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Psychological acceptance and quality of life in the elderly

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Abstract Many changes occur as people enter old age (e.g., declining productivity), and these changes may at times decrease quality of life. Do some people maintain high subjective quality of life despite these changes? This study investigated the influence of psychological acceptance (PA) on quality of life in a sample of 187 elderly from a home nursing service, a retirement village and various community groups. Average age was 78 years old with a range from 65 to 96. We administered a measure of psychological acceptance and The Comprehensive Quality of Life Scale (COMQol). As hypothesised, people higher in PA also had higher quality of life in the areas of health, safety, community participation and emotional well-being. In addition, individuals high in PA had less adverse psychological reactions to decreasing productivity. Interventions that increase PA may lead to improved quality of life and resilience amongst the elderly.

Keywords Acceptance · Elderly · Quality of life

Abbreviations

AAQ	Acceptance and Action Questionnaire
COMQol	Comprehensive Quality of Life Scale
PA	Psychological acceptance
QOL	Quality of life

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Introduction

The population group aged 65 years and older is increasing in most industrialised countries [7, 9]. This time of life may include stressful events, retirement, decreased income, changes to socialising, health and physical functioning, and death of loved ones. Some people appear to respond better to ageing than others [2]. Do people differ in their willingness to accept these age-related changes and the distress that often comes with them (''Psychological Acceptance'', or PA)? People differ in the extent they accept their unpleasant feelings, as opposed to avoiding them or trying to get rid of them. Generally, high PA has been associated with better mental health amongst adults [6, 25]. We posit high PA will help elderly people to maintain a high subjective quality of life, even in the face of adverse objective events such as decreases in health or productivity.

Quality of life

The World Health Organisation's Quality of Life assessment group defines quality of life as ''individuals' perception of their position in life in the context of the culture and the value system in which they live and in relation to their goals, expectations, standards and concerns'' [41, p. 1405]. What influences quality of life? Two potential determinates are objective and subjective factors [22]. Objective factors include income, health, marital status, gender, and age. Intuitively we may think that having more of these things means greater quality of life. However, in the area of happiness research, objective factors are less powerful than one might expect. Lyubomirsky et al. [29, 30] propose that objective factors account for about 8–15% of the difference in happiness.

Quality of life research has also acknowledged the distinction between objective and subjective factors [8, 13]. Hagerty et al. [22] propose that all quality of life scales need to measure both objective and subjective aspects of each domain. Researchers are encouraged to assess actual circumstances of life, such as health, income, age and marital status as well as cognitive and motivational processes that influence self-evaluations of these circumstances.

Psychological acceptance

Psychological acceptance involves a willingness to experience psychological events (thoughts, feelings, memories) without having to avoid them or let them unduly influence behaviour [24]. We will refer to the opposite pole of psychological acceptance as ''experiential avoidance.'' Both terms are used frequently in the literature and refer to the same underlying construct. ''Experiential avoidance'' involves attempts to change the form or frequency of psychological events. Psychological acceptance allows one to spend more time actively living, making choices to assist completion of goals or sorting out problems, rather than spending time and mental resources on controlling psychological events.

Research suggests that experiential avoidance often fails in the long run and may also adversely affect the immune system [27, 33, 34, 37–40]. Studies have examined attempts to keep secrets, suppress thoughts about past relationships, and suppress mood states. These studies found suppression increased the presence of the suppressed thoughts and the frequency of the emotional reactions to the suppressed material [27, 38, 39].

Some individuals seem to use avoidance as a coping strategy more than others. Feldner et al. [20] investigated the difference in emotional reactions to carbon dioxide (CO_2) induced panic attack symptoms. Participants were categorised on the basis of individual differences in emotional avoidance, measured by the Acceptance and Action Questionnaire (AAQ) [25]. High avoiders reported less ability to regulate their responses to experimentally induced physiological panic symptoms [20]. They also experienced greater levels of self-reported anxiety when asked to inhibit responses but not when asked to observe responses.

