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Marital stability, satisfaction and well-being in old age: variability and continuity in long-term continuously married older persons

Katja Margelisch^{a*}, Klaus A. Schneewind^b, Jeanine Violette^a and Pasqualina Perrig-Chiello^a

^aDepartment of Psychology, University of Bern, Bern, Switzerland; ^bDepartment of Psychology, Ludwig-Maximilians-University of Munich, Munich, Germany

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Objectives: Recent research shows that the well-documented positive effects of marital stability on well-being and health outcomes are conditional upon the quality of marriage.

To date, few studies have explored the relationship between marital satisfaction, well-being and health among very long-term married individuals. This study aims at identifying groups of long-term married persons with respect to marital satisfaction and comparing them longitudinally concerning their well-being outcomes, marital stressors, personality and socio-demographic variables.

Method: Data are derived from a survey (data collection 2012 and 2014) with 374 continuously married individuals at wave 1 (mean age: 74.2 years, length of marriage: 49.2 years) and 252 at wave 2. Cluster analyses were performed comparing the clusters with regard to various well-being outcomes. The predictive power of cluster affiliation and various predictors at wave 1 on well-being outcomes at wave 2 was tested using regression analyses.

Results: Two groups were identified, one happily the other unhappily married, with the happily married scoring higher on all well-being and health outcomes. Regression analyses revealed that group affiliation at wave 1 was not any longer predictive of health, emotional loneliness and hopelessness two years later, when taking into account socio-demographic variables, psychological resilience and marital strain, whereas it remained an important predictor of life satisfaction and social loneliness.

Conclusion: Marital satisfaction is associated with health and well-being in older couples over time, whereas psychological resilience and marital strain are major predictors explaining the variance of these outcomes.

Keywords: marital stability; marital satisfaction; marital status; well-being; old age

Introduction

In research as well as in everyday life a long term and enduring marriage is often considered a major life goal and a key indicator not only for marital success, but also for well-being and health (Proulx, Helms, & Buehler, 2007; Schoenborn, 2004). Marital stability usually indicates increased well-being, whereas marital changes are amongst the most stressful life events (Carr & Springer, 2010; Hughes & Waite, 2009). Although the positive association between stable marital status, well-being and health is well established, recent research suggests that this effect depends primarily on the quality of the marriage and not on marital status per se (Carr, Freedman, Cornman, & Schwarz, 2014). There is a large body of literature on marital satisfaction and well-being outcomes during different stages of marriage. However, little is known on this regard in long-term continuously married older individuals (Acitelli, 1992; Lawrence, Nysten, & Cobb, 2007). Additionally, generalizations drawn from studies with younger persons for older age groups are problematic because of the very different challenges of the specific life stage (Cohen, Geron, & Farchi, 2010; Schmitt, 2000). In older age, developmental and role changes due to the limited future time horizon and the decline of contact with friends and former colleagues may

contribute to a convergence in the salience for marital quality for well-being (Carr et al., 2014).

Therefore, the aim of this study is to identify groups of long-term continuously married individuals in terms of marital satisfaction and to compare them longitudinally with regard to various well-being outcomes, marital stressors, vulnerabilities, adaptive behaviour and socio-demographic variables. Given current trends towards longer life expectancy and considering the increasing divorce rates among older adults, understanding later life, marriage and its impact on mental health is an important pursuit (see also Carr et al., 2014).

Marital stability and marital satisfaction

In the last two decades, a few studies began to address the issue of long-term marriages and marital satisfaction (Charles & Carstensen, 2002; Fine & Harvey, 2013). Some study results revealed a relatively high marital satisfaction in long-term marriages (Levenson, Carstensen, & Gottman, 1993; Schmitt & Re, 2004). It has also been suggested that relationship satisfaction follows a curvilinear pattern over the life course, declining in the earlier years of marriage and increasing through the later years (Charles & Carstensen, 2002). In turn, other study results

*Corresponding author. Email: katja.margelisch@psy.unibe.ch

revealed that marital happiness tends to decline over time, and that marital quality is stronger and consistently associated with age than with marital duration (Umberson, Williams, Pows, Liu, & Needham, 2006). More recent studies suggest that the long-term married are generally very heterogeneous (Kamp Dush & Taylor, 2011), with subgroups reporting a low subjective assessment of relationship quality despite the stability of their relationships (Dubá, Hughey, Lara, & Burke, 2012). These findings demonstrate the potential schism between relationship stability and relationship satisfaction (Hawkins & Booth, 2005). It is also relevant because staying in an unhappy marriage has been shown to be associated with low values in overall happiness, satisfaction with life, self-esteem and health as well as a higher likelihood of various psychological distresses (Hawkins & Booth, 2005).

