

# Depression and its Association with the Psychosocial Factors of Urinary Incontinence

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# TABLE OF CONTENTS

TABLE OF CONTENTS .....	iii
LIST OF TABLES.....	xi
LIST OF FIGURES .....	xii
LIST OF BOXES.....	xii
LIST OF EQUATIONS.....	xii
LIST OF ABBREVIATIONS.....	xiii
ABSTRACT .....	xvi
THESIS DECLARATION .....	xviii
PUBLICATIONS CONTRIBUTING TO THIS THESIS:.....	xix
CONFERENCE PRESENTATIONS ARISING FROM THIS THESIS .....	xx
MEDIA COVERAGE OF FINDINGS FROM THIS THESIS .....	xxii
ACKNOWLEDGEMENTS.....	xxiii
<b>1 PREAMBLE.....</b>	<b>1</b>
1.1 INTRODUCTION.....	1
1.1.1 BACKGROUND .....	1
1.1.2 RATIONALE FOR RESEARCH .....	2
1.2 OUTLINE.....	3
1.2.1 STUDIES, RESEARCH QUESTIONS AND HYPOTHESES .....	4
<b>SECTION 1 .....</b>	<b>7</b>
<b>2 POPULATION STUDIES CONCERNING INCONTINENCE, DEPRESSION AND PSYCHOSOCIAL FACTORS: A BACKGROUND AND LITERATURE REVIEW.....</b>	<b>9</b>
2.1 INTRODUCTION .....	9
2.2 URINARY INCONTINENCE .....	11
2.2.1 Types of Urinary incontinence.....	12
2.2.2 Epidemiology .....	12
2.2.3 Diagnosis.....	13
2.2.4 Impact .....	17
2.2.5 Treatment .....	20
2.2.6 Perceptions.....	20
2.3 DEPRESSION .....	20
2.3.1 Types of Affective (Mood) Disorders.....	21
2.3.2 Epidemiology.....	22

2.3.3	Diagnosis .....	25
2.3.4	Impact .....	30
2.3.5	Treatment.....	32
2.4	PSYCHOSOCIAL FACTORS.....	32
2.4.1	Help-Seeking .....	32
2.4.2	Epidemiology .....	33
2.4.3	Impact.....	34
2.5	URINARY INCONTINENCE AND DEPRESSION .....	35
2.5.1	Epidemiology .....	35
2.5.2	Population Studies: Men and Women .....	37
2.5.3	Population Studies: Women .....	39
2.5.4	Clinical Studies: Men and Women.....	41
2.5.5	Clinical Studies: Women.....	41
2.5.6	Clinical Studies: Men .....	43
2.5.7	Reviews .....	43
2.5.8	Studies with contrary findings.....	44
2.5.9	Summary of studies about Urinary Incontinence and Depression.....	44
2.6	URINARY INCONTINENCE AND HELP-SEEKING.....	52
2.6.1	Epidemiology .....	52
2.6.2	Population Studies: Men and Women .....	52
2.6.3	Population Studies: Women .....	53
2.6.4	Clinical Studies: Men and Women.....	55
2.6.5	Clinical Studies: Women.....	56
2.6.6	Other Studies: Men and Women .....	56
2.6.7	Other Studies: Women .....	58
2.6.8	Summary of studies about Urinary Incontinence and Help-seeking .....	60
2.7	DEPRESSION AND HELP-SEEKING .....	72
2.7.1	Epidemiology .....	72
2.7.2	Population Studies.....	72
2.7.3	Clinical Studies.....	74
2.7.4	Reviews .....	75
2.7.5	Barriers .....	75
2.7.6	Summary of studies about Depression and Help-seeking .....	75
2.8	URINARY INCONTINENCE, DEPRESSION AND HELP-SEEKING.....	82
2.8.1	Studies .....	82