Psychological acceptance and quality of life

Acceptance-based treatment is becoming more widely used with clinical populations. Intervention research is showing promising results in the areas of psychosis [3], anxiety [18, 42], chronic pain [14] and on the well-being of non-clinical populations with speech anxiety [4], smoking cessation issues [21], professional burnout [23] and high risk sexual behaviours [32].

Studies of acceptance in the workplace by Bond and colleagues [6, 16] have shown the benefit of acceptance. Individuals with higher acceptance levels showed better mental health and job performance one year later. Furthermore, acceptance mediated the changes in mental health resulting from greater job control [6]. Across a variety of work environments with management, clerical and manual skilled workers, the role of acceptance on workplace well-being was associated with better general mental health and physical well-being [16].

Why is greater acceptance hypothesised to be linked to better mental health? First, acceptance allows more psychological resources to be available for experiencing life events [6]. Second, accepting (as opposed to avoiding) experience is less likely to lead to negative thought and mood rebound effects [20, 33, 34, 39]. Third, acceptance may allow people to engage in and enjoy a variety of experiences, as they do not need to avoid all situations that may elicit distress. For instance a person might not attempt to run for a club office for fear of being rejected, while another person might run for office despite their fears.

Psychological acceptance amongst the elderly

We expect that psychological acceptance will be of importance to elderly populations. Surprisingly, little direct evidence exists of the link between individual differences in psychological acceptance and quality of life in elderly. However, there is some indirect evidence. For example, research suggests that elderly people who are able to do things that they enjoy despite changes in their life are more satisfied with their lives [17, 28]. The researchers describe this effect as ''adjustment to ageing'', an important aspect of quality of life. This adaptation to change may be related to acceptance, the willingness to have the unpleasant emotions and thoughts that come in response to negative changes. Other research suggests that elderly who had more knowledge about ageing had a higher life satisfaction [15]. Perhaps increased knowledge enabled them to adapt more readily and accept changes. This study directly investigates whether individual differences in psychological acceptance are associated with higher subjective quality of life, even in the face of worsening objective factors such as poor health.

Method

Participants

We recruited a cross-section of elderly participants from different community groups. The 187 participants in this study consist of 76 clients of a community nursing and respite service, 47 residents of a retirement community, 52 members of churches and 12 members of other community groups such as a fishing club and fitness group. Clients of a nursing service who were receiving some in home service were asked to participate by mail-out; residents of a retirement community were sampled at a weekly prayer meeting; members of a number of churches were approached at a weekly service, and other participants were approached through other community groups known to the researchers. Sixty-five participants were male and 120 female. The mean age was 78 years old (SD = 6.9), with ages ranging from 65 to 96. Country of birth was spread across 18 countries but predominantly Australia (n = 126). One hundred and three were married, 65 widowed, 9 single and 7 divorced. Participation was voluntary with no incentives offered.

Materials

The questionnaire package consisted of consent form, participant information sheet, demographic details, Acceptance and Action Questionnaire [25] and Comprehensive Quality of Life Scale (COMQol) [12].

Acceptance and Action Questionnaire (AAQ)

The AAQ is a 19 item self-report scale of experiential avoidance. Measuring the tendency to control thoughts and feelings and the willingness to take action without having to ''get rid'' of unpleasant feelings. Each item is rated with a 7-point scale, for example, ''it's okay to feel depressed or anxious'' and ''If I could magically remove all the painful experiences I've had in my life, I would do so''. Higher scores indicates higher acceptance. The scale reliability for this study is $\alpha = 0.63$.

The AAQ has been shown to have adequate discriminant, convergent and predictive validity [6, 25]. It moderately relates to measures of thought suppression [25] and a wide range of well-being measures, including general mental health and physical well-being in working populations [6, 16]. The AAQ predicted mental health 1 year later, even after controlling for negative affectivity and locus of control [6]. In experimental paradigms, it has been shown to relate in expected ways to theoretically relevant criteria such as level of distress and physiological reactivity [20, 35].