The relationship between marital satisfaction and well-being: variations and explanations

Marital satisfaction is one of the most important predictors of subjective well-being and health (Diener, 1984; Kamp Dush, Taylor, & Kroeger, 2008). A meta-analysis by Proulx et al. (2007) found that higher levels of marital quality were positively related both concurrently and over time with better subjective well-being, whereas the association was stronger over time for long-term married persons. Inversely, marital problems are negatively associated with lower self-rated health (Hawkins & Booth, 2005; Umberson et al., 2006), lower life satisfaction (Whisman, Uebelacker, Tolejko, Chatav, & McKelvie, 2006), increased depressive symptoms (Walker, Isherwood, Burton, Kitwe-Magambo, & Luszcz, 2013), and more feelings of loneliness (Dykstra & Fokkema, 2007).

Despite empirical evidence for a positive association between marital stability, marital satisfaction and subjective well-being, the effects can vary across individuals, groups and living contexts (Proulx et al., 2007). However, to date, integrative work exploring the contexts and processes that influence marital satisfaction and subjective well-being by taking marital stability into account is rare (for an exception, see Proulx et al., 2007). The present paper intends to address this gap by presenting research framed by an extended vulnerability–stress–adaptation model (Karney & Bradbury, 1995). We extend this model by introducing several well-being outcomes which are thought to be a function of marital satisfaction, but also of vulnerabilities, stressful events and adaptive behaviour.

In this research, we conceptualize *marital satisfaction* as a multidimensional construct encompassing a general measure of partnership satisfaction as well as two domain-specific satisfaction measures: (1) the possibility of individual development and reaching personal goals within the partnership, and (2) sexual satisfaction. Studies consistently demonstrate a positive correlation between marital satisfaction and sexual satisfaction (Heiman et al., 2011; Lindau et al., 2007), as well as the possibility of individual development within the partnership (Brandstädter & Felser, 2003).

Vulnerabilities: personality traits are known to influence relationship satisfaction. A significant body of

research suggests that specific personality traits such as neuroticism may facilitate less adaptive and more problematic behaviours, leading to increased marital discord (Claxton, O'Rourke, Smith & DeLongis, 2013; Jerskey et al., 2010). In turn, especially extraversion was found to be positively associated with positive interactions and with global evaluations of the marriage (O'Rourke, Claxton, Chou, Smith, & Hadjistavropoulos, 2011; Rosowsky, King, Coolidge, Roades, & Segal, 2012). However, since most research has been carried out with younger couples, these findings may not be applicable to older, long-married couples (Parker & Commerford, 2014).

Adaptive behaviour: as an important indicator of adaptive behaviour that emerged in more recent studies is psychological resilience. Psychological resilience refers to the ability to maintain relatively stable, healthy levels of psychological and physical function in the face of stressful events (Bonanno, Wortman, & Nesse, 2004). Although psychological resilience has been reported to be a stress protective factor in marital life (Canary, Stafford, & Semic, 2002; Patterson, 2002) it has hardly been studied in long-term married couples.

Stressful events: apart from marital conflicts, which have deleterious effects on mental and physical health (Fincham, 2003), there is empirical evidence suggesting that a *bad health status* of a partner can be seen as an important risk factor for marital stress (Rapp, 2012), especially in older age groups (Walker & Luszcz, 2009). In general, it has been shown that the association between marital quality and personal well-being is stronger for women than for men (Proulx et al., 2007).

Research questions

- (1) What kind of groups can be identified among long-term continuously married couples in terms of marital satisfaction, sexual satisfaction and satisfaction with development within the partnership?
- (2) What are the differences between the identified groups concerning well-being outcomes (i.e., life satisfaction, depressive symptoms, emotional and social loneliness, subjective health), vulnerabilities (personality traits), and adaptive behaviour (psychological resilience)?
- (3) How stable are well-being outcomes for the identified groups over time (i.e., T1–T2)?
- (4) What is the role of group affiliation at T1 in predicting well-being and subjective health two years later (T2), when considering demographics, vulnerabilities, adaptive behaviour (psychological resilience) and marital stressors (relationship stress and health of partner)?

