for this study: Port Lincoln (n = 2), Port Augusta (n = 1), Whyalla (n = 3) and Loxton (n = 1). This would have resulted in seven focus group discussions. In total eight focus group discussions were conducted, with two focus groups occurring at the same school in Port Augusta. Each focus group discussion was attended by five to eight participants, in line with the optimal number of six to eight participants, as suggested by Morgan and Scannell (1998). Finally, each gender was equally represented with the same number of males and females recruited for each group. It was hoped that this would help to prevent any power imbalances occurring between group members. Two of the eight focus groups were single-gender groups consisting of Indigenous participants only.

In total, 44 adolescents aged between 15-19 years and enrolled in Years 10 or 11 at one of seven secondary schools in four rural townships were recruited. The townships had a RRMA classification of 4 (small rural centres; population 10,000-24,999), 3 (large rural centre; population 25,000 - 99,000) and 5 (other rural area, population <10,000) respectively.

Recruitment Strategy

Participants were recruited concurrently with an additional, quantitative questionnaire study which is discussed in Chapter 5. The recruitment process began in March 2008. Potential schools were identified from the Department of Education and Children's Services (see <http://www.decs.sa.gov.au/locs>) by searching via the geographical region of interest in the State.

Once the contact details were obtained the researcher contacted the Principal of each school via telephone or e-mail to discuss the study briefly and offer to send them some specific recruitment information via e-mail or post, if the Principal agreed. The researcher then contacted the Principals one week after providing them with the additional information to gauge whether or not they were willing for their school to participate in the study. Initially, ten schools were approached for participation in the current study, with eight subsequently agreeing to be involved.

Once the researcher had liaised with each Principal about having their school participate, it was necessary to establish how many students were in years 10, 11 and 12 at each school. Once this was done the researcher then mailed a recruitment package to the parents/guardians of each year 10-12 students at the nine secondary schools initially recruited to take part.

Each recruitment package contained information about the overall research project, a sample questionnaire proposed for Study 3 (discussed in Chapter 5) and a consent form. Parents/guardians were asked to indicate on the consent form whether or not they agreed for their child to take part in questionnaire completion, or a focus group discussion with their child's peers about mental health in their communities, or both (Appendix C). This consent form explicitly pointed out to parents that potential focus group participants would not be asked to discuss their own mental health status or personal struggles, but rather, participate in a group activity centred on a fictional character known as 'Alice'.

Throughout 2008 and early 2009, 2,610 recruitment information packages were mailed to parents of year 10, 11 and 12 students at eight schools in four rural communities. Unfortunately, despite this large pool of potential participants, very few responses were received after a three to six month response period for each school. (It should be noted here that nine schools were initially recruited to participate. One school withdrew its participation when it realised the sensitive nature of some of the items in the questionnaire utilised in Study 3). In an effort to recruit at least six to eight participants per school, the school Principal was contacted to discuss why the response to the focus groups/questionnaire had been so poor and to brainstorm another method of recruitment. Following discussion with the Principals a new recruitment strategy was developed, where Principals or Personal Development teachers would write to parents and nominate potential focus group participants and incorporate the focus groups to occur during school hours, such as in 'free periods' or Personal Development class times. School Principals preferred only year 10 and year 11 students to be involved in focus group participation, because the associated time away from coursework was considered inappropriate and too distracting for final year (12) students.

This method of ‘purposive’ sampling proved to be much more successful, with 44 participants being able to be recruited after their parents were directly written to by the school Principal or Personal Development teacher. Figure 13 illustrates the townships, schools and year levels where focus group participants were recruited from. It is also important to note that two focus group discussions contained only participants who were from an Indigenous background. In light of Study 1’s findings, it became apparent to the research team that specific issues emerged that were seen as distinct to this particular cultural group. Taking this into consideration it was felt necessary to conduct two separate Indigenous groups –one consisting of female participants only, the other including males only. This helped prevent any gender imbalances and empowered participants.

Selection and Exclusion Criteria

To be included in the study, participants needed to be: (a) currently enrolled in year 10, 11 or 12, at a secondary school in one of the five rural townships; (b) have their parents/guardians full consent to participate in the study if they were aged below 18 years of age; and (c) give their own full consent to participate in the study. There were no specific exclusion criteria, except that participants met all inclusion criteria.

Data Collection

Focus Groups & Vignette

A focus group was selected as the method of data collection because it allowed the researcher not only to become aware of many different points of view in one sitting, but also to observe how the groups of adolescents interacted with each other and influenced each other’s opinions. Considering that adolescents are also typically influenced by their peers, it was thought necessary to try and observe to what extent this would occur in discussions about the sensitive area of mental health.

Gillham (2005) argues that focus group participants tend to lead discussions themselves, as group members actively work together to steer the direction of their discussion. For this reason the researcher is at times able to sit back and observe the group, rather than direct the flow of conversation. Similarly, Gaskell (2000) argues that the focus group interview allows for: (i) a synergy to emerge out of the social interaction; (ii) an observation of the group process, attitude dynamics and opinion change and leadership; and (iii) emotional involvement not usually seen in one-on-one interviews. It has also been widely noted in past research that focus group discussions are particularly suited to exploratory research, or in early phases of multi-method research projects which precede and inform the development of future studies (Gillham, 2005).

Considering that the adolescent participants may have felt anxious about participating in a social research project, and that it may have been the first time they had been asked to take part in such an activity with someone from a university, an 'ice-breaking' task was developed by the research team. A vignette describing the experience of a fictional character, known as 'Alice', an adolescent who is struggling with depression and some family problems was developed. Participants were then asked to respond to a series of questions about 'Alice' and then answer some general questions about their communities. It was thought that employing the vignette would help the adolescents realise that the focus group discussion was not about them disclosing their own personal struggles or mental health issues. Instead it was based on their perceptions and opinions about a hypothetical situation. Below is the vignette and questions participants were asked to respond to during focus group discussions (Appendix D).

VIGNETTE

'Alice is 16 years old and lives in a small town in the country. A few weeks ago her dad lost his job and she had to change schools. Alice has been feeling very sad and lonely ever since. She is finding it hard to make friends at her new school, and her classmates think she is 'weird'. To make things worse, her old friends have not been including her in their plans lately, leaving her feeling left out.

Alice is having trouble getting to sleep at night, so she has been drinking alcohol and taking drugs to help her relax. She can't concentrate in class and seems to be getting in trouble a lot for not paying attention or forgetting to do her homework.

Alice has also lost her appetite and has been losing weight.

Since her dad lost his job, Alice's parents have been struggling to pay the bills and argue a lot about money. They have no idea about how Alice is feeling and haven't even asked her how she is settling in to her new school. Alice feels like no one cares about her, not even her family'.

QUESTIONS:

1. What do you think is wrong with Alice? (5 minutes)
2. Do you think Alice would feel comfortable to access help? Why/Why not? (5-10 minutes)
3. How common do you think this situation is for young people? (5 minutes)
4. What sort of problems do you think young people in your town are experiencing? (5 minutes)
5. If you knew of someone who was feeling very anxious or depressed and asked you where to go for help, where would you direct them? (5 minutes)

6. What do you think about your town? Things about your town that you like and dislike?
(10 minutes)
7. What sort of improvements (if any) do you think could be made for young people in your town? (5 minutes)
8. Do you feel that you are receiving enough information about mental health problems at school? (5 minutes)

All focus group discussions were facilitated by the researcher (MK), who travelled to each of the four rural townships and conducted the eight focus groups within school grounds. The focus groups were conducted between June 2008 and April 2009. Discussions were digitally audio-recorded and the audio file transcribed verbatim. Focus groups lasted between 41 and 57 minutes (see Table 8).

Table 8: Data collection summary.

Focus Group	Location	School ID	Date	Duration (mins/sec)
1	Whyalla	C	25/06/2008	57
2	Loxton	G	28/06/2008	49
3	Port Lincoln	B	26/08/2008	42
4	Port Lincoln	A	27/08/2008	41
5	Whyalla	D	17/09/2008	54
6	Whyalla	E	17/09/2008	52
7	Port Augusta	F1	07/04/2009	53
8	Port Augusta	F2	07/04/2009	41

Figure 13 describes the geographical spread of the schools. Please note that Mount Gambier appears on the map but no data was collected there because the school initially involved withdrew its participation. Instead a secondary school from Loxton was recruited.

Figure 13: Townships and schools visited.



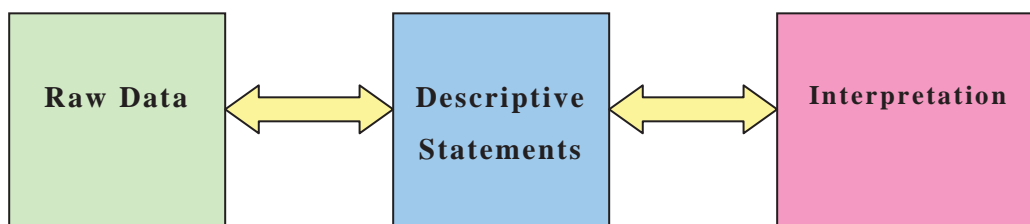
Data Analysis

Framework Analysis was used to guide the analysis of qualitative data. The 'Framework Analysis' method was developed in the United Kingdom in the 1980s at the National Centre for Social Research and is a matrix-based analytic method focussing on rigorous data management at all stages involved in creating a 'thematic hierarchy' (Pope, Ziebland & Mays, 2000). Framework analysis allows the researcher systematically to move back and forth between different levels of the hierarchical structure, whilst remaining distinctly connected to the 'raw' data of the transcripts.

As with traditional forms of 'thematic analysis', framework analysis builds on the hierarchical structure of the major themes and sub-themes in traditional 'thematic analysis'. Each major theme is assigned its own matrix, where every respondent is allocated a row and each sub-theme is allocated a column and text from the raw data can essentially be mapped or charted across the matrix (Calcraft, 2005). What results is a matrix detailing every participant's view about each sub-theme which is directly connected to the major theme. According to Spencer, Ritchie and O'Connor (2003), when Framework Analysis was initially developed and utilised, it was not uncommon for this process of charting to occur manually on large A3 sheets of paper. Today, however, it is possible to use computer programs such as Microsoft Word or qualitative data management software such as NVivo8 (QSR International Pty. Ltd., Australia) to create the matrices.

Krueger (1994) perceived qualitative analysis of focus groups to occur along a non-linear continuum ranging from the collection of the raw data to the interpretation (see Figure 14).

Figure 14: The qualitative analysis continuum.



The analysis of focus group data does not occur in a linear sequence because all these stages essentially overlap. Analysis occurs throughout the data collection process. Unlike quantitative investigations, where all of the analysis is undertaken once the raw data have been collected, qualitative analysis, especially where focus groups are concerned, is constantly being undertaken. The researcher is undertaking some form of analysis while collecting the data, i.e. they are facilitating the discussion which generates the raw data, they are taking notes and observing how personal meanings are created and influenced within the group setting. Furthermore they are typing the transcripts and making note of changes in voice tone, emotion, etc.

It is helpful to consider this principal of the 'qualitative analysis continuum' with reference to Framework Analysis particularly. Ritchie and Spencer (1994) describe Framework analysis as an analytical process which follows five distinct, yet highly interrelated stages. These will now be briefly discussed below.

The Five Stages of Framework Analysis (Ritchie, Spencer & O'Connor, 2008)

1. Familiarisation

In order to construct a thematic framework, it is necessary for the researcher to gain an overview of the data collected and become thoroughly familiar with the data set. While this step would appear to be obvious to any qualitative analysis, it is actually very important. Familiarisation is integral to building the foundation of the thematic structure, and determines the 'conceptual scaffolding' which occurs in later stages of the analysis. Ritchie et al. (2008) have written that: 'If the foundation is ill conceived, or incomplete, then at best it could jeopardise the integrity of the construction, or at worst bring the whole structure crashing to the ground' (p. 221). It is not necessary to include the entire data set in this familiarisation process. The researcher needs to consider carefully which data they are going to review and in doing this, needs to consider the proposal on which the research was based, paying particular attention to the research aims and objectives. The amount and extent of the familiarisation occurring depends on the analyst's involvement in the previous stages of the research. Generally, however, it should not occur until the diversity of the circumstances and characteristics in the data set have been understood. The outcome of this initial process is that the major themes making up the foundation of the analysis are realised.

2. Identifying a Thematic Framework

When reviewing the chosen material in the Familiarisation stage, the task is to identify the recurring themes or ideas that are apparent. These can be substantive, i.e. attitudes, behaviours, motivations, points of view; or methodological. This refers to the atmosphere of the interview or ease/difficulty associated with exploring particular issues in the focus group.

Drawing on *a priori* issues and questions derived from the aims and objectives of the study, as well as issues obtained from the respondents themselves, these recurring themes or ideas are listed. Once this initial list is generated it is necessary to construct a 'conceptual framework' or 'index'. Themes are then sorted and grouped together under broader, 'higher order' categories or 'major themes' and placed within an overall 'framework'. Once the index of 'major themes' and their lower order sub-themes is created, numerical values are assigned to themes to establish easily visible connections and to differentiate between categories.

The index which results at this stage is not permanent and is amenable to change during later stages of the Framework analysis. The function of the index during this early stage is to ensure conceptual clarity within the framework, that there are no obvious areas of overlap, and the no omissions have been made. An example of creating an initial thematic framework has been provided in Figure 15.

3. Indexing

Following the construction of the initial conceptual framework, it is necessary to apply it to the raw data. While this stage is being applied the theme or concept that is being mentioned or referred to in the raw data is tied to the 'conceptual framework' numerically. This is similar to the way that a subject index in the back of a book works. During this stage, it is not uncommon for many different themes to be indexed in close proximity within transcripts. It is likely that the preliminary index may need to be redeveloped or refined after initial application. It may be that omissions have been made and more categories may need to be added, or that other categories may need to be subdivided following recurrent distinctions in the transcripts.

Essentially, it is the duty of the analyst to make a judgement about which parts of the thematic framework apply to the raw data and make decisions about what is working and what is not working within the conceptual framework. Figure 15 provides a description of indexing in this study.

4. Charting

The process of indexing may lead to further refinement of categories within the thematic framework developed at Step 2. The next step is to use the index and the learning gained through the indexing process, to construct a set of thematic matrices or charts. During this step each theme and its associated sub-topics are plotted on a separate thematic chart. The number of thematic charts created relies on the number of major themes developed in earlier stages. Each participant is then allocated a row in the matrix and each sub-theme allocated a column. Each case will stay in the same location on every related chart. The first column for each chart is usually reserved for case identification.

Then the main demographic characteristics are also included in this column. With any chart it is important that the width allocated to an individual sub-theme remains the same for each case, otherwise looking down the column, across all cases, at the data summarised per sub-theme will be difficult. The goal of thematic charting is to summarise all of the key data presented by each participant for each sub-theme and major theme. The general principle is to include enough data and context information on each chart, so that the analyst does not have to return to the transcribed data to understand the point made, but also –not to include so much data that the chart becomes full of ‘undigested’ material. It is very important to achieve a synthesis – summarising without losing content or context. Finally, it is important to include a page reference for each piece of data appearing on the chart, since the charts are essentially ‘windows’ to the data set which should be investigated in more detail at any time.

An example of Charting for the current study is provided in Tables 11, 12 and 13.

5. Mapping and interpretation

The central task of this final stage, for descriptive research, is to move from synthesised or original text to final, descriptive categories. One of the tasks at this final stage of the analysis is not only to make sense of the individual quotes, but also to be imaginative and analytical enough to see the relationships between quotes. Using the Framework, the analyst needs to understand ‘what is happening’ within each sub-theme. During this stage the analyst needs to read down the particular column and across cases to understand the range of the data that exists. It is then important to consider each piece of data and decide on the applicability to that particular sub-theme and overall major theme. Sometimes extracting data from the thematic charts and summarising it on separate sheets can be useful at this stage. This task is not complete until all of the data in the column or sub-theme are accounted for. Sometimes everything in the column can be judged as relevant to the categorisation and all data within the column exhausted.

Once the analyst has extracted all of the definitions, elements, constructs, etc. from the charts, it is possible to re-classify and group them into higher order descriptive labels, which will present the framework analysis in a conceptually pure format. Figure 16 provides the final result of mapping and interpretation in this study.

Audit Trail

As with Study 1 an audit trail was kept for the current study, the purpose which was to help assure the quality of the data collected. The researcher kept a record of all schools and participants initially invited to take part in the study, and input the data onto a Microsoft Excel spreadsheet to manage this information. As well, the researcher kept several Microsoft Word documents detailing the specific coding of text in the transcripts used throughout the five stages of the Framework Analysis.

3. Results

A total of 44 adolescents participated in focus group discussions in the townships of Port Lincoln, Whyalla, Port Augusta and also Loxton. Adolescents were currently enrolled in years 10 or 11 at one of seven secondary schools in rural South Australia at the time of interview. The majority (five) of the schools were government schools and two were Catholic schools.

Demographic Characteristics

Table 9 provides an overall summary of the demographic characteristics of the sample. Upon examination of this table it is apparent that the modal age of participants was 16 years (61%), the majority of the sample was female (68%) and enrolled in Year 11 (86%) at a government school (77%) at the time of interview.

Table 9: Demographic characteristics of sample.

ID	Age	Gender	Year	School	Government/ Non- Government
01	16	F	11	A	Non.-Gov.
02	16	F	11	A	Non.-Gov.
03	16	F	11	A	Non.-Gov.
04	17	F	11	A	Non.-Gov.
05	16	F	11	A	Non.-Gov.
06	18	F	11	B	Gov.
07	16	F	11	B	Gov.
08	17	F	11	B	Gov.
09	17	F	11	B	Gov.
10	18	F	11	B	Gov.
11	16	F	11	B	Gov.
12	16	F	11	B	Gov.
13	18	F	11	B	Gov.

ID	Age	Gender	Year	School	Government/ Non- Government
14	14	M	10	C	Gov.
15	16	F	10	C	Gov.
16	15	F	10	C	Gov.
17	15	F	10	C	Gov.
18	15	M	10	C	Gov.
19	16	M	10	C	Gov.
20	16	F	11	D	Gov.
21	16	F	11	D	Gov.
22	17	M	11	D	Gov.
23	16	F	11	D	Gov.
24	17	M	11	D	Gov.
25	16	F	11	E	Non.-Gov.
26	16	F	11	E	Non.-Gov.
27	16	F	11	E	Non.-Gov.
28	16	F	11	E	Non.-Gov.
29	17	M	11	E	Non.-Gov.
30	16	F	11	F1	Gov.
31	16	F	11	F1	Gov.
32	16	F	11	F1	Gov.
33	16	F	11	F1	Gov.
34	16	M	11	F2	Gov.
35	17	M	11	F2	Gov.
36	17	M	11	F2	Gov.
37	17	M	11	F2	Gov.
38	17	M	11	F2	Gov.
39	16	F	11	G	Gov.
40	16	F	11	G	Gov.
41	16	M	11	G	Gov.
42	16	M	11	G	Gov.
43	16	F	11	G	Gov.
44	16	M	11	G	Gov.

Framework Analysis

Step 1: Familiarisation

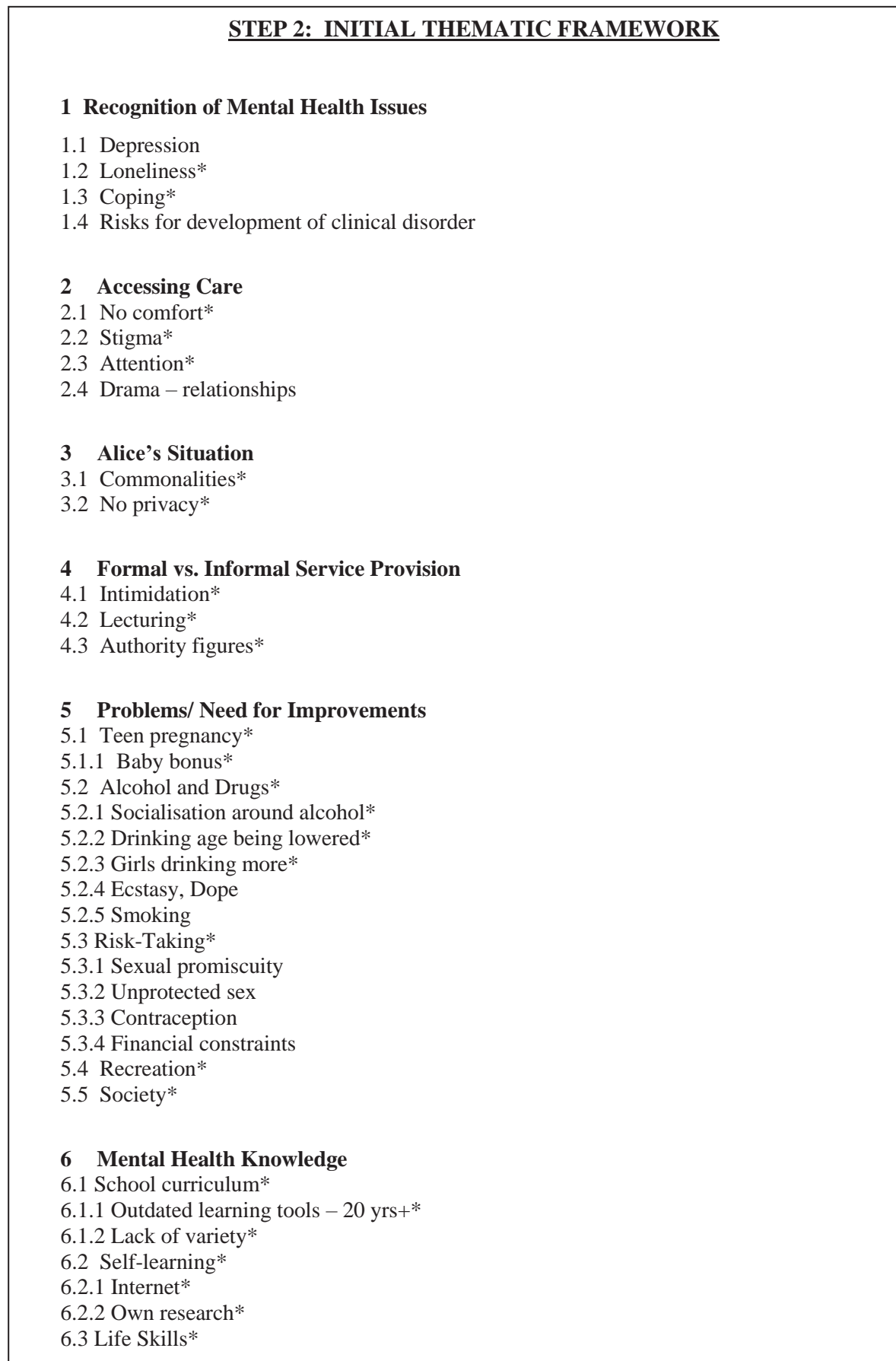
The researcher, MK, spent a considerable amount of time immersing herself in the data that had been collected. She listened to each focus group audio-recording and transcribed most of the data herself. There were in total eight transcripts from the focus groups which she then read and re-read. She also read the observational notes taken during focus groups and any summary information written immediately after conducting the discussions. These activities allowed her to obtain a very good understanding of the data collected and provided her with the opportunity to get a sense of the key ideas and emerging themes.

Step 2: Identifying a Thematic Framework

After immersing herself in the raw data, the researcher then began to develop a framework of key issues, concepts and themes (see Figure 15). She did this by printing out each transcript and then making notes in the margins of each page where she wrote memos, key phrases and ideas or concepts emerging from the discussions. It was evident during this stage that many key issues were able to be easily identified. In addition, during this initial stage of thematic conceptualisation it was apparent that themes were closely related to the vignette and the associated discussion questions.

An index of the data was created which labelled it into more manageable pieces:

Figure 15: Step 2 of Framework Analysis: Initial thematic framework.



Upon a closer examination of this thematic framework, it is apparent that six major categories were identified. A brief explanation of each category will now be provided. Due to space considerations, only sub-themes noted with an asterisk (*) and accompanying quotes are presented in this chapter. Remaining sub-themes and accompanying quotes can be found in Appendix E.

3.1 Recognition of Mental Health Issues

This category described the ability of the focus group participants to acknowledge the existence of mental health issues that ‘Alice’ – the fictional character in the vignette - may be experiencing. Participants tended to provide responses based around the following sub-themes:

3.1.2 Loneliness

Participants were quick to point out that because Alice had changed schools recently and was struggling to make friends at her new school, she would be feeling lonely. According to Participant 44:

‘She’s feeling really lonely, I think, and I think friends are important to feel wanted and valued, so they really help the transition into a school, I think, and because she hasn’t made any of those, she’s feeling really bad, and it’s really stressing her out, so she’s having trouble sleeping. But I don’t think the alcohol and the taking drugs, is really going to help. It’s going to cause more trouble in the long term, so that might cause the problem with the concentration and getting into trouble a lot. So she’s just getting herself into more of a mess’ (Lines 73-78).

3.1.3 Coping

Participants seemed well aware that ‘Alice’ was not coping effectively with the changes in her life and she needed time to adapt to her new school and life circumstances.

According to one adolescent, Participant 40:

‘I actually think that she’s been put into a situation where she’s out of her comfort zone and she hasn’t really dealt with it in the most positive way that she could have. It says that her parents haven’t said anything to her about like asking her how she feels, but in the same aspect, she hasn’t said anything to them, and she hasn’t approached anybody else about how she feels, so she’s just bottling it all up. Yeah, I think everybody else really said a lot of the same ideas as me’. (Lines 100-105).

3.2 Accessing Care

This category described the possibility of accessing care for mental health concerns in participants’ rural communities. Participants were asked whether or not the fictional character, ‘Alice’, would feel comfortable accessing care for her mental health problems if she lived in their local communities. Conversations related to this sub-theme started off hypothetically, i.e. about ‘Alice’ and then moved into discussions about their towns’ characteristics.

3.2.1 No comfort

It was very common for participants to report that ‘Alice’ would not feel comfortable getting help in their communities, and especially not her school. Participant 4 remarked:

'I don't think she would, not if she can't talk to her parents about it. She wouldn't want to be talking to anyone else at school, especially because she didn't have any friends so she knew she wouldn't be able to trust anyone'. (Lines 82-85).

Some participants argued that this lack of comfort was due to a lack of privacy, a subject on which Participant 26 stated:

'If you were to go to a professional, someone will know that you went to that professional. They won't say anything but there's someone around that knows you when you've seen that person'.(Lines 206-208).

3.2.2 Stigma

Linked to this issue of non-comfort in accessing local help was the issue of stigma, or the tendency for participants to feel as though negative community attitudes about mental illness and mental health morbidity would stop a young person from accessing help for their mental health concern. Participant 25 remarked:

'I think it's not just like confidentiality. I think in general younger people who actually have problems don't want to seek help because there's this big stigma about it and a lot of people use that as, have made it basically a bad thing to have. If you think about it, the older generations have had their own stigmas about mental health and all that, especially the oldest ones, you know, don't talk about it...keep it under the table sort of thing'. (Lines 210-219).

3.2.3 Attention

While participants were aware of the stigma associated with having a mental health problem, they also felt that there were young people in their communities who tended to exaggerate their negative reactions to life events, and seemed to make admissions about suffering from a mental health problem for 'attention'.

Participants seemed concerned that the effect of these individuals who made grand admissions about being ‘depressed’ was essentially to cause those who were truly suffering from a mental health problem to feel even more reluctant to disclose such information. As Participant 25 said:

‘Because even though it gets negative attention, it’s still attention. But the thing is, they’re getting negative attention for doing that than people with the actual problems get negative attention for it, just drives them to be less public about it.’ (Lines 241-244).

3.3 Alice’s Situation

This category refers to the applicability of Alice’s situation as described in the vignette to what an adolescent in each of the rural towns may experience.

3.3.1 Commonalities

Many adolescent participants believed that Alice’s situation could easily describe the experience of an adolescent in their rural town, especially with her use of drugs and alcohol to help her cope with her problems. Participant 38 suggested:

‘I think so. Because a lot of families are going through the same situation. Like he said...there’s lots of people here that smoke and drink alcohol, but they haven’t got like the support from their families’. (Lines 204-206).

Participants also believed that the difficulties Alice has experienced in regard to moving schools also applied to their school communities to a certain extent. Said

Participant 41:

'I think it would be pretty common with fitting in to a new school, because we're such a small community, we're already pretty close, and someone else coming into that may not fit in very well at all. But I think that not having any support from her family or from her old friends, maybe that's the real issue, because that's rarer, more rare, than her not fitting into a school'. (Lines 192-196).

3.3.2 No privacy

Participants of Focus Group E believed that whilst Alice's situation was somewhat applicable to adolescents' experience in their town, they did not believe that changing schools would have the same isolating effect as it had with Alice in the vignette. It was suggested by Participant 25 that:

'Even if you do change schools in this town...you're really only going down the road'. (Line 263).

Participants of Focus Group E also identified that the effect of living in a close-knit rural community such as their own, was that there were limited levels of privacy. Therefore if Alice had been living in their town her situation might become known at both her new school and her old one. Again, Participant 25 offered the following comment:

'In bigger cities it's like if you change schools, if you've got problems you sort of escape them. But everyone around here knows everyone, so even if you do move schools, you're still in the shit. Whereas in Adelaide it's totally different people and they probably wouldn't even know...or care'. (Lines 269-273).

3.4 Formal versus Informal Service Provision

In discussions about existing mental health services in their townships, an issue which tended to arise on several occasions concerned the accessibility of formal compared to informal local services. Adolescents tended to criticise staff associated with formal services and had a preference for seeking assistance from more ‘informal’ mental health providers. In the eyes of the adolescent participants these included: school counsellors, youth workers, teachers, General Practitioners, Church representatives, positive role models from local community groups, family and friends.

3.4.1 Intimidation

Participants often commented that young people may be intimidated by the title of someone in the health profession. That is, young people with a mental health issue, or young people in similar situations to Alice, may feel too intimidated by the title held by a Psychologist or Social Worker for example. Therefore they would not choose to access them as a potential support. Participants often argued that a good relationship might not be possible to establish with a professional if they were perceived to be intimidating. For example, according to Participant 25:

‘If they feel that you don’t have that intimate connection with somebody in the formal profession so you feel like maybe they just won’t understand or comprehend what you’re trying to explain or misinterpret it, that sort of thing’ (Lines 297-300).

3.4.2 Lecturing

At times, participants discussed the problem of ‘lecturing’ by health professionals. This was perceived to be something associated with the ‘older’ health professionals who the participants felt may not relate well to adolescent clients, who were probably some twenty years their junior. This is demonstrated by Participant 26’s assertion:

‘Like I’ve got a mate who is lesbian, right, and she got pretty much blasted. It was like, you’re too young to know what you like, all that sort of thing, and it’s like, hello, you’re meant to be a school counsellor, you’re meant to be open-minded and helpful towards this sort of thing. (The) same counsellor also took another girl up in front of the class, like she had a straightener burn that her cousin did, took her in front of the class and was like, self-mutilation is not the way, in front of the whole class’ (Lines 1209-1215).

3.4.3 Authority figures

During the Indigenous-male focus group, participants talked about their problems and experiences with ‘authority figures’ in their communities such as the police, who they felt tended to single them out, or perceive them to be ‘trouble-makers’. This is borne out by the following statements:

Participant 38: *‘One main thing, I don’t like the cops here’.*

Participant 35: *‘They’re real smart arses huh?’*

Participant 38: *‘Because they are smart arses and when our big brothers try to drive cars they just come up with some stupid reason to defect it’.*

Participant 36: *‘That’s like my car...got defected. I went up to [TOWN NAME] one time...the first day I actually got the car I got defected that night’.*

Participant 37: *‘Why? What was wrong?’*

Participant 36: *'I don't know, it was too low. They are supposed to tell the mob to get out of the car and then they measure it and because the day we went and bought it, we bought it off the owners, and they said it was legal and we went and told the police and they said 'No' – they gave us a defect'.*

Participant 34: *'I was walking and there was this one cop that came along and told me to piss off – you'd better piss off home or else I will get my sniffer dog out here. I was like "Hey, what?"'*

Participant 38: *'I fucking hate them cops'.*

Participant 35: *'They really pick on you, you know?'* (Lines 564-610).

3.5 Problems/ Need for Improvements

This category outlined the various social and mental health problems which participants perceived to exist in their rural communities. Participants were very forthcoming with information about these perceived social problems and they identified a list of issues. Participants also spoke on how improvements could be made in their communities and what existing health services could do to encourage access to services.

3.5.1 Teen pregnancy

3.5.1.1 Baby bonus

Participants in one town in particular tended to focus on the social issue of teen pregnancy. Participants perceived that their town was somewhat renowned for teenage pregnancy.

RESEARCHER: *'What sort of problems are young people in [TOWN NAME] experiencing?'*

Participant 26: *'Think teenage girls'.*

ALL: (laughter).

Participant 27: *'Pregnancy'.*

Participant 26: *'Yeah. [TOWN NAME]'s like, I forget the statistic but it's one of the highest...'*

Participant 29: *'The S-L-U-T capital'.*

Participant 28: *'Yeah, pretty much. It's got one of the highest teenage pregnancy rates...'*

Participant 26: *'It's in the top 10, is it?'*

Participant 25: *'I think its number four, the fourth town'.*

Participant 26: *'I'm not sure if it's fourth in Australia or fourth in the world'.*

Participant 25: *'I think it's fourth in Australia but it would be in the top 10 in the world, I think'.* (Lines 452-472).

Participants in this town also felt that some young females were abusing the federal government's Baby Bonus initiative, whereby the government offered a \$3,000 welfare payment/tax break to provide an incentive for women to have more children and increase Australia's birth rate:

Participant 28: *'No, they think - having a baby, you get a big payout'.*

Participant 29: *'Yeah, \$3,000'.*

Others: *'Yeah'*

Participant 29: *'I think it's really stupid...'*

Participant 29: *'Yeah, and get big plasma TVs and go broke again. Whoa'.*

Participant 25: *'My cousin does that. I really hate her. She's exactly the teenage pregnant mum, you know, mascot of town. Seriously, if we had a mascot for [TOWN NAME], it would be a teenage mother holding two kids with a plasma TV in the background'.* (Lines 402-426).

3.5.2 Alcohol and Drugs

There were many issues identified concerning drug and alcohol use in the four rural communities visited. It became apparent in the focus groups that some townships seemed to struggle more with drug and alcohol abuse amongst adolescents than others; however,

drug and alcohol abuse was mentioned universally. This is a particularly interesting finding and could indicate that it is more evident in young people's rhetoric or stereotyped knowledge, than it is in their lived experience.

3.5.2.1 Socialisation around alcohol

A recurring theme surrounding the consumption of alcohol was boredom or the lack of weekend activities that adolescents had in their communities. According to the focus group participants, weekend parties inevitably involving alcohol consumption gave them something to do on the weekends:

RESEARCHER: *'Do young people your age drink for social reasons or personal reasons, like Alice?'*

Participant 31: *'Social'.*

Participant 32: *'I think they just do it to have fun'.*

Participant 33: *'I reckon if they had more stuff here there probably wouldn't be much drinking – more shopping centres or like a skate park or something. They're just like, I've got nothing to do so we'll go to someone's house and get drunk' (Lines 203-214).*

3.5.2.2 Reduced drinking age

On the subject of alcohol consumption, participants stated that they had noticed the drinking initiation age seemed to be falling in comparison to their own experiences. They also noticed that where they had perhaps started drinking in years 9 or 10, students at their schools were beginning to drink alcohol from year 8 onwards. Furthermore females in particular tended to be drinking at earlier ages than their male peers. This is made clear in the following comments:

Participant 5: *'Well, I know like girls in our grade started drinking two years at least before the boys did because of the maturity level. But they've kind of caught up now and it's just, you know, just in our year level I've noticed that anyway'.*

Participant 1: *'Yeah. I've noticed that the age of girls that start to drink is getting younger and younger'.*

Participant 2: *'I only know a few boys that would drink and drink and keep on drinking but I know more girls that will do it, like drink until they pass out or whatever and more'.* (Lines 544-560).

3.5.2.3 Girls drinking more

Of particular concern to the adolescents was that the younger female drinkers tended to be socialising and drinking with older males over the legal drinking age of 18 years:

Participant 28: *'A lot of people go out and get drunk that are my age, 16 and under'.*

Participant 25: *'More people than are really expected'.*

Participant 26: *'Yeah, there's a lot of 14 year olds do it, which go drinking with like 21, 24-year-olds so they can get...'*

Participant 29: *'Only so they can get their alcohol'.*

Participant 25: *'You worry about it because the older people know that all these kids want to get alcohol on the weekends and that so it really sets up a dangerous situation'.*

Participant 26: *'Yeah, there's a lot of guys around that want to take advantage of what they can, too'.*

Participant 28: *'That's something to worry about'.* (Lines 567-582).

3.5.3 Risk-Taking

Participants in focus groups commented on the risks adolescents seemed to take once they had been consuming alcohol. Often it was felt that these risks would not have been taken in the absence of alcohol consumption.

These risks were often related to illegal activities, a lack of regard for their personal safety or an increase in violent activity. Participants of the male Indigenous group also suggested that there tended to be more domestic violence occurring after the consumption of alcohol:

Participant 38: *I reckon experiencing getting drunk all the time – there’s a lot of big shots...you know’.*

Participant 34: *‘Like [NAME]? He is a moron’.*

Participant 38: *‘Yes’.*

RESEARCHER: *‘Well we won’t try and point fingers at people. We’ll just keep it fairly general. So drugs and alcohol...’*

Participant 36: *‘Fighting’.*

Participant 34: *‘Abuse – what’s the word I’m looking for? Domestic violence, yes. Lots of things like that...sex and rape’.*

Participant 35: *‘Yeah and probably getting hassled from the cops here too —problems getting picked up; people trying to bash you – drunk people a lot of fighting’.* (Lines 221-243).

3.5.4 Recreation

Overwhelmingly, in all focus groups, adolescents stated the need for more recreational activities in their towns. It was argued that ‘boredom’ was associated with various health risk behaviours and linked to many of the problems adolescents had identified amongst their peer group. A lack of recreational activities was consistently connected to drug and alcohol use and abuse. According to Participant 43:

‘But I would say to an extent that the use of alcohol, and not so much drugs. More so alcohol use and abuse, because people tend to say things like, you know, we live in [TOWN NAME], it’s a small town, there’s nothing to do. We’ve got to do something, kind of thing, which has led to it becoming more of an outlet for a lot of people’. (Lines 269-273).

Furthermore, of the activities that were available to adolescents in the rural townships visited, a level of travel was often required in order to participate in recreation. A few adolescents' comments below highlight this theme:

Participant 44: *'I think before the skate park people were sort of looking for things to do in their spare time. Before that, yeah, they really wanted the skate park or something that was recently built, because they were really looking for something to do...a place to go, so I think most people have an outlet, even just getting their [LEARNER DRIVER'S PERMIT] or [PROBATIONARY LICENCE]'.*

Participant 40: *'When the bowling alley opened up, that was pretty good'.*

Participant 43: *'Yeah. They've got dodgem cars there now, so that's cool'.*

Participant 41: *'It's in [TOWN NAME]'.*

Participant 40: *'Also, like, we have to travel so far to get anywhere, because it's all so widespread, and I know that coming from [TOWN NAME], which is like, my nearest neighbour is a kilometre away or something, it's hard to do things. You just don't kind of do much and you just get bored'. (Lines 275-300).*

Participants suggested a number of improvements to their towns which centred around the need for increasing recreational facilities. In towns where a skate park did not exist, participants suggested that building one may provide adolescents with a venue where they could get together, rather than being 'on the streets'. Similar suggestions include Go Kart racing facilities, bowling alleys and improvements to local shopping centres and cinema facilities. During the Indigenous male focus group interview there was mention of repairing a local youth centre that had recently been burnt down deliberately.