2.8.2	Summary of studies about Urinary Incontinence, Depression and Help-seeking..	83
2.9	CONCLUSION: GAPS IN THE RESEARCH .....	85
<b>3</b>	<b>METHODOLOGY FOR UNDERTAKING POPULATION STUDIES.....</b>	<b>87</b>
3.1	INTRODUCTION .....	87
3.2	RATIONALE FOR MIXED METHODS DESIGN .....	88
3.3	THEORETICAL FRAMEWORKS.....	89
3.3.1	Health Threat .....	89
3.3.2	Learned Helplessness.....	89
3.3.3	Resilience.....	91
3.4	AIMS AND OBJECTIVES .....	92
3.5	METHODOLOGY .....	93
3.5.1	Introduction to the Quantitative Component.....	93
3.6	SPECIFIC INSTRUMENTS AND QUESTIONS ADMINISTERED.....	93
3.6.1	The South Australian Health Omnibus Survey .....	93
3.6.2	Diagnosis and Severity of Incontinence.....	95
3.6.3	Diagnosis and Severity of Depression .....	96
3.6.4	Health Related Quality of Life Assessment .....	96
3.6.5	Help-Seeking.....	97
3.6.6	Demographics .....	98
3.7	ETHICS .....	98
3.8	SAMPLE SIZE CALCULATION (FOR STUDIES 1 AND 2) .....	98
3.9	WEIGHTING OF SAHOS DATA .....	100
3.10	ANALYTICAL METHODS .....	102
3.10.1	Univariate Analysis.....	102
3.10.3	Multivariable Analysis.....	104
3.11	STUDY PLAN .....	105
3.11.1	Study 1: SAHOS 1998 .....	106
3.11.2	Study 2: SAHOS 2001 .....	109
3.11.3	Study 3: Qualitative Study .....	112
<b>4</b>	<b>IDENTIFYING THE QUALITY OF LIFE EFFECTS OF URINARY INCONTINENCE WITH DEPRESSION IN AN AUSTRALIAN POPULATION</b>	<b>113</b>
4.1	CONTEXTUAL STATEMENT.....	113
4.2	STATEMENT OF AUTHORSHIP .....	114
4.3	ABSTRACT .....	116

4.3.1	Background .....	116
4.3.2	Methods .....	116
4.3.3	Results .....	116
4.3.4	Conclusions .....	116
4.4	BACKGROUND .....	117
4.5	METHODS .....	118
4.6	RESULTS .....	119
4.6.1	Sample characteristics .....	119
4.6.2	Prevalence of urinary incontinence and depression .....	120
4.6.3	UI, depression and quality of life .....	123
4.7	DISCUSSION .....	126
4.8	CONCLUSIONS.....	128
<b>5</b>	<b>URINARY INCONTINENCE: SEVERITY, PERCEPTIONS AND POPULATION PREVALENCE IN AUSTRALIAN WOMEN .....</b>	<b>129</b>
5.1	CONTEXTUAL STATEMENT .....	129
5.2	STATEMENT OF AUTHORSHIP.....	130
5.4	ABSTRACT.....	131
5.5	INTRODUCTION .....	132
5.6	MATERIALS AND METHODS .....	133
5.7	STATISTICAL ANALYSIS.....	133
5.8	RESULTS .....	134
5.8.1	Sample characteristics .....	134
5.8.2	Prevalence of UI.....	135
5.8.3	Perceptions of seriousness and severity.....	138
5.8.4	Limitations to lifestyle.....	138
5.8.5	Perceived Seriousness of Incontinence .....	138
5.9	DISCUSSION .....	140
5.10	CONCLUSIONS.....	141
	<b>SECTION 2.....</b>	<b>143</b>
<b>6</b>	<b>BRIDGE.....</b>	<b>145</b>
<b>7</b>	<b>SYNTHESIZING THE MEANINGS: THE RATIONALE FOR UNDERTAKING A METASYNTHESIS.....</b>	<b>147</b>
7.1	INTRODUCTION .....	147
7.2	WHAT IS A METASYNTHESIS?.....	147