We expect:

- (1) In accordance with empirical work (Cohen et al., 2010; Wunderer, Schneewind, Grandegger, & Schmid, 2001) at least two different groups with regard to marital satisfaction, namely happily and unhappily married.

- (2) According to the vulnerability–stress–adaptation model, the identified groups differ from each other with regard to the individuals' well-being outcomes, vulnerabilities and adaptive behaviour, i.e. the happily married with the most positive outcomes, less vulnerability (low neuroticism, high extraversion) and better adaptive behaviour, i.e. higher scores in psychological resilience.
- (3) Given the fact that older age is associated with increasing fragility and more stressors and losses, the happily married are better able than the unhappily married to cope with these and to maintain their well-being level over two years.
- (4) Based on hypothesis 3, we can expect that group affiliation at T1 remains a significant predictor of all T2-well-being outcomes even when considering marital stressors, personality traits and demographic variables.

Method

Study context and participants

Data come from a longitudinal survey carried out in 2012 and 2014 in Switzerland.¹ This study aims at gaining insights about intimate relationships and marital break-up in middle and old age (40–90 years old). Participants were recruited using a random sample supplied by the Federal Office of Statistics stratified by age, gender and marital status. In this research, we focus on the subsample of continuously married individuals aged between 60 and 89 and married for at least 40 years. These criteria resulted in a sub-sample of 374 participants surveyed in 2012 (186 women, 188 men, mean age for women and men: 74.34 years; married on average for 49.1 years). Out of this sample, 252 persons (127 women, 125 men) took part at the second survey two years later. The dropout rate at T2 was 33%, (2/3 non-response, 1/3 health problems or change in marital status). There were no significant differences between droppers and completers with regard to sex ($\chi^2(1) = 0.084, p = .77$), and age ($U = 15,252, p = .07$). However, droppers showed higher values of hopelessness ($U = 18,355, p < .05$) and lower values of psychological resilience ($U = 13,079, p < .05$).

Measures

Marital satisfaction: in order to have a comprehensive view of marital satisfaction, a general and two domain specific measures of marital satisfaction were taken into account:

Marital satisfaction was assessed with the 10-item 'Marital Satisfaction Inventory, Revised (MSI-R)' (Klann, Hahlweg, Limbird, & Snyder, 2006; Whisman, Snyder, & Beach, 2009) with answer options (1 = true, 2 = false). Cronbach's alpha was $\alpha = .82$.

Satisfaction with development within partnership was assessed with two self-generated items, the first inquiring whether one could develop according to own wishes, the second whether the partner was supportive of self-

development. The correlation between both rankings was quite strong (Spearman $r = .71, p < .01$). The answers were evaluated on a 5-point scale (1 = yes to 5 = no).

Sexual satisfaction was assessed with a self-developed single item (How satisfied are you with the quality of your sexual relation with your partner?). Responses were evaluated on a 5-point scale (1 = very unsatisfied to 5 = very satisfied).

Well-being and health

Life satisfaction was assessed with the 5-item 'Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; Schumacher, 2003) with answers on a 7-point scale (1 = completely disagree to 7 = completely agree). The Cronbach alpha was $\alpha = .89$.

Hopelessness was measured with the 10-item version of the Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974). Response options range from 'very correct' to 'very false'. Internal consistency was $\alpha = .79$.

Loneliness was measured with the short version of the 'De Jong Gierveld Loneliness Scales' (De Jong Gierveld & Van Tilburg, 2006), which assesses social and emotional loneliness (three items each). The answers are evaluated on a 5-point scale (1 = yes to 5 = no); Cronbach's alpha: social loneliness $\alpha = .81$, emotional loneliness $\alpha = .82$.

Subjective health was assessed with the widely used question, How are you presently doing health-wise? The answer options range from 1 = very good to 5 = very badly.

Enduring vulnerabilities: personality was assessed with the 'Big Five Inventory' (BFI-10, Rammstedt & John, 2007) consisting of two items for each of the five personality dimensions: neuroticism, agreeableness, conscientiousness, openness and extraversion. Items are scored on a scale from 1 = strongly disagree to 5 = completely agree.