3.5.5 Society

Participants also discussed their disappointment with the ‘mentality’ of their communities. It was felt that there was a ‘judgemental’ or stigmatising culture which they felt contributed to young people’s problems. It was commented on by Participant 26:

‘No, it’s more the state of mind the town’s in, the town. Like everyone’s closed-minded, judgemental, they like to go around, get drunk, get pregnant and they like to beat the crap out of people for no reason. So it’s more a thing of how people are being raised with all these ideals handed down to them by their parents and by everyone else around here. So, yeah’. (Lines 1139-1156).

Participants also expressed that the attitude of their peers and younger generations to come had to improve, especially with regard to health risk behaviours such as drug and alcohol abuse and drink-driving.

Participant 5: *‘I think, with the driving, we’ve had a couple of Driver’s Ed courses, like people coming to talk to us about road accidents and things like that, and I know for me, personally, I didn’t want to get into a car and drive with someone sitting next to me after I heard that. I think if we had a few more conversations where people saw the actual effects that serious alcohol damage can cause, it would sort of wake them up a bit more’.*

Participant 4: *‘It is a matter of fixing the generation now but I think it’s a matter of changing the views of the generation to come, like because you have to get it while...’*

Participant 5: *‘You have to get it early, like start talking to them in Year 6 and Year 7. Just start to change their views’.*
(Lines 639-695).

3.6 Mental Health Knowledge

This category described all of the sub-themes linked to focus group participants' knowledge about mental health. Included in this category were descriptions about the knowledge participants obtained via the school curriculum and their perceptions about whether or not they felt they had been provided with enough information about mental health morbidity and supports available to them within their schools.

3.6.1 School curriculum

3.6.1.1 Outdated learning tools

3.6.1.2 Lack of variety

These sub-themes referred to the knowledge about mental health issues which focus group participants gained throughout their schooling. In some focus groups, participants felt they really had received adequate information about mental health issues early on in their schooling and these participants could quite readily identify local mental health supports.

Some participants also felt that it was up to the individual themselves, to want to take in the information provided to them by the school.

Participant 44: *'I think we got a lot of that at primary school, not the sexual health, but certainly the mental health, the drug and alcohol health, we got told a lot about the dangers of that, so we're pretty well educated in that, but we're still learning about it in school, and constantly reminded about it. I think we all know the dangers of that pretty well now'.*

Participant 42: *'And I think it's easy to find out more about it if you want to. Like, there'd be a whole range of teachers you could see for all the different topics where they could easily tell you more about it'.*

Participant 43: *'I completed a mental health first aid course and I found out about that through the peer support training last year, so I think as far as the school goes, we're pretty much set on what we learn about and everything to do with mental health and stuff, and peer support and work are all about mental health issues and problems and ways that we can deal with them. So, as far as the school goes, I think we're pretty good. The community yeah, as well. I mean, there's always the promotion that you can work on, but then again, sometimes you have to step out there and find out for yourself'*.

Participant 40: *'Yes, it depends if people are willing to learn about it, and show some initiative'*. (Lines 637-674).

Unfortunately, many participants felt that they did not receive any information at all about mental health issues at school.

RESEARCHER: *'The last question is do you feel that you are receiving enough information about mental health problems and that sort of thing at school?'*

Participant 35: *'No, we don't get taught shit!'*

Others: *'No'*.

RESEARCHER: *'So you are saying you don't really get that much information about mental health issues at school?'*

Participant 37: *'Not really'*.

RESEARCHER: *'What about things like drugs and alcohol? Do you get taught much about that?'*

Participant 36: *'Not really, just see posters and things'*. (Lines 723-745).

Participants were more likely to recall learning about sexual health and drug and alcohol issues, although they felt they were learning the same things each year and watching the same videos.

Participant 26: *'Did you ever watch that movie with the guy with the huge eyebrows and he's all like, life is like a roller coaster?'*

Participant 25: *'Oh my god, I think I have'.*

Participant 27: *'Yes'.*

All: (laughter).

Participant 26: *'It's all like monkeys and shit like that?'*

Participant 27: *'Yes, it's funny, we went to different schools but we both watched the same thing'.*

Others: *'Yeah'.*

Participant 28: *'Was it the human body or something?'*

Participant 27: *'Yeah, it's exactly the same and it's probably 15 years old. That one's not current or up to date'.* (Lines 1315-1344).

3.6.2 Self-learning

3.6.2.1 Internet

3.6.2.2 Own research

Many participants had engaged in their own form of learning about mental health issues, especially those who had an interest in the area or were enrolled in a Psychology subject as part of their elective subjects at school. These participants felt that learning about mental health issues at school would help improve young people's general understanding of mental illness and would result in less labelling and 'throwing around' of psychological terms:

Participant 28: *'I mainly just go on Wikipedia or something. That's all I do, I just -I've read so much on dissociative identity disorder...love that disorder. I'm pretty sure that we weren't taught anything about mental health'.*

Others: *'No'.*

RESEARCHER: *'Is there anything you'd like to know more about?'*

Participant 29: *'Definitely'.*

Participant 26: *'A lot of people don't have the mental capacity to grasp the concept of the mental issues, like most people here are dumb or they just don't care'.*

Participant 27: *'It's not my fault'.*

Participant 26: *'They're also the type that like to throw around, like oh, she looks upset or pissed off all the time, she must be depressed. Or, oh, I don't know, she reckons her boyfriend's cheating on her, she must be schizophrenic of something'.* (Lines 1532-1567).

3.6.3 Life Skills

Participants felt that adolescents had to learn more 'life skills' and they should be provided with information that would help them be better prepared for life after school:

Participant 09: *'I think through school we do a lot of academic work but we don't learn enough about life in general'.*

RESEARCHER: *'So more life skills?'*

Participant 07: *'So what we pick up is from the town but the town's already screwed'.*

Participant 10: *'Yeah'.* (Lines 598-612).

Step 3: Indexing

Following the development of the thematic framework in Step 2, the transcripts containing the raw data were once again sifted through and the framework was then applied to each transcript. This occurred by annotating each of the eight transcripts with numerical codes from the index, enabling the raw data to be directly connected to the major themes and sub-themes of Step 2. Considering there were eight transcripts and each ranged from 30 to 50 pages, this was a time-consuming task, especially because portions of raw data could be connected to more than one theme in the index.

Due to space restrictions, a portion (one-page) of the indexing for one of the eight transcripts is presented in Table 10. The reason for this was to allow the reader to obtain a brief overview of how the connection between raw data and thematic framework was forged. The entire Indexing for this particular focus group (E) is presented in Appendix F.

Table 10: Step 3 of Framework Analysis: Indexing example for transcript of Focus Group E, pages 1 and 2 .

Line No.	Transcription	Index
76	P1: She's probably feeling different...because	1.3
77	it's not an environment she's used to and since	
78	she's not actually fitting in very well and	
	everything's changed, she's probably feeling	
91	quite stressed.	
92	P5: To me, it sounds like it's hard to cope and,	
	yes, she's really stressing out about school and	
	finding new friends.	
98	P2: She doesn't really sound like she's trying to	1.2
99	adapt. It sounds as though she's been coping	
	more with adaption.	
103	P1: She's not getting the support she needs to be able to	1.4
	adapt.	
86	P2: Feeling detached and lonely and by feeling	
87	down it's causing her health to drop.	
113	P2: It sounds like with the drug use, she'd probably	1.4
114	go o to...	
115	P5: With the alcohol.	
116	P2: Yeah, go on to constant use so the chances are	
117	she'd probably OD or result in mental health	
118	problems.	
119		

Line No.	Transcription	Index
120 121 122	P1: So she's sort of like using that in order to try and cope so that would sort of be like a gateway, escapism.	
130 131 202 203 204 205 206 207 208 209	P2: Because pretty much everything goes around the town. I've had friends move off. P4: Yep. Everybody knows everybody. P3: Yeah. So you're likely to go see someone you know. P2: If you were to go to a professional, someone will know that you went to that professional. They won't say anything but there's someone around that knows you when you've seen that person	3.2

Step 4: Charting

Using the indexed transcripts the raw data was rearranged according to the appropriate part of the thematic framework to which they related and formed charts or matrices. A chart for each major category was created, with each of the columns on the chart representing a particular sub-theme. Each row on the chart represented a different focus group participant. Data were then entered across the chart, making it possible to view how each participant ‘fitted in’ to each sub-theme and overall major category. Essentially the raw data was modified so that it fitted into the chart and provided a ‘distilled’ summary of each participant’s perspective.

Considering that there were 44 participants participating in eight separate focus groups resulting in a thematic framework containing six major categories, it was impossible to try to create a large chart per category that would represent the views of all participants. For this reason six separate charts were created for each focus group. This resulted in some 48 pages of charting and due to space constraints they cannot be presented here. What will be presented is three of the six charts (one chart per major category) created using participants from Focus Group E, as continued from Step 3. The remaining charts are presented in Appendix G.

Table 11: Step 4 of Framework Analysis: Charting excerpt 4, 'Formal vs. Informal'.

4. FORMAL vs. INFORMAL					
Participant ID, Gender, Age, Town	P1, Female, 16, Whyalla	P2, Female, 16, Whyalla	P3, Male, 17 Whyalla	P4, Female, 16, Whyalla	P5, Male, 17 Whyalla
4.1 Intimidation	<p>Don't have an intimate connection with a formal service provider.</p> <p>They may not understand you.</p>	<p>People are often intimidated by the title held by someone.</p> <p>Some professionals don't care, as long as they get paid.</p>		<p>Someone said too embarrassed to get contraception – wouldn't you be more embarrassed if you were pregnant?</p> <p>Wouldn't send friend to a mental health service – wouldn't help.</p>	<p>Would send wherever the person was most comfortable.</p> <p>Have to talk to someone that is closer to your age group, otherwise you feel a bit weird.</p>
4.2 Lecturing	<p>If you go see someone younger, may still be judgemental, but more able to appreciate both sides because they can remember.</p> <p>Young people just want someone to talk to.</p>	<p>Doctor often lectures - tells you what you want to do. You go on the pill. All that sort of crap.</p> <p>Older mental health staff more judgemental.</p> <p>Need to dissociate own opinion & lecture less.</p> <p>Young people will back off & not get help if being lectured.</p>		<p>Young people are worried that the person is going to be judgemental.</p> <p>You people want guidance, not someone telling them what to do.</p>	
4.3 Authority Figures			<p>A lot of people in this town have problems with authority figures.</p>	<p>Need a younger school counsellor, would be seen as less judgemental.</p>	

Table 12: Step 4 of Framework Analysis: Charting excerpt 5, 'Problems needing improvement'.

5. PROBLEMS NEEDING IMPROVMENT					
Participant ID, Gender, Age, Town	P1, Female, 16, Whyalla	P2, Female, 16, Whyalla	P3, Male, 17 Whyalla	P4, Female, 16, Whyalla	P5, Male, 17, Whyalla
5.1 Teen pregnancy	Mature teen mothers often overshadowed by those who get drunk & have sex.	Teen pregnancy a big problem. Girls get pregnant so somebody loves them.	Whyalla known for teen pregnancy. Loneliness/ lack of help contribute.	Negative reputation/ stereotype associated with teen mothers.	Whyalla has one of the highest teen pregnancy rates in the nation.
5.1.1 Baby Bonus				Get a big payout for having a baby.	\$3,000 payout.
5.2 Alcohol & Drugs	Accessed really easily.			Big in Whyalla from a very young age.	
5.2.3 Girls drinking more		Go to a party & there are a lot of clones/ sluts drinking. Guys have sporting commitments, have a drink, sex, then go sleep & play footy next day.		The guys seem more controlled than the girls.	
5.3 Risk taking	The older people supplying the young girls with alcohol sets up a dangerous situation	There are a lot of older guys that want to take advantage of younger girls			

5.3.1 Sexual promiscuity					
5.3.2 Unprotected sex	Girls have a fairytale complex & think the guy loves them.	They are too stupid to go & get contraception because they're too intimidated by the doctor.		People are just really irresponsible.	
5.3.3 Contraception		They are selfish and arrogant and stupid. Can't force a person into fatherhood. People at the chemist know her because she always takes friends to get emergency contraception	Pulling out does not work. Young people need to realise this.	Girl confided that she never uses any contraception or a condom – was shocked. Pill is only \$20 for 4 months.	
5.3.4 Financial constraints					
5.4 Recreation	If you're not interested in a sport, you don't want to go watch movies.		There are just no opportunities		
5.5 Societal factors	People are being raised with all these ideals being handed down to them.	The state of mind the city's in -close minded, judgmental, they like to go around, get drunk, get pregnant and they like to beat the crap out of people for no reason		Hears crazy stories all the time from parents who are police officers.	It is just not safe here anymore.

Table 13: Step 4 of Framework Analysis: Charting excerpt 6, 'Mental health knowledge'.

6. MENTAL HEALTH KNOWLEDGE					
Participant ID, Gender, Age, Town	P1, Female, 16, Whyalla	P2, Female, 16, Whyalla	P3, Male, 17, Whyalla	P4, Female, 16, Whyalla	P5, Male, 17, Whyalla
6.1 School curriculum	We don't learn m.h.	We need more info on STDs and sex education. People don't know how frequently to get tested. We don't learn about m.h. issues. Lot of people don't have capacity to grasp m.h. issues. Are too stupid or don't care.	It's too late to learn sex ed./m.h. stuff in high school senior years. Don't learn about m.h.	Only find something out when something bad happens. Don't learn about m.h. problems. Pretty sure we weren't taught anything. Should be compulsory like sex ed	Need more info on m.h.
6.1.1 Outdated learning tools	Already expected to know.	There is one same movie that everyone in the town saw in primary school – about 20 yrs old.	Movies are probably 15 yrs old and definitely not up to date.		No one's ever done sex ed. & we're meant to already know it all.
6.1.2 Lack of variety					
6.2 Self-learning		You have to look up about actual m.h. issues yourself.			
6.2.1 Internet				Use Wikipedia to look up m.h. info.	
6.2.2 Own research					
6.3 Life skills				Do a lot of academic work at school, but need more on life skills.	

Step 5: Mapping and interpretation

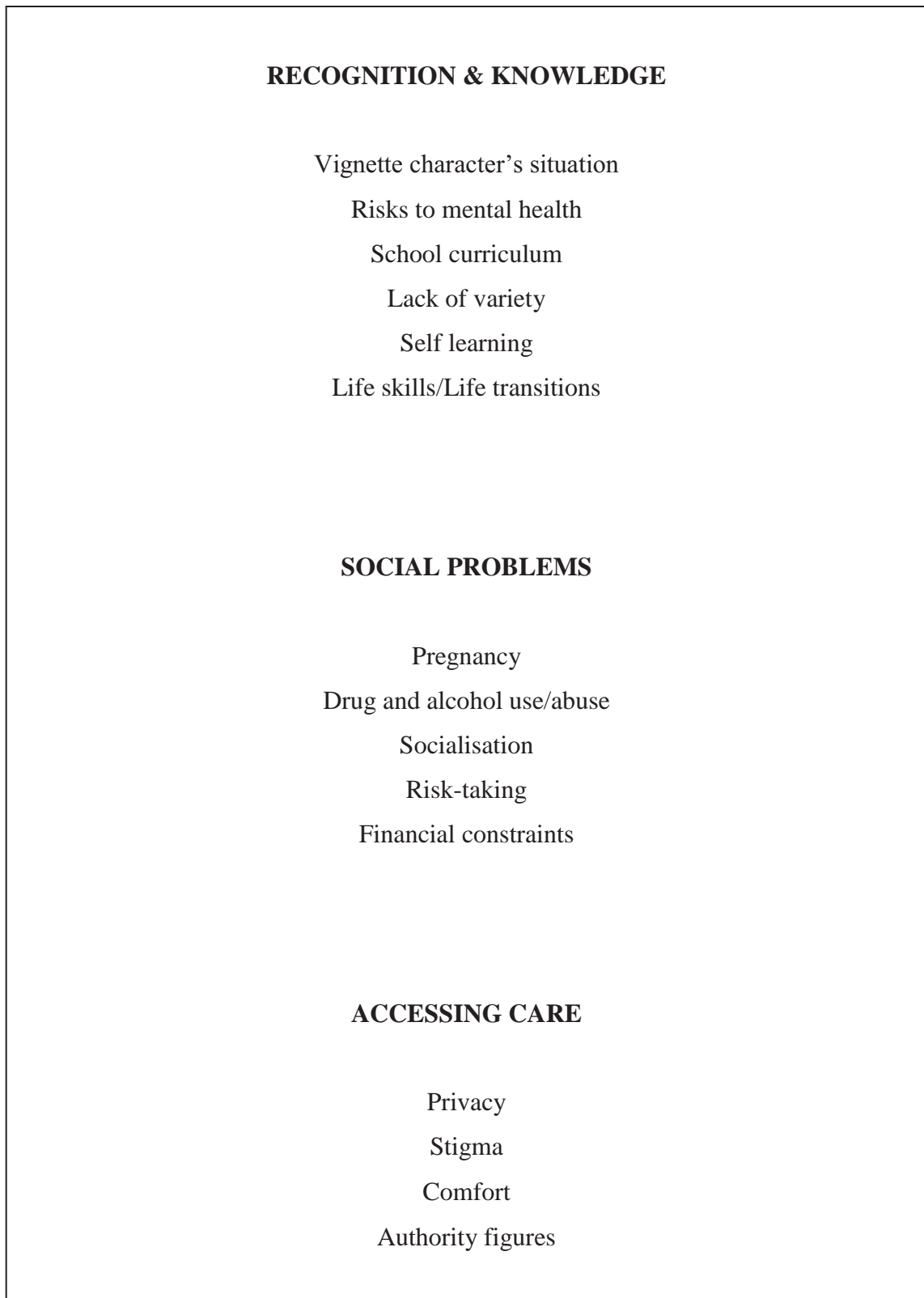
When the charts in Step 4 were examined it became apparent that many of the sub-themes were invariably linked. Through a process of mapping, and establishing commonalities between participants, between sub-themes and the original major themes identified at Step 2, a refined description of the data and the presentation of three concepts emerged. This has the effect of summarising the data in their most basic and purest form. Essentially, the first (1), third (3) and last categories (6) of the original framework could be restructured and it was found that they collectively described the same concept - 'Recognition and Knowledge'. Upon closer examination of the data it is apparent that these three major categories from Step 2 are really about what mental health knowledge the adolescents have, and how they are able to then recognise the symptomology experienced by 'Alice' in the vignette. Two other concepts - 'Social Problems' and 'Accessing Care' - were also coined, with categories 2, 4 and 5 of the original thematic framework being spread across these two concepts.

The category of 'Social Problems' is essentially about the awareness adolescents have about problematic aspects of their communities that may influence their mental health. This category also relates back to one of the original objectives of the study, which was to get an idea about how 'rurality' or living in a rural location may influence the mental health of adolescents.

The third concept, 'Accessing Care', incorporates all of the factors associated with mental health services and takes into account all of the criticisms made by participants, as well as potential improvements needed for future services. Again, this relates back to one of the original objectives of this study – to ascertain how adolescents perceive existing mental health services and investigate any improvements for the future.

Below appears the final, purest description of the data collected throughout this study:

Figure 16: Step 5 of Framework Analysis: Final description of data.



In an effort to help describe the experience of ‘rurality’ and to provide an overview of some of the characteristics of the participants recruited in this study, and to also give examples of the types of recommendations made by the adolescents, two case studies were subsequently developed based on findings from the focus groups:

Case Study 1

Kelly* is a 16 year-old female residing in a rural town in South Australia. Kelly is enrolled in year 11 at a co-educational, government secondary school. Along with her three siblings, Kelly lives with both of her parents in the same house. Kelly’s family are of a relatively low socio-economic status. Her mother is employed as a cleaner whilst her father is in receipt of a disability pension, due to sustaining a workplace injury several years ago, which left him unable to work.

Kelly is concerned by the lack of privacy young people in her town face. She believes that there is not a good understanding of mental health issues in her town, and that there is still a lot of stigma surrounding this issue. Kelly has a good understanding of the mental health issues in her community and of the supports available to young people. However, she argues, that young people are generally intimidated by the title of mental health staff and would therefore, be more likely to access informal mental health services.

Kelly believes that her town has a problem with teen pregnancy, and that some young girls in her town may get pregnant on purpose due to being lonely. Kelly has accompanied several of her friends to their doctor’s appointments to find out about their contraception options and is unhappy with the authoritative and intimidating presence of local health staff. She believes that young people do not need to be lectured and this attitude amongst some health providers deters young people from seeking any help at all.

Kelly believes it is important for younger health staff to be recruited to try to encourage more youth to feel comfortable enough to access health care.

Case Study 2

Aaron* is 17 years old and is enrolled in year 11 at his co-educational, government secondary school in a rural town in South Australia. Aaron is of Indigenous background and does not live with his parents. He has been living with his uncle, auntie and cousins because his parents were no longer able to take care of him.

Aaron is concerned about the drug and alcohol use within his small community. Often gangs of Indigenous people drink socially in public places in his town and then engage in violent/bullying behaviours and this leaves him feeling unsafe. Aaron also feels that because of this relatively small group of young Indigenous youths, he often gets 'picked on' by the local police, who he argues, tend to overestimate the extent of these types of behaviours and assume that the majority of young Indigenous people are like.

Aaron is disappointed with the lack of support young people in his town are receiving for their social and emotional problems and feels that it is due to this lack of support they engage in these types of self-destructive behaviours. There used to be a youth centre in Aaron's town which was very popular amongst the young Indigenous members of his community. This was a place where young people could go to participate in various activities and not be out on the streets. Since the youth centre closed down, he and his friends have been hanging out in the town park, where his group is often offered drugs and alcohol by older boys. Aaron believes there has been an increase in violence since the closure of the youth centre.

Aaron feels that young Indigenous people in his community don't know enough about mental health problems in their community. He argues that a lot of Indigenous community members are experiencing various mental health problems, but these are ignored. Aaron feels that young people need to learn about mental health at school.

Indigenous Focus Groups

It is important to make a note here about the results obtained from the current study in relation to Indigenous adolescents. The rationale behind conducting two separate single-gender focus groups, relates back to the findings of Study 1. In Study 1, human service providers identified particular mental health issues which they believed were distinct to members of Indigenous culture. In an effort to respect these previously identified needs and to ease any anxieties Indigenous participants may have had about participating in the study, it was thought best to conduct separate focus groups with Indigenous participants. While the researchers were not quite sure of what would emerge from the Indigenous focus groups, and how these data would compare to the non-Indigenous groups, it did come as somewhat of a surprise that no significant differences emerged which impacted on the data collected.

Generally, it was found that the Indigenous participants tended to live in larger, extended families which they used for support. Besides this, Indigenous males tended to feel as though they were sometimes ‘picked on’ by local law enforcement, who they believed seemed to pigeonhole them into fitting the stereotype of the young, Indigenous offender. Apart from these two differences, Indigenous and non-Indigenous adolescents identified the same sorts of problems, answered questions about ‘Alice’ in the same manner, and made the same types of recommendations for their communities.

4. Discussion

The goal of the current study was to discover what mental health problems adolescents could identify in their rural communities, and also how they perceived the availability and accessibility of existing local services. By conducting eight focus groups with some 44 adolescent participants, it emerged that adolescents were very aware of the mental health and social problems affecting their peers and the wider community. Furthermore adolescents were able to express their opinions about their communities' existing health services and make some recommendations or suggestions for improvements to service delivery in the future. These will now be discussed in more detail.

4.1 Recognition and identification of mental health problems

Discussions within the focus groups highlighted that adolescents could distinguish the suggested mental health problem of depression being experienced by the character 'Alice' in the vignette presented to them. Yet the adolescents sampled could also suggest the potential for the development of other mental health and physical health problems which Alice may be likely to experience if her situation did not improve, or if she did not receive help. The use of a vignette to investigate mental health knowledge or 'mental health literacy' - a term coined by Jorm et al. (1997) - has been used in many studies (Cotton et al., 2006; Dunn et al., 2009; Fisher & Goldney, 2003; Goldney et al., 2009; Jorm, 2000; Kelly et al., 2007; Rose et al., 2007; Wright et al., 2005). While it was not the sole aim of the current study to investigate mental health 'knowledge' *per se*, using the vignette as a starting point greatly assisted the adolescents in identifying the types of mental health problems in their communities. Also, the character of 'Alice' in the vignette was made as realistic as possible so that adolescents understood that 'Alice's' experience could quite easily mirror that of an adolescent in their town. This finding is supported by previous research that has investigated the 'mental health literacy' of adolescents.

In their study about the recognition of depression and psychosis amongst young Australians aged 12 to 25 years, Wright et al. (2005) found that almost half their sample were able to recognise correctly the clinical symptoms of depression presented to them in a vignette via telephone interview. However, only one quarter were able to identify psychosis correctly.

Gender differences between young people's 'mental health literacy' have also been found, especially in regard to identifying depression. Cotton et al. (2006) presented young people aged between 12 and 25 years of age with two vignettes: one describing clinical depression, the other describing psychosis. They found that regardless of age, females were considerably more likely to identify depression correctly in the vignette (61%), than their male counterparts (34%); but that no significant differences emerged between genders for the psychosis vignette. Their study also suggested that males showed significantly less recognition for the symptoms of depression and were more likely than their female counterparts to endorse consuming alcohol to assist them in 'dealing with' mental health problems. It can be argued the same pattern did not occur in the current study, with all participants generally being able to recognise depression as the potential mental health problem in the vignette. There were, furthermore, very few males participating in focus groups in the current study (32%) so it is difficult to speculate about gender differences regarding mental health knowledge.

In general, participants identified a range of mental health problems which tended to include depression, suicide, anxiety disorders, eating disorders and drug and alcohol abuse. The identification of these problems was not dissimilar to the problems identified by the human service providers who serviced this geographic area and were interviewed in Study 1.

However, for both of these studies drug and alcohol issues were discussed at greatest length. Indeed, adolescents in the current study were very aware of the links between drug and alcohol use and health risk behaviours such as sexual promiscuity and violence. As well as this, 'boredom' and the limited opportunities available to participate in recreational activities often resulted in socialisation with peers around alcohol. This phenomenon is well documented in previous research, which has suggested that alcohol consumption is part of the 'rural culture'. Quine et al. (2003) found in their comparison of rural versus urban adolescents' health service use in New South Wales, that rural participants tended to discuss the fact that many young people in their small communities engaged in drug and alcohol use and abuse simply out of boredom or having nothing to do. In contrast, adolescents from urban areas did not place the same emphasis on this. Indeed Quine et al. (2003) argued that this disadvantage of rural areas impacts adversely on health outcomes, particularly mental health and greater consideration needs to be taken by health policymakers to address this imbalance.

4.2 The experience of 'rurality'

The adolescent participants in the current study provided great insight into their experience of rural lifestyle and explained many aspects of rural culture to the researcher. Participants were able to describe to the researcher aspects of rural lifestyle which they enjoyed – usually things such as close proximity to family and friends, a relaxed lifestyle, physical appearance of their towns, and a sense of 'community'. However, participants also tended to list at length the negative aspects of living in their towns, and this tended to not only revolve around the distance from health services and recreational activities, but also the 'culture' of their towns. Indeed this sense cultural identity of townships was often perceived as negative. Participants were very aware of rural gossip networks and the 'fish bowl'-like visibility of their activities.

It was interesting to note that whilst participants did not like the judgemental nature of their communities, they were, at times quite happy to describe various social phenomena using stereotypes. This was very apparent in Focus Group E, where participants described their town as the ‘S-L-U-T’ capital and stated that their town was quite well known for teenage pregnancy. It is interesting that despite the fact that adolescents seemed to be frustrated by the judgemental attitudes of many ‘older’ members of their communities whom they identified as very conservative, and not understanding of youth, they still engage in stereotyping their peers and make illusory correlations about their behaviours. Indeed, similar findings occurred in Quine et al.’s (2003) study, where they found that teenage girls were more worried about their reputations being damaged by being known to access contraception or sexual health care, rather than any physical consequence which resulted from their participation in sexual activity, including pregnancy. Quine et al. (2003) also found that when it came to sexual activity, different standards were held for each gender, with young males tending to be ‘congratulated’ for their sexual behaviour, while females were ‘labelled’. While this finding is not necessarily associated with rural communities only, it was interesting to note that participants only discussed promiscuity and sexual risk-taking behaviour only in terms of adolescent females.

Stigma regarding mental illness was another aspect of this ‘judgemental’ rural culture which was identified as a factor adolescents felt would deter rural inhabitants such as ‘Alice’ in the vignette, from seeking support for a mental health concern. It has been widely accepted in past research that stigma often causes young people with a mental health problem to feel ‘shame’ or ‘embarrassment’. Indeed, in a recent report published by the Youth Affairs Council of South Australia (2006), stigma was identified as one of the central personal barriers faced by adolescents in accessing their mental health care.

In an effort to try and understand the pervasiveness of stigma to mental health service access, Rose et al. (2007) investigated stigma and treatment avoidance amongst a sample of 14-year-old school students in England. At the completion of their study, the research team found that some 250 labels or terms were used by 85% of their sample to describe a person with a mental illness.

These terms fit into five categories with the top two consisting of ‘derogatory terms’ and ‘negative emotional state terms’. Rose et al. (2007) found that many young people in their study tended to confuse mental illness with particular physical disabilities and at times tended to link psychiatric diagnoses with terms related to violence. These results suggest that many of the labels or terms associated with people suffering a mental illness tended to be based upon non-factual information, or a lack of understanding. Rose et al. (2007) called for increased education about mental illness amongst young people to try and reduce the negative labels they attribute to mental illness. Indeed, the results obtained in this study also call for more education about mental illness, as many of the adolescents interviewed wanted more mental health education as part of their school curriculum.

4.3 Mental health care

During focus group discussions, participants were able to suggest many local mental health services that they could recommend to ‘Alice’ if she was a member of their community or school. However, when participants were asked about the types of mental health services they themselves would access if they had a mental health problem or felt as though they needed guidance or support at any time, participants invariably mentioned ‘informal’ supports – predominantly family and friends.

Despite past research suggesting that young males were more likely to rely upon ‘informal’ supports, it emerged that this was being advocated by females. Considering the majority of participants were female, it is interesting that this occurred. Another ‘informal’ source of support identified by participants included the school counsellor. Across the eight focus groups, there were differing levels of comfort in accessing support for a mental health or interpersonal problem in the school. One of the eight schools recruited had a very close-knit school community and a well developed peer-support program, and all focus group participants from this school mentioned their school counsellor as a first port of call for a mental health problem. Of the other focus groups, participants were somewhat wary about accessing support for a mental health concern through their school because they were worried about their confidentiality being maintained. In fact, during Focus Group E, one participant relayed a story about a school counsellor who she knew tended to discuss individual cases and breach confidentiality. It has been well documented that adolescents need to feel as though their confidentiality is assured before they engage with a particular service for any type of health concern (Kang & Chown, 2004).

Related to the ‘fish bowl’ metaphor of high visibility of the movements of inhabitants of rural communities, adolescents were worried about their confidentiality being maintained if visiting more ‘formal’/ ‘specialist’ mental health services, such as a psychologist, social worker, local Child and Adolescent Mental Health Service office, local community health centre, local youth centre or General Practitioner. Breaches in confidentiality could occur at two levels: firstly, the staff working in administrative or support roles leaking information to their friends and family about who had visited their workplace that day; or secondly, from being seen to enter or leave from a known ‘mental health’ or ‘youth health’ venue.

It was not only due to concerns about confidentiality that ‘formal’/ ‘specialist’ mental health services were not seen as services of personal choice for participants, but also due to the specific characteristics of the staff providing ‘formal’/ ‘specialist’ mental health services. Participants often felt that mental health staff in these positions were intimidating and did not feel as though they cared about the adolescents. Perhaps this perception about ‘formal’ mental health staff could be what deterred the adolescents from identifying them as a first port of call for support should they need it. Furthermore female participants noted that staff in more ‘generalist’ positions such as General Practice often tended to be male, and they would have felt a greater level of comfort with a female health worker.

During discussions about informal and formal/specialist mental health services, the biggest criticism adolescents noted was the age of staff currently providing mental health care in their communities. Adolescents consistently stated that they would prefer younger staff to take up positions in the health sector in their towns, because they felt they would not only feel more comfortable with a younger person, but be able to ‘connect’ with them and feel understood by them. In Study 1, the average age of human service providers was 44 years. Considering the age of participants sampled in the current study ranged from 14 to 18 years of age, this may indeed cause adolescents to feel as though they were speaking with a parental figure.

These findings are not dissimilar to previous research conducted by Quine et al. (2003) who investigated health access barriers amongst urban and rural adolescents. As compared to urban adolescents, the researchers found that confidentiality was a major concern amongst the rural youth sampled, especially for rural males who were less able to talk with their peers or service providers about mental health issues out of fears that their

confidentiality may be breached. Also, a clear preference for younger, female primary health care staff has been identified by adolescent females (Kapphahn et al., 1999; Quine et al., 2003). Collectively, these findings are somewhat at odds with other research which has suggested that it is the communication style of the health care provider that is more important, than age and gender characteristics (Rickwood et al., 2007; Van den Brink-Muinen et al., 1998; Vo et al., 2007; Wilson et al., 2003).

4.4 Study Limitations

Firstly, a potential limitation of the current study lies with participants recruited, and may introduce a form of selection bias to the results obtained. Participants were technically not self-selected to take part in focus group discussions, but rather nominated by their teacher or school Principal. Parents may have also influenced their decisions to take part in focus group discussions, because it was necessary to have parental consent as many of the adolescents were aged below 18 years at the time of interview. While focus group attendees were explicitly asked at the beginning of focus groups if they agreed to take part in the group discussion, and completed a consent form stating they gave their personal consent to take part, it could also be the case that the suggestion from the teacher or school Principal may have acted as the main motivational factor for taking part in the study. Nevertheless, it is unlikely that the participants recruited were ignorant of mental health problems, or may have been suffering from a mental health problem at the time of interview. If this was the case, their Principal would not have nominated them for participation.

An additional limitation of studies deriving samples from school populations, is they do not capture the early school leavers/those who drop out of school, who are often at higher risk of mental health problems and reduced wellbeing.

Of the 16% of South Australian youth who leave their secondary education prior to completion of Year 12, those from rural areas are overrepresented (ABS, 2010) . Whilst it was out of the scope of the current research project to recruit this minority of the adolescent population, further study into the impact of early school leaving on wellbeing needs to be explored.

It would have been advantageous to recruit participants who had direct experience of accessing a mental health service for a mental health problem in the four rural townships investigated. A more thorough understanding of the issues surrounding availability and accessibility could have been developed, but one would then need to conduct individual interviews, rather than a focus group to obtain a deeper insight into this area.

Finally, it is recognised that the results of the current study are probably not able to be generalised to the wider rural community in South Australia. The four rural townships visited had different RRMA classifications and differed markedly from each other. Rural South Australia is quite diverse so the results of the current study certainly may not be transferable to regional or remote locations. However, this was not the overall point of the study. Rather, the goal was to identify information-rich cases and develop an understanding of the mental health needs of adolescents in rural South Australia.

4.5 Study Strengths

One of the strengths of this study related to the characteristics of the researcher. In conducting all the focus groups, she was female and aged in her mid-twenties at the time of data collection. Considering that many of the focus group participants often stated they felt they would relate well to counsellors, mental health professionals, etc. if they were a bit closer in age to them, this definitely aided the data collection process.

The researcher was able to establish a rapport with all focus group attendees and collected some very high quality data, as a result of their willingness to share their thoughts and impressions openly. Also, the researcher grew up in rural towns and indeed spent her adolescence in one. She had also lived in one of the towns visited during the data collection process, and she made this known to the focus group participants. This may have led participants to perceive her as less of an ‘outsider’, which is perhaps why they shared such personal information with her.

Overall, this study shed light on a very important area of rural mental health – adolescent mental health, which prior to this study being undertaken, seemed to be a neglected area of research in Australia. Indeed, at the time this project was undertaken the researcher struggled to find information about the types of issues surrounding adolescent mental health policy, accessibility and availability of services for adolescents in rural South Australia. This is disappointing considering that approximately 18% of South Australia’s total population are aged from 0 to 14 years, and the proportion of adolescents in some rural townships was found to be up to 26% (ABS, 2009). Adolescents make up a significant proportion of the rural population and it is absolutely vital that existing mental health services meet the needs of this target group.

5. Conclusions

This study described the mental health problems identified by a group of 44 adolescents aged 14 to 18 years of age, who at the time of data collection resided in one of four rural towns and were enrolled in years 10 or 11 at seven different secondary schools. Adolescents were very aware of the problems being experienced by their peers and described in some detail aspects of ‘rural culture’ which they believed contributed to the difficulties experienced by their peers who may have a mental health problem.

In addition, adolescents of the current study identified several areas of improvements they felt were necessary for existing mental health service delivery in their towns to be improved, and to encourage adolescents and increase access in the future.

6. Recommendations

Adolescent participants made a series of suggestions, or recommendations for how future mental health service delivery could become more effective in their local communities. Firstly, there were factors which needed to be **increased**:

1. Privacy

In order for adolescents to access services, they needed to feel as though their confidentiality would be maintained. As well as this, adolescents would be more likely to access a known mental health service if it was not in a highly visible location.

2. Comfort

Adolescents stated that they would need to feel comfortable with the mental health professional they were seeking support from, and feel as though they were not being judged or misunderstood.

3. Younger Staff

It was widely agreed that there had to be more 'younger' mental health staff, closer in age to adolescents. This would not only increase the level of comfort adolescents experienced during consultations, but enable younger staff keep abreast of youth issues in their local communities.

4. Informal Support

Adolescents of the current study felt that their first port of call would be an ‘informal’ source of support, if they were experiencing a mental health problem. Aside from friends and family, adolescents would be more likely to seek assistance from peer support (within schools), student counsellors, pastors and youth workers, provided they were not part of a ‘formal’/ ‘specialist’ mental health service.

5. Community Resources

It was also suggested that resources in the community should be increased to try to accommodate young people’s needs. These included youth centres and drop-in centres where adolescents could not only socialise and participate in recreational activities in a safe supervised environment, but also access potential supports and health information.

6. Education

Finally, there was a great need identified for an increase in knowledge about mental health issues at school. Adolescents consistently felt they had not received enough education about mental health issues in the senior years of secondary education, when these were the years when it seemed to apply most to their lives.

Participants also identified specific factors that had to be **decreased** or removed, in order for adolescents to access local community mental health services:

1. Stigma

While it is acknowledged that stigma *per se* cannot be ‘removed’, it was widely accepted amongst focus group attendees that if there was less of a negative perception of mental illness and mental health problems in their rural communities, adolescents would feel less shame or embarrassment about such problems and may be more likely to access help.

2. Authority Figures

Adolescents seemed wary of receiving help from health workers with ‘titles’ as they tended to find them intimidating. With the more serious mental health problems such as psychosis or schizophrenia, for example, it was acknowledged that these professionals would be appropriate avenues for help. However, for the more common problems of depression or anxiety or problems with family or other interpersonal relationships, adolescents stated they would not feel comfortable in getting help from ‘authority figures’.

