

Effectiveness of Mealtime Interventions to Improve Nutritional Intake of Adult Patients in the Acute Care Setting: a Systematic Review.

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Contents

CONTENTS	2
ABSTRACT	4
DECLARATION	6
ACKNOWLEDGEMENTS	7
CHAPTER 1 INTRODUCTION	8
1.1. CONTEXT OF THE REVIEW	8
1.1.1. <i>Defining malnutrition</i>	10
1.1.2. <i>Diagnosing malnutrition</i>	12
1.1.3. <i>Prevalence of malnutrition</i>	14
1.1.4. <i>Causes of malnutrition</i>	15
1.1.5. <i>Consequences of malnutrition</i>	20
1.1.6. <i>Management of malnutrition</i>	22
1.1.7. <i>Limitations in nutrition research</i>	25
1.2. WHY A SYSTEMATIC REVIEW IS NEEDED	27
1.3. REVIEW METHODOLOGY	29
1.4. REVIEW QUESTION AND OBJECTIVES	29
CHAPTER 2 SYSTEMATIC REVIEW.....	31
2.1. TYPES OF STUDIES.....	31
2.2. TYPES OF PARTICIPANTS.....	31
2.3. TYPES OF INTERVENTION	31
2.4. OUTCOMES	33
2.5. REVIEW METHODS	33
2.5.1. <i>Search Strategy</i>	33
2.5.2. <i>Assessment of Methodological Quality</i>	36
2.6. DATA EXTRACTION	37
2.7. DATA SYNTHESIS	37
CHAPTER 3 RESULTS.....	38
3.1. SEARCH RESULTS.....	38
3.2. METHODOLOGICAL QUALITY	39
3.3. OVERVIEW OF STUDIES	41
3.4. NUTRITIONAL INTAKE	52

3.4.1. <i>Description of studies</i>	52
3.4.2. <i>Energy intake</i>	53
3.4.3. <i>Protein intake</i>	54
3.5. NUTRITIONAL STATUS	54
3.5.1. <i>Description of studies</i>	54
3.5.2. <i>Weight and Body Mass Index</i>	55
3.5.3. <i>Measures of muscle/protein status and fat stores</i>	55
3.6. LENGTH OF STAY IN HOSPITAL	55
3.7. MORTALITY	56
CHAPTER 4 DISCUSSION	57
4.1. DISCUSSION.....	57
4.2. REVIEW OF FINDINGS/RESULTS.....	57
4.2.1. <i>Effectiveness of employed assistants</i>	57
4.2.2. <i>Effectiveness of trained volunteers</i>	60
4.2.3. <i>Effectiveness of eating at table or in a dining room</i>	62
4.3. LIMITATIONS OF THE INCLUDED STUDIES.....	64
4.3.1. <i>Study population</i>	65
4.3.2. <i>Study size and duration</i>	66
4.3.3. <i>Study setting and interventions</i>	68
4.3.4. <i>Study outcome measures</i>	69
4.4. DISCUSSION OF METHODS FOR THIS SYSTEMATIC REVIEW	71
4.5. IMPLICATIONS FOR PRACTICE	72
4.6. IMPLICATIONS FOR RESEARCH.....	73
4.7. CONCLUSIONS.....	75
APPENDIX 1 SYSTEMATIC REVIEW PROTOCOL.....	77
APPENDIX 2 SEARCH STRATEGY	88
APPENDIX 3 CRITICAL APPRAISAL TOOL	97
APPENDIX 4 DATA EXTRACTION TOOL	102
APPENDIX 5 EXCLUDED STUDIES	105
APPENDIX 6 EXCLUDED STUDIES FOLLOWING CRITICAL APPRAISAL	112
REFERENCES	113

Abstract

Malnutrition affects 20-50% of patients in acute care hospitals. It is a problem that often goes unrecognised and untreated despite being associated with a number of adverse health consequences including delayed wound healing, increased infection rates, functional decline, increased length of stay in hospital and increased mortality. Lack of mealtime assistance has been suggested as a possible barrier to an adequate nutritional intake in patients. Mealtime intervention strategies focusing on either the mealtime environment or on the provision of support have been promoted by various organisations and advocacy groups as a means to improve nutritional intake. The objective of this systematic review was to identify, assess and synthesise the available evidence on the effectiveness of mealtime interventions to improve nutritional intake of adult patients in the acute care setting.

Published and unpublished studies in English language were searched for in PubMed/MEDLINE, CINAHL, EMBASE, Informit-health, Scopus and other citation databases. Three thousand four hundred and twelve citations were scanned to determine eligibility with 62 papers retrieved for full text examination. Nine papers matched the eligibility criteria for the review and were critically appraised by two reviewers using the Joanna Briggs Institute - Meta Analysis of Statistics, Assessment & Review Instrument. Six papers were ultimately included for data extraction and synthesis.

Six included studies involving 1071 patients evaluated the effectiveness of employed assistants, trained volunteers and eating around a table or in a dining room rather than by the bedside or in bed. Patient energy intake increased when employed assistants provided mealtime assistance, however this was only statistically significant for one of the two studies that investigated this mealtime intervention. Similarly, energy intake increased when trained volunteers supported patients at mealtimes; however this was only statistically significant in one of two relevant studies. Protein intake significantly increased in both studies where trained volunteers provided assistance at mealtimes. One study reported that energy intake significantly increased when patients ate around a table and another when patients ate in a dining room as compared with eating by or in their beds.

Mealtime interventions including the use of assistants, trained volunteers and eating at a table or in a dining room increases the energy intake of patients in acute care hospitals. Mealtime

assistance provided by trained volunteers also increases protein intake in this patient group. Acute care providers should consider ways of implementing the aforementioned interventions throughout the day and prioritising mealtime care as a fundamental aspect of patient care.

Declaration

I, Gail Whitelock, certify that this work contains no material that has been accepted for the award of any other degree or diploma in any university or any other tertiary institution, and, to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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