Adaptive behaviour: psychological resilience was measured with the brief version of the Resilience Scale (Schumacher, Leppert, Gunzelmann, Strauss, & Brähler, 2005; Wagnild and Young, 1993), a one-dimensional scale consisting of 11 items. Answer options range from 1 = I don't agree to 7 = I agree completely (Cronbach's $\alpha = .81$).

Stressful events: relationship stress was measured by a self-developed item: 'Have you experienced very conflictual times in your relationship?' Responses were evaluated on a scale from 1 = never to 5 = very often. *Health status of the partner* was also assessed through a self-developed item. The answers were scored on a scale from 1 = very well to 5 = very bad (i.e. in need of care).

Socio-demographic variables: the analyses were controlled for respondents' age, gender, education (1 = compulsory school to 3 = university), and self-declared financial situation (1 = I do not have enough money to support myself, to 3 = I have more than enough money to support myself).

Analytical strategy

First, a two-step cluster-analysis based on the three marital satisfaction variables (general marital satisfaction,

development in the relationship and sexual satisfaction) was performed. The method is based on a distance measure that enables data with both continuous and categorical attributed to be clustered (Chiu, Fang, Chen, Wang, & Jeris, 2001). Second, we compared the clusters regarding well-being outcomes, vulnerabilities (neuroticism, extraversion) and adaptive behaviour (psychological resilience). Third, repeated measures analyses of variance (ANOVAs) were computed to test the stability of well-being and subjective health among the clusters over time (group by time interaction). Fourth, using hierarchical regression analyses, we examined the predictive power of group affiliation along with vulnerabilities, adaptive behaviour and marital stressors at T1 on health and well-being at T2. All analyses were carried out using IBM SPSS Statistics 22.0.

Results

Sample description

The study sample consisted of 374 participants at T1 (2012) (186 women and 188 men, average age: 74.2 years, $SD = 7.4$) and 252 participants at T2 (2014) (125 women and 127 men, average age: 76.3 years, $SD = 7.2$). Participants were married on average for 49.2 years ($SD = 5.9$), a majority were Swiss citizens (89%), 95.5% indicated having children, and 96% assessed their financial situation as being sufficiently good.

Cluster analysis and comparison of the clusters

The two-step cluster analysis revealed two distinct clusters. The first included 221 individuals (59% of the sample, i.e. 106 women, 115 men) and the second 153 individuals (41% of the sample, i.e. 80 women, 73 men). Individuals belonging to the larger cluster ('happily married') showed an overall higher marital satisfaction than the smaller one ('unhappily married'), i.e., higher marital satisfaction values ($U = 31,295, p < .001$), higher ratings in development in the relationship ($U = 29,728, p < .001$), and on sexual satisfaction ($U = 25,866, p < .001$) (Figure 1). The groups did not differ regarding age ($U = 17346.5, p = .67$), sex ($\chi^2(1) = 0.676, p = .24$), length of marriage ($U = 8834, p = .06$), education ($U = 16710.5, p = .718$), financial status ($U = 17659.5, p = .10$) and whether or not they had children ($\chi^2(1) = 0.382, p = .60$).

Table 1 shows comparisons between both clusters concerning well-being, health, personality and psychological resilience at T1 and T2. At both time points, the happily married persons rated their health as well as their life satisfaction better than the unsatisfied persons. Members of the happily married cluster additionally reported consistently lower values with regard to hopelessness, social and emotional loneliness. Furthermore, the satisfied persons showed lower values of neuroticism at T1 and higher values of psychological resilience at T2 compared to the unhappily married. However, over time, there is no significant difference in neuroticism values between the happily and the unhappily married persons.

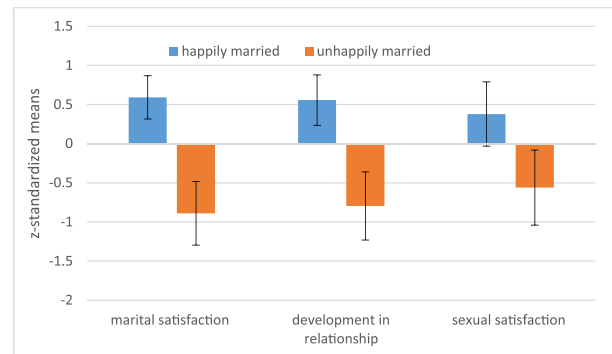


Figure 1. Partnership satisfaction in happily and unhappily married (z-standardized means).