Comprehensive Quality of Life Scale (COMQoL- A5)

COMQoL is a self-report measure of Objective and Subjective Quality of Life (QOL) rated across seven domains: Material well-being, Health, Productivity, Intimacy, Safety, Place in Community, and Emotional well-being [11, 12]. The Objective QOL scales are obtained using an aggregate score of three culturally relevant objective indices pertinent to that domain (listed in detail below), scored on a 5-point scale. Subjective QOL scores are achieved by obtaining a satisfaction score on a 7-point scale for each domain. The ComQol indicates that this scale be recoded, using values from +4 (higher satisfaction) to –4 (higher dissatisfaction). The resulting scale is weighted by the perceived importance of that domain rated on a 5-point scale, yielding a range of values from –20 to +20.

Consistent with the validity of the measure, Cummins [11] found these seven domains incorporate 85% of the studied domains of quality of life. COMQoL was rated as one of the top four scales in a review of 22 QOL measures across 14 areas [13]. COMQoL has been shown to be highly related to other measures of QOL that assess mental and physical well-being and support from family and friends [12] and has been used in a number of studies with a variety of populations in Australia and overseas. Concerning reliability, Cummins [12] argues that it is appropriate to have scale reliabilities between 0.3 and 0.7. Higher reliabilities show narrow, homogenous items and lower reliability shows measuring of different concepts. In keeping with this view, COMQoL has consistent items, which are not too homogenous (do not have high internal consistency). However, consistent with the general reliability of the scale, the test–retest correlations tend to be quite respectable. The internal reliabilities from our study are comparable to Cummins' [12].

The items for each objective subscale are presented below, along with the alpha reliabilities for each subscale from the present study and test–retest reliabilities from Cummins [12]: Material well-being consists of accommodation, possessions, household income (α = 0.37, test–retest = 0.89). Health consists of doctor visits, disability, medication (α = 0.69, test–retest = 0.81). Productivity consists of hours spent in work, study or childcare, spare time, daily TV watched (α = 0.40, test–retest = 0.68). Intimacy consists of chatting with friends, someone who cares for you, having companions (α = 0.66, test–retest = 0.84). Safety consists of sleep,

home safety, anxiety ($\alpha = 0.44$, test–retest = 0.78). Place in Community consists of leisure activities and voluntary work, responsibility to an organisation, others seeking your advice ($\alpha = 0.44$, test–retest = 0.80). Emotional well-being consists of control, active life, realising wishes ($\alpha = 0.46$, test–retest = 0.76). Objective QOL Total is the sum of all objective items ($\alpha = 0.76$, test–retest = 0.86), and Subjective QOL Total is based on satisfaction scores weighted by perceived importance of the domain ($\alpha = 0.69$, test–retest = 0.84).

Procedure

Questionnaire packages were sent by mail to the nursing service clients and completed questionnaires were returned by prepaid envelope. Two weeks later a reminder letter was sent. The other groups were invited to participate by the researcher at a regular ''club'' meeting and personally handed the questionnaire package. Participants either completed the questionnaire on the spot and handed it to the researcher or returned it by prepaid envelope. Completion of the questionnaire took approximately 20–30 min. To be included in the study, participants were over 65 years of age and capable of completing the questionnaires on their own. People with dementia and other conditions that would require assistance to fill in the questionnaire were excluded due to resource issues. The response rate for the nursing service client group was 22% compared with 62% for the individually approached groups.

Results

Descriptive statistics, means, standard deviations, range and correlation's between the Objective and Subjective domains of COMQoL are reported in Table 1. Material well-being was the only domain not involving a significant correlation between objective and subjective QOL. The AAQ mean was 4.46, standard deviation 0.54 and range 3–6.

The relationship between age, sex, relationship status, services received, QOL and acceptance

Given the exploratory nature of the initial analyses and the number of tests involved, alpha was set to a conservative 0.01 to reduce the problem of type 1 error. Pearson correlational analyses revealed a relationship between age and the Objective QOL domains; Total ($r = -0.30$), Health ($r = -0.20$), Place in Community ($r = -0.22$) and Emotional well-being ($r = -0.20$), indicating that as age increased, objective aspects of QOL decreased. The only significant relationship within the Subjective domains was Intimacy ($r = 0.21$), indicating that as age increased, so did the subjective quality of intimate relationships. As there were a number of significant age effects, this was controlled for in further analysis.

