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Original Article

Are Daily Stressors Associated with Happiness in Old Age? The Contribution of Coping Resources

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SUMMARY

Background: Investigating happiness among older adults is critical for enhancing quality of life among this growing segment of the population. Based on the stress, appraisal, and coping model, the present study examined how daily stressors and coping resources (optimism and social support) are related to happiness among older adults.

Methods: This cross-sectional study was conducted in Israel between February–July 2018. Participants were recruited through Internet forums and through direct contact with participants at meeting places for older adults. A convenience sample of 114 older adults completed measures of daily stressors, optimism, social support, happiness, and socio-demographic questionnaires. A hierarchical multiple regression was calculated with happiness as the dependent variable.

Results: Happiness score was relatively moderate (Mean = 4.26, SD = 0.72, Range 1–7). In the regression model, after controlling for demographic variables, optimism and social support explained 58% of the variance in happiness. Optimism and social support also mediated the relationship between daily stressors and happiness. However, these two coping resources did not moderate the relationship between daily stressors and happiness.

Conclusion: The study's findings indicate that improving happiness should be identified as a target for older adults and should be recognized as a crucial need. Our findings suggest that psychosocial interventions targeting coping resources may help older adults improve their happiness. In particular, these interventions should concentrate on helping older adults reinforce their optimism and social support.

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1. Introduction

Happiness is defined as the subjective expression of personal welfare, which includes evaluation of one's own emotional state and one's satisfaction with life.¹ To date, various studies have examined happiness factors among older adults. For example, depression, physical activities and religion were found to be associated with happiness.² Nevertheless, although happiness is likely to involve numerous associated interacting factors,³ to our knowledge, no study to date has used a theoretical framework to examine this construct among older adults. In an attempt to overcome this shortcoming, this study used the stress, appraisal, and coping model (SAC)⁷ as a conceptual framework to examine happiness among this population.

According to the SAC,⁴ stress arises when individuals experience certain situations as threatening or demanding and feel they lack the appropriate skills and coping resources to handle such situations. The psychological outcome of stressful encounters is determined by a combination of the nature of the stressor, the appraisals of the stressor, and the individual's resources.

In this study, we examined daily stressors, defined as events

that arise in the day-to-day lives of older adults.⁵ These stressors are related to changes of lifestyle and financial status after retirement; deterioration of physical and mental abilities and chronic illness; caring for sick spouses, etc.⁶ Daily stressors can accumulate over days to create persistent overloads that may result in more negative affect, physical health symptoms and memory failures.⁷ Indeed, such stressors have been found to cause psychological distress, impede well-being, and have negative physical and mental health outcomes among older adults.⁸ Individual differences in exposure and reactivity to stressors likely contribute to the variance in older adults' physical and mental health problems.⁷ Despite their daily presence, no study to date has examined whether these stressors are associated with happiness among older people. The current study intends to address this gap in knowledge.

According to the SAC,⁴ perceptions of daily stressors are associated with coping resources, which play a role in mediating/moderating how stressful events are perceived and their outcome. *Coping resources* are relatively stable characteristics of a person's disposition and of the environment. They refer to the individual's available resources, which can be called upon to cope with stressful events.⁹ Coping among older adults is contextually influenced mainly by immediate appraisals and the characteristics of stressors at a particular point in time.^{10,11} In this study, we examined optimism (an internal resource) and social support (an external resource), two

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coping resources that have consistently been found in the literature to be related to happiness.³

Optimism is defined as the hope that something good is going to happen in the future.¹³ It can be characterized as a cognitive construct that has emotional overtones and motivational implications.¹² *Social support* is defined as the knowledge that one is cared for and is part of a social network of people who are concerned with one's safety.¹³ Optimism and social support may have a buffering or moderating effect on the relationship between stress and well-being. According to the stress-buffering effect hypothesis, optimism and social support positively influence well-being by protecting people from the pathogenic effects of stressful events.¹⁴ This study has two main research questions: 1. Is there an association between daily stressors, optimism, social support and happiness among older adults? 2. Are optimism and social support directly and indirectly affect the association between daily stressors and happiness among older adults?