3. Formal Services

Finally, adolescents in the current study appeared to have a preference for accessing ‘informal’ mental health services. Formal/specialist services were often located in settings where the comings and goings of adolescents accessing this service would be visible to other people in their community. Consequently, less obvious ‘mental health’ services would be preferred.

These recommendations have been described pictorially in Figure 17 below.

Factors which need to be ‘increased’, appear on the right hand side of the diagram, while factors which need to be ‘removed’ appear on the left hand side. It should be noted that the current recommendations put forward, fit very well with the World Health Organisation’s framework for ‘youth-friendly’ health services (Tylee et al., 2007; WHO, 2002), which is based upon the following principles:

Equitability: Policies and procedures do not restrict the provision of health services; and health care providers and support staff treat all their patients with equal care and respect regardless of status.

Accessibility: Services are either free or affordable to all young people; have convenient working hours/location; young people are well informed about the range of services available and how to obtain them; community members understand the benefits that young people will gain by obtaining health services; outreach workers, selected community members and young people themselves are involved in ‘reaching out’ with health services to the community.

Acceptability: Policies and procedures are in place that guarantee client confidentiality, and health-care providers provide adequate information and support to enable each young person to make free and informed choices; service providers are non-judgmental, considerate, and easy to relate to and act in the best interests of their patients; the setting itself ensures privacy (including discrete entrance) and lacks stigma; has a clean and safe environment.

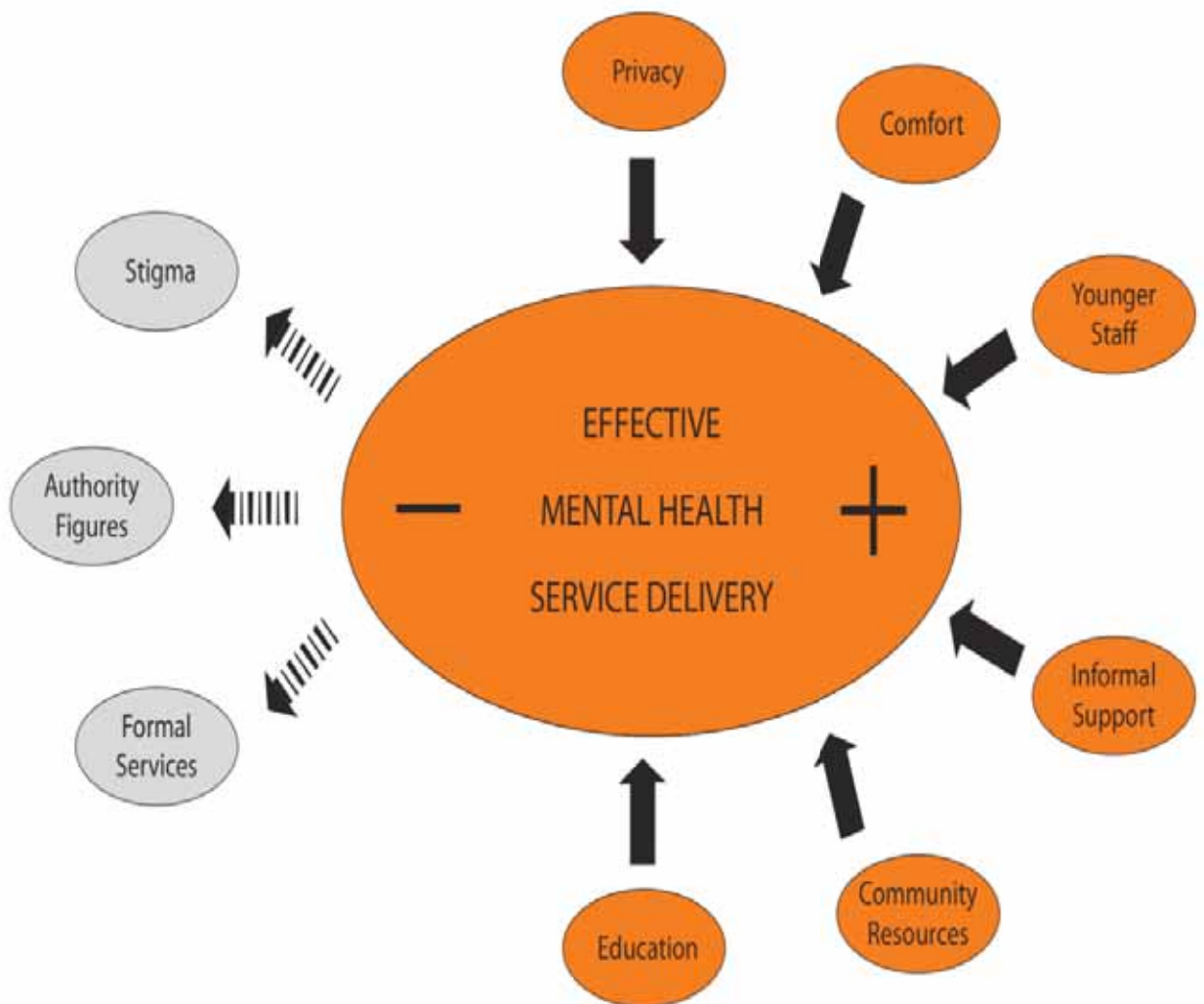
Appropriateness: Health services needed to fulfill the needs of young people are provided either directly ('in-house') or through referral linkages; health-care providers deal adequately with presenting issues yet strive to also address other issues that affect health and development of adolescent patients.

Effectiveness: Health-care providers have the required competencies; service provision is guided by technically sound protocols and guidelines; points of service delivery have the necessary equipment, supplies, and basic services to deliver health services.

In terms of the specific recommendations made by participants of the current study, it is apparent that many of them fit under the WHO's 'youth-friendly' principles of:

Accessibility (Younger Staff ✓, Community Resources ✓, Education✓), *Acceptability* (Privacy ✓, Comfort ✓, Younger Staff ✓, Stigma ✗, Authority Figures ✗) and *Appropriateness* (Education ✓, Formal Services ✗).

Figure 17: Recommendations made by adolescents.



CHAPTER 5

A QUANTITATIVE INVESTIGATION INTO THE MENTAL HEALTH AND WELLBEING OF ADOLESCENTS IN RURAL SOUTH AUSTRALIA

1. Introduction

This chapter presents the results of a quantitative study that investigated the mental health status and wellbeing of a group of South Australian adolescents enrolled in senior secondary high school (years 10 to 12). It will describe the rationale for this study, the methodology used and the conclusions drawn from the study's results.

Background

Studies 1 and 2 were qualitative studies that explored what types of mental health problems were experienced in rural communities of South Australia by speaking with those who are most knowledgeable in that area – human service providers who provide care to rural adolescents, and the adolescents themselves who experience the problems and have a deep awareness of the issues. However, this sort of qualitative questioning about psychological wellbeing cannot provide an accurate ‘snapshot’ of the situation. The current study was designed to build on the information provided by participants during Studies 1 and 2 and provide some reliable prevalence data about the psychological wellbeing and health risk behaviours apparent in rural South Australian adolescents. Moreover, it is also important to investigate health service utilisation as prior research has continually suggested that adolescents of rural townships face particular barriers which may prevent them from seeking help for their physical and mental health concerns altogether. This chapter will present data describing current health service use for rural South Australian adolescents.

Contribution of the present study

Previous studies have continually suggested that rural adolescents are characterised by an increased risk of mental health morbidity, poor physical health, increased health risk behaviour and a lack of professional help for their mental health concerns, so it is very important for the current research to have some quantitative measure of these. These types of data do not yet exist for rural South Australian adolescents aged 15-19 years. Therefore, a questionnaire investigating the aforementioned health issues was utilised.

Objectives:

- ❖ To investigate the mental health status of young people;
- ❖ To examine the physical wellbeing of adolescents;
- ❖ To examine health risk behaviour(s); and
- ❖ To investigate rural adolescents' experiences with mental health service usage.

Hypotheses:

1. Male participants will report lower levels of suicidal ideation while female participants will report higher levels of negative mood, as found by Winefield et al. (1993), and in accordance with ABS statistics (2001, 2003).
2. Female participants will report more of the following health risk behaviours than male participants, and this difference between genders will be significant (as found by Sawyer et al., 2000b):
 - A. alcohol use;
 - B. drug use;
 - C. smoking; and
 - D. risky sexual behaviour.

2. Method

Study design

A quantitative, cross-sectional study design, involving the collection of self-report questionnaire data was used here. Participants were sampled from three year levels (years 10, 11 and 12) across 11 secondary schools in eight towns in rural South Australia, and given a self-report questionnaire to complete. Because the goal of this study was to understand the existing mental health problems experienced by adolescents residing in rural South Australia, and specifically to investigate their mental health status, it was deemed appropriate to employ self-report questionnaire data, where the extent of potential mental health risks could be easily quantified.

Ethical Considerations

Because adolescents were being sampled from both government and non-government secondary schools in rural communities, ethics approval for this study had to meet the requirements of three different ethics committees: The University of Adelaide's Human Research Ethics Committee (HREC), the Department of Education and Children's Services South Australia (DECS SA) and Catholic Education South Australia. After a lengthy application process (described in Chapter 2), final ethics approval from all three committees was received in October 2007 (approval number: H-056-2007).

Participation was voluntary with consent required not only from the participants but also from their parents/guardians, since the majority adolescents were under eighteen years of age. Since participants lived in small, rural communities and could have been identified from their responses, any personally identifying information is not reported or published.

Each participant completing the questionnaire was assigned an ID number, further protecting their identity in the results published throughout this thesis and any papers/presentations describing the project's overall results.

Due to the sensitive subject matter of the questionnaire, provisions were made for participants in the event they became distressed as a result of their commitment to the study. At the request of DECS SA, when questionnaires were completed, each participant was provided with an information sheet detailing contact information for local mental health services in their communities, mental health support hotlines and websites. The Student Counsellor at each school agreed to make themselves available for support in the event that any student was distressed by items in the questionnaire. Furthermore at the request of DECS SA, local human service providers from Study 1 agreed to take on any referrals made to them by Student Counsellors.

Participants

The sampling frame comprised all 'senior' students attending one of the 18 secondary schools in the Spencer Gulf, Yorke Peninsula and Limestone Coast/Greater Green Triangle regions of South Australia. Of these schools, 11 secondary schools from eight rural townships: Port Lincoln, Whyalla, Port Augusta, Port Pirie, Gladstone, Kadina, Riverton and Loxton, gave permission for the research student to recruit students from their school. A total sample of 332 adolescents was recruited for this study. It is important to note, however, that only adolescents from the 'senior' years of secondary school, i.e. years 10, 11 and 12 were recruited (aged between 15 and 19 years), due to a specific request by DECS SA., who believed the questionnaire content was not appropriate for younger adolescents.

Recruitment strategy

Participants were recruited concurrently with the qualitative study discussed in Chapter 4. Beginning in March 2008, eight schools agreed to promote the study, and assist with the recruitment of students. Potential schools were identified from the DECS SA website: (<http://www.decs.sa.gov.au/locs>) by searching the geographical region of interest in South Australia. Once the contact details for each school were obtained, the research student then contacted the Principal of each school via telephone or e-mail to discuss the study briefly and offered to send them some specific recruitment information via e-mail or post. The researcher then contacted the Principal one week after providing them with the additional information to gauge whether or not they were willing for their school to participate. Initially, some ten schools were approached for participation and eight subsequently agreeing to be involved.

Once the researcher had liaised with each Principal about having their school participate, it was then necessary to establish how many students were in years 10, 11 and 12 at each school. To do this, the researcher was provided with the class lists of the year 10 to 12 students enrolled at each school, as well as the postal details of these students. The researcher then mailed a recruitment package to the parents/guardians of every year 10-12 student at each of the eight secondary schools. Each recruitment package contained information about the overall research project, a copy of the questionnaire that their child would be asked to complete privately, and a consent form.

Parents/guardians were asked to indicate on the consent form whether or not they agreed for their child to take part in the questionnaire component of the study only, or the questionnaire AND focus group discussion with their child's peers about mental health in their communities.

In this recruitment information, it was explicitly pointed out to parents that their child's questionnaire responses would remain confidential, unless they were identified as being at risk of self-harm, in which case their school counsellor would be notified and appropriate mental health referrals made. Throughout 2008 and early 2009, some 2,390 recruitment information packages were mailed to parents of year 10, 11 and 12 students at the eight rural schools in four rural communities. Unfortunately, despite this large pool of potential participants, very few responses were received after a three to six month response period for each school (178).

In an effort to recruit the minimum sample size needed for a useable statistical analysis (295), the researcher then tried to recruit additional schools by sampling from other, smaller rural townships on Yorke Peninsula during early to mid-2009. This secondary sampling proved to be successful in that an additional three schools were recruited. Figure 18 illustrates the townships, schools and year levels from which the 332 questionnaire participants were recruited.

Selection and Exclusion Criteria

Inclusion in this study required the participants to be (a) currently enrolled in year 10, 11 or 12, at a secondary school in one of the eight rural townships; (b) have their parents/guardians full consent to participate in the study if they were aged less than eighteen years; and (c) give consent to participate in the study. There were no specific exclusion criteria except that participants met all inclusion criteria.

Data Collection

The data were collected via self-report questionnaire (Appendix H). The questionnaire consisted of various measures investigating physical and psychological health, and also contained information about health service usage as well as demographic information. Specifically, the questionnaire was divided into five sections and contained 42 questions described in detail below:

PART I: Mood – items investigating mental health status

Social Alienation Scale (Dodder & Astle, 1990):

The social alienation scale consisted of nine items and respondents were required to indicate whether they agreed or disagreed with each statement. This scale was adapted from Srole's Anomie scale (Srole, 1956), which was designed to measure a person's perception of meaninglessness in society. The internal consistency of items on this scale was acceptable, with a Cronbach's $\alpha = .60$.

Negative Mood Scale (Tiggemann & Winefield, 1984):

This scale was used to determine the frequency with which participants experienced certain mood states such as anger, depression, or happiness. Participants were asked on a 4-point scale to indicate how often they experienced a list of seven moods (1=almost never, to 4=almost always). One of the items (happiness) was reverse scored. Scores could range from 7 to 28. The measure had an acceptable level of internal consistency, with a Cronbach's $\alpha = .63$.

Suicidal Ideation Scale (Goldberg & Hillier, 1979):

This scale was an adaptation of the GHQ-28 developed by Goldberg and Hillier (1979). Eight questions were used to assess suicidal ideation and behaviour.

Participants were asked if they ever had thoughts of killing themselves, had persistent thoughts of killing themselves, made plans to kill themselves, and whether they ever attempted suicide. Participants were also asked if they had experienced any of these behaviours over the last six months. All eight questions required a yes or no answer, giving a score range of 0 to 8. The internal consistency of this measure produced a high Cronbach's alpha of .90.

Self-esteem Scale (Rosenberg, 1965):

This scale consisted of 10 items and required participants to indicate the extent to which they agreed with each statement on a 4-point scale (1=strongly agree, to 4=strongly disagree). There were five negatively worded items on the scale that needed to be reverse scored. Scores could range between 10 and 40 with higher scores on this scale indicating higher levels of self-esteem. This scale has been consistently cited in the literature as being a good general measure of self-esteem with sound reliability and validity. Internal reliability for the current study was found to be high, with Cronbach's α calculated at .80.

Trait Anxiety Scale (Spielberger, 1983):

This 10-item scale is a shortened version of the Trait Anxiety section of the well-known *State-Trait Anxiety Inventory* (STAI, Spielberger et al., 1964). The STAI is extensively used in psychological research world-wide. State anxiety is defined as an unpleasant emotional arousal in the face of threatening demands or dangers. Trait anxiety, on the other hand, reflects the existence of stable individual differences in a tendency to respond with state anxiety in the anticipation of threatening situations (Schwarzer, 1997). The original STAI consists of 40 items: 20 dedicated to measuring State Anxiety; and 20 measuring Trait Anxiety. The shortened Trait Anxiety version (Spielberger, 1983) used here consisted of 10 items, and required participants to rate the frequency of their experience with each statement along 4-points (0=never, 4=almost always).

Three statements (items 1, 2, and 7) were positively worded and needed to be reverse scored. Scores could range from 0 to 28, with higher scores representative of greater experience of Trait Anxiety. Internal reliability was found to be high, with a Cronbach's alpha of .78.

Perceived Stress Scale (Cohen, 1988):

The PSS was designed to be used in community samples with at least an early secondary school education (up to years 7 and 8). The scale consists of ten items and requires participants to nominate the frequency of their experience of stress. Participants could respond to each statement across a 5-point scale (0=never, 4=very often). Scores could range between 0 and 24, with higher scores indicative of more frequent experiences of stress. The scale contained four positive items (4, 5, 7, and 8) that needed to be reverse scored. The measure had an acceptable level of internal consistency, with a Cronbach's $\alpha = .66$.

Brief COPE Scale (Carver, 1997):

The COPE Inventory was developed to assess a broad range of coping responses. The inventory includes some responses that are expected to be dysfunctional, as well as some that are expected to be functional. The original COPE Inventory consists of 60 self-report items arranged across 15 sub-scales or coping responses. The Brief COPE is an abbreviated version of the original COPE and was developed out of consideration for potential time constraints or high response burden. The Brief COPE consists of 28 items divided across 14 sub-scales. Sub-scales in the Brief COPE were computed following the technique recommended by Carver (1997), with no reversals of coding occurring. Participants are asked to nominate the frequency of their coping behaviour across a 4-point scale (1=I haven't been doing this at all, 4=I've been doing this a lot).

Participants can have a maximum score of 8 on each sub-scale or coping response.

Internal reliability of this scale could have been improved with a Cronbach's $\alpha = .60$.

PART II: Health Behaviours - items investigating current physical health status and any engagement with health risk behaviours.

Specifically, this section contained: questions about alcohol consumption, cigarette smoking, prescription and non-prescription medications and associated conditions, drug use, and types of drugs consumed, and sexual identity/orientation and the Sexual Health Questionnaire (WHO Collaborating Centre for Mental Health and Substance Abuse, 1999).

PART III: Health Services - items investigating current physical and mental health service utilisation, and problems for which help was sought.

Future help-seeking behaviour and ranking of future mental health supports was also investigated. Satisfaction with local mental health services as well as current and future learning about mental health issues were also investigated.

PART IV: Health Information – items relating to height and weight information for Body Mass Index calculations, chronic illness information, and the GHQ-12.

GHQ-12 (Goldberg & Williams, 1991):

The General Health Questionnaire was designed as a screening instrument to provide information on mental wellbeing in community samples, rather than giving specific psychiatric diagnoses (Goldberg & Williams, 1988). The GHQ-12 is a shortened version of the original 60-item questionnaire that provides participants with a list of twelve symptoms.

Participants are asked to rate the degree to which they have experienced each symptom in the past few weeks by selecting one of four response categories (3 = more so than usual; 2 = same as usual; 1 = less than usual; 0 = much less than usual). A total score was taken by adding across the twelve items to obtain a total severity score. The scores were recorded using the standard binary coding method (0, 0, 1, 1), where symptomatic responses were scored as a 1. This method of scoring results in a score that ranged from 0 to 12, with higher scores indicative of higher levels of psychological distress. The GHQ manual notes that this scale can be used with adolescents. High internal reliability was evident with a Cronbach's alpha value of .84.

PART V: Demographic Information – items relating to gender, age, citizenship status, ethnic origin, socio-economic status determined from parents' occupations, and family information, i.e. sibling information, two-parent or single-parent household.

These components of the questionnaire address the objectives of the current study and also provide a representative snapshot of the physical and mental health status of adolescents aged 15-19 years living in rural South Australia in 2008/2009. It is also important to note here that the current questionnaire is an adaptation of a questionnaire devised by Winefield et al. (unpublished) for the *University of South Australia's Longitudinal Investigation of School Leavers*. In Study 4 (Chapter 6) the results arising from this study will be compared to those of Winefield et al. (unpublished).

Procedure

Prior to the recruitment of potential participants, the questionnaire was pilot tested with a group of first-year university students at The University of Adelaide. Approximately 13 students completed the pilot questionnaire in early 2008 and made various comments about the layout of items, the language used and the time taken to complete the questionnaire. Following consultation with these students, some minor amendments were made to the positioning of particular items within the questionnaire. Wording of specific items on measures was changed since the instrument was developed in the United States and needed minor amendments to suit Australian respondents.

Once the researcher had received the parental consent form for each participant recruited, the questionnaire was distributed. While it was initially planned for each participant to complete their questionnaire at school, this did not always occur. Some schools agreed for students to complete the questionnaire at school in their home class, Personal Development class or Psychology elective. In this case teachers agreed for students to have 30 minutes of class time to complete the questionnaire, and made themselves available to supervise students during completion and clarify any queries they may have had. At other schools, questionnaires were sent home directly with parent/guardian consent forms, and were completed at home and then either returned to the school (who forwarded questionnaires to the research student in Adelaide), or posted directly to the research student in a reply-paid envelope. This was done because some schools felt that students would feel more comfortable completing questionnaires in the privacy of their home, rather than in a class room setting. Questionnaires were completed between July 2008 and April 2009.

Data Treatments

Prior to any statistical analysis taking place, it was necessary for the data to be screened to meet the particular requirements of the analyses. First, the accuracy of the entered values was roughly checked to see if responses fell into the prescribed categories. No major discrepancies were identified. Following this process of data ‘screening’ and ‘cleaning’, the appropriate statistical analyses were conducted using a statistician from the Department of Public Health, University of Adelaide.

Statistical Testing

Descriptive information for the continuous data and frequency information for the categorical data were the first statistics to be calculated. In order to address the objectives of the study and test the proposed hypotheses, males and females were compared using independent samples t-tests for continuous normally distributed outcomes, and Wilcoxon tests for continuous outcomes which were not normally distributed (see Table 11 below). All calculations were performed using either SAS Version 9.2 (SAS Institute Inc., Cary, NC, USA), or SPSS Version 17 (*Statistical Package for the Social Sciences* for Windows, Chicago, USA).

3. Results

3.1 Response Rate

In total, 2,390 recruitment packages were sent to eligible students, and 332 adolescents completed the questionnaire. Participants were recruited from Years 10 to 12 from 11 schools (Table 14).

Table 14: Response rate by school.

School ID	Potential <i>N</i>	Actual <i>N</i>	Response Rate (%)
<i>A</i>	400	24	6
<i>B</i>	220	27	12
<i>C</i>	150	16	11
<i>D</i>	400	40	10
<i>E</i>	285	37	13
<i>F</i>	10	4	4
<i>G</i>	325	89	26
<i>H</i>	150	20	12
<i>J</i>	100	14	14
<i>K</i>	250	45	17
<i>L</i>	100	13	13
	<i>2,390</i>	<i>332</i>	<i>14</i>

Figure 18: The townships located in South Australia, and how many participants were recruited from each town.



3.2 Descriptive statistics

The demographic characteristics of the 332 respondents are shown in Table 15. Overall figures indicate that the majority of the participants were female (67%), non-indigenous (96%), Australian citizens (98%) enrolled in Year 11, attending a public/government (88%), co-educational school, and most commonly, resided in a rural town whose population had less than 10,000 inhabitants (44%). The mean age of participants was approximately 16 years and five months. Additionally, the majority of participants' parents co-habited (74%) and were employed (89% of fathers and 83% of mothers). In terms of Body Mass Index (BMI) each gender group was in the 'healthy weight' range, as standardised for children and adolescents aged between 2 and 20 years of age (Appendices J & K), with figures of 76% and 66% for males and females respectively. BMI is widely used in the health sciences to compare a person's weight and height, and to estimate a person's healthy weight from their height. BMI is recognised as the best proxy for body fat percentage from ratio of weight to height (Keys et al., 1972).

Table 15: Demographic characteristics of sample.

DEMOGRAPHIC CHARACTERISTIC	N	%
Gender		
<i>Male</i>	109	33
<i>Female</i>	223	67
Year		
<i>10</i>	104	31
<i>11</i>	115	34
<i>12</i>	112	34
<i>Missing</i>	1	0.3
BMI (Males) +		
<i>Underweight (<18.99)</i>	9	8
<i>Healthy Weight (19.00 – 26.99)</i>	83	76
<i>Overweight (27.00 – 30.49)</i>	10	9
<i>Obese (30.50+)</i>	4	4
<i>Missing</i>	3	3

DEMOGRAPHIC CHARACTERISTIC	N	%
BMI (Females) +		
<i>Underweight (<17.89)</i>	16	7
<i>Healthy Weight (17.90 – 26.49)</i>	148	66
<i>Overweight (26.50 – 31.89)</i>	18	8
<i>Obese (31.90+)</i>	10	4
<i>Missing</i>	31	14
School Type		
<i>Public/Government</i>	293	88
<i>Private</i>	38	11
<i>Missing</i>	1	0.3
RRMA Index		
<i>(3) Large Rural Centre Population 25 – 99,000)</i>	96	29
<i>(4) Small Rural Centre Population 10 – 24,999)</i>	82	25
<i>(5) Other Rural Area Population(<10,000)</i>	145	44
<i>(7) Other Remote Area Population (<5,000)</i>	9	3
Citizenship		
<i>Australian Citizen</i>	324	98
<i>Non-Citizen</i>	5	2
Indigeneity		
<i>Aboriginal/T.S.I Origin</i>	11	3
<i>Non-indigenous Origin</i>	319	96
<i>Missing</i>	2	1
School Population		
<i>Single Sex</i>	1	3
<i>Co-Educational</i>	30	97
Parents' Habitation		
<i>Co-Habit</i>	23	74
<i>Do Not Co-Habit</i>	8	26
Mother's Employment Status		
<i>Employed</i>	274	83
<i>Unemployed</i>	54	16
<i>Don't know</i>	1	0.3
<i>Missing</i>	3	1
Father's Employment Status		
<i>Employed</i>	297	89
<i>Unemployed</i>	26	8
<i>Don't know</i>	2	0.6
<i>Missing</i>	7	2
Age	16.42	0.99
	<i>M</i>	<i>SD</i>

+ Note: B.M.I. tables can be found in Appendices J & K.

3.3 Gender Differences on Psychological Health Measures

Participants were compared across a variety of psychological health measures presented in Table 18. Strong evidence emerged of significant differences between males and females on five of the eight psychological health measures. Female participants reported higher trait anxiety [$t(319) = -4.34, p < .0001$] and perceived stress [$t(327) = -4.89, p < .001$], than their male peers. However, males reported higher scores (indicative of higher levels of psychological distress) than females on the General Health Questionnaire (GHQ-12), [$t(320) = -3.16, p = .002$], and lower levels of self-esteem. Participants also tended to demonstrate low to very low levels of suicidal ideation than their male peers [$t(260) = -2.76, p = .006$].

In terms of experience with the suicide of others around them, there were significant gender differences amongst participants (Table 16). More females had known someone who had attempted suicide (most commonly a friend 30%), and this observation was found to be statistically significant at the .001 level (Table 16). Females were also more likely to have known someone who had actually committed suicide (most commonly an acquaintance 27%). This observation was significant at the .01 level.

Table 16: Numbers of participants reporting experience of the suicide of others
(% in parentheses).

CHARACTERISTIC	Male N=109	Female N=223	<i>p</i>
Attempted Suicide of Others			0.0008**
<i>Yes</i>	41 (37.6)	132 (59.2)	
<i>No</i>	62 (56.9)	87 (39.0)	
<i>Missing</i>	6 (5.5)	4 (1.8)	
Relationship to Participant			0.7256
<i>Parent</i>	1 (0.9)	132 (59.2)	
<i>Other relative</i>	1 (0.9)	87 (39.0)	
<i>Friend</i>	22 (20.2)	4 (1.8)	
<i>Acquaintance</i>	10 (9.2)	37 (16.6)	
<i>Two of the above</i>	5 (4.6)	10 (4.5)	
<i>Three of the above</i>	1 (0.9)	6 (2.7)	
Suicide of Other			0.0092**
<i>Yes</i>	27 (24.8)	90 (40.4)	
<i>No</i>	76 (69.7)	128 (57.4)	
<i>Missing</i>	6 (5.5)	5 (2.2)	
Relationship to Participant			0.1429
<i>Parent</i>	0 (0.0)	3 (1.3)	
<i>Other relative</i>	4 (3.7)	12 (5.4)	
<i>Friend</i>	4 (3.7)	15 (6.7)	
<i>Acquaintance</i>	15 (13.8)	59 (26.5)	
<i>Two of the above</i>	4 (3.7)	2 (0.9)	
<i>Missing</i>	82 (75.2)	132 (59.2)	

Note: Fisher's exact tests were used to compare Males and Females on categorical outcomes

* $p < .05$, ** $p < .01$, *** $p < .001$

On the coping scale the measure was broken down into the 14 sub-dimensions or coping mechanisms: Self-distraction, Active Coping, Denial, Substance Abuse, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance, Religion and Self-blame.

The results indicated that in general, females tended to score more adaptively on each coping mechanism than their male peers (Table 17). However, only statistically significant differences between genders occurred on the mechanisms of: Denial, Substance Abuse, Emotional Support, Venting, Planning, Religion and Self-blame. This indicates that while females tended to engage in more positive coping styles than their male counterparts, they also employed the negative coping strategies of Denial, Substance abuse and Self-blame more often.

Table 17: Gender differences in coping strategy.

Coping Strategy Mean (SD)	Male <i>N</i> =104	Female <i>N</i> =216	<i>df</i>	<i>t</i>	<i>p</i>
Self-distraction	4.4 (1.6)	4.6 (1.6)	318	-.97	.33
Active Coping	3.6 (1.2)	3.6 (1.1)	318	.03	.98
Denial	2.8 (1.2)	3.2 (1.3)	318	-2.73	.007
Substance Abuse	3.5 (1.3)	4.3 (1.5)	318	-4.26	<.001
Emotional Support	2.7 (1.3)	3.1 (1.5)	318	-2.66	.008
Instrumental Support	3.5 (1.3)	3.7 (1.2)	318	-1.45	.15
Behavioural Disengagement	4.5 (1.6)	4.7 (1.6)	318	-.598	.55
Venting	3.1 (1.3)	3.5 (1.4)	318	-2.20	.03
Positive Reframing	3.7 (1.6)	4.0 (1.5)	318	-1.36	.18
Planning	3.4 (1.4)	4.1 (1.6)	318	-4.07	<.001
Humour	2.3 (1.1)	2.5 (1.1)	318	-1.36	.17
Acceptance	4.0 (1.7)	4.2 (1.5)	318	-1.51	.13
Religion	3.3 (1.4)	3.8 (1.4)	318	-2.68	.008
Self-blame	3.2 (1.4)	3.6 (1.3)	318	-2.55	.011

Note: Higher scores are indicative of greater participation in coping strategy.

Implications of findings on Hypothesis 1

Collectively, the figures presented in Tables 16, 17 and 18 indicate that Hypothesis 1 was only partially supported. While females did score very slightly higher than their male peers on the Negative Mood scale, this did not emerge as a significant difference. Similarly, it was hypothesised that females would display higher levels of suicidal ideation than their male counterparts. This proved to be the case with females on average scoring twice as highly on the suicidal ideation scale, than their male peers. This result was significant at the .01 level. These findings are not so surprising considering it is well-documented in the literature that females tend to display higher levels of negative mood and suicidal ideation than males.

Table 18: Comparison of males and females on psychological health measures.

Psychological Health Measure	Male	Female	df	t	p
Mean (SD)	N=109	N=223			
Suicidal Ideation	.47 (1.3)	.99 (1.9)	260	-2.76	.0064
Social Alienation	15.2 (2.0)	15.0 (2.2)	323	.78	.43
Negative Mood	12.4 (3.5)	12.9 (3.6)	324	-1.00	.32
Self-esteem	17.5 (5.6)	20.1 (5.9)	324	-3.68	.0003
Trait Anxiety	11.7 (6.8)	15.5 (7.8)	319	-4.34	<.0001
Perceived Stress	14.3 (7.5)	18.6 (7.5)	327	-4.89	<.0001
GHQ	9.2 (2.6)	8.4 (3.0)	320	2.42	.0224

3.4 Health Risk Behaviours

Participants were also compared along several dimensions of their health risk behaviours. Tables 19 and 20 describe the results of the investigation into gender differences in alcohol consumption, drug use, smoking and risky sexual behaviour.

Table 19: Comparison of males and females on health risk behaviours: Continuous outcomes.

Health Risk Behaviour	Male	Female	df	t	p
Mean (SD)	N =109	N =223			
Standard Drinks	8.2 (6.9)	6.1 (5.1)	72.09	1.95	.055
Cigarettes (SOCIALY)	3.5 (2.1)	5.8 (7.3)	23	-0.43	.67
Cigarettes (DAILY)	7.0 (.)	17.0 (11.2)	-	-	-
Marijuana (BONGS, JOINTS)	-	3.8 (3.8)	-	-	-

Note: - indicates not compared due to insufficient number of observations.

Alcohol Consumption

Table 19 illustrates that both genders showed no significant difference in the amount of standard drinks consumed by participants. It is, however, interesting to note that in the gender groups sampled, more males reported not drinking at all, whilst more females tended to drink occasionally or less than once per week (Table 21). Males who self-reported as alcohol consumers tended on average, to drink more often than their female counterparts, and consumed more standard drinks per session. Participants were invited to write down some of the names of the alcoholic drinks they were consuming. It was apparent that generally, pre-mixed drinks were most popular (30%) and in particular those that were vodka-based (Table 20). This also translated to vodka being the most popular of the spirits named (18.3%). Beer and wine were also more popular than any of the other spirits (10.6% and 8% respectively). Alcoholic energy drinks were also very popular (4.9%).

Table 20: Types of alcoholic drinks consumed by participants.

Alcoholic Drink (N)	Frequency (N)	Percentage (%)
<i>Spirits</i>		
- Vodka	98	18
- Whiskey/Scotch/Bourbon	66	13
- Not specified	15	3
- Rum	10	2
<i>Pre-mixed (Ready-to-Drink)</i>		
- Vodka-based	154	29
- Not Vodka-based	15	3
<i>Beer</i>	57	11
<i>Wine</i>	43	8
<i>Liqueurs</i>	37	7
<i>Alcoholic Energy Drinks</i>	26	5
<i>Shots</i>	9	2
<i>Punch/Cider</i>	5	1
	536	(100)

Smoking

Smoking participation in each gender group was highly similar – approximately 80% of participants in each group were non-(*full-time*)-smokers, and no significant difference was detected (Table 21). Interestingly, a significant difference was detected in the levels of ‘Social’ smoking, or smoking when ‘out’.

Results indicated that more female participants were social smokers and on average, tended to consume more cigarettes than their male peers who also identified themselves as social smokers. This difference was found to be significant at the .05 level.

Drug Use

Overall, more females than males reported drug use including prescription medication (37% compared to 11% in males) and non-prescription medication (27% compared to 15% in males), marijuana use and illicit drug use (Table 21). Yet, gender differences were only found to be significant in prescription and non-prescription medication use. Amongst females, the top three prescription medications were: the contraceptive 'pill' (62%), an inhaler/preventer (25%) and antibiotics and insulin equally (2.5% each). The top three explanations for this medication use included: contraception/menstrual problems (58%), asthma (24%) and acne/skin problems (6%).

The top three prescription medications self-reported by male participants included: an inhaler/preventer (36%), insulin (18%) and nasal spray, Minomycin®, Thyroxine, Hydroxy Cycline, Doxycycline® equally (9% each). These medications were used to treat the three most common conditions: asthma (36%), acne/skin problems (27%) and diabetes (18%). For non-prescribed medications used by participants the most popular medications used by females included: pain killers (90%), vitamins/minerals (7%) and antihistamines (3%). Males tended to utilise: pain killers (69%), vitamins/minerals (13%) and anti-depressants and acne treatments equally (9% each). No significant differences emerged in marijuana and illicit drug use and it important to note that very few participants reporting using any of these substances. Of the few participants who reported illicit drug use, the most popular illicit drug was ecstasy.

Risky Sexual Behaviour

Results indicate that on average more females self-reported a tendency to use alcohol or drugs before engaging in sexual experiences (Table 21). However, a significant difference was only found on the item 19(i): ‘Done more sexually than I had planned, due to using drugs or alcohol’. Despite this observation, participants did not feel they needed to learn more about contraception/safe sex at school with 64% females and 61% males rejecting this.

Table 21: Comparison of males and females on health risk behaviours: Categorical outcomes.

Health Risk Behaviour	Response	Male N = 109	Female N = 223	p
Drinking Frequency:				<.01
N%				
	. Don't drink	56 (51.4)	82 (36.8)	
	. < Once p/wk	35 (32.1)	115 (51.6)	
	. 1-2 days p/wk	12 (11.0)	16 (7.2)	
	. 3-4 days p/wk	2 (1.8)	4 (1.8)	
	. 5-6 days p/wk	0 (0.0)	1 (0.4)	
	. Missing	4 (3.7)	5 (2.2)	
Smoking (DAILY):				.67
N%				
	. No	86 (78.9)	179 (80.3)	
	. Yes	1 (0.9)	5 (2.2)	
	. Missing	22 (20.2)	39 (17.5)	
Smoking (SOCIALY):				<.01
N%				
	. No	83 (76.1)	157 (70.4)	
	. Yes	2 (1.8)	24 (10.8)	
	. Missing	24 (22.0)	42 (18.8)	

Health Risk Behaviour	Response	Male N = 109	Female N = 223	p
Prescription Medication				<.001
	. No	76 (69.7)	105 (47.1)	
	. Yes	11 (10.1)	82 (36.8)	
	. Missing	22 (20.2)	36 (16.1)	
Non-prescription Medication: N%				.02
	. No	72 (66.1)	126 (56.5)	
	. Yes	16 (14.7)	59 (26.5)	
	. Missing	21 (19.3)	38 (17.0)	
Marijuana Use: N%				.35
	. No	86 (78.9)	180 (80.7)	
	. Yes	2 (1.8)	10 (4.5)	
	. Missing	21 (19.3)	33 (14.8)	
Illicit Drug Use: N%				1.00
	. Amphetamines/Speed	0 (0.0)	1 (0.4)	
	. Ecstasy	3 (2.8)	3 (1.3)	
	. LSD	0 (0.0)	1 (0.4)	
	. 3+	0 (0.0)	1 (0.4)	
	. Missing	106 (97.2)	217 (97.3)	
Inhaling Chemicals: N%				.07
	. No	80 (73.4)	182 (81.6)	
	. Yes	8 (7.3)	6 (2.7)	
	. Missing	21 (19.3)	35 (15.7)	
'D&A use in 1st sexual experience': N%				.21
	. Yes	7 (6.4)	8 (3.6)	
	. No	34 (31.2)	89 (39.9)	
	. Can't remember	0 (0.0)	2 (0.9)	
	. Missing	68 (62.4)	124 (55.6)	

Health Risk Behaviour	Response	Male N = 109	Female N = 223	p
‘D & A use in most recent sexual experience’:				1.00
N%	. Yes	6 (5.5)	13 (5.8)	
	. No	35 (32.1)	84 (37.7)	
	. Missing	68 (62.4)	126 (56.5)	
‘Influence of D&A in decisions about sex’:				.16
N%	. Yes	11 (10.1)	37 (16.6)	
	. No	28 (25.7)	62 (27.8)	
	. Can't remember	2 (1.8)	1 (0.4)	
	. Missing	68 (62.4)	123 (55.2)	
‘D& A used to help feel more comfortable’:				.28
N%	. Yes	3 (2.8)	16 (7.2)	
	. No	37 (33.9)	84 (37.7)	
	. Missing	69 (63.3)	123 (55.2)	
‘Done more sexually than planned due to D&A use’:				<.01
N%	. Missing	69 (63.3)	123 (55.2)	
	. Yes	4 (3.7)	27 (12.1)	
	. No	33 (30.3)	73 (32.7)	
	. Can't remember	2 (1.8)	0 (0.0)	
‘Unprotected sex due to D&A use’:				.59
N%	. Missing	69 (63.3)	124 (55.6)	
	. Yes	4 (3.7)	16 (7.2)	
	. No	36 (33.0)	82 (36.8)	
	. Can't remember	0 (0.0)	1 (0.4)	
‘STD/pregnancy fears due to D&A use before sex’:				.31
N%	. Missing	69 (63.3)	124 (55.6)	
	. Yes	6 (5.5)	19 (8.5)	
	. No	32 (29.4)	79 (35.4)	
	. Can't remember	2 (1.8)	1 (0.4)	

Health Risk Behaviour	Response	Male N = 109	Female N = 223	p
Sexuality				NR
	. Heterosexual	78 (71.6)	169 (75.8)	
	. Gay	2 (1.8)	0 (0)	
	. Lesbian	0 (0)	1 (0.4)	
	. Bisexual	0 (0)	11 (4.9)	
	. Transsexual	0 (0)	1 (0.4)	
	. Asexual	1 (0.9)	2 (0.9)	
	. Unsure	4 (3.7)	4 (1.8)	
	. ‘Straight’	3 (2.8)	1 (0.4)	
	. ‘Normal’	1 (0.9)	0 (0)	
	. ‘Bi-curious’	0 (0)	1 (0.4)	
	. Missing	20 (18.3)	33 (14.8)	
Same-sex attraction				NR
	. Very anxious	1 (0.9)	1 (0.4)	
	. Somewhat anxious	3 (2.8)	6 (2.7)	
	. Not too anxious	2 (1.8)	11 (4.9)	
	. Not at all anxious	16 (14.7)	26 (11.7)	
	. Don’t know	6 (5.5)	3 (1.3)	
	. Missing	81 (74.3)	176 (78.9)	

Note: Fisher’s exact tests were used to compare Males and Females on categorical outcomes; * $p < .05$, ** $p < .01$, *** $p < .001$; NR = Not relevant

3.5 Sexuality

The data presented in Table 21 shows that the majority of participants identified themselves as Heterosexual – roughly three quarters of each gender group. Interestingly, more females than males also tended to identify themselves across other definitions of sexuality. It should also be noted here that the terms ‘Straight’, ‘Normal’ and ‘Bi-curious’ were self-identified by participants in the ‘Other’ option which appeared on the questionnaire.