A two-way anova examined the link between relationship status and sex with the AAQ, Objective QOL, and Subjective QOL Domains. Few significant main effects were found for sex or relationship and no significant interaction between sex and relationship. The only significant effect involving sex was Objective Safety $f(1,172) = 10.9$, $P < 0.01$, such that men ($M = 4.47$, SE = 0.13) reported higher safety than women ($M = 3.97$, SE = 0.09). One significant effect for relationship $f(3,172) = 3.14$, $P < 0.05$, was that married participants ($M = 3.5$, SE = 0.07) had better objective health than single ($M = 3.0$, SE = 0.25), divorced ($M = 3.0$, SE = 0.27) or widowed participants ($M = 3.2$, SE = 0.11). Married men and women reported better health than participants who were not married.

The amount of support services received by the participants was also examined. Significant negative correlations were found with AAQ ($r = -0.28$), Subjective Health ($r = -0.37$), the Objective QOL domains of Health ($r = -0.50$), Productivity ($r = -0.30$), Safety ($r = -0.20$), Place in Community ($r = -0.34$), Emotional well-being ($r = -0.35$) and Objective Total ($r = -0.50$). These are all negative relationships such that as the

Table 1 Means (standard deviations), ranges, and correlations (r) involving Objective and Subjective Quality of Life (QOL)

Domain	Objective QOL		Subjective QOL		r between Objective and Subjective
	Mean (SD)	Range	Mean (SD)	Range	r
Material well-being	3.19 (0.68)	1.7–5.0	8.87 (3.88)	1–20	–0.09
Health	3.34 (0.74)	1.3–5.0	6.67 (8.94)	–20–20	0.50**
Productivity	3.00 (0.67)	1.0–5.0	7.73 (5.03)	–16–20	0.21**
Intimacy	3.70 (0.83)	1.0–5.0	13.08 (5.54)	–20–20	0.29**
Safety	4.20 (0.63)	2.0–5.0	10.10 (4.20)	–15–20	0.28**
Place in community	2.80 (0.86)	0.7–5.0	8.02 (4.74)	–8–20	0.28**
Emotional well-being	3.77 (0.74)	1.0–5.0	9.08 (5.66)	–15–20	0.37**
Total	3.42 (0.43)	2.5–4.3	9.05 (3.45)	–6–17	0.46**

** $P < 0.01$

numbers of services increase the level of acceptance and QOL decrease.

An activity score was generated from monthly participation in a variety of activities. This was significantly positively correlated with AAQ (r = 0.20), Objective Total (r = 0.56) and Subjective Total QOL (r = 0.25) such that people with higher levels of psychological acceptance, tended to engage in more activities. Participation in activities was negatively correlated with Age (r = –0.21) and Services Received (r = –0.22), such that as age and services increased activity decreased.

The relationship between acceptance and quality of life

Consistent with our main hypotheses, correlational analyses revealed that psychological acceptance was associated with higher Total Objective QOL (r = 0.45, $P < 0.01$) and Total Subjective QOL (r = 0.29, $P < 0.01$). Table 2 summarises the relationships between acceptance and quality of life, broken into individual domains. The Objective domains significantly related to acceptance are Health, Productivity, Safety, Place in Community, and Emotional well-being. The significant Subjective Domains are Health, Productivity, Place in Community and Emotional well-being.

We next used partial correlational analyses to examine whether psychological acceptance still correlated with subjective QOL, when controlling for objective aspects of QOL. The central question was, can people's level of well-being be entirely accounted for by the objective difficulties in life, or does psychological acceptance play a role over and above these difficulties? As can be seen in the right hand column of Table 2, there was a significant positive relationship between acceptance and the subjective QOL domains of Health and Productivity even when objective factors were controlled. Regardless of the level of objective health and productivity, participants rating higher on acceptance have better subjective quality of life in those areas.