Stability of well-being and health in happily and unhappily married persons

To compare the stability of individuals' well-being and health in both clusters over two years, repeated measures of ANOVA were conducted with time as a within-subject factor and group as a between-subject factor, with the different well-being indicators as dependent variables. The ANOVA investigating differences in *hopelessness* showed a significant effect of group ($F_{1,249} = 16.70, p < .001$; partial $\eta^2 = 0.06$), but no effect of time ($F_{1,249} = 0.02, p = .90$), and no group by time interaction ($F_{1,249} = 3.44, p = .07$). Happily married persons showed less hopelessness than unhappily married persons at both time points.

Upon investigating differences in *life satisfaction*, the ANOVA showed a significant effect of group ($F_{1,246} = 40.96, p < .001$; partial $\eta^2 = 0.14$), but no main effects of time ($F_{1,246} = 1.15, p = .29$) or group by time interaction ($F_{1,246} = 0.09, p = .77$). As expected, happily married persons showed higher life satisfaction than unhappily married persons at both time points.

With regard to *social loneliness*, ANOVA showed a significant effect of group ($F_{1,248} = 13.10, p < .001$; partial $\eta^2 = 0.05$), but no main effects of time ($F_{1,248} = 1.38, p = .24$) or group by time interaction ($F_{1,248} = 0.03, p = .87$). Unhappily married persons consistently showed higher values of social loneliness when compared to happily married persons. Results from the ANOVA with *emotional loneliness* as a dependent variable showed a significant effect of group ($F_{1,237} = 14.91, p < .001$; partial $\eta^2 = 0.06$) and a main effect of time ($F_{1,237} = 4.86, p < .05$; partial $\eta^2 = 0.02$), but no group by time interaction ($F_{1,237} = 0.32, p = .57$). Unhappily married persons showed higher values of emotional loneliness compared to happily married persons at both time points, whereas emotional loneliness increased significantly over time in both groups.

Regarding *subjective health*, results from the ANOVA revealed a significant effect of group ($F_{1,245} = 10.95, p < .001$; partial $\eta^2 = 0.04$), but no main effects of time ($F_{1,245} = 0.88, p = .35$) or group by time interaction ($F_{1,245} = 0.17, p = .68$). At both time points, happily married persons reported better health than unhappily married persons.

Table 1. Descriptives of the clusters at Time 1 and Time 2.

Variables	Happily married <i>M (SD)</i>	Unhappily married <i>M (SD)</i>	<i>U</i>
Subjective health			
Time 1 (<i>n</i> = 374) ¹	3.91 (0.65)	3.62 (0.77)	20.077***
Time 1 (<i>n</i> = 252) ²	3.92 (0.61)	3.62 (0.80)	6.000**
Time 2 (<i>n</i> = 252)	3.89 (0.72)	3.62 (0.68)	6.911**
Hopelessness			
Time1 (<i>n</i> = 374)	2.64 (0.55)	2.98 (0.54)	34.205***
Time 1 (<i>n</i> = 252)	2.61 (0.51)	2.91 (0.50)	9.948***
Time 2 (<i>n</i> = 252)	2.66 (0.58)	2.86 (0.58)	10.822**
Life satisfaction			
Time 1 (<i>n</i> = 374)	5.84 (0.73)	5.26 (0.73)	24.417***
Time 1 (<i>n</i> = 252)	5.85 (0.74)	5.28 (0.76)	4.419***
Time 2 (<i>n</i> = 252)	5.78 (0.84)	5.16 (0.93)	5.100***
Social loneliness			
Time 1 (<i>n</i> = 374)	0.15 (0.27)	0.27 (0.35)	14.033***
Time 1 (<i>n</i> = 252)	0.15 (0.29)	0.28 (0.38)	8.967***
Time 2 (<i>n</i> = 252)	0.13 (0.26)	0.27 (0.40)	10.575**
Emotional loneliness			
Time 1 (<i>n</i> = 374)	0.05 (0.14)	0.16 (0.29)	13.369***
Time 1 (<i>n</i> = 252)	0.04 (0.13)	0.17 (0.31)	9.100***
Time 2 (<i>n</i> = 252)	0.08 (0.20)	0.18 (0.29)	9.943***
Extraversion			
Time 1 (<i>n</i> = 374)	3.27 (1.02)	3.07 (0.95)	18.411
Time 1 (<i>n</i> = 252)	3.27 (1.03)	3.02 (0.92)	6.586
Time 2 (<i>n</i> = 252)	3.39 (0.62)	3.32 (0.72)	8.278
Neuroticism			
Time 1 (<i>n</i> = 374)	2.61 (0.95)	2.82 (0.92)	14.249*
Time 1 (<i>n</i> = 252)	2.62 (0.92)	2.77 (0.89)	8.035
Time 2 (<i>n</i> = 252)	2.97 (0.69)	2.86 (0.67)	7.766
Resilience			
Time 1 (<i>n</i> = 374)	5.56 (0.83)	5.53 (0.94)	15.095
Time 1 (<i>n</i> = 252)	5.63 (0.77)	5.44 (0.87)	6.676
Time 2 (<i>n</i> = 252)	5.39 (0.88)	5.32 (1.00)	7.749*