Unfortunately, very few participants answered the question about same-sex attraction – perhaps one quarter of all respondents. Of those who did the majority reported that they were ‘Not at all anxious’ about being attracted to members of the same sex. The fact that there was so much missing data on this particular item is noteworthy. It is difficult to ascertain why this may have occurred. Perhaps participants who self-reported as heterosexual in the previous question felt this question did not apply to them, or perhaps they were less willing to share this information about themselves.

Implications of findings on Hypothesis 2

Collectively, the results from the examination into health risk behaviours between genders for the 332 participants sampled highlighted significant differences, albeit on varying dimensions, of A. alcohol use, B. drug use, C. smoking and D. risky sexual behaviour. Specifically, females drank more frequently than their male peers, were more likely to use prescription and non-prescription drugs, smoke socially and ‘do more sexually’ than they had planned as a result of consuming drugs or alcohol. It is therefore fair to assume that Hypothesis 2 was also partially supported by this study’s results.

3.6 Current health service usage

In the year preceding questionnaire completion the majority of females (52%) sought help for a physical health problem, whilst only 34% of males had done so. This difference was significant at the .01 level. Additionally, the health professional visited by each gender was the General Practitioner who was visited by 46% of males and 55% of females who sought help for a physical/social problem. This was followed by the dentist (13% males; 10% females) and the physiotherapist for (11%) males, and the chiropractor for females (4%).

The most common physical/social concerns for females included: back/spinal problems (7%), menstrual irregularities (6%) and cold/flu symptoms (5.5%). For males, the most common physical/social problems sought help for were: acne (10%), depression (6.5%), tonsillitis (6.5%), asthma (6.5%) and a broken arm/elbow (6.5%). Similarly, participants were also asked if they had sought help from a mental health professional for a mental health problem. Results indicated that females (18%) were more likely to report accessing help than their male peers (5%). This difference was significant at the .01 level. The most common mental health problem for which support was wanted was depression for both males and females (60% and 47% respectively).

For females, the next most common mental health concerns included: parents' divorce (6.3%), anxiety (6.3%), PTSD (6.3%), 'feeling upset' (6.3%), and anorexia/eating disorder (6.3%). The next most common mental health concerns for males were identified as anxiety and learning difficulties (20% each).

Participants reported their General Practitioner as most frequently visited for a mental health problem (40% males, 30% females). Following the General Practitioner, the next two most popular mental health supports included the school counsellor and an 'other' counsellor for females (20% and 5% respectively). For males the next two preferred mental health supports included a psychologist (20%) and an 'other' counsellor (20%).

3.7 Future help seeking

Participants were asked to report whether or not they would seek professional help for a mental health concern at any time in the future. Both males and females reported that they would be inclined to seek professional help if necessary, with percentages of approximately 74% each (Table 23).

Hence no significant difference would be able to be detected. Participants ranked who they would seek help from if they had a mental health problem in the future (Table 22).

Table 22: Professionals to be accessed for future help-seeking, in order of popularity.

Rank	Human-service Provider	N (%)
1	Family	165 (21.7)
2	Friends	157 (20.6)
3	General Practitioner	142 (18.7)
4	School Counsellor	67 (8.8)
5	Psychologist	56 (7.4)
6	'Other' Counsellor	48 (6.3)
7	Social Worker	34 (4.5)
8	Psychiatrist	33 (4.3)
9	Youth Worker	23 (3.0)
10	Person from the Church	16 (2.2)
11	Nurse	10 (1.3)
12	'Other'	9 (1.2)
		(100)

Participants were also asked to indicate if they were satisfied with existing mental health services in their rural communities. Most males and females in each gender group indicated they were 'Unsure' about this, indicated by the figures of 51% and 53% respectively (Table 23). Of those who were satisfied with existing services the majority were male respondents (44%). This difference was significant at the .01 level.

3.8 Mental health knowledge

Participants were asked to indicate where they received mental health information from nine possible categories. The single most common place participants reported receiving mental health information was from School (20%). However, participants also reported receiving information from a combination of three of the options presented (18%) – School, the Internet and the Media. Only 1% of participants reported that they did not receive any information about mental health at all. There were no noteworthy differences between genders on preference for where mental health information was obtained. Both females and males indicated that they did not wish to learn more information about mental health at School (72% males, 52% females). This difference was significant at the .01 level (Table 23).

Table 23: Comparison of males and females by health service usage: Categorical outcomes.

Category	Response	Male N = 109	Female N = 223	<i>p</i>
Help-seeking (Physical/Social): N%	. No	53 (48.6)	82 (36.8)	<.01
	. Yes	37 (33.9)	116 (52.0)	
	. Missing	19 (17.4)	24 (10.8)	
Help-seeking (Mental Health): N%	. No	85 (78.0)	158 (70.9)	<.001
	. Yes	5 (4.6)	41 (18.4)	
	. Missing	19 (17.4)	24 (10.8)	
Future Help-seeking: N%	. No	10 (9.2)	27 (12.1)	.53
	. Yes	80 (73.4)	164 (73.5)	
	. Unsure	0 (0.0)	3 (1.3)	
	. Missing	19 (17.4)	29 (13.0)	
Satisfaction with M.H. Services: N%	. No	3 (2.8)	29 (13.0)	
	. Yes	48 (44.0)	75 (33.6)	
	. Unsure	56 (51.4)	118 (52.9)	
	. Missing	2 (1.8)	1 (0.4)	
Learning about M.H.: N%	. No	78 (71.6)	116 (52.0)	<.001
	. Yes	27 (24.8)	103 (46.2)	
	. Missing	4 (3.7)	4 (1.8)	

Note: Fisher's exact tests were used to compare Males and Females on categorical outcomes.

4. Discussion

The rationale behind conducting this quantitative study was to address the paucity of research into rural South Australian adolescents' mental health. This study aimed to provide a quantitative representation of the mental health status of a cross-section of adolescents residing in eight townships. Physical wellbeing and health risk behaviours were also investigated to create an overall snapshot of wellbeing for this target group. Importantly, experiences with their local (mental) health services were also investigated. These objectives were achieved by completing a 140-item questionnaire by 332 adolescent participants. Based on existing literature, two hypotheses were presented. The first hypothesis predicted that male adolescents in the current sample would report lower levels of Suicidal ideation, while females would report greater levels of Negative Mood. The second hypothesis predicted that females in the sample would self-report more health risk behaviours than males along the dimensions of: alcohol use; drug use; smoking; and risky sexual behaviour. After conducting several analyses, it was apparent that both Hypothesis 1 (psychological wellbeing) and Hypothesis 2 (health risk behaviours) were partially supported by the results obtained. This investigation also provided valuable epidemiological information about rural South Australian adolescents in the eight townships sampled, which went beyond answering these two hypotheses.

4.1 Mental health status and psychological health

Participants in the current study were examined using eight measures of psychological health: social alienation, negative mood, self-esteem, trait anxiety, perceived stress, GHQ (overall mental wellbeing), suicidal ideation and coping. Generally, participants tended to score in the sub-clinical range on all of these measures. However, it should be noted here that participants' scores on the measures of social alienation or self-esteem were mediocre at best.

Social alienation measured the extent of a person's perception of meaninglessness in society, with the highest cut off score being 18. Table 18 indicates that the mean for each gender group was close to 15, indicating that participants tended to experience high levels of social alienation. Similarly, both gender groups scored relatively poorly on the measure of self-esteem. The maximum score on the self-esteem scale was 40, indicating a high degree of self-esteem. Participants in this study tended to score in the low to mid range (17-20).

On the basis of such results one may have expected participants to display higher levels of negative mood, yet this was not the case because both gender groups tended to display very low scores on this measure. Taken at face value this finding indicates that whilst participants did not have good levels of self-esteem and tended to feel somewhat meaningless in their local communities, this did not translate to an elevated state of overall negative mood. It could very well be that external factors related to their local communities had a buffering effect and in essence prevented more participants from experiencing serious negative mood. It should also be noted that adolescence is a very challenging time for young people since they struggle to forge a coherent sense of self and seek independence from their parents (Erikson, 1968). The low levels of self-esteem and high social alienation could also be a normal response to this stage of development.

The finding of low levels of negative mood in the current sample of participants is particularly interesting, and provides support for recent evidence about mental health morbidity in rural areas. It serves to refute the popular argument that inhabitants of rural areas are at heightened risk of mental illness than their urban counterparts, based upon the 'psychosocial' determinants of health, whose influence becomes more pronounced with increasing geographical remoteness (Eckert, 2004a, 2006).

This previous research which has largely emerged from the United States over the past two decades has often shown that those living in rural and remote areas experience greater prevalence of ‘high prevalence’ disorders such as anxiety and depression (Cheng et al., 1995; Clayer et al., 1995; Clayer et al., 1998; McFarlane et al., 1997; Probst et al., 2004; Probst et al., 2006; Puskar et al., 1993; Saluja et al., 2004; Wagenfeld, 1982; Wagenfeld, 1994).

A recent South Australian study investigated the link between mental illness and remoteness. Eckert et al. (2004b) utilised data collected as part of the Western Australia, Northern Territory and South Australia collaborative ‘Health and Well-being (WANTS), Computer Assisted Telephone Interview (CATI)’ survey, conducted during October and November 2000 by the former Centre for Population Studies in Epidemiology, Department of Human Services, South Australia. Eckert et al. (2004b) administered the CATI survey to some 2,545 participants during a 15-minute telephone interview. The researchers investigated self-reported, but medically confirmed mental illness via the question *‘In the last 12 months, have you been told by a doctor that you have anxiety, depression, a stress-related problem, any other mental health problem or receiving treatment for this?’*. Geographical dispersion was determined by the Accessibility and Remoteness Index of Australia (ARIA) classification of each participant’s town.

ARIA is a geographical index that defines remoteness as accessibility to 201 service centres across Australia based on road distances. The results of Eckert et al.’s study found that the odds of mental illness did not vary according to ARIA and were not significantly associated with mental illness after adjusting for the effects of stressful life events, socio-demographic characteristics and lifestyle behaviours. Thus, remoteness *per se* was not identified as an independent risk factor for mental illness.

Eckert et al. (2004b) did find, however, that psychosocial factors such as stressful life events, perceived control, socio-demographic status and lifestyle behaviours were more important determinants of mental illness. The predictors of mental illness were identified as: being female; smoking; not eating enough vegetables; low levels of exercise; being diagnosed with a physical condition; a perceived lack of control with life in general, personal life, job security or health; and experiencing a major stressful event such as family or domestic violence or the death of someone close.

It is interesting to note that despite the observations made by Eckert et al. (2004b), females did not score significantly higher on the measure of negative mood than their male counterparts, hence disconfirming Hypothesis 2. Also, considering that the sample size calculations were based on another South Australian study (Winefield et al., in progress) sampling adolescents from some of the same townships where females self-reported significantly higher levels of negative mood, it is interesting that these findings were not replicated here. Perhaps extraneous variables existed relating to the townships participants were recruited from, or the time frame they were sampled in. Winefield et al. began collecting their longitudinal data in 2001, whilst the majority of data collection for the current study occurred during 2008 - seven years later.

Despite research indicating that inhabitants of rural townships may not be as worse off as was once previously thought, one finding has remained particularly robust for the past twenty years: young men have consistently been found to have higher rates of suicide, particularly if they live in remote settings. Whilst both gender groups in the current study tended to report relatively low levels of suicidal ideation, females displayed twice the level of suicidal ideation than their male counterparts, and this was statistically significant.

However, this should not be interpreted as females having an increased risk of suicide, because previous research has found that females consistently show greater levels of 'ideation' of suicide, whilst their male peers actually 'perform' suicide. There is a marked difference in thinking about suicide, attempting suicide and committing suicide. ABS statistics have frequently indicated that self-harm and attempted suicide is more common among women than men (Commonwealth of Australia, 2000). However, suicide rates for young men have tripled over the past 40 years (Raphael, 2000). Dudley et al. (1997) found that suicide rates were substantially higher amongst males aged 15-19 years and 20-24 years in both metropolitan and rural locations. While metropolitan rates increased 2.2 times for 15-24 year olds, rates in towns over 4,000 increased 4-fold, and rates in towns with populations less than 4,000 increased 12-fold. Dudley et al. (1997) also found that the method of suicide differed between genders, with firearms (38.6%), hanging (21.1%), car and industrial gas (14.8%), and poisoning (13.1%) the most common methods in males. For females, poisoning was most common (48.2%), followed by firearms (12.8%) and hanging (12.6%).

The frequency of child and adolescent suicidal behaviour is difficult to quantify due to the lack of systematic data collection for this group. Older adolescents are often captured in the umbrella of 'young people' defined as between 15-25 years. An earlier South Australian study conducted by Allison et al. (2001) investigated the relationship between depression and suicidal ideation amongst a sample of 2,028 'young adolescents' recruited from 25 rural and suburban secondary schools. (In their study, the average age of participants was approximately 13.5 years). Allison et al. found that a significantly greater proportion of females (27.3%) than males (18.9%) reported suicidal ideation.

However, the researchers argue that this could be explained by females having higher mean depression scores, which when observed at moderate levels, were found to contribute to greater levels of ideation. The researchers also comment that in childhood, there is little gender difference observed in levels of clinical depression, but that during adolescence, the prevalence of depression increases markedly, with a 2:1 female preponderance. The findings of the current study partially support those of Allison et al. (2001), whereby females self-reported twice the level of suicidal ideation than their male counterparts, despite there being no significant difference in negative mood between genders.

4.2 Health risk behaviours

Results of the current study found that on average, more females than males reported being 'drinkers' (61% compared to 45%). This finding is noteworthy in itself because 'drinking' has been more commonly associated with young males and the culture of masculinity apparent in rural communities (Anderson et al., 2004). However, if the results of Study 1 are considered, the human service providers who were interviewed tended to report that drinking was now becoming more of a problem amongst the female adolescents in their rural communities. The current observation seems to support this argument. However, results of the current study also indicated that significantly more females (51.6%) self-reported as occasional drinkers than their male peers (32.1%) and that when they were drinking, males tended to consume more alcoholic drinks than their female peers (but this was not statistically significant). These findings reflect existing ABS figures, which have indicated that some 44% of females aged 14-19 years are occasional drinkers, compared to 38% of males.

Recent figures from the Child and Adolescent Component of the National Survey of Mental Health and Well-being have also indicated that binge drinking is slightly more likely to occur in females, with 20.8% of females being more likely to report drinking more than five drinks in a row compared to males (20.1%). This could explain why the observation of males consuming more drinks in one sitting was not statistically significant in this study.

ABS figures indicate that alcohol plays a large part in risk taking behaviour, particularly drinking and driving with alcohol being implicated in one third of all motorist deaths and nearly half of all pedestrian deaths across the total population of Australia (AIHW, 2000). Alcohol tended to be implicated on one dimension of the *Sexual Health Questionnaire* in the current study (question 19), where participants had 'done more sexually than planned' due to alcohol/drug use. It should be noted, however, that this was the only dimension of the scale to be significantly associated with alcohol/drug use, and it seemed that the large quantity of missing data may have accounted for this lack of observation on other dimensions. Other studies have documented the links between alcohol/drug abuse and sexual health and pregnancy. Indeed, considering the findings of Study 2 where adolescent focus groups participants often talked about binge drinking in their communities and one particular town notorious for teen pregnancy, it was surprising that alcohol use was not further implicated in sexual health in this study.

Of all the drugs mentioned to participants in the current study, alcohol was by far the most commonly cited. A noteworthy point is that of those adolescents who responded to the question about types of alcoholic beverages consumed (question 12), 61 different names were offered, and across participants, cited some 536 times. This indicates that the adolescents seemed to be exposed to a wide range of alcoholic substances.

Graham et al. (2006), in their qualitative study examining rural parent attitudes to harm minimisation strategies to teenage use of alcohol, found that teenagers were typically initiated to alcohol in the home at 13 or 14 years of age. Whilst participants were not questioned about the age they were initiated into alcohol or by whom they were initiated, it is interesting to note that by the age of 16 years and five months (the average age of participants), such a broad exposure to types of alcoholic beverages had occurred. In 2001 the mean age for alcohol initiation was 17 years (AIHW, 2002). Thus one can assume that participants in this investigation were initiated to alcohol well before the Australian average age.

In Graham et al.'s (2006) study, rural parents tended to display concerns about the fact that pre-mixed drinks were the most common type of alcohol consumed by their adolescent children. King et al. (2003) suggest that the new, sweet, colourful, pre-mixed drinks currently available on the market are now the preferred choice for adolescents, because besides being visually appealing, they are relatively inexpensive. Graham et al. (2006) also suggest that the alcohol industry is increasingly focussing its marketing on adolescents and associating alcohol consumption with sexual, social and sporting success. This strategy subconsciously conveys positive messages about alcohol consumption. In fact this observation was recognised by Australia's federal government which recently imposed a tax on 'Alco-pops' or 'pre-mixed' drinks, making them more expensive (Chikritzhs et al., 2009).

Despite this, participants in this study still tended to consume pre-mixed alcoholic drinks more than any other type of alcoholic drink. It was not surprising that vodka was the most popular spirit, as the majority of pre-mixed drinks are actually vodka-based.

On this theme, it is well documented in several studies that young people in rural areas are more likely to consume alcohol and consume a greater number of standard drinks per occasion than their urban counterparts. Consequently, it is important to note here the link between alcohol consumption and suicide risk. In a study of 137 suicides in New South Wales, Dudley et al. (1998) found that of the 57 who used alcohol, 43 were reported to have been using alcohol prior to their suicide, and a substantial portion of firearms (57%) and hanging suicides (43%) had an above zero blood-alcohol reading. Considering there were significant findings here, relating to both alcohol-use and suicidal ideation, this is particularly pertinent to the development of support systems in local communities.

The findings about tobacco and drug use are similar to existing statistics. No significant differences were found between genders on any measure of smoking or illicit drug use, except on the dimension of social smoking, where females reported smoking while 'out' (10.8%). This finding is similar to ABS statistics, which indicate that approximately 10.1% of females aged 14-19 years are 'occasional' smokers. A surprising finding of the current study was that approximately 80% of both males and females were not marijuana users *at all*. National statistics indicate that approximately 55% of males and females aged 14-19 years are not marijuana users.

The findings in this study concluded that significantly more females were likely to use non-prescription medications than males, with the top three non-prescribed medications being: pain killers (90%), vitamins/minerals (7%) and antihistamines (3%). According to the National Drug Strategy Household Survey, pain killers were the fourth most-available drug to adolescents (40%) for non-medical purposes. However, it is difficult to infer if the current sample of females used pain killers for non-medical purposes because this was not specifically asked.

4.3 Health service usage

It is not surprising that the General Practitioner was reported as the health professional most visited by participants in the year preceding questionnaire completion. While it is expected that the General Practitioner is the first port of call for physical health concerns, the GP is now increasingly relied on as the gatekeeper to many mental health services, especially in rural communities where specific mental health services are limited (Kang & Chown, 2004). Rickwood et al. (2007) argue that General Practice is essential to young people's mental health and the point of initial contact with a professional service. They argue that the presence of medical problems often increases help-seeking and provides the GP with an opportunity to investigate potential mental health issues. Kang and Chown (2004) report that adolescents may often present to General Practice with a minor physical complaints such as respiratory, skin and musculoskeletal conditions which often related to, and masking a psychosocial problem. Indeed, the GP was the professional adolescents would most likely visit for their mental health concerns. This could largely be due to the fact that the GP is the least 'stigmatised' professional and thus the 'safest' option as far as confidentiality is concerned. Because inhabitants are highly visible in rural townships, towns are often described as a 'fish bowl' - where the comings and goings of inhabitants can be easily observed and scrutinised - adolescents experience particular protective factors by visiting a GP rather than a professional who is readily identified as someone visited for 'mental health' problems (Aisbett et al., 2007a, 2007b; Boyd, 2008a, 2008b; Fuller et al., 2006; Rose et al., 2007; YACSA, 2006).

Prior research has also shown that help-seeking for a mental health problem can often be hampered by this 'stigma' and a general reluctance to seek assistance because of a tendency to equate such problems with psychiatric illness (Fuller et al., 2004; Fuller & Broadbent, 2006; Jorm et al., 1999; Rose et al., 2007).

The results suggest that this does not seem to be reflected in the current findings, as 74% of both gender groups indicated a willingness to seek help for a future mental health problem. However, *who* the adolescents in the current study consider for help with a mental health problem needs to be addressed. Specific mental health service providers tended to be lower ranked than informal sources of support, with psychologists, social workers and psychiatrists being ranked 5th, 7th and 8th respectively out of the 12 possible options. Participants ranked 'informal' and 'generalist' health professionals more highly - Family, Friends, the GP, School counsellor and 'Other' counsellor all appeared in the top six options for help with a mental health problem experienced in the future.

While it is undoubtedly a very positive step for such a high percentage of adolescents in the current study reporting they would seek help for any future mental health concern, this tendency to report more 'informal'/non-specific 'mental health' sources of support prior to professional mental health staff, has serious implications for the quality of the help they receive. Fuller and Broadbent (2006) argue that while there is not the stigma associated with using these more 'informal'/ 'generalist' supports as there is with more formalised mental health services, 'informal' service providers can be limited by their qualifications, skill level and the burden associated with being in a role which does not include the responsibility for first-level mental health care. Basically, this means that these 'informal' providers of mental health care may not be in a position which will ensure that the complainants receives the best possible outcome for their mental health concern.

Informal service providers, while effective at providing emotional support, are not in the best position to optimise the 'window of intervention opportunity' with people who are in crisis and who at that time, are more amenable to offers of help and change (Fuller & Broadbent, 2006).

Similarly, Rickwood et al. (2007) argue that an over-reliance on GPs to provide early intervention for mental health concerns needs to be reviewed. They argue that it is critical to improve GPs' ability to recognise mental health problems in young people, as recent US statistics found that only 18% of GPs could recognise mental health problems in children and adolescents. Furthermore this often depended on parental expressions of concern (Rickwood et al., 2007; Sayal, 2006). These observations indicate that perhaps more upskilling of GPs who practice in rural and remote areas may need to be prioritised. In the context of this study, it should be noted that in some townships, not only are mental health services lacking, but in some areas of South Australia there is a complete absence. Therefore, the researcher acknowledges that help sought from a GP in the first instance is essentially better than not accessing help at all. Recent research has also indicated that an increase in training of mental health clinicians does not necessarily guarantee improved outcomes for clients. In their study of 26 general practices in Victoria, Haller et al. (2009) found that young people's own recognition or expressions of concern about having a mental health problem, proved to be the strongest predictor of GP detection. Therefore, it would be remiss not to acknowledge the point that there are other factors outside of upskilling health professionals, such as increased public education, which may enhance detection of mental health problems.

4.4 Mental health knowledge

Participants felt that overall, they did not need to learn anything further about mental health issues at School; male participants, in particular, seemed to feel this way (72%). Perhaps this was because School was identified as the most common place where mental health knowledge was gained (20%). Aside from School, the Internet and the Media were other avenues in which mental health knowledge was obtained.

This finding is quite timely considering that both state and federal governments have been instrumental in the promotion of two websites providing information and support to the community, and young people in particular. The first of these is *Beyondblue: The National Depression Initiative* which is a national, independent, not-for-profit organisation working to address issues associated with depression, anxiety and related substance misuse disorders (www.beyondblue.org.au). *Beyondblue* was established in October 2000 as a bipartisan initiative of federal, state and territory governments with a key goal of raising community awareness about depression and reducing stigma associated with mental illness. *Beyondblue* works in partnership with health services, schools, workplaces, universities, media and community organisations, as well as people living with depression.

Youthbeyondblue is an interactive sister site which focuses on providing information about mental health to young people in a format that is visually appealing and in language that is easily understood by young people (www.youthbeyondblue.com). Currently in South Australia, DECS SA is working in partnership with *Beyondblue* to promote mental health in primary and secondary schools and reduce some of the stigma surround mental illness. As well as *Beyondblue*, the federal government has launched *Headspace – Australia’s National Youth Mental Health Foundation*, specifically targeted at youth and stylistically presented as similar to the popular MySpace™ social networking site (www.headspace.org.au). *Headspace* was established by the Commonwealth government in 2006, and provides mental and health wellbeing support, information and services to young people and their families throughout Australia. *Headspace* has 30 ‘youth-friendly’ websites established nationally and has a multidisciplinary team of health professionals who work to provide ‘solutions’ for young people 12 to 25 years of age.

Health professionals provide support along the following domains: general health and wellbeing, mental health and counselling, education, employment and other vocational

services, and alcohol and drug services. Whilst it is difficult to ascertain the efficacy of these sites' helpfulness in raising awareness about mental health issues and providing support, it is fair to assume that they will be of some benefit to rural youth who find it difficult to find support and information for their mental health concerns in a timely and private manner. The Internet overcomes the 'tyranny of distance' and represents a welcome move by the federal government to address this disadvantaged faced by rural inhabitants.

It is worth mentioning here, that despite the fact participants tended to report unsafe sexual practices (i.e. 'done more sexually than planned, due to drug and alcohol use'), participants felt they did not need to learn more about contraception and protection at School (64% females, 61% males). This indicates awareness that such behaviour is risky, and that the consequences of such an unsafe practice are known by participants. However, this may not actually be the case and would need further investigation.

In their regional Victoria, Jenkins and McLaren (2003) examined levels of sexual health knowledge and condom use in a population of 136 rural adolescents enrolled in Years 10 to 12 at secondary schools in five townships where the population was less than 6,000 inhabitants, and townships were located within 40 kilometers of a large, regional centre. Results of this questionnaire study indicated that overall knowledge levels were low, with males knowing significantly less than females; 65% of participants had engaged in sexual intercourse, with over half of those reporting being inconsistent users or non-users of condoms. Jenkins and McLaren (2003) found that condom use was predicted by sexual health knowledge, attitude toward condoms/safe sex, contraceptive self-efficacy and intention to use condoms. However, the researchers argued that a broad-based educational effort was required in this area, and should include education in schools, more health resources, better ease of access to condoms and individual counselling.

There are more factors than knowledge that are linked to condom use, and Jenkins and McLaren (2003) believe that a combined initiative which increases the availability of condoms and implements a comprehensive education program inclusive of information, role plays and modeling would be of significant benefit to rural adolescents. They may not have the same level of access to this type of education as their urban counterparts. It is difficult to extrapolate how sexual health knowledge is translated into safe sexual health practices from the results arrived at here, although it is suggested that unsafe sexual practices did occur despite having ‘adequate’ self-reported sexual health knowledge. Further research on this topic is needed in South Australia.

4.5 Limitations

While there are obvious advantages in conducting cross-sectional studies such as this, the major limitation of this study design is that the results only provide a ‘snap shot’ of a particular phenomenon at a specific point in time. Thus, the results generated by the current study are not representative of the greater population of adolescents in rural South Australia. The data on wellbeing and mental health status collected here cannot be used as a benchmark for health comparison, since it only refers to the adolescents from the eight townships sampled. Even then, it cannot be generalised to *all* adolescents in those towns.

It is important to note that rural South Australia is not homogenous and each town in this project has its own distinct culture, population distribution, (mental) health services and varying degrees of health resources in their community and specifically to adolescents. There was much variation between the townships in that some were ‘regional’ or ‘rural’ ‘centres’ whilst others were deemed ‘rural areas’.

Given this distinction there are certainly differences which could be expected – especially concerning the health resources available in each township, which may have implications for the observations on mental health service satisfaction and preferred mental health service provider. While the researcher made a concerted effort to sample participants from a wide variety of RRMA classifications (i.e. 3, 4, 5 and 7), it should be recognised that most participants sampled came from a township with an RRMA index of 5 – ‘Other’ rural area, housing a population of less than 10,000. Therefore an overrepresentation of participants’ experiences from this rural classification/geographic area may be evident in the data.

It is very difficult to infer causality when implementing a cross-sectional study design such as that used here. Specific events in each of the townships sampled may have led to an exacerbation of mental health or physical health problems. For example, South Australia has often been called the ‘driest’ State in the ‘driest’ continent, and the drought has worsened this considerably. Many of the townships sampled here relied on agriculture as its main industry. It is possible that some of the mental health problems observed may have been exacerbated by external factors occurring in particular communities, i.e. stress related to poor farming results, job losses and subsequent decline in township morale, etc. These confounding factors may not be present in other townships, so an unequal distribution of such factors may have affected the results.

A major limitation in using any type of questionnaire to collect data is ‘social desirability’, or the tendency for participants to try and respond to items in a ‘socially-desirable’ manner. The researcher was especially aware of this considering that the questionnaire focused on the sensitive nature of mental health.

In an effort to try and reduce this potential bias, the researcher allowed for questionnaires to be completed in the privacy of the participants' home if this was desired by the participant/school, or if completed at school, instructed teachers to seat adolescents as far away from each other as possible. Additionally, participants were provided with a strip-seal envelope which they were encouraged to seal and sign following questionnaire completion (this would make any instances of tampering highly evident). These measures were taken to encourage the adolescents to be as honest as they liked and more importantly, to feel comfortable enough to self-disclose without the risk of confidentiality of responses being broken.

The most significant limitation of this study is undoubtedly the poor response rate. Despite some 2,390 invitations being mailed to potential participants, only 332 were recruited and hence complete the questionnaire. The researcher is still at a loss to explain this. Multiple invitations were sent, and a 'prize' was also advertised as another mechanism to boost response. Despite these efforts, a low response rate (14%) was achieved. This is somewhat surprising considering that the current study followed a similar research protocol and in fact measured some of the same constructs as the *University of South Australia's Longitudinal Investigation of School Leavers Study* (Winefield et al., in progress), which produced an initial (Wave 1) response rate of approximately 99%. The *School Leavers Study* sampled participants from both urban and rural secondary schools across South Australia, and asked them to complete a questionnaire investigating their mental health and wellbeing, and any experiences they may have had with employment. Investigators of the *School Leavers Study* are due to complete Wave 10 data collection for their first cohort of participants in 2011.

Another Australian school-based questionnaire study which enjoyed a very high response rate (96%) was the *Victorian Adolescent Health Cohort Survey* (VAHCS) (Patton et al., in progress). This longitudinal study of adolescent health and development initially surveyed a cohort of some 2,000 Year 9 students in 1992, who have since been regularly surveyed throughout their adolescence and into adulthood. At the last wave of data collection, over 1,500 participants completed the survey, producing a retention rate of 77%, some 17 years later.

A commonality between these two school-based, longitudinal studies was that investigators liaised very closely with teaching staff, and ensured that parental consent was obtained well in advance of questionnaire completion taking place. With both studies, questionnaires were completed during class time under the supervision of a teacher. The VAHCS also employed the use of laptop computers to assist schools with the practicalities of facilitating questionnaire completion. More recently, the *School Leavers Study* has administered its questionnaire in an online format. Therefore, whilst the current study did not enjoy the same recruitment success as these other two school-based questionnaire studies, high response rates with adolescent study populations are achievable.

It is possible then, that the stigma of mental health problems may dominate rural communities' attitudes on mental health morbidity and mental health research specifically. The researcher often experienced that a school would show interest in the study during the recruitment phase, only to find that such enthusiasm declined after a closer examination of the questionnaire content. Furthermore it was apparent from the demographic data collected, that the majority of participants tended to come from fairly 'stable' home environments, where both parents co-habited and were employed. Given the link between socio-economic status, family functioning and mental health morbidity, the generalisability of the current results to the wider rural South Australian population, is questionable.

4.6 Study Strengths

Previous studies have continually suggested that adolescents who reside in rural locations can be characterised by a rising risk of mental health morbidity, poorer physical health, more health risk behaviour and a lack of professional help for their mental health concerns. However, few South Australian studies have addressed this. Rural locations have been presented in two ways in existing research: (i) as romanticised, idyllic settings where inhabitants enjoy good mental health free of the stressors experienced by ‘fast-paced’ urban life, in a socially stable environment and within an integrated and socially supportive community; or (ii) as geographically isolated, drought-ravaged, financially disadvantaged communities of low morale and poor physical and mental wellbeing, with rigid social structures that stigmatise and harshly judge mental illness. Neither of these descriptions is accurate as there is much variability between rural townships.

What the current study and what this PhD project overall hoped to achieve was to thoroughly investigate the mental health issues affecting adolescents living in rural and remote locations of South Australia. When this study was being conceptualised, there was little data incorporating the mental and physical wellbeing, health risk behaviours, health service utilisation and future help-seeking behaviour of adolescents. Also, because the researcher was aware of the variability between rural communities, participants were sampled from ten rural townships with varying populations in different parts of South Australia. Adolescents from one of the townships in particular were overrepresented in the data obtained, but the fact that there was an attempt to recruit from such a variety of townships should be acknowledged. This has been neglected by other researchers in the past.

5. Conclusions

This quantitative study complements the findings of the two previous (qualitative) studies conducted, by providing some quantitative information about the mental health and wellbeing of the rural adolescents targeted for investigation in the broader research project. Whilst previous research has suggested that rural adolescents are characterised by an increased risk of mental health morbidity, poor physical health, increased health risk behaviour and a lack of professional help for their mental health concerns, it was found that the situation may not be as dire as originally thought.

Adolescent participants aged 15-19 years in this study displayed quite low/non-clinical levels on most of the psychological health measures. Significant gender differences were found on five measures: males tended to report significantly lower levels of self-esteem, trait anxiety, and perceived stress, but higher GHQ (psychological distress). Females demonstrated higher levels of suicidal ideation. Broadly speaking therefore it can be argued that whilst males reported lower levels of trait anxiety and perceived stress, this cannot be translated to overall improved mental health because they had lower self-esteem and overall psychological wellbeing (GHQ) than their female counterparts. Females reported higher levels of suicidal ideation but again this cannot be translated to poorer mental health; a significantly higher level of suicidal ideation does not translate to suicidal behaviour. It is well known that males are generally more successful in committing suicide than their female peers, despite their lower levels of suicidal ideation.

Some care should be taken in interpreting the current findings and not over-sensationalising what is indicated by the statistics. The measures employed are essentially measures of psychological distress and therefore not indicative of any type of mental illness.

Whilst overlap with some symptoms of mental illness may be apparent in the questionnaire items, the scales used were certainly not used as a diagnostic tool for diagnosing mental illness.

Due to the relatively exploratory nature of the study, it may now be useful for future researchers to use the information provided about the psychological distress that rural South Australian adolescents experienced, and perhaps begin investigating how this translates into mental illness. There is little accurate research examining the prevalence of adolescent mental illness in the rural communities sampled. This could be largely due to the fact that adolescents often fall between ‘Child’ mental health services and ‘Adult’ mental health services, and as a result the proportion of ‘Adolescent’ mental illness may be under-represented.

When considering the results pertaining to health risk behaviours in this study, females tended to engage in more risky behaviour. This is despite the fact previous research suggests that alcohol, tobacco and drug use is typically associated with young males and the dominant ‘culture of masculinity’ in rural communities. The current findings about health risk behaviour and alcohol use in particular, indicate a shift in gender norms. In the rural population sampled, females were not only tending to consume alcohol, tobacco and non-prescription drugs more than their male peers, but were also more likely to be participating in unsafe sexual practices.

Whilst more females participated in the current study, this in itself does not account for the statistical difference, or the observations of the human service providers and adolescents interviewed in Studies 1 and 2, who continually suggested to the researcher that alcohol use amongst adolescent females had escalated and was now deemed a bigger

problem than previously thought. The fact that females tended to eclipse their male peers on various dimensions of health risk behaviour calls for a re-examination of how we think about rural culture. Certainly, more research is needed to establish whether such an effect is limited to the current adolescent population sampled, in the areas visited in the current study, or if this can now be generalised to wider populations of rural South Australia.

Finally, the results of the current study seem to confirm previous findings in the areas of help-seeking and preference for health professional visited for mental health concerns. Not surprisingly, the General Practitioner was most commonly visited for a variety of problems, be they physical, social or psychological. The GP was also listed as a future avenue of support for any mental health problems that may present in the future. As documented in many studies, aside from the GP, informal mental health support providers were also looked to for future support by participants in this investigation. Whilst adolescents were able to list a wide variety of potential mental health supports – and this indicates an awareness of multiple forms of support - this lack of preference for formal/specialist mental health staff could explain why many adolescents were ‘unsure’ about whether or not they were satisfied with existing mental health services. While it is no secret that state and federal governments have spent millions of dollars on initiatives designed to reduce stigma held about mental illness within the general community, more needs to be done to encourage rural inhabitants to break this over-reliance on less ‘formal’ mental health staff. Perhaps formalised mental health services need to present themselves in a less ‘formal’ manner to encourage access. This study has certainly shed light on the mental health wellbeing of 332 adolescents residing in rural South Australia during 2008-9, yet it is difficult to know how these findings can be generalised to the wider population or compared to existing knowledge on this topic. The robustness of the findings needs to be explored further and this will now be examined in Study 4, Chapter 6.

CHAPTER 6

THE MENTAL HEALTH AND WELL-BEING OF ADOLESCENTS IN RURAL SOUTH AUSTRALIA: A COMPARISON OF DATA COLLECTED BETWEEN 2001 AND 2009.

