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The relationship between self-reported health and mental health problems among older adults in New Zealand: Experiential avoidance as a moderator

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Abstract

This study sought to examine the influence of experiential avoidance (EA) as a moderating variable between reported physical health problems and anxiety and depression among older adults. Experiential avoidance has been found in previous studies to be strongly associated with a number of psychological disorders in younger adults but has received minimal attention in older populations. Two-hundred-and-eight individuals from New Zealand between the ages of 70 and 92 years old participated in this study. The Geriatric Anxiety Inventory, the Geriatric Depression Scale and the Acceptance and Action Questionnaire were used to measure anxiety, depression and EA, respectively. It was hypothesized that self-reported health (SRH) and EA would be associated with depression and anxiety at the zero order level. We also hypothesized that EA would be a unique predictor of depression and anxiety and would moderate the relationships between SRH and both depression and anxiety. Multiple regression analyses indicated that EA explained 8% of the unique variance in depression, 20% in anxiety and moderated the relationships between SRH and both depression and anxiety. This study also found that the relationships involving EA were more pronounced with anxiety as compared with depression in this elderly sample. The theoretical and practical applications of these findings are discussed.

Introduction

A relatively new and promising construct termed experiential avoidance has been shown to be influential in the development and maintenance of a variety of psychological disorders including anxiety, depression, substance abuse, obsessive compulsive disorder, panic disorder and suicide (Hayes et al., 2004; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance is essentially an avoidant coping process in which an individual associates certain cognitions and environmental cues with physiological and psychological discomfort and subsequently engages in attempts to provide distance (behaviorally or psychologically) from the discomfort (Hayes et al., 1996). A core idea in the experiential avoidance paradigm is that an unwillingness to maintain contact with painful and disturbing thoughts, emotions or bodily sensations, while providing relief in the short term, serves to maintain and often exacerbate psychological problems in the long term (Hayes & Gifford, 1997). This idea is consonant with research that indicates that suppression has negative rebound effects, in which undesirable thoughts that are suppressed actually increase in frequency following

active attempts to push them out of awareness (Wegner, Schneider, Knutson, & McMahon, 1991). Recent research has repeatedly demonstrated that the experiential avoidance process facilitates the development and maintenance of a number of disorders, particularly those that have a fear component (Hayes et al., 1996).

We chose to examine experiential avoidance as a contributor to mental health problems among older adults in New Zealand for a number of reasons. First, numerous studies have indicated that experiential avoidance is associated with a variety of mental health disorders in younger populations (Hayes et al., 1996; Marx & Sloan, 2002; Plumb, Orsillo, & Luterek, 2004) but, to date, research on experiential avoidance among older adults is nearly non-existent. As this construct is also relevant to the elderly, we believe this is an unfortunate omission in the geropsychology knowledge base.

Second, studying experiential avoidance among older adults may help to elucidate a number of older adult specific mental health problems, particularly as avoidance based coping strategies can become more prominent among older adults (Blanchard-Fields,

Casper-Jahnke, & Camp, 1995). Older adults have been shown to be less likely to seek advice or to use strategies such as information seeking and emotional expression when confronted with chronic illness, behaviors that likely stem from avoidance processes (Hunt, Wisocki, & Yanko, 2003). In a related vein, older New Zealanders may be particularly prone to exercising avoidant coping. It has been noted that older individuals in New Zealand come from a 'pioneering generation', within which the manifestation of psychological weakness or overt emotional displays were actively discouraged (King, 2003). In the developmental experiences of this particular generation, it is possible that a priority was placed on physical and psychological robustness wherein emotionally painful experiences were to be endured with a 'stiff upper lip' and were internalised as opposed to shared with others through support seeking (Schnittker, 2005). It is easy to imagine that within this context, painful emotional experiences would be inhibited or avoided altogether.

Finally, mental health problems are a significant concern among older adults, with upwards of 20% suffering from anxiety or depression and a great many suffering from both (Krasucki, Howard, & Mann, 1999; Penninx, Leveille, Ferrucci, van Eijk, & Guralnik, 1999). Research that can help to explain the development and maintenance of these disorders, specifically within the older adult contextual framework, is therefore important in relation to assessment and psychological treatment of the elderly.