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, U = Mann-Whitney-U-Test; 1 = sample at time point 1, 2 = sample at time point 1 and 2.

Predicting health and well-being

Hierarchical regression analyses were performed to investigate the contribution of group belonging (happily vs. unhappily married persons), vulnerabilities (neuroticism, extraversion), adaptive behaviour (psychological resilience) and marital stressors at T1 to various well-being outcomes (life satisfaction, emotional and social loneliness, hopelessness), and health at T2. Cluster membership was entered in a first step, followed by demographic variables (age, sex, financial situation; step 2). Vulnerabilities (neuroticism, extraversion) and adaptive behaviour (psychological resilience) were entered in a third step and marital stress (stressful times, partner's health) as step 4.

Table 2 shows the results from the regression analysis with *subjective health* as a criterion. Cluster affiliation at T1 was initially predictive for subjective health two years later. However, the association was attenuated when entering socio-demographic variables, personality and psychological resilience. After controlling for relationship variables, cluster affiliation at T1 did not further add significantly to the prediction of subjective health in T2. In

the final model, explaining 22% of the variance, good subjective health was best predicted by younger age and high psychological resilience, followed by gender (being male), higher extraversion and better health status of the partner.

Regarding *emotional loneliness* (Table 3), cluster belonging accounted for 2% of the variance. However, when personality traits and marital stressors were added, this association disappeared. Higher values of neuroticism predicted more emotional loneliness. None of the other variables exerted a significant effect. With regard to *social loneliness*, cluster membership was a significant predictor (predicting 3% of the variance). All other predictors did not add significantly to the prediction of emotional loneliness.

Cluster belonging initially accounted for 4% of the variance in *hopelessness* (Table 4), however this association was attenuated by entering demographic variables and psychological resilience, and disappeared totally as soon as marital stressors were entered. In the final model, which explained 35% of the variance, high psychological

Table 2. Predictors of subjective health.

Variables	Step 1	Step 2	Step 3	Step 4
Group (unhappily married)	-.178**	-.150*	-.127*	-.062
Gender (male)		.195**	.164**	.142*
Age		-.332***	-.283***	-.255***
Financial situation		-.134**	-.133*	-.107
Resilience			.219***	.211**
Extraversion			.146*	.151*
Neuroticism			.006	.012
Relationship strain				-.069
Health status of the partner				-.159*
<i>R</i>	0.178	0.400	0.475	0.503
Adjusted <i>R</i> ²	0.028	0.146	0.202	0.224
<i>F</i> for change in <i>R</i> ²	7.723**	11.823***	6.433***	4.244*

Note: **p* < .05, ***p* < .01, ****p* < .001.

resilience was the best predictor for lower levels of hopelessness, followed by age (being younger), gender (being male), sufficient financial resources, less relationship stress and a healthy partner.

Finally, with regard to *life satisfaction* (Table 4), cluster belonging initially accounted for 10% of the variance. In the final model, higher levels of life satisfaction were best predicted by higher values of resilience and less relationship stress, followed by cluster belonging (happily married), a good financial situation and good health of the partner. The final model explained 30% of the variance in life satisfaction.