1. Introduction

In this chapter the questionnaire results described in Chapter 5 are compared to existing South Australian data about adolescent mental health and well-being. Specifically, data collected in the previous chapter will be compared to Winefield et al.'s data from the *University of South Australia's Longitudinal Investigation of School Leavers*. Additionally, this chapter describes the rationale behind conducting such a comparison and highlights statistical similarities and differences between the two studies. The time period chosen for this investigation is from 2001 to 2009.

Background

Since 2001 the *UniSA School Leavers Study* has been gathering information from young people about their transition from adolescence to adult life. This ongoing longitudinal study aims to produce an understanding of work experiences and well-being, including what predicts successful employment, and how young people cope with unfavourable working conditions. Each year since students were in Year 10 they were mailed a questionnaire to complete. In the first wave of data collection (2001) there were approximately 2,500 participants in the sample. The *School Leavers Study* sampled adolescents from 81 secondary schools in metropolitan and rural areas.

It is important to note here that statistical comparisons documented in this chapter were only conducted between data collected during Study 3 of the current PhD project and data taken from *rural* participants only from the *School Leavers Study* in 2001, 2003 and 2005.

Contribution of the present study

There has been little South Australian research that has focused on the mental health and wellbeing of adolescents in rural areas. This study builds on the findings of Study 3, reinforcing the results concerning the levels of mental health and wellbeing observed, by comparing data to the South Australian (Winefield et al.) context. Whilst it is acknowledged that there are obvious limitations in comparing mental health and wellbeing outcomes of different study populations, at different points in time, it is nevertheless important for this comparison to take place, in order to investigate the claims made by researchers in recent years which suggest that overall, adolescents' mental health is worsening. National statistics indicate that their mental health problems are increasing and are associated with health risk behaviours. Disturbingly, these issues are occurring to younger and younger adolescents each year. To date, no 'pseudo-longitudinal' comparison such as this has taken place in South Australia.

Hypotheses:

1. Adolescents from Study 3 sampled across 2008-9 will report poorer mental health status as indicated by scores on the GHQ-12, Negative Mood, Social Alienation, Suicidal Ideation, and Self-esteem scales, than adolescents who were sampled between 2001-2005.

2. Participants sampled from the Winefield et al. study will report fewer health risk behaviours than participants from Study 3, specifically:
 - A. Alcohol use
 - B. Drug use
 - C. Smoking

2. Method

Study design

A quantitative, cross-sectional study design in which self-report questionnaire data was collected, was implemented in this study. Data from four different participant cohorts whose responses were measured on the *same* psychological health scales were combined. Because Study 3 sampled participants from Years 10, 11 and 12, a comparison group was drawn from the same year levels in the School Leavers study (Winefield et al., in progress). Participants recruited as part of the *School Leavers Study* will be referred to as the Winefield Cohorts and participants recruited during Study 3 will be referred to as the Kurtin Cohort. The School Leavers Study necessitated a stratified study design to recruit study participants who were then followed over time:

- ❖ Winefield Cohort 1 were in Year 10 in 2001 and have subsequently been followed up each year. Cohort 1 have most recently completed Wave 9 of data collection. Year 10 participants from Cohort 1 were selected for statistical comparison with Year 10 participants from Study 3.
- ❖ Winefield Cohort 2 were in Year 10 in 2002 and have also been followed up annually. Year 11 participants from the *School Leavers Study* were selected for comparison with Year 11 participants from Study 3. Year 11 participants from Cohort 2 of the *School Leavers Study* completed the questionnaire in 2003.

- ❖ Winefield Cohort 3 were in Year 10 in 2003 and have also completed a questionnaire annually. Year 12 participants from the *School Leavers Study* were selected for comparison with Year 12 participants from Study 3. Year 12 participants from Cohort 3 of the *School Leavers Study* completed the questionnaire in 2005.

Table 24 below indicates the cross-sectional nature of the sampling technique employed in the *School Leavers Study*:

Table 24: Cross-sectional sampling from the *School Leavers Study*: Winefield Cohorts by Year and Wave.

	2001	2002	2003	2004	2005
C1	W1	W2	W3	W4	W5
	<i>Yr 10</i>	<i>Yr 11</i>	<i>Yr 12</i>		
C2		W1	W2	W3	W4
		<i>Yr 10</i>	<i>Yr 11</i>	<i>Yr 12</i>	
C3			W1	W2	W3
			<i>Yr 10</i>	<i>Yr 11</i>	<i>Yr 12</i>

The benefits of a cross-sectional research design have been discussed in Chapter 5. Since this study’s goal was to compare the findings of Study 3 and capture a somewhat ‘representative’ sample of adolescents from rural South Australia, to describe mental health and well-being from 2001 to 2009, a cross-sectional research design emerged as the obvious choice.

Ethical Considerations

Ethics approval from The University of Adelaide's Human Research Ethics Committee was not needed for this study because pre-existing data already had ethics approval. In 2001, Winefield et al. obtained approval to conduct the *School Leavers Study* from the University of South Australia's Divisional Human Research Ethics Committee (approval number: P/132/01), the South Australian Department of Education and the Independent Schools Association of South Australia. In late 2007 the research student obtained ethics approval from the University of Adelaide's HREC (approval number: H-056-2007), DECS SA and Catholic Education SA. Whilst obtaining additional ethics approval was not required it was necessary to obtain permission to use the data from the *School Leavers Study* from Professor Winefield; as the Chief Investigator of the study he was happy to grant it.

Some ethical considerations, however, must still be noted:

- (i) In both studies, participation was voluntary, with informed consent not only being sought from the participants themselves, but also from their parents/guardians (since most participants were aged below eighteen years at the time of recruitment).
- (ii) No personally distinguishing information was reported or published. In both studies, ID numbers were assigned to each participant who completed a questionnaire, further protecting their identity in any ensuing publications.
- (iii) Copies of the data collected, including parents' and participants' consent and contact information, were securely stored electronically on firewall-protected servers at the University of Adelaide and the University of South Australia, with access to each database restricted via password.

(iv) Hard copies of questionnaires from both studies were stored under lock and key in the Discipline of General Practice's offices, and in the Centre for Applied Psychological Research, University of South Australia.

Sample

Participants (All Cohorts)

Year 10:

There were in total 782 participants whose data were compared. Approximately 13% of this sample were participants of Study 3 (N=104), and 86% were Winefield et al.'s *School Leavers Study* participants (N=678).

Year 11:

A total of 389 Year 11 participants had their responses compared. Approximately 30% of the sample were participants from Study 3 (N = 115), whilst 70% were part of the Winefield et al. (in progress) study (N = 274).

Year 12:

A total of 178 Year 12 participants had their responses compared. The majority (63%) of the sample included participants from Study 3 (N = 112), with 37% from the *School Leavers Study* (N = 66).

Winefield Cohorts 1, 2 and 3 from the *School Leavers Study* were enrolled in Years 10, 11 and 12 during 2001, 2003 and 2005 respectively, and were recruited from 22 rural secondary schools in 19 South Australian rural townships (Appendix L). The response rate of participants in the *School Leavers Study* for Wave 1 of data collection was approximately 99%.

Participants in Kurtin Cohort 4 were those recruited in Study 3 and included students from 11 secondary schools in eight rural South Australian townships (see Chapter 5). The response rate of participants in Study 3 was approximately 14%.

Inclusion and Exclusion Criteria

There were no specific exclusion criteria, except that participants met the inclusion criteria of being enrolled in Year 10, 11 or 12 at a secondary school in a rural township during 2001 to 2009.

Data Collection

The data for both studies were collected via self-report questionnaire (Appendices H & I). The questionnaires consisted of various measures investigating mental health and well-being. Data from the following scales common to both studies were used. It should be noted that all of these scales have been described in some detail in Chapter 5.

Psychological Health Measures (as described in Chapter 5)

1. *Social Alienation Scale* (Dodder & Astle, 1990):

[Item 1 in Study 3; Item 30 in Winefield Questionnaire]

2. *Negative Mood Scale* (Tiggemann & Winefield, 1984):

[Item 2 in Study 3; Item 25 in Winefield Questionnaire]

3. *Suicidal Ideation Scale* (Goldberg & Hillier, 1979):

[Item 3 in Study 3; Item 31 in Winefield Questionnaire]

4. *Self-esteem Scale* (Rosenberg, 1965):

[Item 6 in Study 3; Item 26 in Winefield Questionnaire]

5. *GHQ-12* (Goldberg & Williams, 1991):

[Item 32 in Study 3; item 29 in Winefield Questionnaire]

Physical Health & Health Risk Behaviours (as described in Chapter 5)

- *Physical illness*

[Item 31 in Study 3 questionnaire; Item 17 in Winefield questionnaire]

- *Drinking frequency*

[Item 11 in Study 3 questionnaire; Item 19 in Winefield questionnaire]

- *Tobacco use*

[Item 13 in Study 3 questionnaire; Item 20 in Winefield questionnaire]

- *Illicit drug use*

[Items 17 in Study 3 questionnaire; Item 24 in Winefield questionnaire]

NB: The Study 3 questionnaire appears in Appendix H. and the Winefield et al. (in progress) *School Leavers Study* questionnaire features in Appendix I.

Procedure

Once the Winefield et al. *School Leavers Study* data were made available to the research student in November 2009, they were copied into a new data file and combined with the existing data collected as part of Study 3. The entered values' accuracy was then investigated to see if responses fell into the prescribed categories. No major discrepancies were identified.

Data Analysis

Statistical analyses were conducted with the assistance of a statistician from the Department of Public Health, University of Adelaide. Descriptive information for the continuous data and frequency information for the categorical data were the first statistics to be calculated. In order to address the hypotheses of this study, Winefield Cohorts 1, 2, 3 (*School Leavers Study*) and Kurtin Cohort 4 (Study 3) were compared using independent samples t-tests for continuous normally distributed outcomes, while Chi square tests for independence were conducted for the categorical data (see Table 22 below). All calculations were performed using either SAS Version 9.2 (SAS Institute Inc., Cary, NC, USA) or SPSS Version 17 (*Statistical Package for the Social Sciences* for Windows, Chicago, USA).

3. Results

3.1 Descriptive statistics

The demographic characteristics of the 1,349 respondents are presented in Table 25. In both groups it is apparent that the majority of participants across each year level were on average, female (59- 73%, Yr 10-12), non-indigenous (95-99%, Yr 10-12), and attending a public/government (99-92%, Yr 10-12), co-educational school (100%, Yr 10-12). The mean age of participants by year level was: 15 years, 4 months (Yr 10); 16 years, 4 months (Yr 11) and 17 years, 3 months (Yr 12). Furthermore the majority of participants' parents co-habited (71-74%, Yr 10-12) and were employed (93%). Parent occupation tended to vary between comparison groups.

On average, Study 3 participants tended to more frequently self-report their parents' occupation as Professional/Managerial (37% Mothers, 37% Fathers), while participants from the *School Leavers Study* tended to self-report their parents' occupation as from the Skilled sector (31% Skilled: 'Non-manual' Mothers, 39% Skilled: 'Manual' Fathers).

Table 25: Demographic characteristics of sample, by year level.

Characteristic N (%)	Year 10 (Kurtin) N= 104	Year 10 (Winefield) N= 678	<i>p</i>	Year 11 (Kurtin) N= 115	Year 11 (Winefield) N= 274	<i>p</i>	Year 12 (Kurtin) N= 112	Year 12 (Winefield) N= 66	<i>p</i>
Gender:			1.000			1.000			1.000
<i>Male</i>	43 (41.3)	280 (41.3)		34 (29.6)	92 (33.6)		32 (28.6)	17 (25.8)	
<i>Female</i>	61 (58.7)	398 (58.7)		81 (70.4)	182 (66.4)		80 (71.4)	49 (74.2)	
School type:			.018*						
<i>Public/government</i>	102 (98.1)	678 (100)		94 (81.7)	274 (100.0)		96 (85.7)	65 (98.5)	
<i>Private/non-government</i>	2 (1.9)	0 (0.0)		21 (18.3)	0 (0.0)		16 (14.3)	1 (1.5)	
School Population:			-			-			-
<i>Co-educational</i>	104 (100.0)	678 (100.0)		115 (100.0)	274 (100.0)		112 (100.0)	66 (100.0)	
Indigenous:			1.000			1.000			1.000
<i>Yes</i>	2 (1.9)	19 (2.8)		7 (6.1)	5 (1.8)		1 (0.9)	0 (0.0)	
<i>No</i>	100 (96.2)	640 (94.4)		108 (93.9)	261 (95.3)		111 (99.1)	65 (98.5)	
<i>Missing</i>	2 (1.9)	19 (2.8)		0 (0.0)	8 (2.9)		0 (0.0)	1 (1.5)	
Parents' Habitation:			.635			.130			.475
<i>Yes</i>	75 (72.1)	475 (70.1)		75 (67.0)	205 (74.8)		80 (71.4)	51 (77.3)	
<i>No</i>	26 (25.0)	190 (28.0)		37 (33.0)	68 (24.8)		29 (25.9)	14 (21.2)	
<i>Missing</i>	3 (2.9)	13 (1.9)		0 (0.0)	1 (0.4)		3 (2.7)	1 (1.5)	

Characteristic N (%)	Year 10 (Kurtin) N= 104	Year 10 (Winefield) N= 678	<i>p</i>	Year 11 (Kurtin) N= 115	Year 11 (Winefield) N= 274	<i>p</i>	Year 12 (Kurtin) N= 112	Year 12 (Winefield) N= 66	<i>p</i>
Independent Living:			-			.005			.021
<i>Yes</i>	-	-	3 (2.6)	14 (5.1)			6 (5.4)	5 (7.6)	
<i>No</i>	-	-	107 (93.0)	93 (34.0)			102 (91.1)	17 (25.8)	
<i>Missing</i>	-	-	5 (4.4)	167 (60.9)			4 (3.5)	44 (66.7)	
Mother's Employment Status:			-			-			-
<i>Professional/Managerial</i>	33 (31.7)	152 (22.4)	50 (43.5)	57 (20.8)			41 (36.6)	12 (18.2)	
<i>Skilled Non-Manual</i>	13 (12.5)	194 (28.6)	16 (13.9)	74 (27.0)			11 (9.8)	24 (36.4)	
<i>Skilled Manual</i>	9 (8.7)	42 (6.2)	12 (10.4)	19 (6.9)			11 (9.8)	2 (3.0)	
<i>Unskilled</i>	18 (17.3)	80 (11.8)	12 (10.4)	40 (14.6)			21 (18.8)	6 (9.1)	
<i>Homemaker</i>	0 (0.0)	102 (15.0)	0 (0.0)	43 (15.7)			0 (0.0)	13 (19.7)	
<i>Unemployed</i>	0 (0.0)	33 (4.9)	1 (0.9)	14 (5.1)			0 (0.0)	3 (4.5)	
<i>Pensioner/Retired</i>	0 (0.0)	4 (0.6)	0 (0.0)	3 (1.1)			0 (0.0)	1 (1.5)	
<i>Student</i>	1 (0.9)	4 (0.6)	1 (0.9)	3 (1.1)			2 (1.8)	0 (0.0)	
<i>Missing</i>	30 (28.8)	67 (9.9)	23 (20.0)	21 (7.7)			26 (23.2)	5 (4.5)	

Characteristic N (%)	Year 10 (Kurtin) N= 104	Year 10 (Winefield) N= 678	<i>p</i>	Year 11 (Kurtin) N= 115	Year 11 (Winefield) N= 274	<i>p</i>	Year 12 (Kurtin) N= 112	Year 12 (Winefield) N= 66	<i>p</i>
Father's Employment Status:									
<i>Professional/Managerial</i>	40 (38.5)	187 (27.6)	-	40 (34.7)	65 (23.7)	-	42 (37.5)	12 (18.2)	-
<i>Skilled Non-Manual</i>	5 (4.8)	75 (11.1)	-	4 (3.5)	31 (11.3)	-	6 (5.4)	11 (16.7)	-
<i>Skilled Manual</i>	29 (27.9)	260 (38.3)	-	43 (37.4)	119 (43.4)	-	34 (30.4)	24 (36.4)	-
<i>Unskilled</i>	7 (6.7)	23 (3.4)	-	10 (8.7)	6 (2.2)	-	9 (8.0)	2 (3.0)	-
<i>Unemployed</i>	1 (0.9)	28 (4.1)	-	0 (0.0)	9 (3.3)	-	0 (0.0)	4 (6.1)	-
<i>Pensioner/Retired</i>	1 (0.9)	13 (1.9)	-	0 (0.0)	9 (3.3)	-	0 (0.0)	3 (4.5)	-
<i>Student</i>	0 (0.0)	2 (0.3)	-	1 (0.9)	1 (0.4)	-	2 (1.8)	2 (3.0)	-
<i>Homemaker</i>	0 (0.0)	1 (0.1)	-	0 (0.0)	0 (0.0)	-	0 (0.0)	0 (0.0)	-
<i>Missing</i>	21 (20.2)	89 (13.1)	-	17 (14.8)	34 (12.4)	-	19 (17.0)	8 (12.1)	-
Age	<i>M (SD)</i> 15.30 (0.52)	<i>M (SD)</i> 15.27 (0.49)	-	<i>M (SD)</i> 16.52 (0.58)	<i>M (SD)</i> 16.22 (0.47)	-	<i>M (SD)</i> 17.28 (0.54)	<i>M (SD)</i> 17.20 (0.56)	-

Note: Fisher's exact tests were used to compare Kurtin and Winefield results on categorical outcomes. * $p < .05$, ** $p < .01$, *** $p < .001$, - indicates not compared due to insufficient number of observations.

3.2 Cohort Differences on Psychological Health Measures

Participants were compared across a variety of psychological health measures presented in Table 26. Overall, participants recruited in 2008/9 by Kurtin et al. tended to report poorer psychological health, as determined by social alienation, negative mood, and GHQ-12 (psychological distress) scale scores, compared to participants recruited by Winefield et al. between 2001-2005.

Participants were stratified by year level to explore these differences in further depth.

Year 10:

Participants in the Kurtin Cohort (4) reported significantly higher scores on the Social Alienation scale, $t(700) = 3.70, p < .001$, than those from Winefield Cohort 1.

Year 11:

The Kurtin Cohort (4) reported significantly higher scores on measures of Negative Mood, $t(384) = 2.12, p = .035$, and GHQ-12, $t(174.07) = 3.12, p = .002$.

Year 12:

Kurtin Cohort (4) participants reported significantly higher scores on the Social Alienation, $t(166) = 2.11, p = .036$, and Negative Mood scales, $t(115.21) = 4.14, p < .001$.

The Kurtin Cohort (4) participants also tended to report higher levels of self-esteem at Year 11, $t(375.26) = 12.99, p < .001$, and Year 12, $t(71.26) = 6.79, p < .001$, and demonstrated lower levels of Suicidal Ideation. However, this observation was only found to be significant amongst Year 10 students, $t(239.4) = 3.54, p = .005$, who reported approximately half the level of suicidal ideation than those from Winefield Cohort 1.

Table 26: Comparison of Winefield Cohorts 1, 2 and 3 with Kurtin Cohort 4 on psychological health measures.

Characteristic	Year 10 (Kurtin) N = 104	Year 10 (Winefield) N = 678	<i>df</i>	<i>t</i>	<i>p</i>	Year 11 (Kurtin) N = 115	Year 11 (Winefield) N = 274	<i>df</i>	<i>t</i>	<i>p</i>	Year 12 (Kurtin) N = 113	Year 12 (Winefield) N = 65	<i>df</i>	<i>t</i>	<i>p</i>
Social Alienation	15.2 (2.0)	14.4 (2.1)	700	3.70	<.001	14.8 (2.1)	14.5 (1.9)	349	1.05	.294	15.20 (2.13)	14.50 (1.94)	166	2.11	.036
Negative Mood	12.0 (3.5)	12.1 (3.6)	753	-.15	.881	13.1 (3.6)	12.3 (3.4)	384	2.12	.035	14.55 (2.85)	12.45 (3.46)	115.21	4.14	<.001
Suicidal Ideation	0.6 (1.4)	1.3 (2.3)	239.4	-3.54	.005	1.0 (1.9)	.88 (1.6)	331	.79	.433	0.77 (1.73)	1.20 (1.64)	158	-1.55	.123
Self-esteem	18.1 (6.0)	19.2 (5.4)	751	-1.85	.065	23.6 (2.4)	18.6 (5.2)	375.26	12.99	<.001	23.95 (2.33)	18.50 (6.08)	71.26	6.79	<.001
GHQ	2.8 (2.8)	2.7 (2.56)	757	.321	.748	3.7 (3.1)	2.7 (2.5)	174.07	3.12	.002	8.55 (2.82)	3.26 (2.77)	173	12.07	<.001

Note: Independent samples t-tests were used to compare Kurtin and Winefield results on continuous outcomes, **p* < .05, ***p* < .01, ****p* < .001.

3.3 Health Risk Behaviours across Cohorts

The self-reported health risk behaviours of participants in each cohort were compared. Tables 27 and 28 describe the results of the investigation of cohort differences in alcohol consumption, drug use, smoking and physical illness. Overall the Kurtin Cohort (4) tended to report participation in health risk behaviours more frequently than participants in the Winefield Cohorts (1-3). Differences between cohorts will now be described for each health risk behaviour under investigation.

Alcohol consumption

The Kurtin Cohort (4) were generally less likely to drink alcohol and drinkers tended to consume alcohol on fewer days per week than those in the *School Leavers Study*. However, this difference was only statistically significant for Year 10 students, with 59% of Kurtin Cohort (4) Year 10s self-reporting themselves as ‘not drinking alcohol at all’, compared to 38% of Year 10s in Winefield Cohort 1 [$\chi^2(5) = 18.76, p = .002$]. However, on days where participants were consuming alcohol, there was a tendency for the participants in the Kurtin Cohort (4) to consume more ‘standard drinks’ per drinking session, than those of Winefield Cohorts (1-3). This difference emerged as statistically significant only for Year 11 students, with Year 11s from the Kurtin Cohort (4) consuming on average, 7.5 drinks ($SD = 5.7$), compared to 5.3 drinks ($SD = 3.9$) consumed by Year 11s from Winefield Cohort 2 [$t(94.27) = 2.85, p = .005$].

Drug Use

Prescription drug use

Table 27 indicates that similar levels of prescription drug use were reported by participants of both cohorts, and no statistically significant differences were observed across cohorts.

Non-prescription drug use

There was a tendency for participants in the Winefield Cohorts 1 and 3 to self-report greater participation in non-prescription drug use across Year 10 and Year 12, although this was not found to be statistically significant. The only significant difference in incidence of non-prescription drug use was found amongst Year 11s, where a greater percentage of participants from the Kurtin Cohort (4) used non-prescription drugs (30% vs. 21%, $\chi^2(1) = 8.31$, $p = .003$).

Illicit drug use

Across each of the Cohorts (1-4), the majority of participants self-reported as 'not' being users of illicit drugs (81 – 100%). No statistically significant differences were observed between the two studies.

Marijuana use

Winefield Cohorts 1 and 3 tended to identify themselves as 'marijuana users' more frequently than those of the Kurtin Cohort (4) at Year 10 and Year 12, although this did not appear to be statistically significant.

Amongst the Year 11s sampled, a greater number of participants in the Kurtin Cohort (4) identified themselves as ‘marijuana users’, but this difference was not statistically significant. Regarding those who identified as ‘marijuana users’, there was a trend toward using a greater number of “joints, cones or bongs”^{*} per day than in the Winefield Cohorts (1-3), although these differences were not found to be statistically significant for *any* year level.

Smoking

Across all Cohorts (1-4) most participants were non-smokers (80-100%, Yr 10-12). Overall, fewer participants from the Winefield Cohorts (1-3) identified themselves as ‘Smokers’ across all year levels. However, this observation was only found to be statistically significant at the Year 10 level (Winefield Cohort 1), where 86% of participants identified themselves as non-smokers, compared to 80% of Kurtin Cohort (4) participants [$\chi^2(1) = 9.43$, $p = .002$]. Amongst participants who self-identified as ‘Smokers’, a greater number of cigarettes were consumed per day in the Kurtin Cohort (4) compared to the Winefield Cohorts (1-3). However, this observation was not found to be statistically significant for any of the Year levels sampled, because there were too few cases of ‘Smokers’ in the Kurtin Cohort (4) to make a statistical comparison worthwhile. In interpreting these results it should be noted that cohorts were only compared on the dimension of ‘full-time’ smoking. As indicated in Chapter 5, the Kurtin Cohort (4) were more likely to report being ‘social’ smokers rather than ‘full-time’ smokers. The Winefield et al. (in progress) *School Leavers Study* did not investigate ‘social’ smoking.

^{*} A ‘joint’ is a colloquial term used to describe a cigarette rolled using cannabis and rolling papers. A ‘cone’ can refer to a ‘cone-shaped’ or fatter ‘joint’ but it can also refer to the ‘bowl’ part of a ‘bong’, where the cannabis is held. A ‘bong’ is a filtration device for smoking, generally used to smoke cannabis, tobacco or other substances. The rationale behind using a bong is the claim that the cooling effect of the water helps to reduce the chance of burning the mouth, airways and lungs.

Physical illness

In terms of physical illness, participants in the Kurtin Cohort (4) tended to report more physical illness than participants in the Winefield Cohorts 1-3 (Year 10: 17% vs. 16%; Year 11: 26% vs. 17%; Year 12: 28% vs. 18%). However, these differences were only statistically significant for Year 11 students [$\chi^2(1) = 4.16, p = .041$].

Table 27: Comparison of Kurtin and Winefield data on health risk behaviours: Categorical outcomes.

Characteristic N (%)	Year 10 (Kurtin) N= 104	Year 10 (Winefield) N= 678	<i>p</i>	Year 11 (Kurtin) N = 115	Year 11 (Winefield) N = 274	<i>p</i>	Year 12 (Kurtin) N = 112	Year 12 (Winefield) N = 66	<i>p</i>
Drinking frequency:			.002			.347			.412
<i>Don't drink alcohol</i>	61 (58.7)	256 (37.8)		44 (38.3)	93 (33.9)		33 (29.5)	27 (40.9)	
<i>Less than once p/wk</i>	36 (34.6)	319 (47.1)		56 (48.7)	137 (50.0)		58 (51.8)	27 (40.9)	
<i>1-2 days p/wk</i>	4 (3.8)	74 (10.9)		8 (7.0)	37 (13.5)		16 (14.3)	11 (16.7)	
<i>3-4 days p/wk</i>	1 (1.0)	6 (0.9)		3 (2.6)	4 (1.5)		1 (0.90)	0 (0.0)	
<i>5-6 days p/wk</i>	0 (0.0)	1 (0.1)		0 (0.0)	0 (0.0)		1 (0.90)	0 (0.0)	
<i>Everyday</i>	0 (0.0)	3 (0.4)		0 (0.0)	1 (0.4)		0 (0.0)	0 (0.0)	
<i>Missing</i>	2 (1.9)	19 (2.8)		4 (3.5)	2 (0.7)		3 (2.7)	1 (1.5)	
Tobacco use:			.001			-			.161
<i>No</i>	83 (79.8)	581 (85.7)		115 (100.0)	237 (86.5)		91 (81.3)	59 (89.4)	
<i>Yes</i>	1 (1.0)	82 (12.1)		0 (0.0)	36 (13.1)		3 (2.7)	6 (9.1)	
<i>Missing</i>	20 (19.2)	15 (2.2)		0 (0.0)	1 (0.4)		18 (16.1)	1 (1.5)	
Prescription drug use:			.488			.088			.180
<i>No</i>	63 (60.6)	522 (77.0)		60 (52.2)	201 (73.4)		57 (50.9)	47 (71.2)	
<i>Yes</i>	21 (20.2)	145 (21.4)		34 (29.6)	73 (26.6)		38 (33.9)	19 (28.8)	
<i>Missing</i>	20 (19.2)	11 (1.6)		21(18.2)	0 (0.0)		17 (15.2)	0 (0.0)	

Characteristic N (%)	Year 10 (Kurtin) N= 104	Year 10 (Winefield) N= 678	<i>p</i>	Year 11 (Kurtin) N = 115	Year 11 (Winefield) N = 274	<i>p</i>	Year 12 (Kurtin) N = 112	Year 12 (Winefield) N = 66	<i>p</i>
Non-prescription drug use:			.094			.003			.856
<i>No</i>	67 (64.4)	466 (68.7)		59 (51.3)	216 (78.8)		71 (63.4)	48 (72.7)	
<i>Yes</i>	17 (16.3)	193 (28.5)		34 (29.6)	57 (20.8)		24 (21.4)	18 (27.3)	
<i>Missing</i>	20 (19.2)	19 (2.8)		22 (19.1)	1 (0.4)		17 (15.2)	0 (0.0)	
Marijuana use:			.035			.809			.199
<i>No</i>	82 (78.8)	610 (90.0)		90 (78.3)	255 (93.1)		94 (83.9)	59 (89.4)	
<i>Yes</i>	2 (1.9)	60 (8.8)		5 (4.3)	19 (6.9)		4 (3.6)	6 (9.1)	
<i>Missing</i>	20 (19.2)	8 (1.2)		10 (8.7)	0 (0.0)		14 (12.5)	1 (1.5)	
Illicit drug use:			.379			.075			.148
<i>No</i>	84 (80.8)	651 (96.0)		90 (78.3)	269 (98.2)		93 (83.0)	66 (100.0)	
<i>Yes</i>	0 (0.0)	12 (1.8)		4 (3.5)	3 (1.1)		4 (3.6)	0 (0.0)	
<i>Missing</i>	20 (19.2)	15 (2.2)		11 (9.6)	2 (0.7)		15 (13.4)	0 (0.0)	
Physical illness:			.778			.041			.151
<i>Yes</i>	18 (17.3)	112 (16.5)		30 (26.1)	46 (16.8)		31 (27.7)	12 (18.2)	
<i>No</i>	83 (79.8)	550 (81.1)		83 (72.2)	227 (82.8)		79 (70.5)	54 (81.8)	
<i>Missing</i>	3 (2.9)	16 (2.4)		2 (1.7)	1 (0.4)		2 (1.8)	0 (0.0)	

Table 28: Comparison of Kurtin and Winefield data on health risk behaviours: Continuous outcomes.

Characteristic N (%)	Year 10 (Kurtin) N = 104	Year 10 (Winefield) N = 678	df	t	p	Year 11 (Kurtin) N = 115	Year 11 (Winefield) N = 274	df	t	p	Year 12 (Kurtin) N = 113	Year 12 (Winefield) N = 65	df	t	p
No. Alcoholic Drinks (per session)	8.24 (16.47)	4.24 (3.83)	37.36	1.50	.143	7.47 (5.72)	5.33 (3.90)	94.27	2.85	.005	6.13 (4.90)	6.05 (5.02)	112	.083	.934
No. Cigarettes (per day)	15.00 (.)	6.46 (7.64)	76	1.11	.270	7.00 (.)	7.21 (7.52)	27	-.028	.978	11.50 (12.02)	11.20 (7.89)	5	.040	.969
No. Joints (per day)	3.00 (.)	3.93 (4.31)	52	-.213	.832	10.00 (.)	5.57 (8.69)	15	.495	.628	1.67 (2.89)	2.25 (2.22)	5	-.305	.773

Note: Independent samples t-tests were used to compare Kurtin and Winefield results on continuous outcomes, * $p < .05$, ** $p < .01$, *** $p < .001$, - indicates not compared due to insufficient number of observations.

4. Discussion

The rationale behind conducting this study was to build on the findings reported in Chapter 5 and determine if there were changes in levels of mental health and wellbeing compared to a similar cohort of participants initially recruited for a different South Australian study, some eight years earlier. Previous research has suggested that nationally the mental health of adolescents has declined over the past decade (Bernard et al., 2007; Eckersley, 2008; Raphael, 2000; Tucci, 2006). The results of the current study involving rural adolescents are consistent with this national trend. The present analysis determined that there were changes in health risk behaviours and mental health problems of adolescents who live in South Australian rural communities, between 2001 and 2009.

Implications of findings for Hypothesis 1

The first hypothesis, that participants from the Kurtin Cohort (4) sampled across 2008-9 would report poorer mental health, was partially supported, suggesting worsening mental health amongst adolescents in rural South Australia. Overall, there was a tendency for the Kurtin Cohort (4) to exhibit increased levels of Social Alienation, Negative Mood and greater psychological distress (GHQ). However, Social Alienation was the only measure found to be significantly and consistently elevated amongst *all* participants across *all* year levels within the Kurtin Cohort (4).

Despite indications that the Kurtin Cohort (4) participants experienced poorer mental health, conversely, participants in Year 11 and Year 12 reported greater levels of self-esteem, and significantly lower levels of suicidal ideation at Year 10. These results are somewhat conflicting but not necessarily surprising because similar findings have appeared in more recent studies (Bernard, 2007; Eckersley, 2006; Mission Australia, 2009).

Implications of findings for Hypothesis 2

The second hypothesis was that participants from the Winefield Cohorts (1-3) would report fewer health risk behaviours than participants from the Kurtin Cohort (4), including less participation in alcohol use, drug use and smoking. The findings partially support this hypothesis. Whilst more ‘non-drinkers’ were identified in the Kurtin Cohort (4) when these participants were drinking, they tended to consume more standard drinks per drinking session than those of the Winefield cohorts (1-3), suggesting a change in drinking patterns such as more ‘binge drinking’. In terms of drug use few differences were found between the two study populations. However, Kurtin Cohort (4) participants were found more frequently to participate in non-prescription drug use and marijuana use, although this was only statistically significant amongst the Year 11s sampled. Finally, cigarette smoking tended to be more frequently *reported* in the Winefield Cohorts (1-3), which is consistent with general community trends toward reductions in smoking prevalence over the past decade (AIHW, 2006; Collins & Lapsley, 2002, Lutfiyya et al., 2008; VicHealth, 2010).

4.1 Worsening mental health?

Participants in the four cohorts - Kurtin Cohort 4 (2008-9) and Winefield Cohorts 1-3 (2001, 2003 & 2005) - were compared on five measures of psychological health: social alienation, negative mood, self-esteem, overall mental well-being, and suicidal ideation. Generally, it was observed that participants tended to score in the non-clinical range on all of these measures. However, across all year levels, participants in the Kurtin Cohort (4) tended to report worse psychological health than the Winefield Cohorts (1-3) (see Table 29 below).

Table 29: Cohort differences on psychological health measures: Kurtin Cohort (4) vs. Winefield Cohorts (1-3).

Psychological Health Measure	Year 10		Year 11		Year 12	
	Kurtin	Winefield	Kurtin	Winefield	Kurtin	Winefield
Social Alienation	↑	↓	-	-	↑	↓
Negative Mood	-	-	↑	↓	↑	↓
Suicidal Ideation	↓	↑	-	-	-	-
GHQ	-	-	↑	↓	↑	↓
Self esteem	↓	↑	↑	↓	↑	↓

NB: ↑ = higher score, indicates worse outcome; - equivalent score; ↓ = lower score, indicates better outcome.

A key finding of the current study is that for most of the psychological health measures observed, participants in the Kurtin Cohort (4) tended to report worse mental health than those from the Winefield Cohorts (1-3). This was especially the case for the more senior adolescents (Year 11s and Year 12s) who reported worse mood and more general psychological distress as indicated by higher GHQ score. This finding is particularly interesting and provides support for recent evidence about the declining mental health of young Australians. According to Eckersley (2008) young people appear to be suffering mental health problems at an earlier age than before, experiencing them at higher rates than older age groups, and retaining their increased risk beyond youth into older age. Indeed, recent Australian statistics have indicated that those aged 18-24 had the highest prevalence of mental disorders of any age group, at 27% (ABS, 1998).

A recent child and adolescent mental health survey reported that 14% of children and adolescents between 4 to 17 years of age experienced mental health problems (Sawyer et al., 2000).

According to the Australian Institute of Health and Welfare (2008), 10% of young people have a long-term mental or behavioural problem, and 16% report high or very high levels of psychological distress. In another study conducted by Bernard (2007), involving more than 10,000 Australian school-aged children (including primary and secondary school), it emerged that 40% of students from kindergarten/preparatory age to Year 12 displayed low levels of social and emotional wellbeing. Across year levels the following statistics emerged: 18% reported feeling lonely; 20% had recently felt hopeless and depressed for a week and had stopped regular activities; 31% were very stressed; 32% had difficulty controlling how depressed they got; 35% lost their temper very often; 42% worried too much; and 48% had difficulty calming down when upset. Bernard et al. (2007) also observed that student wellbeing tended to increase in primary school and decrease in high school, and that students tended to score themselves lower on wellbeing than did their teachers, suggesting teachers may be unaware of the extent of the emotional difficulties students are experiencing. A number of studies conducted by the Australian Childhood Foundation (Tucci et al., 2006, 2008) of children and adolescents aged between 10 and 17 years have produced similar findings of youth mental health. Again, high levels of stress and anxiety are indicated.

International research has also indicated that the prevalence of mental health problems amongst young people has risen over the past 70 years, with the latest research suggesting a 7 to 8-fold increase. Kessler et al. (2005) found that almost 50% of Americans will experience a clinical mental disorder during their lives, with 75% of lifetime cases first experienced in adolescence and early adulthood. According to Kessler et al. (2005) the risk increases with each successive generation. That is, those aged between 18 and 29 years, will be subject to an estimated lifetime risk of mental disorder which is four times that of an individual aged over 60 years.

Kessler et al. (2005) also argue that existing prevalence and risk estimates are conservative, and the lifetime risk in younger cohorts underestimated. Comparisons with an earlier survey showed that the prevalence of mental disorders in Americans aged 18-54 did not change significantly in the decade 1990-92 and 2001-03 (12-month prevalence, 29.4% and 30.5%, respectively), but the rate of treatment increased (from 12.2% to 20.1% of the population aged between 18 and 54). Such a result may indicate that the prevalence might have risen but for increased treatment, or increased treatment actually had no effect on prevalence.

Recently, a steady decline in the mental health of American college students was observed between 1930 and 2007 and adolescents between 1951 and 2002 (Twenge et al., under review). Five to eight times as many college students now score above common cut-off levels for psychopathology. Rutter et al. (1995) in their European study of youth mental health also argue that prevalence of mental health problems has risen in recent decades. Schmid et al. (2008) examined the prevalence of mental health problems amongst youth sampled in Anglo-American and European studies, and also found increasing prevalence published. While these findings may, according to Eckersley (2006), suggest a 'worsening situation', it is difficult to interpret these results, as long-term trends in mental health are difficult to establish, simply due to a lack of consistent, accurate, comparative data. Additionally, 'worsening' mental health is a contentious issue because not all studies have shown an increase in mental health morbidity amongst young people. (Indeed, an advantage of the present analysis is that the same tools were able to be used to assess psychological wellbeing and health risk behaviours). An Australian review, prepared for the *Australia 21* Youth Project (Eckersley et al., 2006), concluded that on the basis of available data, it was not possible to determine whether there had been a long-term change in the mental health and wellbeing of young Australians (Aird et al., 2004).

The observation that psychological distress tends to increase, whilst wellbeing decreases in the high school years, seems to be reflected in the results obtained in the current study (McGorry et al., 2007). Perhaps, surprisingly, while Year 10s in the Kurtin Cohort (4) tended to experience greater levels of social alienation and poorer self-esteem than those in the Winefield Cohorts (1-3), this was not associated with higher levels of negative mood. It should be noted, however, that while this is the case the difference in the scores observed between the two study populations do not indicate clinical disorder or mental illness diagnosis.