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7.3	WHY UNDERTAKE A METASYNTHESIS?.....	148
7.4	WHAT TYPES OF METASYNTHESIS ARE THERE?.....	148
7.5	HOW DO YOU UNDERTAKE A METASYNTHESIS?.....	149
7.6	CRITIQUES OF METASYNTHESIS METHODOLOGY.....	150
<b>8</b>	<b>PSYCHOLOGICAL PERSPECTIVES IN URINARY INCONTINENCE: A METASYNTHESIS.....</b>	<b>153</b>
8.1	CONTEXTUAL STATEMENT.....	153
8.2	STATEMENT OF AUTHORSHIP .....	154
8.3	ABSTRACT: .....	156
8.3.1	Aims .....	156
8.3.2	Introduction.....	156
8.3.3	Materials and Methods.....	156
8.3.4	Results.....	156
8.3.5	Discussion.....	156
8.3.6	Keywords .....	156
8.4	INTRODUCTION .....	157
8.5	MATERIALS AND METHODS .....	158
8.5.1	Aim .....	158
8.5.2	Search Methods.....	158
8.5.3	Search Outcome .....	158
8.6	RESULTS.....	159
8.6.1	Living with urinary incontinence.....	165
8.6.2	Management of urinary incontinence.....	167
8.6.3	Attitudes about urinary incontinence .....	169
8.7	DISCUSSION.....	171
8.8	CONCLUSION .....	172
<b>9</b>	<b>EXPLORING EXPERIENCES AND MEANINGS: METHODS FOR UNDERTAKING A QUALITATIVE STUDY OF WOMEN WITH INCONTINENCE AND DEPRESSION.....</b>	<b>175</b>
9.1	INTRODUCTION .....	175
9.1.1	Rational for undertaking the qualitative study .....	176
9.2	RIGOUR AND ETHICS .....	177
9.2.1	Theoretical Rigour .....	177
9.2.2	Methodological Rigour .....	177
9.2.3	Interpretive Rigour.....	178

9.2.4	Evaluative Rigour and Ethical Considerations.....	178
9.2.5	Reflexive Context.....	179
9.3	THEORETICAL PERSPECTIVE .....	181
9.4	METHOD.....	182
9.4.1	Aim.....	182
9.4.2	Recruitment .....	182
9.4.3	Selection and Exclusion Criteria .....	183
9.4.4	Data Collection.....	183
9.4.5	Analytical Process .....	185
9.4.6	Summary .....	195
<b>10</b>	<b>“IT’S OUR LOT”: RESILIENCE AND ITS INFLUENCE ON THE EXPERIENCE OF DEPRESSION IN WOMEN WITH URINARY INCONTINENCE .....</b>	<b>197</b>
10.1	CONTEXTUAL STATEMENT .....	197
10.2	STATEMENT OF AUTHORSHIP.....	198
10.3	ABSTRACT.....	200
10.3.1	Background .....	200
10.3.2	Method.....	200
10.3.3	Findings .....	200
10.3.4	Conclusion.....	200
10.4	INTRODUCTION .....	201
10.5	Method .....	203
10.5.1	Ethics .....	203
10.5.2	Recruitment .....	203
10.5.3	Data Collection.....	204
10.5.4	Data Analysis .....	205
10.6	FINDINGS .....	207
10.6.1	Experiences that contribute to a lessening of the burden of incontinence and depression.....	207
10.7	DISCUSSION .....	215
10.7.1	Age related lessening of the burden of incontinence and depression .....	215
10.7.2	Aspects of life that buffer against depression associated with incontinence:.....	216
10.7.3	Appraisal and Perceptions of Incontinence and Depression: .....	216
10.7.4	Strengths and limitations of this study .....	217
10.7.5	Implications .....	219