Self-reported health and psychological functioning

When examining anxiety and depression among older adults, it is crucial to keep in mind the key contributors to poor mental health functioning among this age group. A large number of studies support the centrality of physical health problems as a pathway to anxiety and depression among older adults, with subjective health problems being highly related to these mental health indices (Dulin & Pachana, 2005). Objective medical diagnoses of physical illness and functioning have long been used in an attempt to understand the relationships between psychological distress and health in the elderly. However, recent research has found that the more subjective measure of health—self-reported health—appears to have a stronger association with psychological distress than physician-reported health and is possibly more important as a predictor of overall physical well-being than the more objective measures (Kosloski, Stull, Kercher, & van Dussen, 2005; Ried & Planas, 2002). For example, poor self-reported health ratings have been a consistent predictor of both the level and the risk of depression, with older adults who reported poor health three times more likely to be at risk of depression than

those who reported very good health (Ried & Planas, 2002).

Self-reported health is thought to both summarise the effects of functional impairment and physical disease (Kosloski et al., 2005) and is linked to psychosocial measures such as depression and anxiety (Benyamini, Idler, Leventhal, & Leventhal, 2000; Kosloski et al., 2005; Pettit, Kline, Genco, Genco, & Joiner, 2001). This may be the result of individuals integrating information not accessed by objective health measures, such as family history, perceptions of what good health entails and subtle changes in health over time (Williamson & Schulz, 1992). Accordingly, self-reported health is considered to be a valid and useful measure of health functioning among the elderly and has been shown to be a central triggering and maintaining factor with regards to anxiety and depression in this age group.

The influence of coping on mental health in the elderly

There is limited research assessing coping influences on the relationships between self-reported health and mental health problems in the elderly. While researchers have started to assess the possibility of a third variable having an impact on distress and health, such as social support (Alpass & Neville, 2003) and religiosity (Dulin, 2005; Pargament, 1997), there have been few studies which assess the impact of coping strategies on distress and health in the elderly. Coping strategies are often classified as either approach or avoidance strategies, wherein an 'approach' strategy orientates the individual towards the stressor, such as seeking information about the problem and dealing with it directly, while an 'avoidance' strategy orients the individual away by ignoring or denying the problem (Lazarus & Folkman, 1984). Preliminary studies among older adults indicate that coping strategies can have a significant impact on health and well-being with approach strategies helping the individual to deal with health problems effectively and avoidance strategies being more maladaptive, leading to long term mental health problems (Kraaij, Pruyboom, & Garnefski, 2002; Wallace, Bisconti, & Bergeman, 2001). These studies issue forth the possibility that avoidance processes are a significant factor among late life psychological problems.

Study aims and hypotheses

The overall purpose of this study was to examine experiential avoidance among older adults as it relates to the relationship between subjective health and mental health indices (anxiety and depression specifically). We particularly sought to test the possibility that the extent to which older individuals engage in experiential avoidance would influence the relationship between physical health problems and

psychological disturbances. We hypothesized that positive zero-order correlations would exist between experiential avoidance and mental health problems (anxiety and depression) and mental health problems and self-reported health. We also hypothesized that experiential avoidance would be a unique predictor of both anxiety and depression once other previously noted important factors were statistically controlled for. A third set of hypotheses indicated that experiential avoidance would have moderating effects on the relationships between self-reported health and depression and anxiety. We also sought to compare the magnitude of the relationship between experiential avoidance and anxious and depressive symptomatology, given that previous research has indicated that experiential avoidance is possibly more tightly related to anxiety than depressive type problems among younger cohorts (Forsyth, Parker, & Finlay, 2003).