It should be noted that whilst higher scores on psychological measures were reported amongst the senior years of high school (particularly Years 11 and 12), the effect of school work should be considered. High school senior years are often very difficult for students who are required to complete several assessments, examinations and specific units of study in order to obtain their South Australian Certificate of Education (SACE). Years 11 and 12 are also the first time adolescents may need to think seriously about their future hopes and goals and begin preparation for their future careers (Kouzma & Kennedy, 2004). This is often a very daunting experience for many young people. Since the 1980s there has been a great push for adolescents to enrol in university courses, which have a highly competitive entry process (Hattam, 1998). For the majority of university courses in Australia, each student's final exam results are converted into an overall Tertiary Entrance Rank score, with specific cut-off scores required for specific courses (McGraw et al., 2008). Unsurprisingly, many adolescents find this process very stressful and rural students in particular, face the additional life change of moving away from home to pursue further education. Consequently, in interpreting findings such as this, these extraneous factors need to be considered.

Suicidal ideation scores were also lower amongst Year 10s in the Kurtin Cohort (4), who reported *half* the suicidal ideation as Year 10's in Winefield Cohort 1. This finding is at odds with evidence suggesting 'worsening' mental health, and suicidal tendency (ABS, 2001a). However, it is in line with recent suicide studies that suggest there has been some success in recent years in lowering the incidence of suicide (Mission Australia, 2009). Nonetheless a recent Australian Medical Association Senate Inquiry into youth suicide indicated that substantial improvements still had to be done, especially amongst 'at risk' youths including those from rural areas of Australia (AMA, 2010).

4.2 Health risk behaviours

The second hypothesis for the current study was that participants from the Winefield Cohorts (1-3) would report fewer health risk behaviours than participants from the Kurtin Cohort (4), including less participation in alcohol use, drug use and smoking. The findings partially support this hypothesis.

Whilst more 'non-drinkers' were identified in the Kurtin Cohort (4), when these participants were drinking, they tended to consume more standard drinks per drinking session than those of the Winefield Cohorts (1-3), suggesting a change in drinking patterns, and more 'binge drinking'. With drug use, few differences were found between the two study populations. However, Kurtin Cohort (4) participants were found more frequently to participate in non-prescription drug use and marijuana use, although this was only statistically significant amongst the Year 11s sampled. Finally, cigarette smoking tended to be more frequently reported in the Winefield Cohorts (1-3), which is consistent with general community trends toward reductions in smoking prevalence over the past decade (AIHW, 2006, 2008; Holt, 2005; The Social Research Centre, 2007; Warren et al., 2006).

The observation that participants in the Kurtin Cohort (4) were more likely to report being non-drinkers seems to be somewhat overshadowed by the fact that when participants from this cohort did drink alcohol, they tended to consume more standard drinks on average, than those of the *School Leavers Study* (Winefield Cohorts 1-3), particularly amongst the Year 10s and 11s sampled. This observation provides support for the assertion that binge drinking is now an increasing problem amongst Australian adolescents (Australian Youth Forum, 2009). Overall, 37% of young Australians (aged 14-29 years) binge drink at least once a month (ABS, 2008). Previous research (ABS, 2008; AIHW, 2000) has highlighted the dire consequences of alcohol abuse, which has often been associated with risk-taking behaviour (see Chapter 5). Binge drinking poses short-term and long-term risks to health (although recent trends vary depending on the measurement of risk, and the fact that under-age drinking has actually declined in recent years) (ABS, 2006; DEECD-DPCD, 2008; Roche et al., 2007).

Chapter 5 discussed the ‘drinking culture’ that is often associated with socialisation practices in rural settings. Research has found that young Australians ‘living in the bush’ are almost twice (1.7 times) as likely to die from risky drinking as those in the city. They are also 1.9 times as likely to be admitted to hospital as a result of an alcohol-fuelled assault, and 1.5 times more likely to be the victim of alcohol-induced violence than urban youths (Allsop, 2009). Recent activity amongst lobbyists has called for amendments to the Australian taxation system to help target binge drinking amongst youth. The current system is based on the *type* of alcoholic beverage consumed, rather than the amount of alcohol within. There is little incentive for the alcohol industry under this system to produce lower alcohol beverages. For consumers the cost of purchasing a beverage containing 3.5% alc/vol is the same as it costs to buy 6% alc/vol (Allsop, 2009).

Improving access to public transport in rural areas may help reduce some of the risk factors associated with drinking in some communities. Often people are required to drive further to attend social events and have limited opportunity to access to taxis, buses or trains which either operate on a limited basis or not at all in some communities (NDRI, 2009). Locally, providing more recreational opportunities has also been suggested as a strategy to reduce alcohol consumption amongst youth (see discussion in Chapter 5). Other alternative suggestions include localised responses, specifically tailored to individual communities. For example, a Western Australian community restricted the hours of sale for bulk-packaged liquor between 12 noon and 8pm. This halved the number of alcohol-related arrests and reduced the number of people being transported to hospital by 70% (Chikritzhs & Allsop, 2009).

The findings about tobacco in the current study agree with a broader social trend to reduced use of tobacco (AIHW, 2006; Collins & Lapsley, 2002, VicHealth, 2010). In line with this observation, smoking tended to be more frequent in the *School Leavers Study*, although a statistically significant difference was only observed amongst the Year 10s sampled (Winefield Cohort 1). Recent Australian statistics have indicated a significant decline in smoking amongst adolescents aged 14 years and above (from 24% in 1991 to 17% in 2007), which has largely been associated with increased public education about the health risks of smoking, increased advertising about the dangers of smoking, and increase in taxes on the price of cigarettes (AIHW, 2008). However, as Chapter 5 indicated, whilst there were few ‘full-time’ smokers in Study 3, a significant proportion of participants engaged in smoking while ‘out’, and this was especially the case for female participants. It would have been useful to investigate changes in the prevalence of ‘social smoking’, but only ‘full-time’ smoking was considered in the *School Leavers Study*.

According to the Australian Institute of Health and Welfare, up to 23% of young people aged 15-24 have used an illicit drug in the previous 12 months (2008). Results of the current investigation yielded mixed findings. Study 3 participants (Kurtin Cohort 4) were found to participate more frequently in non-prescription drug use and marijuana use, although this was only statistically significant amongst the Year 11s sampled, with use of non-prescription drugs self-reported by 21-30%, and marijuana use self-reported by 4-7% of the participants across year levels. According to the *2007 National Drug Strategy Household Survey* (AIHW, 2008a), rates of illicit drug use have steadily declined over the past 15 years. In 1995, 38% of males and 25% of females aged 14-19 years had used an illicit drug within the 12 months preceding questionnaire completion. In 2007, these figures fell to 15% of males and 18% of females. For marijuana use specifically, approximately 13% of adolescents aged 14 to 19 years had used marijuana in the 12 months prior to study participation (AIHW, 2008a). In 1995, it was reported that 36% of males and 20% of females had admitted to recent marijuana use. The current observation of less than 10% of the participants self-reporting recent use of marijuana, reinforces this growing trend of decreased substance use amongst Australian youth (Fulde & Wodak, 2007; Holt, 2005).

4.3 Social changes in rural South Australia

In interpreting the results of this comparison, it is necessary to consider what social factors may have influenced the results obtained. The past decade has seen many changes in rural South Australia which could have impacted on the mental health of adolescents residing there. Undoubtedly, the two most important factors that have been shown to affect rural communities have been: firstly, the drought; and secondly, the unstable employment conditions resulting from the recent international global economic downturn known as the Global Financial Crisis (Sartore, 2008).

In 2002, South-Eastern Australia was experiencing the worst drought in Australia's history since Federation. The Gross Domestic Product figures of 2003 highlighted a massive fall in farm income of approximately 70%, with agricultural exports falling by more than 28%. The gross volume of overall farm production declined by 28.5%, considered the worst since 1959 (ABC, 2008). The massive financial loss coupled with the drought devastated many rural communities whose livelihoods had long depended on farming and agriculture. The personal and financial costs of the drought were extremely high and the consequent pressures on farmers led to a greater incidence of depression and suicide during this period (Page et al., 2002; Sartore, 2008). The drought was the outcome of the El Nino weather pattern and this had a devastating effect on many countries globally and persisted for some four years. The year 2006 witnessed failures in the winter to mid-spring rainfalls and the average rainfall in South Australia was the lowest since 1900 (ABC, 2008). Across Victoria and the Murray-Darling Basin the season was the second driest since 1900. The situation was also aggravated by temperatures being the highest on record since the 1950s (Gray & Lawrence, 2001).

For participants of the *School Leavers Study* who completed questionnaires in 2001, 2003 and 2005, the drought was a major concern amongst townships which relied upon the land. In 2007, the Australian Prime Minister, John Howard, announced that unless there was substantial rain in autumn of that year, no water would be allocated to irrigators in the Murray-Darling basin for the coming year. This affected some 50,000 farmers (ABC, 2008), many of whom lived near the towns where the two study cohorts were recruited. By the time data was collected from the Kurtin Cohort (4) in 2008-9, the drought's effects were still being felt, although weather conditions had somewhat improved.

Also around this time, South Australia's government implemented several policies aimed at protecting the River Murray, which as of 2008, only received approximately 36% of its natural flow, and features within the most heavily irrigated region in Australia. In 2008-9, the State government also announced future plans to achieve water sustainability into the future, including a desalination plant to be built outside metropolitan Adelaide to reduce the over-reliance on the River Murray.

The Global Financial Crisis (GFC) made its impact on the world economy in the first half of 2008, triggered by declining house prices in the United States when numerous households defaulted on their mortgages. This had disastrous carry-over effects on the banking industry and credit markets globally. Essentially, what had happened was that American mortgages had been 'securitised' and sold on to willing buyers across the globe (Baily & Elliott, 2009). Without banks lending to other banks or to corporate customers, the global economy could not function properly and many economies including Australia's, began to suffer. In the last quarter of 2008, it became clear that the Australian economy was not going to escape the crisis, and the federal government and Reserve Bank of Australia took a number of actions to protect the economy. Bank deposits were guaranteed, stopping the flow of funds out of the banks and helping them to keep lending and \$10 billion in cash handouts were authorised to stimulate household spending. The Reserve Bank also cut interest rates to ease pressure on families, and generally these measures helped lessen the pain of the financial crisis (Colgan, 2009).

However, the most devastating effect of the GFC has been the increase in the rate of unemployment. In Australia the national unemployment rate rose to 5.7 % as of June 11, 2009 (ABS, 2010). In July 2009, the estimated unemployment rate for South Australia was 5.5%, while nationally unemployment increased slightly from 5.7% in June 2009 to 5.9% in July 2009.

For the third consecutive month in 2009, South Australia's trend unemployment rate was below the national rate (ABS, 2010). However, whilst this may be a somewhat pleasing result to some, it is important to note that employment in rural areas is often limited, and when job losses occur in rural areas, it often takes longer for new employment opportunities to be found. Therefore when unemployment is experienced, it tends to be for a longer period of time.

Thirdly, it would be remiss not to discuss the effects of youth out-migration on rural communities. According to Geldens (2007), out-migration operates via well-established structural 'push' and 'pull' factors which impact on young people: a presumed lack of local opportunities for employment, education and training pushing young people out of small communities, whilst desired educational and occupational opportunities pull them into larger centres. Long-established out-migration trends in Australia have resulted in an under-representation of young people in rural areas. According to Davies (2007) youth out-migration from rural areas is not new. Even during the era of colonial settlement, young people have left rural towns to access the education, employment and social opportunities offered in large centres or cities (Alston & Kent, 2001). Traditionally, many young people returned to rural communities in their early to mid-twenties to work on family farms or to pursue other rural-based lifestyle or career opportunities (Alston, 2004). However, over the last decade or so, there has been a noticeable trend of fewer rural young people returning to rural communities following their education and training in the cities (ABS, 1996, 2001b). Furthermore, fewer young people from city backgrounds are moving to rural areas (ABS, 1996, 2001b). This has proven to be problematic for the economic resilience of rural communities with fewer skilled young people moving into the workforce (Department of Transport and Regional Services, 2006). The social impact of declining youth in-migration has led to rural communities experiencing difficulties in attracting young people to fill skilled job vacancies and apprentice positions.

Declining youth in-migration also has social consequences, effectively reducing the capacity of rural communities to replenish their skill base and social networks. Davies (2007) investigated how urban-based youth perceive rural lifestyles and employment opportunities and how this is linked to their willingness to move to rural areas. The study revealed that young people attached undesirable aesthetic values to the physical environment of inland rural communities and perceived them as ‘socially isolating’ and as having minimal opportunities for career advancement. However, the perceptions of those who live or had lived in rural areas were found to be far more positive than those who have had little experience in rural communities. Accordingly, those who had previously lived in inland regions were far more likely to move to the country than those who had limited lived experience of rural communities. The research by Davies (2007) demonstrated that the perceptions of lifestyle and employment opportunities were important influences on young people’s willingness to move to rural communities.

4.4 Limitations

The major limitation of conducting cross-sectional studies such as this is that causation cannot be inferred. Indeed, whilst data were collected from 1,349 participants, the results of the current study do not indicate why the observed differences in mental health status and health risk behaviours occurred.

Unlike Study 3, where participants were sampled from eight townships only, participants of the current sample resided in 19 different townships across rural South Australia. Whilst increasing the sampling frame and number of participants usually helps with the generalisability of findings, it is unlikely that the results obtained in the current study are representative of the mental health status of the wider population of adolescents in Years 10-12 who reside in rural South Australia.

This is especially because participants in this study tended to reside in townships with a RRMA index of 5, ('other rural area'), where there were less than 10,000 inhabitants. This was the case in both Study 3 and the *School Leavers Study*. Therefore an overrepresentation of the experience of participants from this rural classification/geographic area may be evident in the data.

Additionally, the majority of participants were not of Aboriginal or Torres Strait Islander descent. Indeed, it appears that the majority classified themselves as Anglo-Saxon Australian, with few other cultural denominations being present. Given that indigenous Australians have lower levels of mental and physical health and are often of lower socio-economic status, it is unlikely that the results of the current study documented this. Therefore the results cannot be generalised to wider indigenous populations of rural South Australia. Finally, an examination of the demographic factors illustrates that the majority of participants in this study were females who came from high-functioning families, where both parents co-habited and were employed in either professional/managerial, or skilled professions. Few participants lived independently or came from families where both parents were unemployed. It is perhaps these individuals whose family environment is less stable, and who are of a low socio-economic background, who face an increased risk of mental health problems and reduced wellbeing. Had a more equal representation of participants from a variety of familial/socio-economic backgrounds been recruited, a more accurate description of the mental health and wellbeing of rural adolescents would have been achieved.

It is very difficult to explain the trend for poorer mental health status amongst Study 3 participants. As discussed in Chapter 5, rural townships are heterogenous and have their own distinct culture and milieu.

Whilst providing protective factors that may serve as a buffer for mental health morbidity, social factors specific to rural townships can at times exacerbate mental or physical health problems. As mentioned previously, environmental factors such as the drought, poor farming results, job losses and financial losses in townships that rely on agriculture as their main industry, may affect community morale and lead to uncertainty and stress amongst adolescents who worry about their future. To make things worse, other events such as the Global Financial Crisis could also have affected the mental health of adolescents who worry about their parents' financial security and that of local businesses in their towns.

As noted in Chapter 5, care needs to be taken when interpreting the findings of this study. The measures which were statistically compared should not be taken as indicators of mental health morbidity, but rather as indicators of psychological distress.

4.5 Study Strengths

Firstly, there are obvious advantages to conducting cross-sectional studies such as this, i.e. they are less expensive than longitudinal studies, they can be done fairly quickly and can estimate prevalence and multiple risk factors. Secondly, there is a paucity of mental health research that has focused on the adolescent population of rural South Australia. What was achieved here was a successful comparison of the findings of Study 3 to existing South Australian mental health data. It obtained a 'snapshot' of the changes in mental health of adolescents over the past five to nine years. This type of 'pseudo-longitudinal' data for adolescents who reside in rural areas of South Australia has not been reported previously. The results of this comparison yielded limited support for the proposition that mental health amongst South Australia's adolescents is getting worse, and participation in health risk behaviours has increased. This study sampled 1,349 adolescents from a total of 28 secondary schools in 23 rural townships of varying sizes and RRMA index classifications in South Australia.

While it seems that adolescents from one of the RRMA classifications was over-represented in particular (5= 'Other' rural areas, population <10,000), it was not thought that this impacted overtly on the results obtained. The fact that recruitment such from such a wide variety of townships occurred, is a strength of this study, and has certainly been neglected by other researchers in the past.

5. Conclusions

The results of this quantitative study provide additional support for the findings of Chapter 5. Following statistical comparisons it became evident the adolescents sampled in 2008-2009 (Kurtin Cohort 4) scored similarly to adolescents sampled as part of the *School Leavers Study* in 2001, 2003 and 2005 (Winefield Cohorts 1-3). Across the two study populations, it was also observed that adolescents tended to self-report non-clinical levels on most of the psychological health measures. Generally, while there was a tendency for Kurtin Cohort (4) participants to exhibit increased levels of Social Alienation, Negative Mood and greater psychological distress (as measured by GHQ-12), significant differences did not emerge for each measure across all year levels compared. Social Alienation was the only measure that was significantly and consistently elevated amongst *all* Kurtin Cohort (4) participants.

Despite indications that the Kurtin Cohort (4) had poorer mental health status, they reported greater levels of self-esteem at Year 11 and 12, and were found to demonstrate significantly lower levels of suicidal ideation at Year 10. These results provide additional evidence supporting recent research which has suggested that adolescents' mental health has deteriorated in recent years; despite the finding that suicide has tended to decline.

There is little accurate research which investigates the prevalence of adolescent mental illness in the rural communities sampled, and it is necessary for future research to investigate how these observations of psychological distress translate into mental illness.

In terms of the health risk behaviours observed in the current study, it was apparent that whilst greater proportions of ‘non-drinkers’ were observed in the Kurtin Cohort (4), when these participants were drinking, they tended to consume more standard drinks per drinking session than those of the Winefield Cohorts (1-3).

This finding supports recent assertions about the incidence of binge drinking in rural Australian communities, and the inference that it may lead to increases in risk-taking behaviour (as found amongst females in Chapter 5). Kurtin Cohort (4) participants participated more frequently in non-prescription drug use and marijuana use, although this was only statistically significant amongst the Year 11s sampled.

Smoking was more frequently associated with participants of the Winefield Cohorts (1-3), with a statistically significant difference only observed amongst Year 10s sampled. Given the somewhat inconsistent nature of the health risk behaviours observed in the study (i.e. only being associated with particular year levels), it is necessary for further research to be undertaken. The objective would be to discover if health risk behaviours are rising amongst adolescents in rural Australia.

This study has successfully investigated the mental health and wellbeing of a cross-section of adolescents (N = 1,349) who resided in rural South Australia between 2001 and 2009 and were enrolled in Years 10, 11 and 12 at secondary schools in 19 rural townships.

Whilst the findings indicate a ‘worsening’ of mental health and an increase in health risk behaviours over time, it is difficult to know if these findings can be generalised to the wider population of adolescents in rural Australia. Secondly, it is difficult to know the causal factors behind the changes observed in mental health and wellbeing. Future studies, longitudinal in nature, and utilising repeated cross-sectional samples, could address this observation in more accurate detail, and provide further information about the processes driving these changes. Nonetheless the current study provided a valid contribution to the neglected area of rural adolescent mental health in South Australia.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 Aim of this chapter

This PhD project investigated adolescent mental health needs in several rural townships of South Australia by presenting four interrelated studies. This final chapter describes the major findings from each study and summarises the recommendations that participants in this PhD project made. These recommendations are to benefit future adolescent mental health service delivery and also future research into the topic. It draws upon the experience of the researcher who travelled to selected rural communities in South Australia to collect and present pertinent information.

7.2 Overview of findings

The PhD project aimed to comprehensively investigate the mental health needs of adolescents aged between 12 and 19 years residing in rural townships of South Australia, not only from the perspective of human service providers who provide mental health care to these adolescents, but also by consulting with adolescents themselves. The study utilised a mixed methods study design consisting of two qualitative interview/focus group studies followed by two quantitative questionnaire studies. Whilst mixed methods have often been criticised by the ‘purist’ methodologists, a mixed methods approach was deemed highly appropriate for this study for three reasons: complementarity, development, and triangulation (as discussed in Chapter 2). The qualitative focus groups with human service providers and adolescents hoped to generate insight into the mental health needs that were perceived to be important to these communities. The quantitative investigation hoped to indicate the extent or prevalence of mental health problems, and then compare data across four different time periods in order to better understand what changes in mental health and wellbeing have been occurring over the past five to nine years.

At the time this PhD project was conceptualised, little data existed which specifically pertained to the mental health and wellbeing of adolescents residing in rural areas of South Australia. Whilst prior research had included adolescents as participants in quantitative studies, they had not been provided with a ‘voice’ or any platform where their views and concerns about the health services currently available to them could be shared. It is specifically for this reason that two qualitative studies were employed to capture and collate these expressions and represent them appropriately in an academic format.

What follows will be an account of the specific contributions of this research to existing literature, of which there are four:

7.2.1 Contribution 1: The types of mental health problems being treated by human service providers in several rural areas of South Australia were collated, and gaps in existing mental health service delivery were identified.

The first study, involving 38 human service providers who were either individually interviewed, or who participated in one of four focus groups, was conducted from late 2006 to late 2007. This study identified the mental health issues that were considered to be the most important to formal and informal mental health providers. What became critical was the tendency for rural inhabitants to ‘shy away’ from professional mental health services. Equally importantly, this study found that human service providers commonly dealt with adolescents presenting with depression, anxiety, self-harming behaviour or suicide intent. They also dealt with the fallout of suicide, and drug and alcohol abuse/dependency. Whilst these problems are not necessarily new ones, service providers did indicate changing patterns in the manifestation of these behaviours. For example, alcohol abuse and binge drinking was now deemed more of a problem amongst adolescent females in many of the rural communities sampled.

In addition, service providers described new forms of self-harming behaviour including piercings, inkless tattooing, etc. and the influence of the 'Emo' subculture.

This first study analysed in-depth the 'experience' of providing mental health care to adolescents in local communities. What was strikingly apparent was the shortage of mental health staff available to service such a large geographic area in South Australia. Human service providers often described caseloads that they found very difficult to manage. Building on this theme, new mental health staff were often difficult to attract and then retain in rural areas. This situation was further compounded by existing mental health staff requiring training or upskilling. They were required to travel to metropolitan Adelaide to participate in training seminars, when the best cost effective and time efficient strategy would be to have a local training day in the major rural centres. This would also serve as a much-needed networking opportunity for the local mental health staff, who tended to operate in isolation from each other.

A feeling emerged that the human service providers interviewed felt overburdened and burnt out. This sense of 'overwork' was seen to badly affect the quality of care being offered to adolescents having mental health problems, and a call was placed for more work and structural change to occur for an improvement in mental health service delivery in the future. This was not always perceived to be a problem of not enough resources, but rather a problem of how existing mental health resources are currently being managed. Human service providers unanimously agreed that mental health stigma was a problem in their communities, despite recent federal public awareness campaigns and local mental health initiatives. Service providers indicated that local mental health services had to be more accessible not only for adolescents but rural communities generally.

7.2.2 Contribution 2: Adolescents were given the opportunity to discuss the mental health problems experienced by themselves/their peers and provided with a ‘voice’ in regards to what types of mental health services they would like to see within their communities in the future.

The second study sampled 44 adolescents in Years 10 or 11 at seven secondary schools in four rural townships of South Australia, and invited them to participate in a one-hour focus group discussion with their peers. Eight focus groups were conducted. Participants were asked to respond to a series of questions based on a fictional character depicted in a vignette, which facilitated further discussion about mental health issues in their town. It also highlighted their experience of ‘growing up’ in rural South Australia. Data was collected from mid-2008 to mid-2009.

Following the completion of these eight focus group discussions, adolescents could recognise symptoms of depression and anxiety (as suggested in the vignette described in the focus group). Participants identified a range of mental health problems including: depression, suicide, anxiety, eating disorders and drug and alcohol abuse. The identification of these problems correlated quite well with the information provided by the human service providers in Study 1. Drug and alcohol issues tended to be a focus of group discussion, with adolescents identifying the link between drug and alcohol abuse and health risk behaviours such as sexual promiscuity and violence. Participants often recounted the incidence of teen pregnancy, which was a particular concern in one of the townships sampled. ‘Boredom’ and limited opportunities for recreation were often seen as the catalyst for socialisation focusing around alcohol consumption.

In terms of ‘growing up’ in their rural communities, adolescents felt that they enjoyed many benefits from living in them, such as close proximity to family and friends, a relaxed lifestyle, their towns’ appealing physical appearance and feeling a sense of ‘community’ and connectedness. Interestingly, it was this sense of ‘community’ that was also perceived to be negative because participants were alert to the rural gossip networks and lack of privacy often associated with living in such a ‘high visibility’ setting, where their activities were quite easily observed and scrutinised.

The stigma concerning mental illness was perceived as a ‘judgemental’ aspect of rural culture, which adolescents believed deterred rural people from seeking support for their mental health problems. Indeed, participants indicated a clear preference for accessing mental health care from an ‘informal’/ ‘generalist’ health service provider, such as a General Practitioner, for fears that their confidentiality may not be maintained if they were seen to access a ‘formal’, readily-recognisable ‘mental health’ service. Whilst some participants identified School Counsellors as ‘informal’ sources of mental health care, they were very concerned that the School Counsellor would not maintain their privacy and disclose their concerns to other members of staff or parents.

Additionally, adolescent participants in this study did not consider ‘formal’/ ‘specialist’ mental health services such as psychologists, social workers or CAMHS (Child & Adolescent Mental Health Service) staff to be supports of choice because such staff appeared to be either intimidating or ‘out of touch’ with youth issues. The ‘generation gap’ was definitely a factor and adolescents identified the need for younger mental health services staff to work in their townships. Older and less empathic staff were perceived to be a major deterrent in accessing help. Adolescents expressed a desire to feel understood by someone who was ‘not like [their] parents’.

7.2.3 Contribution 3: The psychological health and wellbeing of adolescents in rural areas of South Australia was investigated, and gender differences highlighted. In conjunction with this, valuable information about mental health service usage and preference was collected.

Previous mental health research has suggested that rural adolescents are characterised by an increased risk of mental health morbidity, poor physical health, increased health risk behaviour and a lack of professional help for their mental health concerns (Burns et al., 2004; Fergusson & Woodward, 2002; Kilkinen et al., 2007; Puskar, Lamb & Bartolovic, 1993). At the time this project was conceptualised, there was little data on the mental health of rural adolescents in South Australia. More specifically, not many studies had investigated gender differences in mental health amongst rural adolescents. This PhD project wanted to overcome this situation by implementing a questionnaire that sampled a cross-section of 332 adolescents in rural South Australian townships.

Participants tended to display sub-clinical levels on most of the psychological health measures in the questionnaire. The first hypothesis, that males would report lower levels of Suicidal Ideation, whilst females would report higher levels of Negative Mood, was only partially supported. Results indicated that males reported significantly lower levels of self-esteem, trait anxiety and perceived stress, but higher psychological distress (as measured by GHQ-12 score). Females reported higher levels of suicidal ideation and negative mood, but only suicidal ideation was found to be significantly higher amongst females sampled.

Despite suggestions by prior researchers that health risk behaviours such as the consumption of alcohol, tobacco and drugs is typically associated with young males and the ‘culture of masculinity’ in rural townships, the findings of Study 3 indicated otherwise (Anderson et al., 2004; Andrews & Wilkinson, 2002). The second hypothesis, that females would report significantly more participation in the consumption of alcohol, tobacco and non-prescription drugs than the males sampled, was supported. Furthermore, evidence emerged that females did participate in unsafe sexual practices more frequently than their male peers.

Study 3 made its major contribution by offering valuable information about health service usage and professionals’ preference to consult for future mental health concerns. Females were found to be almost four times more likely to have sought help for a mental health problem in the year preceding questionnaire completion. As in previous research the GP emerged as the health professional most accessed for support, whether it be of a physical, social or psychological problem (Cockburn & Bernard, 2004; Gunn et al., 2008; Potiriadis, 2008; Wrigley et al., 2005). The majority of participants across genders stated they would seek help for any future mental health concerns, and whilst the GP was nominated as the professional of choice, other ‘informal’ avenues of support were identified as being of a higher preference than traditional ‘formal’/ ‘specialist’ mental health service providers such as psychologists and psychiatrists. Whilst these results are not altogether surprising, data on professional of preference when seeking help for mental health concerns had not previously been collected from this target group of consumers in South Australia.

7.2.4 Contribution 4: A ‘snapshot’ of the mental health and wellbeing of adolescents residing in rural areas of South Australia from 2001 to 2009 was created via comparison of current findings with existing data.

In the final quantitative study, data collected in Study 3 was statistically compared to existing data collected as part of the *University of South Australia’s Longitudinal Investigation of School Leavers* study. Both studies sampled adolescents enrolled in Years 10, 11 and 12 in townships in rural South Australia. Data was compared across four different time periods, by selecting *School Leavers Study* data collected between five to nine years ago (in 2001, 2003 and 2005) for comparison with Study 3 data collected during 2008-9. Existing research has pointed out that adolescents’ mental health appears to be declining over the years, in that they are presenting with common mental health disorders such as depression at younger ages (Eckersley, 2006, 2008; Tucci & Goddard, 2006).

The first hypothesis, that Study 3 participants would report poorer mental health status than *School Leavers Study* participants was partially supported. Whilst there was a tendency for Study 3 participants to exhibit increased levels of Social Alienation, Negative Mood and greater psychological distress (as measured by the GHQ-12), no significant differences were found for each measure across all year levels compared.

The second hypothesis, that participants from the *School Leavers Study* would report fewer health risk behaviours than those in Study 3, was also partially supported. Specifically, alcohol consumption, tobacco and drug use were compared. Whilst greater proportions of ‘non-drinkers’ were observed in the Study 3 cohort, when these participants were drinking, they tended to consume more standard drinks per drinking session than those in the *School Leavers Study*.

In terms of drug use, Study 3 participants more frequently participated in non-prescription drug use and marijuana use, although this was only statistically significant amongst the Year 11s sampled. Smoking tended to be more frequently associated with participants in the *School Leavers Study*, and a statistically significant difference was only observed amongst Year 10s sampled. Collectively the findings reflected the changing pattern in alcohol, tobacco and drug use observed amongst Australian youth since the mid-1980s (AIHW, 2010).

This final study succeeded in conceiving of a ‘snapshot’ of the mental health and wellbeing of adolescents living in rural South Australia over the past five to nine years. This type of ‘pseudo-longitudinal’ data does not yet exist but this study has yielded limited support for the proposition that South Australian adolescents’ mental health is deteriorating. Furthermore their participation in health risk behaviours has increased.

7.3 Recommendations for future mental health practice

During the focus group discussions held with human service providers (Chapter 3) and adolescents (Chapter 4), several recommendations for improving the delivery of existing mental health services were made. In considering the time and effort these participants gave to this PhD project, it would be remiss to not mention them here. The following recommendations to successful adolescent mental health service delivery were suggested by Human Service Providers:

7.3.1. Engaging with young people

Participants indicated service providers needed to do more to engage with young people initially, even if this meant trying out novel ideas and utilising non-traditional methods of care.

7.3.2 Establishing rapport

Building rapport with adolescent clients was deemed ‘fundamental’, due to the small window of opportunity service providers often had to work with.

7.3.3 Changing the layout of services to make them ‘youth-friendly’

Not only does the physical appearance and layout of existing mental health services prevent adolescents from seeking care, but also the way in which services are delivered. Currently, mental health staff are waiting for adolescents to come and see them. Mental health services need to seek out adolescents and increase their public profile as part of a strategy to make them ‘youth friendly’. This may mean adopting more of a Primary Health Care approach to service delivery, and seeking to address the root cause of health problems such as social problems in local communities.

7.3.4 An increase in mental health staff

As already indicated, there is a great need for more rural mental health staff. The high turnover and poor retention of existing staff leaves adolescents with few local options.

7.3.5 Increasing collaboration and networking events between existing service providers

Due to high staff turnover it is often difficult for service providers to know who is providing what service at any one time. Regular local mental health networking events should be considered as highly important to maintaining good links that facilitate collaboration between existing services and to prevent any overlap.

Adolescents detailed a series of suggestions for how future mental health service delivery could become more effective in their local communities. Firstly, there were factors which they argued needed to be **increased**:

7.3.6 Privacy

In order for adolescents to access services, they needed to feel as though their confidentiality would be maintained. Additionally, adolescents would be more likely to access a known mental health service if it was not in a highly visible location.

7.3.7 Comfort

Adolescents stated that they would need to feel comfortable with the mental health professional they were seeking support from, and feel as though they were not being judged or misunderstood.

7.3.8 Younger Staff

It was widely agreed that there should be more ‘younger’ mental health staff who are closer in age to adolescents. Not only because this would improve adolescents’ feeling comfortable during consultations, but younger staff would also be more likely to keep abreast of youth issues in their local communities.

7.3.9 ‘Informal’ Support

Adolescents in the current study felt that their first port of call would be an ‘informal’ source of support should they experience a mental health problem. Aside from friends and family, adolescents were more likely to seek assistance from peer support (in schools), student counsellors, pastors and youth workers, provided they were not part of a ‘formal’/ ‘specialist’ mental health service.

7.3.10 Community Resources

It was also suggested more community resources were necessary to accommodate young people's needs. Youth centres and drop-in centres where adolescents could not only socialise and participate in recreational activities served as potential supports and sources of health information.

7.3.11 Education

Finally, adolescents identified an urgent need to increase knowledge about mental health issues at school. Adolescents consistently felt they had not received enough education about these issues in their senior secondary high school years, when these issues were very critical.

Adolescents also identified specific factors that needed to be **decreased** or removed, in order for them to access local mental health services:

7.3.12 Stigma

While it is acknowledged that stigma *per se* cannot be 'removed', it was widely accepted amongst focus group attendees that if there were less negative perceptions of mental illness and mental health problems in their rural communities, adolescents would feel less shame or embarrassment about such problems and may be more likely to access help.

7.3.13 Authority Figures

Adolescents seemed wary of accessing help from health workers with readily-identifiable mental health 'titles', such as Psychiatrist, Psychologist, or Social Worker, as they tended to find them intimidating.

With the more serious mental health problems such as psychosis or schizophrenia, for example, it was acknowledged that these professionals would be appropriate avenues for help. However, for the more common problems of depression or anxiety or problems with family or other interpersonal relationships, adolescents stated they would not feel comfortable in getting help from ‘authority figures’.

7.3.14 ‘Formal’ Services

Adolescents seemed to indicate a preference for accessing ‘informal’/ ‘generalist’ health services. Formal/specialist services were often located in settings where the comings and goings of adolescents accessing this service would be visible to other members of their community. Less obvious ‘mental health’ services were preferred.

Figure 17 (in Chapter 4) indicates the Effective Future Mental Health Service Delivery Model favoured by adolescents. This model correlates highly with the WHO’s framework for ‘youth friendly’ health services (WHO, 2002).

7.4 Recommendations for future research

One of the major limitations of the current research project is that it unfortunately was not able to capture a truly representative sample of participants from rural areas of South Australia, in any of the four studies. It is important to acknowledge that rural townships are diverse settings having their own distinct cultural milieu, since South Australia is geographically diverse in terms of being characterised by sea, pastoral districts, and arid landscape. These differences in landscape undoubtedly affect the cultural practices and traditions of many communities.

In each of the four studies it was common for one ‘type’ of rural township to be overrepresented. Of all the RRMA classifications, it seems that indexes of 3 (Chapter 4), 4 (Chapter 3), and 5 (Chapters 5 and 6) were dominant. If one carefully considers the RRMA classification system, this results in ‘large rural centres’ (3: population of 25,000-99,000), ‘small rural centres’ (4: population of 10,000-24,999) and ‘other rural areas’ (5: population <10,000) being overrepresented in this project overall, whilst ‘remote centres’ (6: population >4,999) and other ‘remote areas’ (7: population <5,000) have been neglected. Considering that mental health morbidity and health risks are associated with increasing geographical remoteness, it may well be that the results obtained in the current investigation did not document the true situation concerning the mental health and wellbeing of adolescents in rural South Australia. It is possible that the current data obtained in Studies 3 and 4 may underestimate the psychological distress and health risk behaviours actually being experienced. However, it should be noted that a concerted attempt was made to recruit adolescents from more remote settings in rural South Australia. Unfortunately, many school Principals from these areas declined to participate in this research project due to: firstly, the sensitive nature of some items in the questionnaire; and secondly, because of their communities’ ‘attitude’ towards mental illness and suicide in particular. Therefore, it is recommended that future South Australian research on the mental health of adolescents focus on obtaining data from those who live in the more remote settings.

In each study appearing in this thesis it was evident that adolescents exhibited a clear preference for ‘informal’ / ‘generalist’ health staff in the event that they would seek help for a mental health concern. In line with existing literature on this topic there was a clear and overwhelming preference to access support from their local General Practitioner (Burns & Rapee, 2006; Fuller et al., 2000, 2004; Kang & Chown, 2004).

According to the results the GP was favoured for reasons of convenience and more importantly, because they were identified as a ‘least-stigmatising’ option. It is therefore unfortunate that from the 38 human service providers recruited in Study 1 (Chapter 3), only eight were rural GPs (despite numerous recruitment attempts). Considering this preference and the fact that statistically GPs are indeed the first point of contact with the mental health care system, future research should examine the experience of rural GPs who provide mental health care. Additionally, General Practitioners have long been criticised for lacking mental health training and assessment skills they receive during their medical training and once registered, actively pursue (Hegarty et al., 2009; Kokanovic et al., 2009). General Practitioners tend to work alone with minimal supervision and for rural GPs this is compounded by the perils of geographical isolation. Rural GPs therefore may not only lack the necessary experience in dealing with adolescent mental health issues, but also the professional supports required to provide effective mental health care to this target group. Therefore future mental health research also needs to consider the skills, competencies, personal and professional resources rural GPs have to draw upon in order to provide mental health care to adolescents in their communities.

This thesis attempted to investigate how the mental health and wellbeing of adolescents in rural communities of South Australia has changed across four different time periods. While this represented perhaps one of the first attempts to compare the mental health of rural adolescents in South Australia over a significant time period, true changes in prevalence of mental illness could not be captured because the psychological health measures were not diagnostic. Therefore, the results obtained only address changes in ‘psychological distress’.

It may be beneficial for future research to address the prevalence of ‘psychiatric’ disorders amongst adolescents in rural communities and collect information about the experience of suffering from such a disorder, coupled with the experience of ‘rurality’. It should be noted, however, that early attempts were made in this project to conduct focus group discussions with adolescents identified as having a clinical disorder (proposed in Study 2). However, ethics approval had to be obtained with such a group of participants but this was not possible. Indeed, it is only individuals who suffer from a clinical or psychiatric disorder who could provide a true description of the services available to them in their local communities, and their experience of accessing such services.

It was stated previously that this PhD project sought to provide a ‘quasi-longitudinal’ investigation of changes in psychological health and wellbeing. Whilst this represents a notable attempt to address changes in wellbeing amongst the adolescent community, it falls well short of what would be achieved from a repeated-measures cross-sectional longitudinal study. As noted earlier, rural communities are not homogenous and it may be beneficial for future research to compare longitudinally, how ‘rurality’ and ‘remoteness’ influences the development of children and adolescents, and how this transfers to mental health morbidity in adulthood. Conducting a longitudinal investigation such as this is particularly pertinent considering research which suggests diagnosis of clinical depression and anxiety is occurring more frequently in younger populations than ever before (Eckersley, 2008).