10.8	CONCLUSION .....	220
<b>11</b>	<b>OVERALL CONCLUSIONS .....</b>	<b>221</b>
11.1	INTRODUCTION .....	221
11.2	SUMMARY OF FINDINGS .....	221
11.2.1	Hypothesis 1.....	222
11.2.2	Hypothesis 2.....	223
11.2.3	Hypothesis 3.....	225
11.2.4	Hypothesis 4.....	227
11.3	LIMITATIONS .....	228
11.4	FUTURE DIRECTIONS .....	230
11.5	CONCLUDING REMARKS.....	231
<b>12</b>	<b>REFERENCES.....</b>	<b>233</b>
<b>13</b>	<b>APPENDICES FOR SECTION 1 .....</b>	<b>a</b>
13.1	SAHOS LETTER AUTUMN 1998.....	a
13.2	SAHOS INCONTINENCE QUESTIONS AUTUMN 1998.....	b
13.3	SAHOS LETTER SPRING 2001 .....	d
13.4	HOS INCONTINENCE QUESTIONS SPRING 2001 .....	e
13.5	PRIME MD.....	g
13.6	SF36.....	k
13.7	SYNTAX.....	p
13.7.1	SPSS Scoring for PRIME MD HOS98A .....	p
13.7.2	SF-36 scoring syntax for HOS data .....	w
13.7.3	Recodes for HOS98A .....	ll
13.8	PUBLICATIONS .....	rr
<b>14</b>	<b>APPENDICES FOR SECTION 2 .....</b>	<b>kkk</b>
14.1	ETHICS DOCUMENTATION FOR QUALITATIVE STUDY .....	kkk
14.1.1	Approval and Cover Sheet .....	kkk
14.1.2	List of Headings .....	sss
14.1.3	Project Status Report H-243-2011 .....	bbbb
14.1.4	Recruitment letter.....	eeee
14.1.5	Participant Information Sheet .....	ffff
14.1.6	Consent form.....	hhhh
14.1.7	Interview Schedule for “Experiences and Associations of Psychosocial Factors and Urinary Incontinence” Study.....	iiii

14.2 ANALYSIS .....jjj

    14.2.1 Scoring for the Contributory Theme Ranking .....jjj

14.3 PUBLICATIONS ..... nnn

14.4 CONFERENCE PRESENTATION ABSTRACTS ..... yyy

14.5 MEDIA RELEASE ..... hhhh

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**LIST OF TABLES**

Table 2.1: Types of urinary incontinence .....	11
Table 2.2: Proportion of South Australian adults reporting urinary incontinence by type, aged 15 years and over, 2004 .....	13
Table 2.3: Prevalence and odds ratio of incontinence, by demographic variables, SAHOS 1998.	14
Table 2.4: Severity categories for incontinence .....	15
Table 2.5: Original Items in the Incontinence Symptom Severity Index (ISSI) .....	16
Table 2.6: Original Items in the Urogenital Distress Inventory Short Form (UDI-6).....	17
Table 2.7: ICD 10 Symptoms of a Depressive Episode (F32). .....	22
Table 2.8: DSM-IV Symptoms of a Major Depressive Episode.....	25
Table 2.9: Screening Questionnaires for Depression .....	27
Table 2.10: Severity categories for mental disorders (CIDI) .....	28
Table 2.11: Severity categories for depressive disorder (ICD-10 F32) .....	29
Table 2.12: Risk factors for depression.....	31
Table 2.13: Urinary Incontinence and Depression Studies .....	45
Table 2.14: Urinary Incontinence and Help-seeking Studies.....	61
Table 2.15: Depression and Help-seeking Studies.....	77
Table 2.16: Incontinence, Depression and Help-seeking Studies .....	84
Table 3.1: Response rates for South Australian Health Omnibus Survey (SAHOS).....	94
Table 3.2: Incontinence Prevalence Questions .....	95
Table 3.3: Sample Size calculation workings for logistic regression analyses .....	99
Table 3.4: Sample Size calculation workings for multiple linear regression analyses .....	99
Table 3.5: SAHOS Autumn 1998 Response Rate Calculation .....	108
Table 3.6: SAHOS Spring 2001 Response Rate Calculation.....	111
Table 4.1: Overall Sample Demographics .....	120
Table 4.2: Univariate Analysis of Urinary Incontinence and Depression.....	121
Table 4.3: Multivariate analysis of variables which determined incontinence with comorbid depression.....	123
Table 4.4: SF36 Mean Scores for people with urinary incontinence, depression and combinations of these conditions (adjusted for age and sex) .....	124
Table 5.1: Characteristics of women with UI, and Severe UI, stratified by type, SAHOS 2001..	135
Table 5.2: Univariate odds ratios for the perceived seriousness of types of urinary incontinence (UI) by severity (wearing incontinence protection aids) SAHOS 2001 .....	139
Table 5.3: Perceived seriousness, for respondents reporting limitations to life, SAHOS 2001 ....	139
Table 8.1: Analyses of Qualitative Studies concerning Incontinence and Depression .....	160
Table 9.1: The Stages of the Framework Approach.....	186
Table 9.2: Resilience constructs from the literature compared with Polk's Mid Range Theory Patterns <sup>422</sup> .....	192
Table 9.3: Themes used in the Framework .....	194
Table 10.1: Continuum of Resilience for Depression Status .....	208
Table 10.2: Resilience Patterns and Depression status .....	211