Methods

Participants

A sample of individuals 70-years-old and over and living in their own home or in a retirement village complex was obtained from the South Island of New Zealand. Advertisements were placed in local newspapers explaining the research and asking for interested people over the age of 70 to ring into an answer-phone service, leaving their name and phone number. Flyers outlining the research were left in prominent places such as a shopping mall, a vet clinic and the Retired Servicemen's Association. Approximately three hundred flyers were dropped in letterboxes at local retirement villages and on streets that were locally known to have a high population of older residents. Of 248 questionnaires mailed out, 208 were returned. In response to newspaper advertising, 164 questionnaires were delivered and a further 84 were garnered from hand delivery to residents' letter-boxes at retirement villages in rural settings (in order to save interested people from making a toll call). Out of the 208 returned questionnaires, 195 were fully completed.

Instruments

Depression was measured using Sheik and Yesavage's (1986) 15-item Geriatric Depression Scale—Short Form (GDS-SF), while anxiety was measured through the use of the 20-item Geriatric Anxiety Inventory (GAI), an agree/disagree self-report measure that can be used in a range of settings to measure anxiety symptoms among the elderly (Byrne, Pachana, Siddle, & Koloski, 2005). The GAI has been found to have a Cronbach's Alpha of 0.91 for normal older adults and 0.93 in a psychogeriatric sample and has sound inter-rater and test-retest reliability (Byrne et al., 2005).

The GAI also has been shown to have good construct validity as evidenced by comparison with other measures of anxiety, such as the Beck Anxiety Inventory and the State/Trait Anxiety Inventory (Byrne et al., 2005).

Experiential avoidance was assessed through the use of the 16-item Acceptance and Action Questionnaire (AAQ), a self-report measure developed by Hayes and colleagues (Hayes et al., 2004). Items link experiential avoidance to thought suppression and avoidance of aversive situations, with higher scores on AAQ found to be correlated with higher levels of general psychopathology, depression, trauma and lower quality of life (Hayes & Wilson, 2003). Test-retest reliability over a four-month period for 304 undergraduate students was 0.64 (Hayes et al., 2004). The AAQ has moderate correlations of between 0.49 and 0.53 with the Global Severity Index of Symptom Checklist-90 Revised (Hayes et al., 2004). It correlates moderately with anxiety measures such as the social phobia, agoraphobia and anxiety sensitivity subscales of the Fear Questionnaire (range: 0.44–0.55) (Hayes et al., 2004).

Demographic information, such as gender, age, marital status, level of functioning, diagnosed physical health and self-report health, was gathered through the use of a 43-item questionnaire, Participant Background Information (PBI), which was generated for the purposes of this particular study. This questionnaire provided information for the self-reported health, social support and functional impairment measures. The information for these measures came from the Community Questionnaire, an instrument developed for the Canadian Study of Health and Aging (McDowell, Hill, & Lindsay, 2001).

Two questions were asked in the PBI to ascertain levels of self-reported health. The first question, 'How would you rate your overall health right now?' was scored on a scale of 1 (excellent) to 5 (my health is very bad) (Kosloski et al., 2005; Manderbacka, Kareholt, Martikainen, & Lundberg, 2003). The second question, 'If you were to compare yourself to others of the same age, how would you rate your health?' was also scored on the scale of 1 (much better than others) to 5 (much worse than others) (Idler & Kasl, 1991; Manderbacka et al., 2003).

Functional impairment was measured through the use of five questions about the participant's ability to walk, shop and go to places out of walking distance and hearing and eyesight functioning (McDowell et al., 2001), while two questions were asked in the PBI to measure social support: (1) 'Can you think of someone you can count on in the time of need?' and (2) 'Do you have someone you can count on to listen to you when you need to talk?' These questions were borrowed from the larger screening interview,

the Community Questionnaire (McDowell et al., 2001).

Results

Sample characteristics

Eighty-three percent of questionnaires were returned from those expressing an interest in the study. Of these, 71% reported living independently in the community, with the remaining 29% indicating residing within independent homes in retirement village complexes. Of the participants, 140 were female and 68 were male. The age ranged from 70 to 90+ ($M=80-84$ years), with 67.7% of respondents reporting being between the age of 70 and 80 years. Thirty-nine percent were currently married while 47.6% were widowed. The majority, at 76.5%, had at least ten years of schooling, while 71.4% of respondents stated that their income was at least adequate for their needs. 98.1% identified as either NZ European or of European descent.