Table 2 Correlations of Acceptance and Action Questionnaire (AAQ) with Objective and Subjective Comprehensive Quality of Life (QOL) scale domains

QOL Domains	AAQ with Objective QOL	AAQ with Subjective QOL	AAQ with Subjective QOL Controlling for Objective QOL
Material well-being	0.11	–0.08	–0.07
Health	0.21**	0.32**	0.25**
Productivity	0.29**	0.32**	0.28**
Intimacy	0.11	0.12	0.08
Safety	0.42**	0.12	0.00
Place in community	0.21**	0.20**	0.14
Emotional well-being	0.53**	0.29**	0.11

** $P < 0.01$

We previously found that quality of life was related to three ''objective'' life factors; age, services received, and relationship status. In the final analysis these and sex were controlled to examine whether these objective factors could account for the relationship between acceptance and subjective QOL. Stepwise regression analysis was utilised with the demographics entered in step 1, the object QOL index in step 2, and psychological acceptance in step 3. Separate analyses were conducted for the domains of productivity and health. Tables 3 and 4 present the results. Objective factors were clearly important, explaining 7% and 28% of the variance in subjective QOL for productivity and health, respectively. After controlling for these variables, psychological acceptance explained 5% and 4% of the variance in subjective QOL for productivity and health, respectively.

In addition to looking at objective factors, we examined whether the effects differed depending on sample characteristics (i.e., community sample versus community nursing and respite services, and Australian versus non-Australian sample). We statistically compared the correlations amongst the different samples. We focused on the key correlations between the AAQ and subjective QOL controlling for objective QOL (Table 2). We found no evidence for a significant difference based on sample characteristics, all Ps > 0.10.

Does acceptance moderate the relationship between objective and subjective QOL?

We next evaluated the hypothesis that people low in acceptance would be more negatively influenced by decreases in objective aspects of QOL. Following the procedure outlined by Aiken and West [1], regressions were utilised to examine how subjective QOL was influenced by objective QOL, Acceptance, and the interaction between these terms (the test of moderation). We used a Bonforoni corrected alpha of 0.007 (0.05/7), given the seven tests of moderation (one for each domain), and absence of an a priori prediction

Table 3 Regression analyses examining the relative influence of demographics, objective quality of life factors, and psychological acceptance on subjective quality of life for the domain of productivity

Variable	*B*	SE *B*	*β*	Δr^2
Step 1: demographics				0.03
Sex	–0.25	0.88	–0.02	
Age	0.04	0.07	0.05	
Services received	–0.41	0.34	–0.11	
Relationship status D1	0.67	0.97	0.07	
Relationship status D2	2.32	2.05	0.10	
Relationship status D3	2.99	2.41	0.11	
Step 2: Objective index of productivity	1.66	0.62	0.22**	0.04**
Step 3: Psych. acceptance	2.25	0.75	0.25**	0.05**

** $P < 0.01$

Note: relationship status was dummy coded to represent the four categories of Married, single, divorced, and widowed. ''Widowed'' was the contrast group

Table 4 Regression analyses examining the relative influence of demographics, objective quality of life factors, and psychological acceptance on subjective quality of life for the domain of health

Variable	*B*	SE *B*	*β*	Δr^2
Step 1: demographics				0.12**
Sex	–0.28	1.38	–0.02	
Age	0.09	0.11	0.07	
Services received	–2.30	0.54	–0.35***	
Relationship status D1	0.32	1.39	0.02	
Relationship status D2	3.36	2.75	0.09	
Relationship status D3	2.85	2.92	0.07	
Step 2: Objective index of health	5.10	0.89	0.46***	0.16***
Step 3: Psych. acceptance	3.05	1.04	0.21**	0.04**

** $P < 0.01$; *** $P < 0.001$

about which of these tests would and would not be significant. Following the suggestions of Aiken and West, the independent variables were converted to *z* scores. The only significant moderation effect involved Productivity, $f(1, 167) = 8.05$, β (aaq × productivity) = –0.93, $P = 0.005$. As can be seen in Fig. 1, decreases in objective QOL had a more adverse influence on those low in acceptance compared to those high in acceptance.