**LIST OF FIGURES**

Figure 3.1 The relationship between Urinary Incontinence, Depression and Psychosocial Factors . 90  
Figure 4.1: Quality of Life interaction plots for people with and without Incontinence, and with  
and without Depression (adjusted for age and sex). ..... 125

**LIST OF BOXES**

Box 5.1: Selected Questions regarding incontinence asked in the South Australian Health Omnibus  
Study 2001 ..... 134  
Box 8.1: Psychological factors influencing psychosocial issues in urinary incontinence ..... 165  
Box 9.1: Analytical Trail ..... 191  
Box 10.1: Interview schedule: ..... 204

**LIST OF EQUATIONS**

Equation 3.1: Weighting Formula for SAHOS ..... 101

## LIST OF ABBREVIATIONS

ABM	Annette Braunack-Mayer
AHM	Alastair Hugh MacLennan
AQoL	Assessment of Quality of Life
AUDADIS-IV	Alcohol Use Disorder and Associated Disabilities Interview Schedule – DSM IV Version
ARMHS	Australian Rural Mental Health Study
ABS	Australian Bureau of Statistics
AWT	Anne Winifred Taylor
b	Black (race)
BABS	Bradburn Affect Balance Scale
BPRS	Brief Psychiatric Rating Scale
BDI	Beck Depression Inventory
BMI	Body Mass Index
CATI	Computer Assisted Telephone Interviewing
CASP	Critical Appraisal Skills Program
CD-RISC	Connor-Davidson Resilience Scale
CES-D	Centre for Epidemiologic Studies Depression Scale
CFA	Continence Foundation of Australia
CIDI-SF, CIDI-A	Composite International Diagnostic Interview Short-Form
CSDD	Cornell Scale for Depression in Dementia
DIS	Diagnostic Interview Schedule
DI	Detrusor Instability
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition. American Psychiatric Association.
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, 4th Edition. American Psychiatric Association.
D	Depression
ECT	Electroconvulsive Therapy
EPICONT	<i>Epidemiology of Incontinence in the County of Nord-Trøndelag</i>
ES	Effect Size
EpiLUTS	<i>Epidemiology of Lower Urinary Tract Symptoms Study</i>
ERP	Estimated Residential Population
FIQL	Faecal Incontinence Quality of Life Scale

FPI	Freiburg Personality Inventory
GDS	Geriatric Depression Scale
GHDS	General Hospital Depression Scale
GHQ-12	General Health Questionnaire 12
GP	General Practitioner
FPI	Freiburg Personality Inventory
HADS	Hospital Anxiety and Depression Scale
HDRS	Hamilton Depression Rating Scale
HIV	Human Immunodeficiency Virus
HRQoL	Health Related Quality of Life
HS	Help-seeking
ICD-10	International Classification of Diseases 10th Edition
ICS	International Continence Society
ICIQ	International Consultation on Incontinence Questionnaire
IIQ	Incontinence Impact Questionnaire
I-QOL	Incontinence Quality of Life Instrument
ISQ	Incontinence Screening Questionnaire
ISSI	Incontinence Symptom Severity Index
JCA	Jodie Christine Avery
LUTS	Lower Urinary Tract Symptoms
MDI	Major Depression Inventory
M	Men
MCS	Mental Component Summary of the SF-36
MHI-5	Mental Health Inventory
MMPI	Minnesota Multiphasic Personality Inventory
MAOIs	Monoamine Oxidase Inhibitors
MUI	Mixed Urinary Incontinence
NAFC	National Association for Continence
NCS-R	National Comorbidity Survey Replication
NEMESIS	<i>Netherlands Mental Health Survey and Incidence Study</i>
NHANES	<i>National Health and Nutrition Examination Survey III</i>
NESARC	<i>National Epidemiologic Survey on Alcohol and Related Conditions</i>
NN	No Depression
NNT	Number Needed to Treat
NS	Nigel Stocks
OAB	Overactive Bladder