Instrument performance

Geriatric Depression Scale—Short Form. The GDS-SF scores ranged from 0–14 out of a possible 15 ($M=2.83$; $SD=2.79$). Based on psychometric studies of the GDS-SF, a score ≥ 11 indicated clinical depression (Sheik & Yesavage, 1986). Of participants, 2.9% recorded at or above this level, while 18.3% recorded mild levels of depression with scores between five and ten inclusive. Internal consistency of the GDS-SF in this study was good, with Cronbach's Alpha being 0.80.

Geriatric Anxiety Inventory. The GAI scores ranged from 0–19 out of a possible 20 ($M=2.72$; $SD=4.01$). Scores over ten indicate a clinical anxiety disorder. 5.8% of participants recorded 11 or above, and 75% of respondents had scores of four or less. The GAI obtained a Cronbach's Alpha of 0.90, consistent with the findings of Byrne et al. (2005).

Self-reported health. The two questions that made up this measure were added together to create a composite variable, and achieved a Cronbach's Alpha of 0.77, which was acceptable. Self-reported health scores ranged from 2–10 out of a possible ten, with higher scores indicating poorer health ($M=4.529$; $SD=1.70$). A cut-point of seven was used, with lower scores implying general good health.

Acceptance and Action Questionnaire. The AAQ scores ranged from 34–83 against a possible range of 16–112, ($M=57.94$; $SD=9.58$). While cut-off scores were not available, scores above 65 indicated some experiential avoidance, with scores over 80

indicating higher levels psychological resistance and suppression. In this sample, the AAQ obtained a Cronbach's Alpha of 0.59.

Functional impairment. Scores on this variable ranged from 5–14 out of a possible maximum score of 19 ($M=8.14$; $SD=1.96$). Scores ≥ 13 indicated some functional impairment, with 2.4% of participants recording in the range of 4 or 5 for each of the two questions. This assessment obtained a Cronbach's Alpha of 0.60, which is moderate to acceptable.

Social support. The three questions that made up this measure were combined to create a composite variable, achieving an acceptable alpha of 0.66. Scores ranged from 0–2 ($M=1.94$; $SD=0.29$). Scores of 0 (1.4% of respondents) indicated that the individual had no one to help or listen, while a score of 2 (95.7% of respondents) indicated that the individual had someone to both help and listen.

Zero-order relationships among study variables

Correlations were examined between depression, self-reported health and experiential avoidance, along with a number of demographic variables such as education and gender. The hypotheses anticipated zero order positive correlations between the dependent variables (depression and anxiety), self-reported health and experiential avoidance. These hypotheses were supported for depression, with depression and self-reported health ($r=0.50$; $p<0.01$) and depression and experiential avoidance ($r=0.37$; $p<0.01$) both demonstrating significant positive correlations. The hypotheses were also supported with regard to anxiety, with anxiety associated with self-reported health ($r=0.38$; $p<0.01$), and experiential avoidance ($r=0.43$; $p<0.01$). Depression and anxiety were also associated with social support and functional impairment indices (see Table I for more details).

Multiple regression analyses

Hierarchical multiple regression analyses were conducted to determine if experiential avoidance was a unique predictor of both depression and anxiety and to test the hypotheses that experiential avoidance had a moderating influence on the relationships between self-reported health and both depression and anxiety.

In the regression analysis with depression as the predicted variable, social support was added on step one, and explained 5% of the variance ($\beta=-0.22$; $p<0.05$). Functional impairment explained 8% of the variance and was significant when added on step two, ($\beta=0.29$; $p<0.01$) and self-reported health contributed a further 16% when added on step three ($\beta=0.44$; $p<0.01$). As this study was primarily concerned with determining the unique relationship