Finally, the biggest limitation of this overall PhD project was the lack of Aboriginal and Torres Strait Islander participants who could have been recruited. This is unfortunate considering prior research consistently finding that universally, people from this culture have on average, poorer wellbeing and higher death and hospitalisation rates (AIHW, 2010). The concept of ‘mental illness’ simply does not exist in Aboriginal and Torres Strait Islander communities, and where it does, it is considered a ‘shame job’ to be admitted to. It is therefore highly likely that any data which pertains to the mental health of indigenous adolescents underestimates the actual mental health morbidity which is actually experienced by this cultural group. Whilst it should be acknowledged that two focus groups in Study 4 occurred with indigenous-only participants, the information gleaned from the transcripts did not lead to the emergence of issues that were distinctive to this cultural group. This is despite the fact that the human service providers of Study 1 seemed to describe at length, issues related to providing mental health care to the indigenous members of their communities. It may well be that the indigenous adolescents who participated in the focus groups of Study 4 may not have felt comfortable sharing information about problems in their communities with someone who was not a member of their culture.

It should be noted that the research student did her best to build rapport with participants, and bring a light-hearted attitude to the focus group activity. Also, in considering the number of indigenous participants who completed the questionnaire in Study 3, representing a mere 3% of the entire sample, it is clear that this research project failed to capture meaningful epidemiological data about this cultural group. This is somewhat surprising considering that significant indigenous populations exist in many of the rural townships sampled, especially from Port Augusta and Whyalla.

While it is not unusual for indigenous adolescents to be underrepresented in the senior years of secondary school, it is unlikely that this factor alone was behind the poor rate of recruitment for this cultural group. There clearly exists a great need for future research to investigate the prevalence of mental health problems amongst indigenous adolescents in rural South Australia. Perhaps the recruitment of indigenous participants in these future studies would be greatly aided by involving local indigenous community members, to encourage participation and help 'legitimise' the research within the community. These strategies may help break down some of the stigma that is still attached to mental illness.

7.5 Concluding remarks

This thesis addressed the paucity of research into adolescent mental health needs in rural areas of South Australia. With a mixed methods approach it was possible to conduct four studies that investigated current mental health needs, existing methods of service delivery and importantly, whether improvements could be made to local mental health services in terms of improving accessibility for rural adolescents. This chapter has integrated the findings of all four studies and highlighted the contributions of each to the existing body of literature concerning the influence of 'rurality' on young people's mental health. Human service providers acknowledged that the volume of mental health needs experienced by adolescents in their community was such that existing services struggled to meet demand. Human service providers felt that existing modes of service delivery had to be greatly improved - become 'youth friendly' - and this would be achieved by managing existing resources better not simply creating new ones.

Rural adolescent participants were skilled in recognising mental health problems that existed in their communities, and demonstrated great awareness of the influence of ‘rurality’ on how mental illness is experienced. The major improvements adolescents relayed in relation to mental health service delivery seemed to focus on the environment of the service and on the characteristics of mental health staff working in their communities. Rural adolescents believed that confidentiality is a major concern when they want help with their mental health problems, and demonstrated their preference for ‘informal’/ ‘generalist’ health care providers.

This study also demonstrated the gender differences in psychological distress, suicidal ideation, negative mood and health risk behaviours amongst rural adolescents. Females tended to have on average better psychological health but higher levels of suicidal ideation. Males tended to report significantly less health risk behaviours, including less sexually risky behaviour. Additionally, this study attempted to investigate changes in mental health and wellbeing which have occurred in the years spanning 2001, 2003, 2005 and 2008-9. Overall, participants sampled in 2008-9 tended to report poorer psychological health, yet significantly lower levels of suicidal ideation than those from earlier years. In terms of health risk behaviours, participants of 2008-9 tended to report significantly less health risk behaviours than those of earlier years. Collectively, these findings have served to address successfully the neglected area of rural adolescent mental health, and provided a ‘snap shot’ of South Australia specifically. It is recommended, however, that future South Australian research occur on a larger and more longitudinal scale, with more emphasis on the relationship between ‘rurality’ and mental health morbidity. Furthermore, future studies on mental health service delivery would benefit from recruiting rural participants who have psychiatric diagnoses, so that a truer insight into their unique experience of accessing and utilising ‘formal’/ ‘specialist’ mental health care is attained.

Likewise, due to the consistent finding that adolescents in this project indicated a clear preference for accessing care from a local ‘informal’ / ‘generalist’ health service provider, future research needs to investigate the effects this has on overall quality of care. Specifically, it would be beneficial to conduct research into the experience and perceived competencies of rural General Practitioners who provide mental health care to adolescents in their local communities.

Finally, it is recommended that future research addresses the mental health needs of South Australian indigenous adolescents, because despite great attempts to recruit such adolescents for this project, seemed to be largely unsuccessful. This thesis has added greatly to the neglected area of adolescent mental health in rural (but not remote) areas of South Australia. However, it is clear that there are many questions which still remain unanswered, and despite recent national and international recognition of the burden mental illness causes the individual and the community at large, it seems that mental health stigma still exists. It is an important barrier that needs to be overcome in order for future mental health research to be truly successful.

APPENDICES

APPENDIX A:

Study 1 participant recruitment letter.



DISCIPLINE OF GENERAL PRACTICE
SCHOOL OF POPULATION HEALTH AND
CLINICAL PRACTICE
FACULTY OF HEALTH SCIENCES

LEVEL 3 ELEANOR HARRALD BLD
ROYAL ADELAIDE HOSPITAL
THE UNIVERSITY OF ADELAIDE SA 5005
AUSTRALIA

TELEPHONE +61 8 8303 3460
FACSIMILE +61 8 8303 3511

Participant Information Sheet

An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia: A preliminary exploratory study

Dear Recipient,

My name is Marijeta Kurtin and I am a PhD candidate enrolled in the Discipline of General Practice at the University of Adelaide. I am undertaking research into the mental health of adolescents living in rural South Australia. There is a paucity of research into the mental health of rural Australians and, in particular, for adolescents. A comprehensive investigation of this area must include the perspectives of the providers of mental health services in rural South Australia.

This study will advance understanding of the different mental health issues experienced by rural South Australian adolescents. It will also determine whether current services are adequate to cope with their mental health needs. To achieve these aims it is essential to have input from service providers dealing with young people. I am writing to ask you to participate in a focus group discussion with some of your colleagues.

A focus group discussion will be occurring in your area during the next month, and will be approximately 60 minutes in duration. (I have attached to this letter a set of questions you may be asked to respond to during the discussion). I will be contacting you via telephone to discuss a good day/time for you to attend a focus group in your area. If you cannot or would not like to attend a focus group, I can make arrangements to interview you face-to-face at a time and venue that is convenient for you. Finally, if you do not have the time to participate in a focus group or interview, I would appreciate it if you could please mail back some replies to the questions I've attached with this letter.

The results of this study are particularly important, especially in light of the current political interest into the provision of mental health services to rural Australian communities. Furthermore, the results of this study could benefit rural communities in the future by impacting upon South Australian mental health policy.

There are no foreseeable risks to your participation in the study. While all conversations will be audio-taped, every effort will be made to protect your identity and maintain your confidentiality. Pseudonyms will be used to protect your identity in any publications or thesis based upon the research. All hard copies of the data will be securely stored within the Discipline of General Practice, with access strictly limited to the research team (see below). It is also important for you to note that you are free to withdraw from the study at any time, without experiencing any prejudice from the researchers or The University of Adelaide.

If you would like more information about the study, feel free to contact me or any of my supervisors (see below). If you have any concerns about the study, or wish to make a complaint, please contact the University of Adelaide Human Ethics Committee Secretary, on (08) 8303 6028.

Your contribution to this study will be greatly valued!

Kind regards,

Marijeta Kurtin – PhD Candidate
Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 5829
Fax: (08) 8303 3511
Mob: 0421 833 885
E-mail: marijeta.kurtin@adelaide.edu.au

Other Contacts:

Dr Nicole Moulding (Principal Supervisor)
Postdoctoral Research Fellow
Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 3456
Fax: (08) 8303 3511
E-mail: nicole.moulding@adelaide.edu.au

Dr Christopher Barton
Lubims Research Fellow
Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 6228
Fax: (08) 8303 3511
E-mail: christopher.barton@adelaide.edu.au

Dr Jane Edwards
Adjunct Research Fellow
Spencer Gulf Rural Health school
University of South Australia
Whyalla Campus
&
Research Fellow
Centre for Market Analysis & Regulation
University of South Australia
City West Campus
Ph: (08) 8302 0950
Fax: (08) 8302 0992
E-mail: jane.edwards@unisa.edu.au

Professor Tony Winefield
Research Degrees Co-ordinator
School of Psychology
University of South Australia
City East Campus
Ph: (08) 8302 2156
Fax: (08) 8302 2956
E-mail: tony.winefield@unisa.edu.au

Attachment 1 – List of Questions

The following are a list of questions I intend to explore with you during the focus group discussion. If you are unable to participate in either the focus group or a telephone interview, I would greatly appreciate it if you could please mail back some responses to these questions in the reply-paid envelope provided.

1. What is the nature of mental health problems among adolescents in your area?
2. How does ‘rurality’ impact the mental health of youth in your area?
3. What is the role of your organisation in providing care to adolescents in your community?
4. What is your opinion on the availability of your service to meet the needs of young people in your community?
5. How accessible is your service to the community?
6. Are any improvements necessary? If so, please suggest how this could be achieved.
7. Does your service have adequate resources to function effectively and meet demand? If not, what would enable you to do so?
8. Please comment upon how your service uses referral systems.
9. Is there collaboration with other mental health service providers? If so, could you please describe this? How might this be extended?
10. Any other comments?

Attachment 2 – Day/Time Preference

Please indicate below whether or not you are interested in participating in the focus group by circling the appropriate response, and mailing this information back to me in the reply-paid envelope provided.

YES

NO

If YES, could you please indicate what day(s)/time(s) suit you best.

DAY	TIME am/lunch/pm
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

If you are unable to attend a focus group, but would be interested in speaking with me via telephone, could you please provide your phone number below?

.....

APPENDIX B:

Study 1 participant information sheets, demographic questionnaire and consent forms.

PARTICIPANT INFORMATION SHEET

Health and Community Workers

Research study: ‘An investigation into the mental health issues of adolescents in rural and remote areas of South Australia: A preliminary exploratory study’.

What is the purpose of the study?

This study aims to gain information about health and community workers’ perceptions of the mental health needs of rural South Australian youth. Furthermore, this study hopes to gain an insight into the perceptions of current service provision, gaps in service delivery or barriers to access of services for rural youth, as voiced by community health workers.

What would participation involve?

We would like to ask you to participate in either a one hour focus group discussion with up to 7 other health and community workers who work with young people in your area, or an individual interview. All discussions will be recorded.

What are the benefits of the study?

We hope that the information gathered in the current study will advance understanding of the different mental health issues experienced by rural South Australian adolescents and also determine whether current services are adequate to cope with their mental health needs. There may not be any direct benefit to you personally for taking part in the study. However, the results of this study could benefit rural communities in the future by impacting upon South Australian mental health policy.

Are there any risks in participating in the study?

No.

Will my participation be confidential?

Your participation in this study will remain confidential, and your name and any other identifying information (such as your organisation or town name) will not be used in any papers or thesis written reporting on the findings of this study.

Research team and contact details:

The research team involves researchers from the Spencer Gulf Rural Health School, the Discipline of General Practice at The University of Adelaide, and from the School of Psychology at the University of South Australia. Please see the contact details below if you have any questions or concerns about the study:

Marijeta Kurtin – PhD Candidate

Discipline of General Practice

The University of Adelaide

Ph: (08) 8303 5829

Fax: (08) 8303 3511

Mob: 0421 833 885

e-mail: marijeta.kurtin@adelaide.edu.au

Dr Christopher Barton

Lubims Research Fellow

Discipline of General Practice

The University of Adelaide

Ph: (08) 8303 6228

Fax: (08) 8303 3511

e-mail: christopher.barton@adelaide.edu.au

Professor Tony Winefield

Research Degrees Coordinator

School of Psychology

University of South Australia

City East Campus

Ph: (08) 8302 2156

Fax: (08) 8302 2956

e-mail: tony.winefield@unisa.edu.au

Dr Jane Edwards

Adjunct Research Fellow

Spencer Gulf Rural Health School

University of South Australia

Ph: (08) 8302 0950

Fax: (08) 8302 0992

e-mail: jane.edwards@unisa.edu.au

FOCUS GROUP/INTERVIEW QUESTIONS

1. What is the nature of mental health problems among adolescents in your area?
2. How does 'rurality' (living in a rural town) impact upon the mental health of youth in your area?
3. What is the role of your organisation in providing care to adolescents in your community?
4. What is your opinion on the availability of your service to meet the needs of young people in your community?
5. How accessible is your service to the community?
6. Are any improvements necessary? If so, please suggest how this could be achieved.
7. Does your service have adequate resources to function effectively and meet demand? If not, what would enable you to do so?
8. Please comment upon how your service uses referral systems.
9. Is there collaboration with other mental health service providers? If so, could you please describe this? How might this be extended?

Any other comments?

DEMOGRAPHIC QUESTIONNAIRE

Please take a moment to provide some basic demographic information.

Age:

Gender:

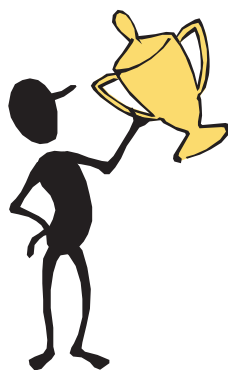
Job Title:

Organisation:

Years working in current position:

Years working in field of 'health':

THANK YOU!





THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE
STANDARD CONSENT FORM
FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT

1. I, *(please print name)*
 consent to take part in the research project entitled: ***‘An investigation into the mental health needs of young people living in rural and remote areas of South Australia’.***
2. I acknowledge that I have read the attached information letter entitled ‘Participant information sheet’.
3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.
4. I understand that my involvement may not be of any benefit to me.
5. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.
6. I understand that I am free to withdraw from the project at any time and that there will be no negative consequences for me now or in the future.
7. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet.

.....
(signature) *(date)*

WITNESS

I have described to*(name of subject)*

the nature of the research to be carried out. In my opinion she/he understood the explanation.

Status in Project: **Participant (Interview)**

Name:

.....
(signature) *(date)*

Complaints Form

Please retain this document if you would like to make a complaint about this study.

THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

Document for people who are participants in a research project

CONTACTS FOR INFORMATION ON PROJECT AND INDEPENDENT COMPLAINTS PROCEDURE

The Human Research Ethics Committee is obliged to monitor approved research projects. In conjunction with other forms of monitoring, it is necessary to provide an independent and confidential reporting mechanism to assure quality assurance of the institutional ethics committee system. This is done by providing research participants with an additional avenue for raising concerns regarding the conduct of any research in which they are involved.

The following study has been reviewed and approved by the University of Adelaide Human Research Ethics Committee:

Project title: *'An investigation into the mental health needs of young people living in rural and remote areas of South Australia'*.

1. If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project co-ordinator:

Name: Dr Christopher Barton

Telephone: (08) 8303 6277

2. If you wish to discuss with an independent person matters related to
 - making a complaint, or
 - raising concerns on the conduct of the project, or
 - the University policy on research involving human participants, or
 - your rights as a participant

contact the Human Research Ethics Committee's Secretary on phone (08) 8303 6028.



APPENDIX C:

Study 2 information sheets and consent forms

for students and parents.

DISCIPLINE OF GENERAL PRACTICE
SCHOOL OF POPULATION HEALTH AND CLINICAL
PRACTICE
FACULTY OF HEALTH SCIENCES

LEVEL 3 ELEANOR HARRALD BLD
ROYAL ADELAIDE HOSPITAL
THE UNIVERSITY OF ADELAIDE SA 5005
AUSTRALIA

TELEPHONE +61 8 8303 3460
FACSIMILE +61 8 8303 3511

Student Information Sheet

An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia.

Dear Student,

My name is Marijeta Kurtin and I am a PhD candidate enrolled in the Discipline of General Practice at the University of Adelaide. Along with my supervisors, I am conducting a study to investigate the mental health of adolescents living in rural areas of South Australia. The purpose of our study is to develop an understanding of the different mental health issues experienced by South Australian adolescents, and to find out if existing services are able to cope with the mental health problems they experience.

I am writing to all students in years 10 to 12 in nine schools in South Australia to ask for their participation. Specifically, I am asking you to complete a questionnaire investigating different aspects of your wellbeing. The questionnaire should take approximately 25 minutes to complete. Your school principal has agreed for all students to complete the questionnaire at school.

In addition, we are also asking your teachers to nominate six students in your year level to participate in a one-hour focus group discussion held at your school. Focus group discussions will be audio-taped, but your identity will remain confidential.

Participation in any aspect of this study is voluntary. You can withdraw from the study at any time, and this will not affect your progress at school.

Attached to this letter, I have provided some information for your parents/guardians to read. It is very important that your parent/guardian completes the attached consent form, otherwise we will not be able to use any of the data collected.

If you participate in this study, you will be automatically entered into a lottery offering ten prizes to the value of approximately \$30 each. The prize will be mailed to the address your parent/guardian supplies on the attached consent form.

All information collected as part of the study will remain confidential, and will be securely stored at the University of Adelaide. While the focus group discussions will be audio-taped, your identity will remain confidential as we will be using codenames.

I would greatly appreciate it if you could **return the completed parent consent forms to your school within the next fortnight**, so that you can complete the questionnaire. If you are already 18 years of age, please complete the other consent form.

If you would like further information about the study, please contact myself, or the other researchers using the contact details listed below:

Marijeta Kurtin

PhD Candidate

Discipline of General Practice

The University of Adelaide

Ph: (08) 8303 4134

Fax: (08) 8303 3511

Mob: 0421 833 885

E-mail: marijeta.kurtin@adelaide.edu.au

Other contacts:

Dr Christopher Barton (Principal Supervisor)
Lubims Research Fellow/Honours Coordinator
Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 6277
Fax: (08) 8303 3511
E-mail: christopher.barton@adelaide.edu.au

Professor Tony Winefield
Research Degrees Coordinator
School of Psychology
University of South Australia
City East Campus
Ph: (08) 8302 2156
Fax: (08) 8302 2956
E-mail: tony.winefield@unisa.edu.au

Dr Jane Edwards
Research Fellow
Centre for Rural Health and Community Development
University of South Australia
Mob: 0439 365 521
E-mail: jane.edwards@unisa.edu.au

THIS FORM IS TO BE COMPLETED BY STUDENTS AGED 18 YEARS OR

ABOVE



**THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE
STANDARD CONSENT FORM
FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT**

1. I,(please print name)

of (please write address):

.....
.....
.....

consent to take part in the research project entitled: ***'An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia'*** and to participate in (please tick):

- Questionnaire completion Focus group discussion with peers (if selected)

2. I acknowledge that I have read the attached information letter entitled 'Student Information Sheet' and also the attached questionnaire.

3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

4. I understand that my involvement in the study may not be of any benefit to me.

5. I agree to have my focus group discussion audio-taped by the researcher.

6. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.

7. If I am selected to participate in a focus group discussion, I will not divulge any information which is shared by other participants.

8. I understand that I am free to withdraw from the study at any time and that there will be no negative consequences for myself now or in the future.

9. I am aware that I should retain a copy of this Consent Form, when completed, and the attached 'Student Information Sheet'.

...../.../2008
(signature) (date)

Parent Information Sheet



DISCIPLINE OF GENERAL PRACTICE
SCHOOL OF POPULATION HEALTH AND CLINICAL
PRACTICE
FACULTY OF HEALTH SCIENCES

LEVEL 3 ELEANOR HARRALD BLD
ROYAL ADELAIDE HOSPITAL
THE UNIVERSITY OF ADELAIDE SA 5005
AUSTRALIA

TELEPHONE +61 8 8303 3460
FACSIMILE +61 8 8303 3511

An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia.

Dear Parent/Guardian,

We are currently undertaking a research project in the Discipline of General Practice at The University of Adelaide, which investigates the mental health of adolescents living in rural areas of South Australia.

We have been asking adolescents in years 10-12 attending secondary schools in South Australia to complete a self-report questionnaire.

We are seeking your consent for your child to take part in this study. The results of this study are particularly important, especially in light of the current political interest into the provision of mental health services to rural Australian communities.

We respect your child's safety and all steps will be taken to protect your child. **If your child is identified as being particularly distressed or at risk of harming themselves from their questionnaire score, we are legally obliged to provide them with assistance and notify their school counsellor.** Other than this, your child's identity will be kept confidential through the use of ID numbers. All hard copies of the questionnaires will be securely stored within the Discipline of General Practice, with access strictly limited to the research team (see below).

This study has been given **full approval** by your school principal and the Department of Education and Children's Services of South Australia. If you would like more information about the study, feel free to contact us at any time. If you have any concerns about the study, please contact the University of Adelaide's Human Research Ethics Committee Secretary, on (08) 8303 6028.

Finally, we would greatly appreciate it if your child could **return the completed consent form provided for you to sign, along with their completed questionnaire, to school by the end of this week.** Alternatively, you may choose to post the consent form and questionnaire directly to Ms Kurtin, the PhD student working on this study, using the reply-paid envelopes we have provided you with.

Your child's contribution to this study is greatly valued and we thank you both for your co-operation.

Kind regards,

Dr Christopher Barton
Principal Supervisor
Centre for Military & Veterans' Health
The University of Adelaide
Ph: (08) 8303 6973
Fax: (08) 8303 5368
E-mail: christopher.barton@adelaide.edu.au

Ms Marijeta Kurtin
PhD Candidate
Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 4134
Fax: (08) 8303 3511
Mob: 0421 833 885
E-mail: marijeta.kurtin@adelaide.edu.au

Professor Tony Winefield
Research Degrees Coordinator
School of Psychology
University of South Australia
City East Campus
Ph: (08) 8302 2156
Fax: (08) 8302 2956
E-mail: tony.winefield@unisa.edu.au

Dr Jane Edwards
Research Fellow
Centre for Rural Health
University of South Australia
Magill Campus
Ph: (08) 8302 4250
Ph: (08) 8302 4258
E-mail: jane.edwards@unisa.edu.au

THIS FORM IS TO BE COMPLETED BY PARNTS IF ADOLESCENT IS AGED

BELOW 18



THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

**STANDARD CONSENT FORM
FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT**

1. I,(please print name)

of (please write address):
.....
.....
.....,

consent for my child.....(please print name), to take part in the research project entitled: **‘An investigation of the mental health needs of young people living in rural areas of South Australia’** and agree for them to participate in (please tick):

Focus group discussion with peers
 Questionnaire completion following focus group

2. I acknowledge that I have read the attached information letter entitled ‘Parent information sheet’ and also the attached questionnaire for my child to complete.

3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

4. I understand that my child’s involvement in the study may not be of any benefit to myself or my child.

5. I have been informed that, while information gained during the study may be published, my child will not be identified and their personal results will not be divulged.

6. I understand that my child is free to withdraw from the project at any time and that there will be no negative consequences for myself or my child, now or in the future.

7. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet.

...../ .../2008
(signature) (date)

APPENDIX D:

Study 2 focus group vignette and referral information provided.



GROUP ACTIVITY

Faculty of Health Sciences
School of Population Health &
Clinical Practice
Level 3
Eleanor Harrald Building
Frome Road
Adelaide SA 5005

'Alice is 16 years old and lives in a small town in the country. A few weeks ago her Dad lost his job and she had to change schools. Alice has been feeling very sad and lonely ever since. She is finding it hard to make friends at her new school, and her classmates think she is 'weird'. To make things worse, her old friends have not been including her in their plans lately, leaving her feeling left out.

Alice is having trouble getting to sleep at night, so she has been drinking alcohol and taking drugs to help her relax. She can't concentrate in class and seems to be getting in trouble a lot for not paying attention or forgetting to do her homework. Alice has also lost her appetite and has been losing weight.

Since her Dad lost his job, Alice's parents have been struggling to pay the bills and argue a lot about money. They have no idea about how Alice is feeling and haven't even asked her how she is settling in to her new school. Alice feels like no one cares about her, not even her family'.

Questions:

1. What do you think is wrong with Alice? (5 minutes)
2. Do you think Alice would feel comfortable to access help? Why/Why not? (5-10 minutes)
3. How common do you think this situation is for young people? (5 minutes)
4. What sort of problems do you think young people in your town are experiencing? (5 minutes)
5. If you knew of someone who was feeling very anxious or depressed and asked you where to go for help, where would you direct them? (5 minutes)
6. What do you think about your town? Things about your town that you like/dislike? (10 minutes)
7. What sort of improvements (if any) do you think could be made for young people in your town? (5 minutes)
8. Do you feel that you are receiving enough information about mental health problems at school? (5 minutes)

Dear Participant,

RE: An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia.

If you are feeling like you need support at any time, below is a list of services you can access for support and general information.

Child & Adolescent Mental Health Service (C.A.M.H.S.)

c/o West Wing
Port Lincoln Hospital
Oxford Tce
Port Lincoln 5606 S.A.
Ph: (08) 8632 5304

Drug & Alcohol Services South Australia (D.A.S.S.A.)

Ph: 1300 13 13 40 (24 hours)
www.dassa.sa.gov.au/site/page.cfm

West Coast Youth Services Inc.

8 Mortlock Tce
Port Lincoln 5606 S.A.
Ph: (08) 8683 0072
www.wcys.com.au

DASSA Port Lincoln:

c/o 'West Wing'
Port Lincoln Hospital
Oxford Tce
Port Lincoln 5606 S.A.
Ph: (08) 8683 2200

Port Lincoln Aboriginal Health Service

19A Oxford Tce
Port Lincoln 5606 S.A.
Ph: (08) 8683 3597
www.plahs.org.au

The Second Story

Health Information & Support for Young People
Ph: 1300 13 17 19 (24 hours)
Web: www.cyh.com/tss

Lower Eyre Community Health Service

Mental Health Services
Cummins Hospital Tumby Bay Hospital
Tumby Bay Rd 8 Esplanade
Cummins 5631 S.A. Tumby Bay 5605 S.A.
Ph: (08) 8688 2629

Port Lincoln Community Health Service

Ground Floor, Port Lincoln Health Services
Oxford Tce
Port Lincoln 5606 S.A.
Ph: (08) 8683 2083
www.erhs.sa.gov.au

Lifeline

Telephone Counselling Service
Ph: 131 114 (24 hours)

SANE Australia

National Mental Illness Helpline
Ph: 1800 187 263

SHINE S.A. - Youth Online

Sexual Health Information & Education
www.shinesa.org.au

Reach Out

Information & Support for Youth
www.reachout.com.au

SHINE S.A. - Sexual Health Hotline

Ph: 1800 188 171
e-mail: sexualhealthhotline@health.sa.gov.au

Headroom

Mental Health Issues for Adolescents
www.headroom.net.au

Dear Participant,

RE: An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia.

If you are feeling like you need support at any time, below is a list of services you can access for support and general information.

**Child & Adolescent Mental Health Service
(C.A.M.H.S.)**

171 Nicolson Ave
Whyalla Norrie 5608 S.A.
Ph: (08) 8632 5304

Whyalla Community Health Centre

171 Nicolson Ave
Whyalla Norrie 5608 S.A.
Ph: (08) 8648 8930

Plaza Youth Centre

9 Colebrook St
Whyalla Stuart 5608 S.A.
Ph: (08) 8645 3999

Whyalla Community Living

17a Forsythe St
Whyalla 5600 S.A.
Ph: (08) 8645 2888

Lifeline

Telephone Counselling Service
Ph: 131 114 (24 hours)

SHINE S.A. - Youth Online

www.shinesa.org.au

SHINE S.A. - Sexual Health Hotline

Ph: 1800 188 171
e-mail: sexualhealthhotline@health.sa.gov.au

**Drug & Alcohol Services South
Australia (D.A.S.S.A.)**

Ph: 1300 13 13 40 (24 hours)
www.dassa.sa.gov.au/site/page.cfm

D.A.S.S.A. Whyalla

171 Nicolson Ave
Whyalla Norrie 5608 S.A.
Ph: (08) 8648 8930

The Second Story

Health Information & Support for Youth
Ph: 1300 13 17 19 (24 hours)
Web: www.cyh.com/tss

SANE Australia

National Mental Illness Helpline
Ph: 1800 187 263

Reach Out

Information & Support for Youth
www.reachout.com.au

Headroom

Mental Health Issues for Adolescents
www.headroom.net.au

Dear Participant,

RE: An investigation into the mental health needs of adolescents living in rural and remote areas of South Australia.

If you are feeling like you need support at any time, below is a list of services you can access for support and general information.

**Child & Adolescent Mental Health Service
(C.A.M.H.S.)**

Port Augusta Community Health Service
36 Flinders Tce
Port Augusta 5700 S.A.
Ph: (08) 8648 5800

Mental Health Team

Port Augusta Hospital and Regional Health
Services Inc.
Flinders Terrace Health Centre
36 Flinders Tce
Port Augusta 5700 S.A.
Ph: (08) 8648 5800
www.nfwrhs.sa.gov.au

Ranges Youth Centre

19-21 William St
Port Augusta 5700 S.A.
Ph: (08) 8641 0026

Lifeline

Telephone Counselling Service
Ph: 131 114 (24 hours)

SHINE S.A. - Youth Online

www.shinesa.org.au

SHINE S.A. - Sexual Health Hotline

Ph: 1800 188 171
e-mail: sexualhealthhotline@health.sa.gov.au

**Drug & Alcohol Services South Australia
(D.A.S.S.A.)**

Ph: 1300 13 13 40 (24 hours)
www.dassa.sa.gov.au/site/page.cfm

D.A.S.S.A. Port Augusta

36 Flinders Tce
Port Augusta 5700 S.A.
Ph: (08) 8648 5873

The Second Story

Health Information & Support for Youth
Ph: 1300 13 17 19 (24 hours)
www.cyh.com/tss

SANE Australia

National Mental Illness Helpline
Ph: 1800 187 263

Reach Out

Information & Support for Youth
www.reachout.com.au

Headroom

Mental Health Issues for Adolescents
www.headroom.net.au

APPENDIX E:

Study 2 additional Step 2 Framework Coding (Chapter 4, Results section).

1. Recognition of Mental Health Issues

This category described the ability of the focus group participants to acknowledge the existence of mental health issues which may be experienced by ‘Alice’, the fictional character in the vignette. Participants tended to provide responses based around the following sub-themes:

1.1 Depression

Participants had no difficulties identifying the underlying problem of depression being experienced by ‘Alice’ in the vignette:

‘She seemed pretty depressed and is going to get messed up a lot because of the alcohol and drug use’

(Participant 2, Lines 67-69).

1.4 Risks for developing a clinical disorder

Many participants stated that Alice was at great risk of going on to develop a clinical disorder such as depression or anxiety, an eating disorder, or face addiction problems due to her reliance on drugs and alcohol.

Participant 39 stated:

‘I think that all the support seems like it’s gone from her. She doesn’t seem to be wanting to move forward, too, because she’s gone down the wrong path. She’s going down like drugs and alcohol, and that’s not really going to help her with her problems. It’s just probably just going to help get into a depressed state. I just think she’s on the wrong track with how she’s going about things. She could end up depressed, suicidal or seriously addicted to drugs and alcohol’.

(Lines 106-113).

2. Accessing Care:

This category described the possibility of accessing care for mental health concerns within the participants' rural communities. Participants were asked whether or not the fictional character, 'Alice' would feel comfortable to access care for her mental health problems if she was a member of their local communities. Conversations related to this sub-theme started off hypothetical i.e. about 'Alice', then stemmed into discussions about characteristics of their local communities.

2.4 Drama – relationships

Related to this issue of 'attention' was that of 'drama', especially amongst interpersonal relationships, with participants stating that some young people tended to overreact to the loss of friendships/relationships.

Participant 26:

'Like you'll have someone that, I don't know, they broke up with their boyfriend and they're like, oh, I'm depressed and they go on and be a drama queen about it. It's like, get over it; you're the one that cheated on him. Half the time it's like that'.

(Lines 228-231).

5. Problems/ Need for Improvements:

This category outlined the various social and mental health problems which participants perceived to exist in their rural communities. Participants were very forthcoming with information about these perceived social problems, and identified a list of issues. Participants also provided their opinions as to how improvements could be made within their communities and what existing health services could do to encourage access to services.

5.2.4 Ecstasy, Dope

It was found across focus groups that the two most popular drugs being consumed in the rural locations visited were ecstasy (pills) and marijuana (dope). Other drugs mentioned (in order of frequency) included speed, heroin and LSD.

Participant 33: *'A lot of underage people are drinking and get real wasted and all that'*.

Participant 31: *'Drugs too'*.

RESEARCHER: *'So what sort of drugs are people here taking?'*

Participant 32: *'Probably like dope and pills – lately speed has been coming here too'*.

Participant 30: *'Yes, and the tablet ones'*.

Participant 31: *'A lot of people have been on dope and all that'*.

Participant 33: *'I reckon it's more alcohol'*.

RESEARCHER: *'You think it's more alcohol?'*

Participant 33: *'Yes, alcohol and dope'*

(Lines 171-183).

5.2.5 Smoking

Smoking behaviour was also associated with alcohol consumption.

Participant 5:

'You'll see a lot more people smoking when they're drunk than when they're sober'.

(Lines 488-489).

5.3.1 Sexual promiscuity

It was common for participants to mention links between drug and alcohol consumption and sexual promiscuity. However, during discussions about this, participants seemed more critical of females who engaged in this type of behaviour, and attributed them with more agency than their male counterparts.

- Participant 27: *'A lot of people get pregnant while getting drunk and...'*
- Participant 26: *'But the main reason is because they're too stupid to go and get some fucking contraception. It's not that hard but they're intimidated by going to the doctor - oh, no I don't want to go, on the pill, I want to get pregnant, maybe the guy will stay with me then'.*
- Participant 29: *'No, most guys run'.*
- Participant 25: *'There's this thing as well that girls have this whole...fairytale complex'.*
- Participant 26: *'Girls are saying – like the guy will be drunk as fuck, he's like, oh yeah, like I've had stories from people I know saying that they told the guy that he was wearing a condom. You just don't do that to people, in my books. You don't force someone to be a father'.*
- Participant 29: *'Nope'.*
- Participant 28: *'People are just really irresponsible'.*
- Participant 26: *'They're selfish and arrogant and irresponsible'.*
- (Lines 828-848).

5.3.2 Unprotected sex, 5.3.3 Contraception & 5.3.4 Financial constraints

Participants also commented on the fact that young people in their communities seemed naïve about methods of contraception available to them.

- Participant 28: *'I had a girl come up to me and says, I think I might be pregnant, and I said, uh-oh okay, didn't you use a condom? It's like, no, we never do. Oh, so you're on the pill? Oh no, I'm not. So what do you do, just stop when you need to? Yeah, but we don't really know when to stop'.*
- Participant 26: *'It's like, pulling out doesn't even work'.*
- Participant 25: *'Oh, it could work but it's like such a slim chance that, well, you need the contraception'.*
- Participant 26: *'Yeah well you've got pre-cum and all that'.*

RESEARCHER: *'So why do you think young people don't really, I suppose, keep up to date with contraception and stuff if they are sexually active?'*

Participant 28: *'Just don't care'.*

Participant 29: *'Yeah, most people don't care or they're either like drunk and just, yeah'.*

Participant 25: *'Or other people do it. Like if they've got a whole heap of friends and they're all like, oh, contraception is stupid, they'll go, oh, contraception is stupid by, like association'.*

Participant 28: *'I don't understand how people can be so irresponsible...because most people it's just...'*

Participant 29: *'Irresponsible'.*

Participant 25: *'It's so simple really, that people are like, oh, I won't do it, you know'.*

(Lines 850-878).

5.3.3 Contraception & 5.3.4 Financial constraints

Some participants acknowledged that the cost of contraception may make it unattainable for some adolescents who had a low socio-economic status; however they argued that the actual cost of raising a child was far greater than the cost of contraception.

Participant 26: *'You know, get a rod in your arms and injection every few months or take a pill every day. It's not that hard'.*

Participant 28: *'They might complain that the pill is too expensive but it's like \$20 for four months'.*

Participant 26: *'If you're on the government ...'*

Participant 28: *'If you're on concession, it's \$5'.*

Participant 25: *'Yeah, five bucks'.*

Participant 26: *'It's nothing to how much, like think about how much you'd be spending if you had a kid'.*

Participant 28: *'I had someone say they were too embarrassed to go and get the pill from the doctor but I'd be a bit more embarrassed if I was going saying I think I'm pregnant'.*

(Lines 880-896).

APPENDIX F:

Study 2 entire Step 3 Index of Focus Group E (Chapter 4, Results).