2. Methods

All the measures were previously translated into Hebrew and found to have good internal reliability.

2.1. Measures

2.1.1. Dependent variable

Happiness was measured using the 29-item self-rated Oxford Happiness Questionnaire.¹⁵ Participants indicated the extent to which they agreed or disagreed with each item on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Mean score was calculated; a high score indicated greater levels of happiness (Cronbach's $\alpha = 0.92$).

2.1.2. Independent variables

Perceived daily stressors were assessed using the Belsky et al.¹⁶ adaptation of the Daily Hassles measure. The adapted measure contains 26 items addressing specific everyday stressors. Participants were asked to indicate whether they are bothered (yes = 1) or not bothered (no = 0) regarding each item. The index score was calculated as the sum of the answers (Cronbach's $\alpha = 0.85$).

Optimism was assessed using the 7-item Life Orientation Test.¹⁷ Participants indicated the extent to which they agreed or disagreed with each item concerning optimism on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Mean score was calculated; a high score indicated greater levels of optimism (Cronbach's $\alpha = 0.74$).

Social support was assessed using the 12-item Multidimensional Scale of Perceived Social Support.¹⁸ Participants indicated the extent to which they agreed or disagreed with each item on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Mean score was calculated; a high score indicated greater levels of perceived social support (Cronbach's $\alpha = 0.92$).

Sociodemographic details included age, gender, marital status (married/not married), place of birth (Israel/other), number of children, education (less than 12 years/more than 12 years), and income (above or below the average income in Israel).

2.2. Procedure

This cross-sectional study with occasional sampling was conducted in Israel between February–July 2018. Participants completed the questionnaires via e-mail ($n = 50$) or in hard-copy format ($n = 64$). Inclusion criteria for the study were individuals aged 65+

Hebrew speakers with no cognitive deterioration. Exclusion criteria were responses to the items in a similar pattern or not filling the whole questionnaire ($n = 7$). Participants were recruited through Internet forums dealing with old age. Regarding the hard-copy format, the study's PIs made direct contact with participants at meeting places for older adults, and asked potential participants to complete the questionnaire. Participants were not asked to provide any identifying information and they provided verbal consent to participate. No differences between the two modes of completion emerged in either the participants' background characteristics or the research variables. The study protocol was approved by the Bar-Ilan University Ethics Committee. Participants were promised anonymity and voluntary in participation. The sample size was calculated for multiple regression: 15 participants for each independent variable.¹⁹ This study has 3 independent variables and 2 demographic variables. Therefore, the sample size was designed to include a minimum of 75 participants. There was no sampling frame used to recruit specific participants. Instead, the survey remained available to all older adults according to the inclusion criteria, in order to collect a sizeable sample to explore the included measures.

2.3. Statistical analyses

Data were analyzed using SPSS. Descriptive statistics were used to describe the participants' demographic characteristics and the research variables. Pearson correlations were calculated to assess the associations among the research variables. A hierarchical multiple regression was calculated. The independent variables and the moderators underwent mean centering before they were entered into the analyses. Mediation effects were estimated using the PRO-CESS macro for SPSS.²⁰

3. Results

3.1. Participants

The study included 114 older adults. Participants' mean age was 71 (SD = 4.16) years. The majority were married (57.9%) women (71.1%) who had an average of 2.76 (SD = 1.51) children. About half were born in Israel. The majority (68.4%) did not have an academic education and about half assessed their income as above average (Table 1).

Table 1
Participants' characteristics ($N = 114$).