Table I. Pearson's zero-order correlations of study variables.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Age	1.00												
2 Gender	-0.03	1.00											
3 Occupation	0.15	**0.14	*1.00										
4 Education	-0.12	-0.01	-0.46	**1.00									
5 Income	-0.23	**0.02	0.03	-0.11	1.00								
6 Marital status	-0.13	-0.39	**0.25	**0.22	**0.15	*1.00							
7 Impairment	0.38	**0.02	0.23	**0.16	*0.07	-0.02	1.00						
8 Social support	-0.01	0.07	-0.03	0.02	-0.16	-0.08	-0.04	1.00					
9 SRH	-0.01	0.06	0.16	*0.03	0.09	0.09	0.44	**0.09	1.00				
10 GDS	0.09	0.02	0.08	0.01	0.12	-0.01	0.29	**0.22	**0.50	*1.00			
11 GAI	-0.11	0.04	-0.04	0.04	0.14	0.14	*0.08	-0.11	0.38	**0.67	*1.00		
12 AAQ	0.09	0.11	0.10	-0.05	0.07	-0.01	0.19	*0.16	**0.31	**0.37	**0.43	*1.00	
13 SRH × AAQ	0.03	0.04	0.16	*0.05	0.12	0.08	0.43	**0.15	**0.93	**0.58	**0.53	**0.61	*1.00

*Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed).

SRH = self reported health; GDS = depression; AAQ = experiential avoidance; SRH × AAQ = interaction variable for SRH and AAQ; GAI = anxiety.

between experiential avoidance and depression, experiential avoidance was added after the other variables in the regression equation on step four and contributed 4% of the unique variance in depression ($\beta = 0.22$; $p < 0.01$).

In order to assess experiential avoidance as a moderator between self-reported health and depression, an interaction term was created and added last, in line with the procedures specified by Baron and Kenny (1986). The interaction term, SRH × AAQ ($\beta = 1.96$; $p < 0.01$) was statistically significant, and contributed a further 8% of the variance of depression. This supported hypothesis four, which indicated that experiential avoidance would have a moderating effect on the relationship between self-reported health and depression. The overall regression model explained 40% of the variance in depression (see Table II).

Another hierarchical multiple regression analysis was performed with anxiety as the predicted variable. Social support and functional impairment both explained 1% of the variance in anxiety; however, neither was significant. Self-reported health was added on step three, and explained 14% of the variance of anxiety ($\beta = 0.42$; $p < 0.01$). Adding experiential avoidance on step four explained 11% of the variance of anxiety ($\beta = 0.351$; $p < 0.01$). Finally, the interaction term, SRH × AAQ ($\beta = 3.12$; $p < 0.01$) was statistically significant and contributed a further 20% of the variance of anxiety, indicating a large moderating effect of experiential avoidance on self-reported health and anxiety. The hierarchical regression model explained 47% of the variance in anxiety (see Table III).

Figure 1 displays the interaction of experiential avoidance and self-reported health on depression. It demonstrates that at lower levels of experiential avoidance (the lower quartile of experiential avoidance), the relationship between depression and SRH is moderate but at higher levels of experiential avoidance (the upper quartile of

Table II. Summary of hierarchical regression analysis for variables predicting depression ($n = 195$).

Variable	R^2	ΔR^2	B	SE	β	β
Step 1	0.05					
Social support			-2.09	0.69	-0.22	*
Step 2	0.13	0.08				
Social support			-1.97	0.66	-0.21	*
Impairment			0.40	0.10	0.28	**
Step 3	0.28	0.16				
Social support			-1.68	0.60	-0.17	
Impairment			0.13	0.10	0.09	
SRH			0.72	0.11	0.44	**
Step 4	0.32	0.04				
Social support			-1.40	0.59	-0.15	
Impairment			0.11	0.10	0.08	
SRH			0.63	0.11	0.38	**
AAQ			0.06	0.02	0.22	**
Step 5	0.40	0.08				
Social support			-0.99	0.57	-0.10	
Impairment			0.10	0.09	0.07	
SRH			-2.00	0.55	-1.22	**
AAQ			-0.13	0.04	-0.46	*
SRH × AAQ			0.05	0.01	1.95	**

* = significant at the 0.05 level (2-tailed); ** = significant at the 0.01 level (2-tailed).

SRH = self reported health; AAQ = experiential avoidance; SRH × AAQ = interaction variables of SRH and AAQ.

experiential avoidance), this relationship is strong (see Figure 1).

