

**An exploration of individual level of resilience and suicidality across  
three age groups in males and females living in the community**

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This dissertation is submitted in fulfilment of the requirements for the degree  
of Doctor of Philosophy (Ph.D in Medicine) in the Faculty of Health Sciences,  
School of Psychology, at the University of Adelaide

## **Declaration**

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## List of Publications

Publications are listed in order of appearance in this dissertation.

Liu, D. W. Y., Fairweather, A. K., Burns, R. A., & Roberts, M. R. (2015). The utility of non-specific measures of resilience across the lifespan: An investigation of structural invariance across gender and age cohorts. *Australian Journal of Psychology*, 37, 340-348. doi: 10.1111/ajpy.12091

Liu, D.W.Y., Fairweather-Schmidt, A. K. Burns, R., Roberts, R.M. (2014). The Connor-Davidson Resilience Scale: Establishing invariance between gender across the lifespan in a large community based study. *Journal of Psychopathology and Behavioural Assessment*, 1 – 9, DOI: 10.1007/s10862-014-9452-z

Liu, D.W.Y., Fairweather-Schmidt, A. K., Roberts, R.M., Burns, R. and Anstey, K.J. (2014). Does resilience predict suicidality? A lifespan analysis. *Archives of Suicide Research*, 18, 453-464, DOI:10.1080/13811118.2013.833881

## **Abstract**

Although suicide research has been prolific, studies have trended to focusing on risks that may increase the occurrence of suicidality by reducing individual mental and physical wellbeing. From this, understanding has been gained as to what may predict suicidality. Meanwhile, studies of resilience have typically comprised samples from unique populations, such as children/adolescents or well-adjusted adults, with experiences of childhood adversity. Though some longitudinal explorations of suicidality and resilience have been conducted, studies have typically consisted of a cross-sectional design. As such, investigation of the role of resilience on suicidality, within a longitudinal context with a community based sample, has been uncommon. Assessment of the relationship between gender, age, resilience and suicidality in a community based sample are fewer still. Studies presented in the current thesis attempted to address this paucity of research by exploring resilience and suicidality within such a community based sample. Analyses were stratified by age and gender in order to identify differences in regards to individual-level resilience and suicidality. Differences in the findings of existing literature can be attributed to variation in/lack of standardised approaches to the operationalisation and measurement of resilience, therefore the first two studies of the thesis assessed the measurement of resilience. The first study focused on the invariance of a resilience-specific measure across age and gender, with the next study comparing a standardised measure of resilience against proxy measures of resilience. Data used originated from the Personality and Total Health (PATH) Through Life Project. As an epidemiological based project, PATH participants were randomly selected from the electoral roll of individuals living in Canberra and Queanbeyan, Australia. Three cohorts aged 20 – 24, 40 – 44 and 60 – 64 years at

baseline allowed for specific and non-specific measures of resilience to be assessed across the lifespan and gender, in relation to their applicability in assessing resilience within a community based sample. Findings from these two studies determined that, not only was a resilience-specific measure better suited than a non-specific measure to assess resilience, but the resilience-specific measure was found to be invariant across age and gender. Subsequently, resilience in further studies was measured using a resilience-specific measure.

Cross-sectional analyses in the third study verified an association between low resilience and suicidality across the lifespan and gender. Though this effect became redundant when adjusting for risk factors for suicidality for the youngest and oldest cohorts, those in the midlife age group were found to have an increased vulnerability to suicidality. In the final study, longitudinal analyses of the youngest PATH cohort assessed whether resilience predicted suicidality over time, or contrastingly, whether suicidality predicted resilience. Extending upon the previous study's findings, results further demonstrated the association over time between resilience and suicidality, and in particular suicidality with low resilience. As before, effects were attenuated when covariates were added.

Limitations are present, however, in using a data source such as PATH. For instance, attrition has the capacity to bias samples towards being healthier. Additional related consequences involve fewer numbers available to assess resilience and suicidality between waves 3 and 4. Information of completed suicides was not available. Self-report questionnaires depend on memory recall, and may be subject to social desirability. Other considerations include that measures selected for the current thesis were limited to those available in the PATH dataset. Importantly, use of alternative measures may have led to different results.

Results from this dissertation carry important implications for understanding the role of resilience in relation to suicidality, within a general population sample across age and gender. Having undertaken nonclinically-based studies, current findings provide robust information pertaining to the relationship between resilience and suicidality relevant to the general community. Use of a constellation of scales to assess resilience across age and gender was not as effective as a resilience-specific scale (Connor-Davidson Resilience Scale; CD-RISC) for measuring resilience. Applicability of the CD-RISC within the general community was made evident by this thesis. The unitary underlying CD-RISC factor structure was also established as being consistent across lifespan and gender. Furthermore, individual manifested indicators of resilience were shown to differ between different groups, such that certain characteristics promoting resilience appear more prevalent for one age/gender group than another.

Resilience was associated with suicidality across the lifespan, though this effect attenuated in the younger and older cohorts, when other risk factors for suicidality were considered. Conversely, those at midlife continued to report increased likelihood of suicidality in models that adjusted for other risk factors. Longitudinal analyses identified the presence of suicidality as being a risk factor for subsequent poor and reduced levels of resilience. Moreover, it was established that use of current resilience or suicidality levels to predict future status is an unreliable method of ascertaining likelihood of individual wellbeing. This is due to the varying influence that psychological constructs (e.g., anxiety, mastery levels) may have on our resilience and/or suicidality status.

Recommended future research includes clarification into use of the CD-RISC as a 22- or 10- item measure. Further assessment of the CD-RISC's applicability as

a shortened 10- or full length 22- item measure in the PATH sample would provide additional support as to whether the CD-RISC be considered the “gold standard” resilience measure, regardless of its format. Using just one measure, such as the CD-RISC, would allow comparisons of community and clinical samples providing a better understanding of similarities and/or differences in resilience between these two populations. From this, programs aimed at improving resilience, and to reduce suicidality risk could be informed. Further exploration is recommended to establish whether non-specific measures are an unreliable assessment of resilience across samples, aside from those in the general community. This information would be beneficial to practitioners, researchers and policy makers, in formulating plans to improve resilience to adversity, thereby reducing suicidality risk likelihood.

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