OR	Odds Ratio
OMD	Depression diagnosed by PRIME-MD PHQ
OUI	Overflow Urinary Incontinence
PD	Psychological Distress
PMD	Paul Michael Duggan
PCS	Physical Component Summary of the SF-36
PRIME-MD PHQ	Primary Care Evaluation of Mental Disorders Patient Health Questionnaire
PSA	Public Service Announcement
R <sup>2</sup>	Coefficient of Determination
RG	Robert Goldney
SAHOS	<i>South Australian Health Omnibus Survey</i>
S	Sadness
SF-36	Medical Outcomes Study Short Form 36
SCI	Spinal Cord Injury
SDS	Zung Self-Rating Depression Scale
SSRIs	Selective Serotonin Reuptake Inhibitors
SRD	Self-Reported Depression
SUI	Stress Urinary Incontinence
SS	Statistically Significant
SSH	Statistically Significantly Higher
TACOS	<i>Transitions in Alcohol Consumption and Smoking</i>
UI	Urinary Incontinence
UUI	Urge Urinary Incontinence
UDI	Urogenital Distress Inventory
UK	United Kingdom
USA	United States of America
W	Women
w	White (race)
WHA	<i>Women's Health Australia</i>

## **ABSTRACT**

Urinary Incontinence has been associated with psychological distress, depression and anxiety. However, research exploring these psychological effects has been minimal, mostly concentrating on older people, women or samples of convenience. Only a few studies have examined quality of life, management and coping behaviours, social connectedness, and beliefs and knowledge of the condition, focussing more upon risk factors such as gender, age, cognitive impairment and physical health.

The research question for this thesis is whether the depression experienced by people with urinary incontinence is associated with psychosocial factors related to incontinence. The group of studies that contribute to the project “Depression and its Association with the Psychosocial Factors of Urinary Incontinence” include a population study examining incontinence, depression and quality of life in both men and women; another population study looking at perceptions of seriousness and severity of incontinence in women; a review of the literature; and a qualitative study examining women’s experience of urinary incontinence and depression.

A review of the literature found that incontinence and psychological wellbeing are intertwined. Enquiring about the mental health status of those with incontinence should include an assessment of psychosocial factors to help reduce the burden of incontinence.

I found that depression and incontinence both reduce health related quality of life (HRQoL). When they occur together there appears to be an additive effect which affects both physical and mental health. Clinicians should identify and manage comorbid depression when treating patients who have incontinence to improve their overall HRQoL.

I also found that severity and limitations to lifestyle were predictors of women perceiving that their incontinence was moderate to very serious. Help-seeking for incontinence improves if education and information target women who use continence management aids, have difficulty being involved in activities or who use other management strategies.

Finally, an exploration of how women experience incontinence in relation to their depression status was undertaken. Women who are older and highly resilient experience less depression and can manage their depression better. Women who do not exhibit resilience are more likely to experience depression, and their incontinence has a greater impact on their lives. Age and resilience-focused interventions in women newly diagnosed with incontinence may lessen the impact of depression on these women.



Those who experience incontinence and are affected by depression in their day to day lives experience a reduced quality of life. We can also gauge the impact of incontinence on the lives of women by examining their limitations and perceptions about the seriousness of their condition, and we can target interventions towards those who experience limitations and use management strategies. We can also design targeted interventions for specific age groups that can increase resilience, so that the burden, including depression, is eased and quality of life is increased in women experiencing incontinence.

## **THESIS DECLARATION**

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution 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.

In addition, I certify that no part of this work will, in the future, be used in a submission in my name, 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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**Jodie Christine Avery**

Signed: \_\_\_\_\_

Date: 20th May 2014

## **PUBLICATIONS CONTRIBUTING TO THIS THESIS:**

### **Published:**

1. Avery J, Stocks N, Duggan P, Braunack-Mayer A, Taylor A, Goldney R, MacLennan A: Identifying the quality of life effects of urinary incontinence with depression in an Australian population. *BMC Urology*. 2013; **13**(11).
2. Avery J, Braunack-Mayer A, Stocks N, Taylor A, Duggan P. Psychological perspectives in urinary incontinence: a metasynthesis. *OA Women's Health* 2013; **1**(1): 9
3. Avery JC, Stocks N, Taylor AW, Gill TK. Perceptions and prevalence of urinary incontinence in the Australian population. *Australian and New Zealand Continence Journal* Autumn 2014; **20**(1): 7-13.