A similar graph was created in order to provide an overview of the interaction between experiential avoidance, self-reported health and anxiety. This graph indicates that at lower levels of experiential avoidance, the relationship between anxiety and SRH is small to non-existent but at higher levels of experiential avoidance, this relationship is very strong (see Figure 2). As can be seen when comparing Figure 1 with Figure 2, the interaction between experiential avoidance and self-reported

Table III. Summary of hierarchical regression analysis for variables predicting anxiety ($n = 195$).

Variable	R^2	ΔR^2	B	SE	β	β
Step 1	0.01					
Social support			-1.52	1.01	-0.11	
Step 2	0.02	0.01				
Social support			-1.48	1.01	-0.11	
Impairment			0.16	0.15	0.08	
Step 3	0.16	0.14				
Social support			-1.08	0.94	-0.08	
Impairment			-0.22	0.15	-0.11	
SRH			0.99	0.18	0.42	**
Step 4	0.27	0.11				
Social support			-0.41	0.88	-0.21	
Impairment			-0.26	0.14	-0.13	
SRH			0.77	0.17	0.33	**
AAQ			0.15	0.03	0.35	**
Step 5	0.47	0.20				
Social support			0.53	0.77	0.04	
Impairment			-0.30	0.12	-0.15	*
SRH			-5.26	0.74	-2.23	**
AAQ			-0.31	0.06	-0.73	**
SRH \times AAQ			0.10	0.01	3.12	**

*= significant at the 0.05 level (2-tailed); **= significant at the 0.01 level (2-tailed).

SRH = self reported health; AAQ = experiential avoidance; SRH \times AAQ = interaction variables of SRH and AAQ.

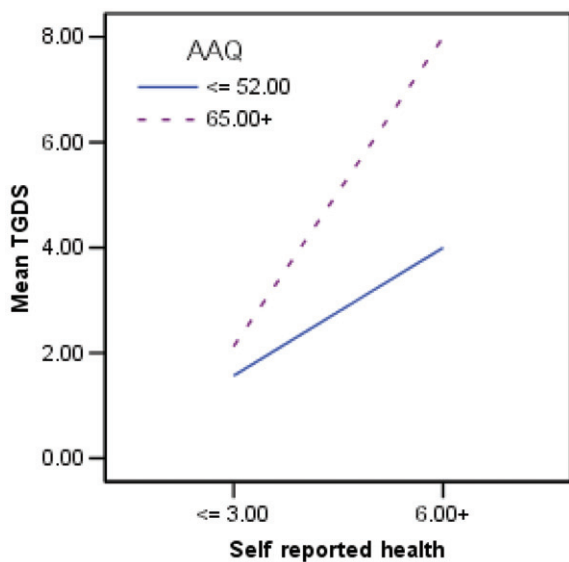


Figure 1. The interaction of experiential avoidance and self-reported health on depression.

health is much more pronounced in anxiety than depression in this sample of older adults.

Discussion

This study tested a number of specific hypotheses that were generated from a thorough examination of the experiential avoidance construct and factors

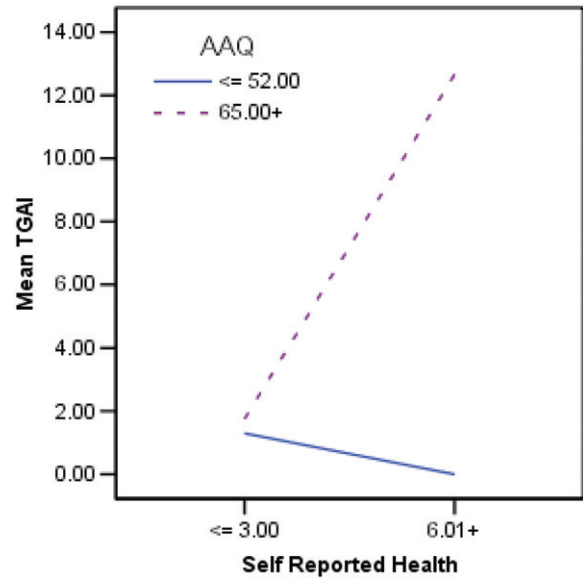


Figure 2. The interaction of experiential avoidance and self-reported health on anxiety.

related to late life mental health problems. The initial hypotheses relating to zero-order relationships among the study variables were supported. Experiential avoidance was positively associated with the mental health indices and the mental health measures were positively related to reported health problems. It was noted that the experiential avoidance measure produced correlations with both depression and anxiety that were higher than that of all other measured variables.