Discussion

Elderly individuals experience many changes in their lives, and it was demonstrated that some respond differently than others to these changes. This study sampled a variety of elderly individuals across age and living situation. There was a group living in their own homes with nursing services, others in a retirement village and some in their own homes receiving no outside support services. This research provides a glimpse of how individual differences in psychological acceptance may affect quality of life amongst the elderly. As expected, individuals reporting more acceptance also reported higher QOL for health and productivity, even when the objective factors in their lives were quite unpleasant (e.g., reduced ability to be productive, declining health).

One potential limitation of the study is that due to the self-report nature of the survey, our objective indices of well-being may not have been purely objective. People may have misremembered or exaggerated information. In addition, QOL factors such as emotional well-being seem essentially a subjective concept and difficult to divide into objective and

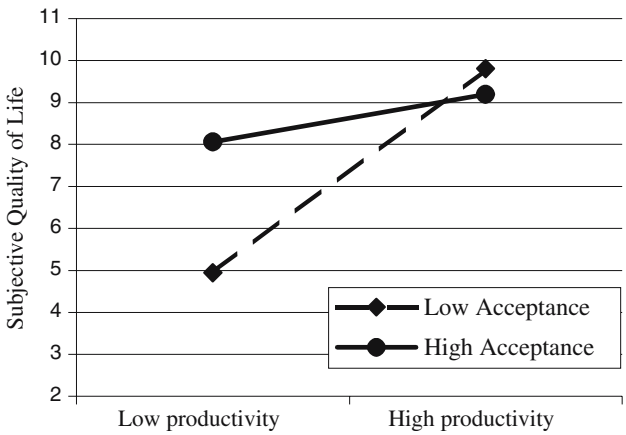

Fig. 1 The effect of Acceptance and objective difference in Productivity on Subjective Quality of Life for Productivity

subjective components. Perhaps not surprisingly, psychological acceptance no longer correlated with ''subjective'' emotional well-being, when controlling for ''objective'' emotional well-being, perhaps because these domains overlap so substantially. However, in defence of the self-report measures, concrete objective factors like health, productivity, and community participation do tend to correlate reasonably with proxy ratings, supporting their validity [19, 36].

Another question is the extent these findings generalise across different sample characteristics (e.g., nationality or nursing home versus church group). Our evidence suggests the results do generalise, i.e., we found no difference in effects across the different samples. Our effects also held when we controlled for variables that are likely to differ across samples (e.g., age, services received, relationship status). Even with this evidence, it is still important for future research to systematically look at potential differences utilising larger samples and wider variety of groups. We may not have had sufficient power to detect subtle, but important differences.

Objective factors, acceptance, and subjective quality of life

We found objective quality of life ratings decreased as age and support services increased. In contrast, age and support services had little influence on subjective quality of life. While negative life changes may decrease objective ratings of QOL, this does not necessarily result in a decrease in subjective QOL. We hypothesised that objective factors such as age, health and marital status have only a small role in determining well-being, accounting for between 8% and 15% of the variation [10, 29–31]. Our results support this assertion, as objective factors like health and marital status accounted for less than 15% of the difference in subjective QOL amongst the elderly. Lyubomirsky [29] argues that cognitive and motivational factors (the way people think) may account for a relatively larger proportion of the variance than objective factors. Our study identified one cognitive/motivational factor, namely, the willingness to accept psychological distress.

Our findings suggest that acceptance may not be based purely in individual differences. That is, people had much more trouble accepting objectively unpleasant situations such as reduced safety, independence, and community participation. In certain instances, improving objective factors like safety and community participation could increase both acceptance and QOL.

There were two aspects of QOL that showed no relationship to acceptance in either the objective or subjective ratings, namely, material well-being and close relationships. Possessions decreased as age and support services increased. However, satisfaction with possessions did not change. Interestingly, objective material well-being, one of the most ''objective'' factors, showed no relationship with acceptance or satisfaction with material well-being. Having more money did not make one more satisfied or accepting.