Line No.	Transcription	Index
76 77 78 91 92 98 99 103	<p>P1: She's probably feeling different...because it's not an environment she's used to and since she's not actually fitting in very well and everything's changed, she's probably feeling quite stressed.</p> <p>P5: To me, it sounds like it's hard to cope and, yes, she's really stressing out about school and finding new friends.</p> <p>P2: She doesn't really sound like she's trying to adapt. It sounds as though she's been coping more with adaption.</p> <p>P1: She's not getting the support she needs to be able to adapt.</p>	1.3
86 87	<p>P2: Feeling detached and lonely and by feeling down it's causing her health to drop.</p>	1.2
113 114 115 116 117 118 119 120 121 122	<p>P2: It sounds like with the drug use, she'd probably go on to...</p> <p>P5: With the alcohol.</p> <p>P2: Yeah, go on to constant use so the chances are she'd probably OD or result in mental health problems.</p> <p>P1: So she's sort of like using that in order to try and cope so that would sort of be like a gateway, escapism.</p>	1.4
130 131 202 203 204 205 206 207 208 209	<p>P2: Because pretty much everything goes around the town. I've had friends move off.</p> <p>P4: Yep. Everybody knows everybody.</p> <p>P3: Yeah. So you're likely to go see someone you know.</p> <p>P2: If you were to go to a professional, someone will know that you went to that professional. They won't say anything but there's someone around that knows you when you've seen that person.</p>	3.2
210 211 212 213 214 215 216 217 218 219 220 221 222	<p>P1: I think it's not just like confidentiality. I think in general younger people who actually have problems don't want to seek help because there's this big stigma about it and a lot of people use that as, have made it basically a bad thing to have.</p> <p>R: Do you think that the stigma exists with the whole town or mainly with young people or...</p> <p>P1: I think it probably would exist mostly within young people, but if you think about it, the older generations have had their own stigmas about mental health and all that, especially the oldest ones, you know, don't talk about it under the table sort of thing. Now we've got it, it's out in the open but most of the people just wave it off as...</p> <p>P2: Make a mockery of it.</p>	2.2

Line No.	Transcription	Index
228 229 230 231 232 233	P2: Like you'll have someone that, I don't know, they broke up with their boyfriend and they're like, oh, I'm depressed and they go on and be a drama queen about it. It's like, get over it, you're the one that cheated on him. Half the time it's like that though. P5: Yeah, most of the time.	2.4
235 236 237 238 239 240 241 242 243	R: So are people doing that sort of thing for attention? P5: Yeah, probably. P4: A lot of the time. P1: Because even though it gets negative attention, it's still attention. But the thing is, they're getting negative attention for doing that than people with the actual problems get negative attention for it, just drives them to be less public about it.	2.3
250 259 260 261 262 263 264 265 266 267 268 269 270 271 272	P5: Well, there's a lot of under-age drinkers in Whyalla. P2: Yeah, about what he says. Sometimes it's hard staying at the one school rather than changing, like if you... P1: Even if you do change schools in this town... P2: Yeah, if you change schools in this town... P1: You're only going down the road. P5: Pretty much. P1: In bigger cities it's like if you change schools, if you've got problems you sort of escape them. But everyone around here knows everyone, so even if you do move schools, you're still in the shit. Whereas in Adelaide it's totally different people and they probably wouldn't even know...Or care.	3.1
297 298 299 300 301 302 303 304 305 306	P2: Informal, I'd say. People generally are intimidated by the title of someone in the profession. P1: Also they feel that you don't have that intimate connection with somebody in the formal profession so you feel like maybe they just won't understand or comprehend what you're trying to explain or misinterpret it, that sort of thing. P2: Or they don't care so long as they get paid. P1: Yeah, that as well.	4.1
380 381 382 383 384 385 386 387 388 389 390 391 392	P2: Think teenage girls. Others: (laughs). P3: Pregnancy. Others: (laughs). P3: That's Whyalla. P5: Yeah. P3: Loneliness, maybe a lack of help. P2: That's why they go get pregnant, because then someone might love them. P1: Even if it is a child. P4: Huh? P1: Even if it's just the child that loves them	5.1

Line No.	Transcription	Index
<p>393 394 395 396 397 398 399 400</p> <p>402 403 404 405 406 407 408</p> <p>434 435 436 437 438 439 440 441 442 443 444 445 446 447 448</p> <p>452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469</p>	<p>P4: No, they think - it's something to do with that is money, money problems. Having a baby, you get a big payout. P5: Yeah, \$3,000. P4: Yeah.</p> <p>P4: If you get pregnant, there's the problem with the reputation pregnant people have. P3: Yeah...the stereotype. P2: Especially younger people. P1: I'm sure there are very mature teenagers that get pregnant and are able to take care of the child and they're going to be responsible, but that's out shadowed by all of the other teenagers that just go out and have sex and drink and all that and then get pregnant. P2: Yeah, well, all the pregnant ones that are still going out getting drunk with babies.</p> <p>P2: Yeah. Whyalla's like, I forget the statistic but it's one of the highest... P5: S-L-U-T capital. P4: Yeah, pretty much. It's got one of the highest teenage pregnancy rates... P1: In the world. P2: It's in the top 10, is it? P1: I think it's number four, the fourth town. P5: Far out. P2: I'm not sure if it's fourth in Australia or fourth in the world. P1: I think it's fourth in Australia but it would be in the top 10 in the world, I think.</p>	<p>5.1.1</p> <p>5.1</p> <p>5.4</p>
<p>510 511 512</p>	<p>P2: Like there's doctors in [SHOPPING CENTRE], that's where most people go because it's a convenient location. P5: And close.</p>	<p>4.2</p>

Line No.	Transcription	Index
513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528	<p>P2: Because their parents aren't likely to find out if they go to a doctor that their family doesn't go to and they're, like, Indonesian or whatever it is, and you can't understand them and they'll tell you what you want to do. You'll be like – like I took a friend there to get contraception and she's like, oh, I want to go on the rod and she's like, no, no, no, no, you go on the pill. All that sort of crap. So we pretty much got the prescription and ran with it.</p> <p>P4: I think with young people getting help as well, they might be worried about the person is going to be judgemental, like she says that...</p> <p>P3: They might be scared of what they find out. Like you might think it's not serious and then it is something serious. Like I thought I was all right...</p>	
554 555 556 557 558 559 560 561	<p>P5: Drugs and alcohol.</p> <p>P4: Yeah, I was going to say that. That's big here from a young age, like a really young age.</p> <p>P2: Yeah.</p> <p>P1: It's really easily accessed.</p>	5.2
563 564 565	<p>P5: Smoking's like the main young people's thing...</p> <p>P2: Yeah, smoking and then alcohol generally on weekends.</p>	5.2.5
567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582	<p>P4: A lot of people go out and get drunk that are my age, 16 and under.</p> <p>P1: More people than are really expected.</p> <p>P2: There's a lot of 14 year olds do it, which go drinking with like 21, 24 year olds so they can get...</p> <p>P5: Only so they can get their alcohol.</p> <p>P1: You worry about it because the older people know that all these kids want to get alcohol on the weekends and that so it really sets up a dangerous situation.</p> <p>P2: Yeah, there's a lot of guys around that want to take advantage of what they can, too.</p> <p>P4: That's something to worry about.</p>	5.2.2
613 614 615 616 617 618 619 620 621 622 623 624	<p>R: So from what year do you guys think you started socially drinking?</p> <p>P5: Like out of my house and stuff?</p> <p>R: Yes, or at your house.</p> <p>P2: I've never been allowed to drink in my house.</p> <p>P5: I'm allowed to occasionally, like when it's like a party like my grandma's party on Friday so...</p> <p>P4: I have, my parents drink wine so...</p> <p>P1: Yeah, my parents drink...</p> <p>P4: Going out with friends, I think I started in Year 9.</p> <p>P1: I have to say though, when I started drinking I lived in a town a lot smaller than this, it was like 4,000 people, really country in</p>	5.2.1

Line No.	Transcription	Index
625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645	Queensland. Everybody drank and drove and operated farm equipment and all that sort of stuff. Others: (laughs). P1: So I was like 10 and I was drinking socially and I was driving a huge-ass truck. Very fun. As we do. P5: Yeah, probably Year 8 or 9. P2: I got smashed in Grade 8 and got turned off it for a while. P5: Now it's back. Others: (laughs).	
746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767	P5: Ecstasy, dope. Others: Yeah. P2:... and a lot of Es and not so much of everything else. P4: I think, like heroin and all that kind of thing are used in older people. P5: Like from like Year 9 to, I don't know, 18, 19 years of age is mainly Ecstasy. P2: No, mainly dope and then about 17 and up they get into Es. P4: It's mostly the girls that do it. Yeah, the tablets. P1: I think dope is the hugest drug. P3: Yeah. P1: In Whyalla for our age group. P3: Yeah. That's because it's the most accessible.	5.2.4
895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910	P4: I had someone say they were too embarrassed to go and get the pill from the doctor but I'd be a bit more embarrassed if I was going saying I think I'm pregnant. P5: Yeah. P2: I take people to get contraception... P1: If people get the pill, like... P5: There's this young lady at the chemist down there, she knows me pretty well. P4: (laughs). Do you just say 'the usual?' P2: The people at the chemist know me pretty well too because I'm often in there getting emergency contraception...	4.1 5.3.3

Line No.	Transcription	Index
1112 1113 1114 1115 1116 1117 1118 1119 1120	<p>P3: There's no opportunities.</p> <p>P1: I mean if you're not interested in a sport and you don't want to go watch movies.</p> <p>P3: Exactly.</p> <p>P2: Yeah, why would you go to the cinema? You can just download everything.</p>	5.4
1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156	<p>P2: No, it's more the state of mind the city's in, the city. Like everyone's close minded, judgmental, they like to go around, get drunk, get pregnant and they like to beat the crap out of people for no reason.</p> <p>P5: Yeah.</p> <p>P2: So it's more a thing of how people are being raised with all these ideals handed down to them by their parents and by everyone else around here. So, yeah.</p> <p>R: So they're sort of more societal kind of issues but for Whyalla?</p> <p>P2: Yeah. They're the actual town wise.</p> <p>P5: It's not really safe in Whyalla any more. You know, my dad was telling me a story that he used to sleep out on his porch when he was a kid. Well, I can't do that now. You'd get jumped or something.</p> <p>P4: Yeah, my parents are police officers and I hear crazy stories.</p>	5.5
1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1214 1216 1217 1218 1219	<p>R: If you guys knew of someone who was feeling a bit anxious or depressed, where would you tell them to go for help?</p> <p>P5: Wherever they're comfortable.</p> <p>P2: I wouldn't.</p> <p>P4: Neither would I tell them to go anywhere because nowhere seems to help.</p> <p>P1: I'd tell them to talk to me about it.</p> <p>P2: Like a few years back I had a friend go to the school counsellor and the counsellor ended up – oh, ended up getting her to move out, or some stupid shit like that.</p> <p>P5: Was that Miss Coburn?</p> <p>P2: No, Miss Hover, even worse.</p> <p>P5: Oh, she's an idiot.</p> <p>P2: She's a judgmental cow for a counsellor. Like I've got a mate who is lesbian, right, and she got pretty much blasted. It was like, you're too young to know what you like, all that sort of thing, and it's like, hello, you're meant to be a school counsellor, you're meant to be open-minded and helpful towards this sort of thing. Same counsellor also took another girl up in front of the class, like she had a straightener burn that her cousin did, took her in front of the class and was like, self-mutilation is not the way, in front of the whole class.</p> <p>P4: I think because we normally have an older school counsellor and she's gone travelling the world and we've got a younger one in her place. I think we probably connect better to a younger, to younger people.</p> <p>P2: Like I've heard she's cool. I haven't actually talked to her and I heard that she's heaps helpful and that.</p> <p>P5: Yeah, you have to talk to someone more of your age group otherwise you feel a bit weird.</p>	4.1

Line No.	Transcription	Index
1220 1221 1222 1223 1224 1225		
1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252	<p>P2: Plus the older ones, they're generally quite judgemental because they don't come in with the new age ideas, sort of thing.</p> <p>P1: I think, like it is human nature to be judgemental but if you've got someone that's younger then you just hope that they are...</p> <p>P2: They're still more sensible in their thinking...</p> <p>P1: ...they'll be judgmental but they'll still pull themselves back and look at it from both sides.</p> <p>P3: They will probably appreciate the whole situation a bit better.</p> <p>P1: Because you can't ask someone not to have an opinion. If you hear, like say a girl came into a counsellor and said, I think I'm pregnant, and automatically the counsellor will probably think, Whyalla, you've been sleeping around. But they've got to pull that back and then listen, oh maybe something else happened, sort of thing.</p>	4.2
1372 1373 1374 1375 1376 1377 1378 1379 1380 1381	<p>P4: I think we need a bit more information about STDs because I know people who are like, yeah I'm on the pill, it's all right, we don't need to use a condom but there's still the problem of STDs.</p> <p>P5: Yeah, exactly.</p> <p>P4: They don't realise until something happens.</p> <p>P2: Yeah and they don't realise how frequently and stuff you should go and get tested.</p>	6.1
1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514	<p>R: Just to ask you, I don't know if I asked you properly, what about mental health problems and mental health issues? Did you learn much of that at school?</p> <p>P2: No.</p> <p>P5: No.</p> <p>P3: No.</p> <p>P 4: No.</p> <p>P1: No.</p> <p>P4: We do because we're in psychology and that's about it.</p> <p>P1: Yeah, but we have to still research it and do it ourselves.</p> <p>P2: Like actual mental health issues, you have to go look it up yourself.</p> <p>P1: We'll get little titbits of information.</p>	6.1 6.2.2
1532 1533 1534	<p>P4: I mainly just go on Wikipedia or something. That's all I do, I just - I've read so much on dissociative identity disorder...love that disorder.</p>	6.2.1

Line No.	Transcription	Index
1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547	P1: I know. P4: Bipolar disorder, schizophrenia. P2: I'm mates with a few schizophrenics, actually. P1: My cousin's schizo. I say that in a nice way, schizo... P4: I'm pretty sure that we weren't taught anything about mental health. P3: No. P5: No.	
1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567	R: Is there anything you'd like to know more about or... P4: Yeah. P5: Definitely P2: A lot of people don't have the mental capacity to grasp the concept of the mental issues, like most people here are dumb or they just don't care. P3: It's not my fault. P5: Yeah. P4: They think it should be included, like sex ed is compulsory, I think we should do a bit on this too. P2: They're also the type that like to throw around, like oh, she looks upset or pissed off all the time, she must be depressed. Or, oh, I don't know, she reckons her boyfriend's cheating on her, she must be schizophrenic of something.	6.1
1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1608 1609 1610 1611 1612	P4: I think through school we do a lot of academic work but we don't learn enough about life in general. R: So more life skills, sort of thing? P2: So what we pick up is from the town but the town's already screwed. P5: Yeah. P1: What I was going to say before is like, if you teach someone around this age like how to recognise a mental illness and all that, they're going to be just really run with the information and be really stupid about it, sort of thing, because they've got that whole like Participant 2 said ... mental capacity, not there. P2: Yeah.	6.3

APPENDIX G:

Study 2 additional Step 4 Charts of Focus Group E (Chapter 4, Results).

1. RECOGNITION OF MENTAL HEALTH ISSUES				
Participant ID, Gender, Age, Town	1.1 Depression	1.2 Loneliness	1.3 Coping	1.4 Risks to Development of Clinical Disorder
P1, Female, 16, Whyalla			Not fitting in to new environment, causing stress. Not getting support needed to adapt.	Drug & alcohol use as form of escapism.
P2, Female, 16, Whyalla		Detachment & loneliness affecting her physical health.	Coping with 'adaption'.	Possible overdose.
P3, Male, 17 Whyalla				
P4, Female, 16, Whyalla				Risk to alcoholism.
P5, Male, 17, Whyalla			Stressing about new school & finding new friends.	

2. ACCESSING CARE				
Participant ID, Gender, Age, Town	2.1 No Comfort	2.2 Stigma	2.3 Attention	2.4 Drama - relationships
P1, Female, 16, Whyalla		Younger people who actually have problems don't want to seek help because there is a lot of stigma attached to m.h. issues. Stigma exists mainly amongst younger people, but older people definitely don't acknowledge it.	Some young people advertise how depressed they are for attention. This actually generates negative attention, which drives the people with the 'real problems' to keep them hidden.	Young people are sometimes 'drama queens'. Will say they are so depressed due to relationship break-up. Make it seem worse than it is.
P2, Female, 16, Whyalla		Some people make a mockery of m.h. issues.		
P3, Male, 17, Whyalla				
P4, Female, 16, Whyalla				
P5, Male, 17, Whyalla				

3. ALICE'S SITUATION		
Participant ID, Gender, Age, Town	3.1 Commonalities	3.2 No privacy
P1, Female, 16, Whyalla	There are a lot of under-age drinkers in Whyalla. In bigger cities, it is possible to escape your problems. If you moved schools in Whyalla, people would still know your situation. In Adelaide, people are less likely to know or care.	
P2, Female, 16, Whyalla	If you had to change schools in Whyalla, you'd only be going down the road.	Everything gets around. People move because of this. Someone will know you saw that professional. There is always someone around.
P3, Male, 17 Whyalla		You're likely to see someone you know.
P4, Female, 16, Whyalla		Everyone knows everyone.
P5, Male, 17, Whyalla		

APPENDIX H:

Study 3 questionnaire.

DISCIPLINE OF GENERAL PRACTICE
SCHOOL OF POPULATION HEALTH AND CLINICAL PRACTICE
FACULTY OF HEALTH SCIENCES

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INFORMATION SHEET

An investigation into the mental health needs of young people living in rural and remote areas of South Australia.

Dear Participant,

This is a questionnaire to find out about your health and wellbeing.

Please read the instructions given for each question and try to answer them as best you can. There are no right or wrong answers to any of the questions. They are simply based on *your* experience, or *your* opinions. This questionnaire should take about 20-25 minutes to complete.

All responses will remain strictly confidential, and you will not be identified from your responses.

If you have been randomly selected to win a \$30 prize, it will be mailed to the address supplied on the consent form signed by your parent/guardian. If you expect to be moving soon, please write your new address on the consent form.

After you have completed the questionnaire, please seal it in the envelope provided and return it to your school. Please REMEMBER that you cannot be eligible for a prize, and your survey responses cannot be used, *unless* your parent/guardian has signed the consent form.

If you have any questions or concerns about the study, feel free to contact me using the details provided below.

Thank you for your contribution!

Marijeta Kurtin

Discipline of General Practice
The University of Adelaide
Ph: (08) 8303 4134
Fax: (08) 8303 3511
e-mail: marijeta.kurtin@adelaide.edu.au

PART 1: MOOD

This part of the questionnaire investigates the attitudes you have about certain situations and also, about *yourself*. Please answer as honestly as you can.

1. Do you agree or disagree with the following statements? Please ✓ only **one** box.

	Agree	Disagree
Next to health, money is the most important thing in life.		
You sometimes can't help wondering whether anything is worthwhile anymore.		
To make money, there are no right and wrong way anymore, only easy ways and hard ways.		
Nowadays, a person has to live pretty much for today and let tomorrow take care of itself.		
In spite of what some people say, the life of the average person is getting worse, not better.		
It's hardly fair to bring a child into the world with the way things are for the future.		
Most people in authority are not really interested in the problems of the average person.		
These days a person doesn't really know who he or she can count on.		
Most people don't really care what happens to anyone else.		

2. Place a ✓ in the box to indicate how often you feel:

	Almost never	Sometimes	Quite often	Almost always
Bored				
Lonely				
Angry (at self)				
Angry (at society)				
Happy				
Helpless				
Depressed				

3. Please answer 'yes' or 'no' to the following questions. Tick (✓) for both 'ever' and 'in the last six months'.

	Yes	No
Have you		
Have you yourself?		
Have you		
Have you		

4. Have you known anyone who has attempted suicide?

Yes No

If YES, who was it? Please tick (✓) as many as apply.

- Parent
- Other relative
- Friend
- Acquaintance

5. Have you known anyone who has committed suicide?

Yes No

If YES, who was it? Please tick (✓) as many as apply.

- Parent
- Other relative
- Friend
- Acquaintance

6. Place a number in the box which best describes how you feel about each statement.

1 – Strongly agree 2 – Agree 3 – Disagree 4 – Strongly disagree

	Number (1-4)
I feel that I am a person of worth, at least on equal basis with others.	
I feel that I have a number of good qualities.	
All in all, I'm inclined to feel that I'm a failure.	
I am able to do things as well as other people.	
I feel I do not have too much to be proud of.	
I take a positive attitude towards myself.	
On the whole, I am satisfied with myself.	
I wish I could have more respect for myself.	
I certainly feel useless at times.	
At times, I think I'm no good at all.	

7. Place a number in the box which best describes how you feel about each statement.

0 – Never 1 – Almost never 2 – Sometimes 3 – Often 4 – Almost always

	Number (0-4)
I am a steady person.	
I feel satisfied with myself.	
I feel nervous and restless.	
I wish I could be as happy as others seem to be.	
I feel like a failure.	
I get in a state of tension or turmoil as I think over my recent concerns.	
I feel secure.	
I lack self-confidence.	
I feel inadequate.	
I worry too much over things that really do not matter.	

8. The following questions ask about your feelings during the **past month**. Please indicate how often you have felt the following, where:

0 – Never 1 – Almost never 2 – Sometimes 3 – Fairly often 4 – Very often

	Number (0-4)
Been upset because of something that happened unexpectedly?	
Felt that you were unable to control the important things in your life?	
How often have you felt nervous and 'stressed'?	
Felt confident about your ability to handle your personal problems?	
Felt that things were going your way?	
Found that you could not cope with all the things you had to do?	
How often have you been able to control irritations in your life?	
Felt that you were on top of things?	
Been angered because of things that were outside of your control?	
Felt difficulties were piling up so high that you could not overcome them?	

9. The following items relate to how you cope with stressors in your life. Please don't answer on the basis of whether the behaviour seems to be working for you – just whether you are doing it or not. Please indicate the extent of your behaviour, where:

1 – I haven't been doing this at all

3 – I've been doing this a medium amount

2 – I've been doing this a little bit

4 – I've been doing this a lot

	Number (1-4)
I've been turning to work or other activities to take my mind off things.	
I've been concentrating my efforts on doing something about the situation I'm in.	
I've been using alcohol or other drugs to make myself feel better.	
I've been getting emotional support from others.	
I've been giving up trying to deal with it.	
I've been taking action to try to make the situation better.	
I've been refusing to believe that this has happened.	
I've been saying things to let my unpleasant feelings escape.	
I've been getting help and advice from other people.	
I've been using alcohol or other drugs to help me get through it.	
I've been trying to see it in a different light, to make it seem more positive.	
I've been criticising myself.	
I've been trying to come up with a strategy about what to do.	
I've been getting comfort and understanding from someone.	
I've been giving up the attempt to cope.	
I've been looking for something good in what is happening.	
I've been making jokes about it.	
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping or shopping.	
I've been accepting the reality of the fact that it has happened.	
I've been expressing my negative feelings.	

9. Continued...

1 – I haven't been doing this at all

3 – I've been doing this a medium amount

2 – I've been doing this a little bit

4 – I've been doing this a lot

I've been trying to find comfort in my religion or spiritual beliefs.	
I've been trying to get advice or help from other people about what to do.	
I've been learning to live with it.	
I've been thinking hard about what steps to take.	
I've been blaming myself for things that happened.	
I've been praying or meditating.	
I've been making fun of the situation.	

PART 2: HEALTH BEHAVIOURS

This section investigates behaviours relating to your physical health. **All responses will remain confidential.**

10. How often do you usually drink alcohol? Please ✓ one response only.

- Don't drink alcohol ⇒ Go to Question 13
- Less than once per week
- 1-2 days per week
- 3-4 days per week
- 5-6 days per week
- Every day

11. A 'standard drink' is equivalent to a schooner of full-strength beer, a small glass of wine, or a shot of spirits (see below).

Standard Drinks Guide

				
1 285ml Middy/Pot* Full Strength Beer 4.9% Alc./Vol	0.7 285ml Middy/Pot* Mid Strength Beer 3.5% Alc./Vol	0.5 285ml Middy/Pot* Light Beer 2.7% Alc./Vol		
				
1.5 375ml Schooner† Full Strength Beer 4.9% Alc./Vol	1 375ml Schooner† Mid Strength Beer 3.5% Alc./Vol	0.8 375ml Schooner† Light Beer 2.7% Alc./Vol		
				
1.5 375ml Full Strength Beer 4.9% Alc./Vol	1 375ml Mid Strength Beer 3.5% Alc./Vol	0.8 375ml Light Beer 2.7% Alc./Vol		
				
1.5 375ml Pre-mix Spirits 5% Alc./Vol	1.2 300ml Alcoholic Soda 5% Alc./Vol	1 30ml Spirit Nip 40% Alc./Vol	22 700ml Bottle of Spirits 40% Alc./Vol	1 30ml Alcoholic Shot 40% Alc./Vol
				
0.9 60ml Port/Sherry Glass 18% Alc./Vol	1.5 170ml Average Serve of Sparkling Wine/ Champagne 11.5% Alc./Vol	1 100ml Small Serve of Wine 12% Alc./Vol	1.8 180ml Average Restaurant Serve of Wine 12% Alc./Vol	7 750ml Bottle of Wine 12% Alc./Vol

* NSW, WA, ACT = Middy; VIC, QLD, TAS = Pot; NT = Handle/Pot; SA = Schooner
† NSW, VIC, QLD, NT, ACT = Schooner; SA, TAS, WA = Pint

Labels on alcoholic drink containers now state the number of standard drinks in the container.

On days where you drink alcohol, how many standard drinks do you usually have?

Number of drinks:

12. Please write down the names of the alcoholic drinks you would normally consume when drinking:

13. Do you smoke cigarettes full-time?

- No (Go to Q. 13 a) Yes ⇒ Please indicate the number of cigarettes you smoke in an average day.

Number:

a) If NO, do you smoke cigarettes while you are 'out'?

- No Yes ⇒ How many?
Number:.....

14. Do you regularly use any drugs, tablets or medicines **prescribed** by your doctor?

- No Yes ⇒ What are they for?

Condition:.....

Medication:.....

15. Do you regularly use any over-the-counter drugs, tablets or medicines NOT prescribed by your own doctor?

No Yes ⇒ What types of drugs? Tick (✓) as many as apply.

- Pain killers
- Anti-depressants
- Tranquilisers or sleeping tablets
- Ritalin
- Other:

16. Do you smoke/use marijuana?

No (Go to Q. 16 a) Yes ⇒ How many joints, cones, bongs etc. would you smoke/use per day?

Number:

16. a) If you do NOT smoke/use marijuana daily, please indicate how often you would smoke/use it:

.....

17. Do you use any other drugs?

No Yes ⇨ What type? Please ✓ as many as apply.

Amphetamines/Speed e.g. Crystal Meth, Ice

Ecstasy

Cocaine

Heroin

LSD e.g. Acid, Trip

Other:

18. Have you ever inhaled/sniffed any chemicals?

No Yes ⇨ What did you inhale/sniff?

Substance:

19. The next group of questions investigate your perceptions about alcohol, drugs and sexual activity in young people, **generally**.

a) Thinking about young people your age, how often do you think they drink or use drugs before having sex? Please ✓ a box.

A lot

Sometimes

Just occasionally

Never

Don't know

b) How concerned are you that you might do more sexually than you expect because you are drinking or using drugs?

- Very concerned
- Somewhat concerned
- Not too concerned
- Not at all concerned
- Don't know

Please indicate the extent of your agreement with the following:

c) It is not a big deal if people my age make decisions about sex when they are drinking or using drugs. Please ✓ a box.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- Don't know

*d) People my age often don't use condoms if they have sex **after** drinking or using drugs.*

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- Don't know

The following questions relate to those participants who **have been**, or **are currently** sexually active. If you have not been sexually active, please skip to parts l) and m).

e) *The **first time** you had sexual intercourse, had you been drinking or using drugs?*

- Yes
- No
- Can't remember

f) *The **most recent time** you had sex, had you been drinking or using drugs?*

- Yes
- No
- Can't remember

g) *Have alcohol or drugs ever influenced your decision to do something sexual?*

- Yes
- No
- Can't remember

h) Have you ever used alcohol or drugs to help you feel more comfortable with a sexual partner?

- Yes
- No
- Can't remember

i) Have you ever done more sexually than you expected because you had been drinking or using drugs?

- Yes
- No
- Can't remember

j) Have you ever had unprotected sex (not used a condom) because you were drinking or using drugs?

- Yes
- No
- Can't remember

k) Have you ever worried about STDs or pregnancy because of something you did sexually while drinking or using drugs?

- Yes
- No
- Can't remember

l) Would you like to learn more about how alcohol or drugs might affect your decisions about sex?

- Yes
- No

m) Would you like to learn more about protection and contraception?

- Yes
- No

20. Which of the following terms best describe you? Please ✓ all terms that apply.

- Heterosexual ⇒ If you ticked here, go to Q. 22
- Gay
- Lesbian
- Homosexual
- Bisexual
- Transsexual
- Asexual i.e. not sexually attracted to either gender ⇒ Go to Q. 22
- Unsure
- Other:

21. Have you ever felt anxious about being attracted to members of your own sex?

Please ✓ a box.

- Very anxious
- Somewhat anxious
- Not too anxious
- Not at all anxious
- Don't know

PART 3: HEALTH SERVICES

The following items investigate which health services you are currently accessing, and which ones you would consider accessing in the future.

22. In the past 12 months, did you seek help for a health (physical) or social problem?

Please ✓ all that apply.

No (Go to Q.23) Yes ⇒ a) Who did you see?

- Doctor (GP)
- Other Doctor (Specialist)
- Nurse
- Dentist/Orthodontist
- Physiotherapist
- Chiropractor
- Podiatrist
- Psychologist
- Social Worker
- Youth Worker
- Other:.....

b) What was the problem?

.....
.....
.....
.....

23. Have you ever sought help for a mental health issue?

No (Go to Q.24) Yes ⇒ a) Who did you see about this?

- Doctor (GP)
- Nurse
- School Counsellor
- Other Counsellor
- Psychologist
- Psychiatrist
- Social Worker
- Youth Worker
- Person from the Church
- Other:.....

b) What was the mental health issue?

.....
.....
.....

24. If you had a mental health issue in the future, would you seek help for it?

Yes No ⇒ Why not?

.....
.....
.....

25. If you had a mental health issue in the future, WHERE would you go to seek help?

- Doctor (GP)
- Nurse
- School Counsellor
- Other Counsellor
- Psychologist
- Psychiatrist
- Social Worker
- Youth Worker
- Person from the Church
- Family
- Friends
- Other:

Note: If you have ticked more than one, write a number (e.g. 1, 2, 3...) next to each service to indicate where you would go first, second, third etc.

26. Are you satisfied with the mental health services in your community?

- Yes
 - No
 - Unsure
- Comments:
-
-
-

27. Where do you get information about mental health?

- School
- Doctor (GP)
- Youth Worker
- Community Health Centre
- Internet
- Media e.g. TV, newspapers, magazines
- Family
- Friends
- Other:

28. Would you like to learn more about mental health issues at school?

- Yes No

PART 4: HEALTH INFORMATION

The following questions investigate aspects of your general wellbeing.

29. What is your height?

Centimetres

OR

..... Feet, inches

30. What is your weight? Kilograms
OR
..... Stones, pounds

31. Have you been diagnosed with any long-term illness? (e.g. diabetes, asthma, depression)

Yes No Illness:

32. In the following questions, please **tick** (✓) the response which most applies to your general health during the past **month**.

HAVE YOU.....

a) *Been able to concentrate on what you're doing?*

Better than usual
 Same as usual
 Less than usual
 Much less than usual

b) *Lost much sleep over worry?*

- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

c) *Felt you were playing a useful part in things?*

- More so than usual
- Same as usual
- Less than usual
- Much less than usual

d) *Felt capable of making decisions about things?*

- More so than usual
- Same as usual
- Less than usual
- Much less than usual

e) *Felt constantly under strain?*

- Much less than usual
- Less than usual
- Same as usual
- More so than usual

f) *Felt you couldn't overcome your difficulties?*

- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

g) *Been able to enjoy your normal day-to-day activities?*

- Much more than usual
- Rather more than usual
- No more than usual
- Not at all

h) *Been able to face up to your problems?*

- More so than usual
- Same as usual
- Less able than usual
- Much less than usual

i) *Been feeling unhappy and depressed?*

- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

j) *Been losing confidence in yourself?*

- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

k) *Been thinking of yourself as a worthless person?*

- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

l) *Been feeling reasonably happy, all things considered?*

- More so than usual
- About same as usual
- Less able than usual
- Much less than usual

PART 5: DEMOGRAPHIC INFORMATION

Please take a moment to provide some basic demographic information about yourself.

All responses will remain confidential.

33. Gender:

Male Female

34. Date of Birth: __ / __ / 19 __

35. Are you an Australian citizen?

Yes No ⇒ What country were you born in?

.....

36. Are you of Aboriginal or Torres Strait Islander origin?

Yes No

37. Is your mother employed?

Yes No Occupation:

38. Is your father employed?

Yes

No

Occupation:

39. Do you have any siblings?

Yes

No

Number:

40. Do you live with both parents in the same house?

Yes

No

41. Are you living independently (moved out of home) from your parents/guardians?

Yes

No

42. Please feel free to make any comments.

THANK YOU FOR YOUR PARTICIPATION!

APPENDIX I:

Study 4 UniSA's *Longitudinal Investigation of School Leavers Study*

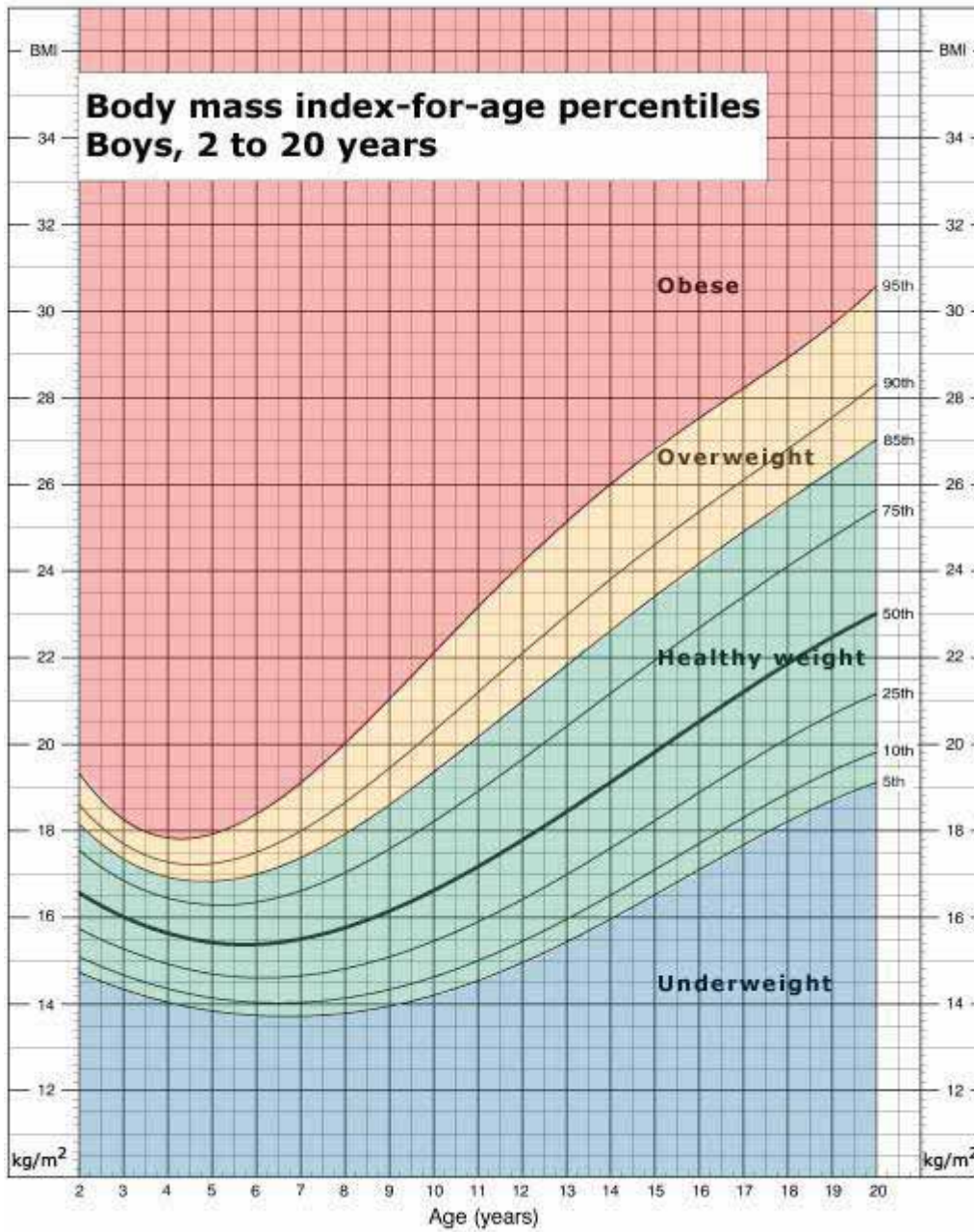
Questionnaire.

NOTE:

This appendix is included on pages 381-396 in the print copy of the thesis held in the University of Adelaide Library.

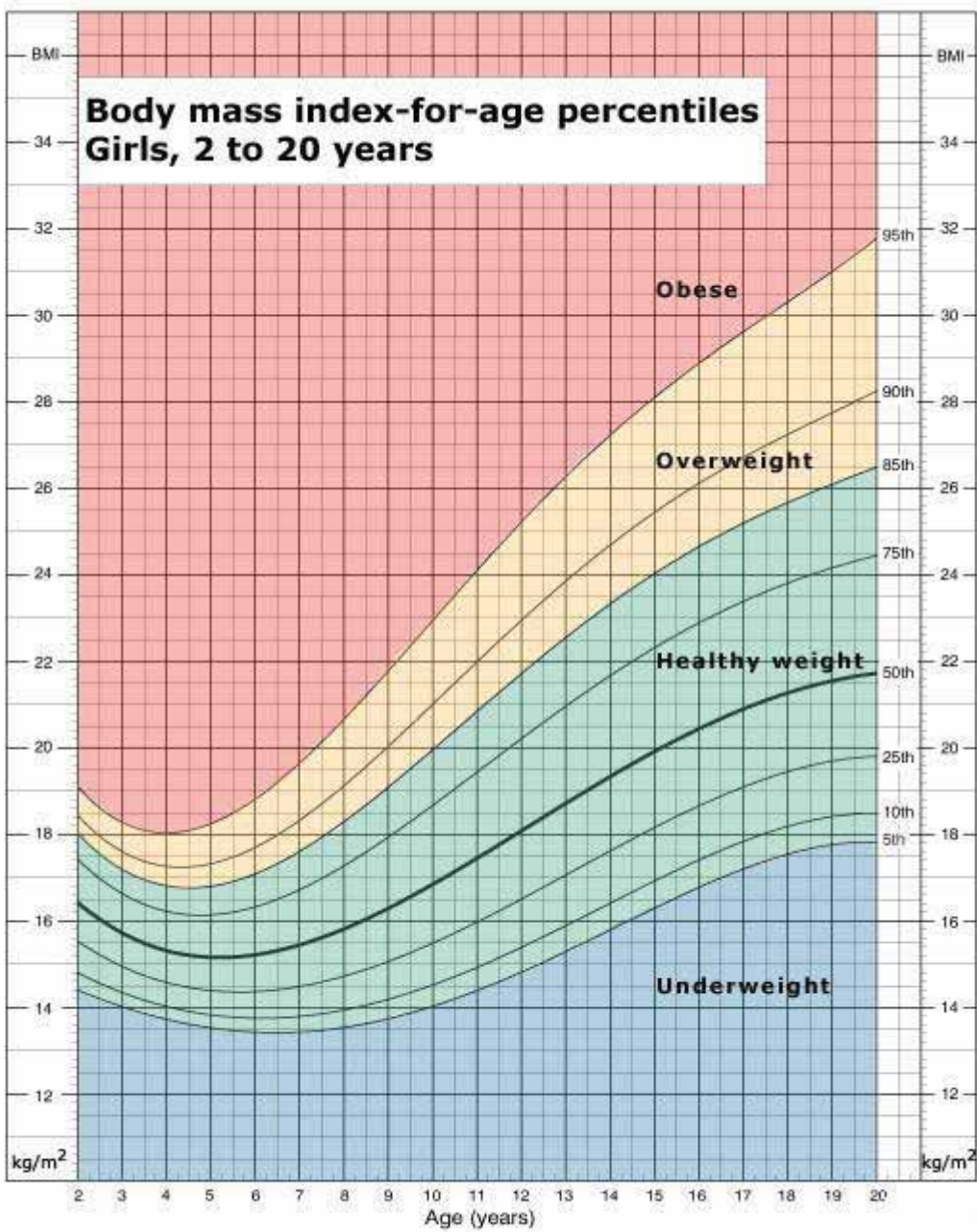
APPENDIX J:

Body Mass Index chart for boys (aged 2-20 years).



APPENDIX K:

Body Mass Index chart for girls (aged 2-20 years).



APPENDIX L:

List of Schools from the *School Leavers Study*, accompanied by R.R.M.A. Index.

School Name	R.R.M.A. Index*
Balaklava High School	5
Birdwood High School	7
Ceduna Area School	7
Clare High School	5
Eastern Fleurieu Peninsula School	5
Edward John Eyre High School	3
Eudunda Area School	7
Lock Area School	7
Loxton High School	5
Mannum High School	5
Millicent High School	5
Minlaton & District School	5
Mount Barker High School	5
Mount Gambier High School	4
Nuriootpa High School	5
Port Augusta Secondary School	4
Port Lincoln High School	4
Riverland Special School	5
Roxby Downs Area School	7
Waikerie High School	5
Whyalla High School	3

NB: Schools in bold font were also sampled in Study 3.

*R.R.M.A. Classifications:

3 = Large rural centre, population 25,000 - 99,000

4 = Small rural centre, population 10,000 - 24,999

5 = Other rural area, population < 10,000

7 = Remote area, population < 5,000

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