Discussion

Marital quality has far-reaching implications for health and well-being of older adults (Bookwala, 2012). Additionally, self-rated health and well-being have been found to be significant predictors of morbidity and mortality in old age (DaSalvo, Blosler, Reynolds, & Muntner, 2006; Tilvis, Laitala, Routasalo, Strandberg, & Pitkala, 2012).

In this context, the aims of this study were to explore patterns of marital satisfaction in long-term married older persons, and to determine whether marital satisfaction clusters are predictive for well-being and health two years later, taking into account demographics, vulnerabilities, adaptive behaviour and marital stressors. The results of this study support and extend the literature it details in several ways. First, most studies on marital satisfaction and well-being have focused on early years of marriage (Birditt & Antonucci, 2008). In addition, most of the few studies on long-term married persons are cross-sectional (Miller, Hoillist, Olsen, & Law, 2013). To our knowledge, this is the first report which explores contexts and processes influencing marital satisfaction, well-being and health in a larger sample of *very* long-term and *continuously* married persons in an integrative manner.

Upon using empirical clustering procedures, we demonstrated that there is diversity of quality in long-term partnerships. In line with findings by Wunderer et al. (2001) as well as Cohen et al. (2010), there exist clearly definable happily and unhappily married couples in long-term partnerships. As predicted, according to the vulnerability–stress–adaptation model (Karney & Bradbury, 1995), happily married persons showed better health and well-being in comparison with unhappily married persons at both time points. The protective effects of high-quality marriages are widely documented (Carr et al., 2014; Umberson et al., 2006). A meta-analysis from Robles, Slatcher, Trombello, and McGinn (2014) found that greater marital quality was related to better health, regardless of study design, marital quality measure and year of publication. In contrast, marital unhappiness may signal a failure of the marriage to meet emotional and other needs for one or both spouses, resulting finally in distress and disappointment (Waite, Luo, & Lewin, 2009).

Because of the cumulative influence of related stress variables in unhappy marriages, we expected a higher stability in well-being outcomes for the happily married over two years. However, the differences between happily and unhappily married persons concerning health and

Table 3. Predictors of emotional and social loneliness.

Variables	Emotional loneliness				Social loneliness			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Group (unhappily married)	.160*	.153*	.146*	.088	.187**	.187**	.176*	.139*
Gender (male)		-.056	-.042	-.014		-.041	-.028	-.016
Age		-.099	.054	.045		-.039	-.065	-.083
Financial situation		-.007	-.014	-.014		.116	.114	.101
Resilience			-.131	-.120			-.108	-.103
Extraversion			-.075	-.071			-.117	-.122
Neuroticism			.140*	.137*			.065	.060
Relationship strain				.115				.027
Health status of the partner				.100				.101
<i>R</i>	0.160	0.190	0.271	0.310	0.187	0.227	0.278	0.295
Adjusted <i>R</i> ²	0.021	0.019	0.045	0.060	0.031	0.035	0.049	0.051
<i>F</i> for change in <i>R</i> ²	6.093**	0.835	3.028*	2.786	8.538**	1.336	2.115	1.215

Note: **p* < .05, ***p* < .01.

Table 4. Predictors of hopelessness and life satisfaction.

Variables	Hopelessness				Life satisfaction			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Group (unhappily married)	.200**	.171**	.148*	.068	-.316***	-.302**	-.282***	-.180**
Gender (male)		-.209**	-.165**	-.128*		.191**	.155*	.103
Age		.346***	.220***	.205**		-.136*	-.049	-.039
Financial situation		.202**	.185**	.149**		-.223***	-.215**	-.169**
Resilience			-.376***	-.362***			.588***	.269***
Extraversion			.032	.037			.006	-.007
Neuroticism			.073	.067			.018	.011
Relationship strain				.153**				-.229***
Health status of the partner				.143*				-.155*
<i>R</i>	0.200	0.446	0.578	0.614	0.316	0.426	0.507	0.275
Adjusted <i>R</i> ²	0.036	0.185	0.314	0.352	0.096	0.167	0.234	0.304
F for change in <i>R</i> ²	9.762**	15.352***	15.490***	7.722**	21.919***	7.657***	7.708***	12.421***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

well-being remained the same during the investigated time period. It is possible that two years is a too short period to see different trajectories of well-being in low- and high-quality marriages. A new survey in 2016 (T3) will give us further insights into the development of physical and psychological outcomes associated with marital quality.