Hierarchical multiple regression analyses determined that experiential avoidance functioned as a significant predictor of both anxiety and depression, with the influence of other potentially confounding variables controlled for statistically. The regression analyses indicated that experiential avoidance had a significant but modest unique predictive contribution to depression (4%), while it contributed a much larger percentage of the variance in anxiety (11%). The regression analyses also indicated that experiential avoidance served to moderate the relationships between reported health problems and both anxiety and depression with the interaction term explaining 8% of the variance in depression and 20% of the variance in anxiety. It is apparent that experiential avoidance is a more robust predictor of anxiety than depression and was a more potent moderator of the relationship between self-reported health problems with regard to anxiety. This fits with previous research indicating that anxiety is largely maintained by avoidance processes in younger adults (Eifert & Forsyth, 2005).

These results indicate that experiential avoidance has an important role to play with respect to depression and especially anxiety among older adults. The significant interaction between self-reported health problems and experiential avoidance

likely indicates that the extent to which older adults' failing health leads to mental health problems is partly determined by the extent to which they avoid experiencing the psychological distress and thought processes surrounding the perceived physical health issues. It is likely that this type of avoidance keeps an older person from acknowledging, working through or asking for help with the distressing thoughts and emotions. It is therefore probable that experiential avoidance is an important predictor of mental health problems among the elderly and may function as both an etiological and maintaining factor of late life anxiety and depression when health concerns are present.

The findings of this study have particular importance regarding psychological intervention development among the elderly. Cognitive and behavioural interventions have been found to be effective in treating mental health problems among the elderly (Zeiss, Lewinsohn, Rohde, & Seeley, 1996) but are still in some ways being tailored for use with the elderly. A recent emergent in the Cognitive Behavioural Therapy arena is Acceptance and Commitment Therapy (ACT), developed by Hayes, Strosahl and Wilson (Blackledge & Hayes, 2001), which largely targets experiential avoidance by helping the client to experience and accept unpleasant emotions and sensations that arise when the client focuses on experiences that have aversive feeling states. The end goal of ACT is not necessarily to take away unpleasant symptoms but to be able to integrate them in such a way that they are less detrimental to overall functioning and goal attainment (Blackledge & Hayes, 2001). Results from the current study indicate that interventions that specifically target avoidance processes revolving around health problems may be beneficial for older adults. At the least, the results from this study provide justification for further exploration of ACT as a treatment for late life anxiety and depression.

Limitations

The primary limitation of this study relates to generalisability. This sample consisted of New Zealanders who were generally healthy, community dwelling, older adults. As mentioned previously, it is possible that white older New Zealanders represent a particularly stoic group, given their focus on maintaining composure in the face of adversity (King, 2003). Perhaps other cultural groups would not manifest the same strong relationship between experiential avoidance and mental health problems. There was also a high degree of self-selection present, with the majority of participants being those who were coping satisfactorily and had low levels of depression, further limiting the generalisability of these results to the basically healthy older adult population. Somatic symptoms of depression and anxiety are often experienced by the

elderly (Shapiro, Roberts, & Beck, 1999) and it is also possible this confounds the relationship between self-reported physical and mental health problems.

A lack of validity for the self-reported health measure is also a weakness for this study. Whilst these questions have been used in previous studies (Manderbacka et al., 2003), psychometric properties have not been fully established.

Another obvious limitation is that the methods used were correlational in nature. It is therefore impossible to ascertain causative mechanisms, but the doorway is open for future research to utilize more sophisticated methods to determine if experiential avoidance is indeed a causative variable regarding older adult mental health problems.

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