Acceptance and subjective quality of life

Is the link between acceptance and subjective QOL entirely explainable in terms of the objective indices? Our results show that acceptance explained a significant part of the variation in subjective QOL for health and productivity, even when all objective variables were controlled. For example, when the level of health was kept constant, more acceptance was related to higher health satisfaction. In fact, not only were the more accepting individuals more satisfied with their health, they were actually healthier as measured by visits to the doctor, daily medication and illness/disability. This is consistent with previous findings that acceptance has a positive effect on physical health [5, 6, 16]. However, healthier people may have an easier time accepting their health. Either way, it is clear that psychological acceptance is associated with higher subjective QOL even amongst those who are relatively unhealthy.

Participant's level of productivity decreased as age increased, but not their satisfaction with their productivity. Similar to health, both satisfaction and the actual level of productivity were related to higher acceptance. Individuals with higher acceptance were more productive. When the level of productivity was held constant, higher acceptance was associated with higher satisfaction, suggesting that acceptance was associated with higher QOL even amongst those who were no longer able to be productive.

We hypothesised that acceptance would moderate the relationship between objective factors and subjective QOL. There was support for this hypothesis in the area of productivity. Psychological acceptance buffered the adverse effects of reductions in productivity, with people high in psychological acceptance being less adversely influenced by drops in productivity. As people get older, they may struggle with a reduction in their ability to participate in activities they feel are meaningful. Being more accepting seems to help maintain quality of life when this happens.

Based on a review of effect sizes [26], we would describe our observed effect sizes ($r > 0.20$) as moderate in size. Why were the effects not bigger? QOL appears to be determined by many factors, and it is unlikely that any single factor will have a very large effect. Effect sizes like those observed in this study are quite common when dealing with complex social phenomena, with effects between $r = 0.21$ and $r = 0.33$ falling in the middle third of the distribution of published correlation coefficients [26].

The effects were also circumscribed, occurring in the domains of health and productivity. We have already hypothesised that effects do not occur for emotional QOL because of the difficulty in this domain of distinguishing between objective and subjective (and therefore controlling for objective factors eliminates any subjective effects). Interestingly, acceptance was unrelated to the QOL domain ''Intimacy''. We also found this kind of QOL increased with age. Perhaps rather than accepting the loss of intimacy, our participants were able to take action to increase the intimacy of their bonds. Thus, they did not ''need'' to accept the loss.

Concerning QOL around safety issues, acceptance was highly related to objective aspects of safety, but not to the subjective aspects. This finding suggests that when safety is low, people generally have trouble accepting it, regardless of their dispostional level of psychological acceptance. To put this another way, in issues of safety, situational factors (i.e., ''are people living in a dangerous place'') may dominate the dispostional factors.

Finally, there was no link between psychological acceptance and material well-being. Perhaps our sample was in a situation where they had little chance to increase their wealth (being usually retired or only employed part time) and experienced few changes in wealth (age was unrelated to objective indices of material wealth). Perhaps psychological acceptance plays less of a role in domains that are relatively unchanging and that people have had time to adjust to. In contrast, health and productivity levels are likely to be changing amongst some elderly, and in these domains we found a link with psychological acceptance.

Future directions

The present research suggests that psychological acceptance may play an important role in determining elderly subjective QOL in the domains of health and productivity. Two types of studies seem justified in the future. First, longitudinal research should measure QOL and psychological acceptance at multiple time points during old age. This design can help establish whether psychological acceptance proceeds QOL change, or merely co-occurs with such change.

Second, intervention research can seek to increase psychological acceptance and investigate whether this results in increases in QOL amongst the elderly. An intervention like Acceptance and Commitment Therapy [24] seems ideally suited for this population, as it helps people to accept the things they can not change (e.g., age-related decreases in health and productivity) while helping them to stay active and committed to their values. One can administer an intervention like ACT to a group of elderly volunteers, examine whether it increases their levels of psychological acceptance compared to a control group, and determine whether increases in acceptance lead to improvements in QOL. Based on the present data, we would hypothesise that acceptance-based interventions would have their largest effect in helping elderly to adjust psychologically to changing health and productivity.

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