Nevertheless, as we expected, group affiliation (happily vs. unhappily married) at T1 remained a significant predictor of well-being and health when considering demographics, personality traits and adaptive behaviour. In long-term marriages, when the future time horizons of the spouses become more limited and individuals' extended friendship networks may diminish (Dykstra & Gierveld, 2004; Kulik, 2002), spouses may grow increasingly and co-reliant on one another, and therefore marital quality plays a very significant role for their overall well-being (Proulx et al., 2007) and health (Robles et al., 2014).

Interestingly, as relationship strain and health status of the partner also were taken into account, marital quality no longer made a significant contribution to the prediction of hopelessness, emotional loneliness and subjective health, whereas marital quality remained a significant predictor of social loneliness and life satisfaction. However, marital strain often becomes a chronic stressor which could have a cumulative effect on health over time (Umberson et al., 2006), conceivably causing issues with tissue and organ systems as well as potentially altering the progression and development of disease (Robles & Kiecolt-Glaser, 2003). Additionally, marital distress has both concurrent and longitudinal associations with psychological distress (Proulx et al., 2007). In contrast, marital support may serve as a buffer against the impact of a variety of stressors on health behaviours and also increase personal resources like self-regulatory capacity and resilience (DiMatteo, 2004).

In our data, psychological resilience was associated with better health, less hopelessness and more life satisfaction after two years. According to the findings of Ong, Bergeman, Bisconti, and Wallace (2006), higher levels of trait resilience seem to be associated with more positive and less negative emotions. This effect was shown to be particularly evident on days characterized by heightened

stress, possibly evoked by poor health of the partner or marital strain. Psychological resilience and personality traits play an important role in the emotional regulation of couple interactions and are also viewed as key factors in links between marital quality, well-being and health (Iveniuk, Waite, Laumann, McClintock, & Tiedt, 2014; Snyder, Simpson, & Hughes, 2006). Our findings showed that extraversion predicts better health and that neuroticism is associated with greater loneliness two years later. Neuroticism appears to be a particularly problematic factor in marital stability (Schmitt, Kliegel, & Shapiro, 2007). Based on the long-term marriage in our sample and the lack of major personality trait differences between happily and unhappily married individuals, it is unsurprising that personality traits made only a limited contribution to well-being and health values two years later.

Whereas in other studies, the association between marital quality and subjective well-being is typically stronger among women than men (Bookwala, 2012; Whisman, 2001), gender revealed mixed results in predicting well-being two years later in our study. Developmental and role shifts over the course of an individual's life may contribute to a convergence in the salience of marital quality for husbands' and wives' overall well-being. Previous studies with young couples or those with children still living at home demonstrate a strong association between marital quality and well-being among woman relative to men (Bookwala, 2012; Whisman, 2001), which may reflect distinctive aspects of marital roles for relationships in young and mid-adulthood. These analyses do not reflect distinctive aspects of older adults' social roles, relationships and psychological development. Our findings are in line with Carr et al. (2014), who also found that the magnitude of the associations between marital quality and well-being might not necessarily differ significantly by gender.

Despite various strengths of this study, there are still some limitations to be considered. First, self-reported data are well known to have severe limits, especially when individuals are reporting highly personal material. Second, the omission of a complete partnership perspective,

given that only one partner answered the questions and not both partners as a couple, has the consequence that there is no possibility to explore associations among own, spouse's and combined appraisals of marital quality. However, there is some evidence that marital quality assessments of partners are typically correlated (Bulanda, 2011; Carr & Boerner, 2009). Happily married persons may be motivated to provide support and encouragement to their partners, thereby enhancing the happiness and well-being of their partner. Thus, one partner's marital (dis)satisfaction may be linked to the emotional well-being of the other (Carr et al., 2014).

Notwithstanding these limitations, our findings could be relevant to researchers and clinicians in different ways: First, our study provides a usefully broadened framework, based on an extended vulnerability–stress–adaptation model, for refining theories of how marital quality impacts health and well-being in short- and long term. Second, and even more importantly, our results show the potential for improving marital relationships by relationship education interventions (e.g., by promoting strengths of the partnership, improving interaction and effective communication) and by fostering resilience.

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