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4. Avery J, Braunack-Mayer A, Duggan P, Taylor A, Stocks N. "It's Our Lot": Resilience and its influence on the experience of depression in women with urinary incontinence. *Health Sociology Review* 2014; X(X)

## CONFERENCE PRESENTATIONS ARISING FROM THIS THESIS

### 2005

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Avery JC, Wilson I, Braunack-Mayer A, Stocks N, Duggan P (Oral Presentation): *Mental health and its influence on help-seeking behaviour for incontinence*. **HARC Symposium “Multidisciplinary Research in Ageing”** Adelaide SA. 2005

Avery JC, Taylor AT, MacLennan AH. (Oral Presentation): *A population perspective of urinary and anal incontinence in South Australia*. **14th National Conference on Incontinence**, Melbourne VIC. 2005

Avery JC, Wilson I, Braunack-Mayer, AJ (Poster Presentation): *Beliefs and Barriers about Seeking Help for Incontinence*. **14th National Conference on Incontinence**, Melbourne VIC. 2005

### 2006

Avery JC, Stocks N, Braunack-Mayer A, Duggan P, Wilson I. (Oral Presentation): *Mental health and its influence on help-seeking behaviour for incontinence*. **diamond Consortium Colloquium for Research Higher Degree Students** University of Melbourne VIC. 2006

Avery JC, Stocks N, Braunack-Mayer A, Duggan P, Wilson I, (Invited Speaker): *Depression and Association with the Psychosocial Factors of Urinary Incontinence*. **South Australian Urological Nurses Society Study Day**. Adelaide SA. 2006

## 2011

Avery J, Braunack-Mayer A, Stocks N. (Poster Presentation): *A Metasynthesis of Psychological Perspectives of Urinary Incontinence*. **Faculty of Health Science Post Graduate Conference**, University of Adelaide. Adelaide SA. 2011.

\*\*NB Winner of School of Population Health and Clinical Practice: Best Poster Award

## 2012

Avery JC, Braunack-Mayer A, Stocks N. (Oral Presentation): *Psychological Perspectives of Urinary Incontinence: A Metasynthesis* **PHCRIS**: Canberra ACT. 2012

## 2013

Avery JC, (Invited Speaker): “*Am I likely to laugh today?*” *Depression and its Association with Urinary Incontinence* **Adelaide West Rotary Club**. Adelaide SA. 2013

Avery JC, Braunack-Mayer A, Duggan P, Taylor A, Stocks N, (Poster Presentation): “It’s our lot”: the influence of depression on the experiences of incontinence **41st Public Health Association of Australia Annual Conference** Melbourne VIC. 2013

## 2014

Avery JC, Stocks N, Braunack-Mayer A, Duggan P, Taylor A. (Abstract Submitted, Poster presentation accepted): Depression and its Association with the Psychosocial Factors of Urinary Incontinence): **23rd National Conference on Incontinence**, Cairns QLD. 2014

Abstracts for the above presentations are available in Appendix 2 at the end of the thesis.

## **MEDIA COVERAGE OF FINDINGS FROM THIS THESIS**

**2013**

### **Media Release:**

Incontinence takes mental toll on younger women, Friday 14 June 2013 (See Appendix 2)

[http://www.adelaide.edu.au/news/news62021.html?utm\\_source=hootsuite&utm\\_medium=uniofadelaide&utm\\_campaign=socialmedia](http://www.adelaide.edu.au/news/news62021.html?utm_source=hootsuite&utm_medium=uniofadelaide&utm_campaign=socialmedia)

Reported in many news services around the world

### **News story:**

Channel 10 Friday 14 June 2013

<http://youtu.be/K9xy6LhFMgw>

### **Radio Program:**

Evenings with Peter Goers ABC891 Radio: Monday 24 June 2013 interview.

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