Socio-demographic characteristics	
Mean age (SD), range	71.29 (14.16), 65–90
Marital status (%)	
Married	66 (57.9)
Not married	48 (42.1)
Gender (%)	
Male	33 (28.9)
Female	81 (71.1)
Place of birth (%)	
Israel	63 (52.9)
Other	52 (47.1)
Mean number of children (SD), range	2.76 (1.51), 0–11
Education (%)	
Academic	36 (31.6)
Not academic	78 (68.4)
Income (%)	
Below average	54 (47.8)
Above average	60 (52.2)

3.2. Study's variables

The mean happiness score was 4.26 (SD = 0.72) on a scale of 1 to 7, indicating that the happiness score was relatively moderate. The mean daily stressors score was 8.19 (out of 26). In addition, participants reported relatively high levels of optimism (M = 3.80, SD = 0.71, range-1–5) and social support (M = 5.29, SD = 1.38, range-1–7).

3.3. Correlations amongst variables

Positive associations emerged among happiness, optimism and social support and negative associations emerged between happiness and daily stressors. Negative associations were found among daily stressors, optimism and social support. Optimism was positively associated with social support.

Happiness was higher among married participants (M = 4.44, SD = 0.68) than among unmarried participants (M = 4.09, SD = 0.73) ($t(112) = 2.62, p < .01$). Education was significantly associated with happiness ($r = 0.36; p < 0.05$), as was income ($r = 0.43; p < 0.01$). Age was not associated with happiness. No significant differences in happiness were found between men (M = 4.30, SD = 0.77) and women (M = 4.29, SD = 0.70) ($t(112) = 0.09, p > .05$), and no significant differences in happiness were found between participants who were born in Israel (M = 4.66, SD = 0.95) and those who were not born in Israel (M = 4.61, SD = 0.95) ($t(112) = 0.11, p > .05$). Having children was not related to happiness.

3.4. Hierarchical multiple regression analysis for identifying happiness correlates

Given the high correlation between education and happiness ($r = 0.56; p < .001$), we included only income in the regression analyses. Thus, analyses were calculated while controlling for marital status and income. 20% of the variance in happiness was explained in the first equation, with income emerging as significant. Variables in the next equation added an additional 8% to the explained variance in the dependent variable, with income and daily stressors emerging as significant. Namely, higher levels of income and lower levels of daily stressors were related to higher levels of happiness. In the third step, optimism and social support added 30% to the explained variance in happiness. That is, higher levels of optimism and higher levels of social support were related to higher levels of happiness. The interaction between daily stressors and optimism was added in the fourth step, and the interaction between daily stressors and social support was added in the fifth step. Neither of these last two steps revealed an interaction effect. Namely, the moderator analyses failed to yield significant findings.

3.5. Mediating effects of optimism and social support on the associations between daily stressors and happiness

As can be observed in Table 2, a statistically significant mediation effect was found, with optimism and social support serving as variables mediating between daily stressors and happiness. That is, having fewer daily stressors was related to higher optimism and

higher social support, thereby leading to greater happiness.

4. Discussion

Similar to the findings of previous studies conducted in other countries such as Turkey²¹ and Iran,³ the happiness level in the current sample was relatively moderate. Given that happiness has been found to be a crucial need for older adults and an indicator of successful aging,²² the current study's findings indicate that improving happiness should be identified as an important target for older adults and should be recognized as a crucial need by professionals, researchers, and policymakers worldwide.

However, despite the finding that participants reported only a moderate level of happiness, Israel was ranked 13 out of 156 nations in the annual United Nations World Happiness Report,²³ indicating a high level of happiness among Israelis. On the one hand, Israel's traditional society, its strong sense of unity and family, and its social resilience may serve as possible explanations for the study's findings.²⁴ On the other hand, half of the research population in the current study was comprised of older immigrants, who tend to be more depressed and whose quality of life, life satisfaction and sense of happiness are lower than the general population.²⁵ Previous studies^{26,27} provide another possible explanation for the mediocre happiness levels found in this study. For example, it was found that even though older adults experience fewer daily stressors, they respond with higher negative affect than do younger adults, which in turn influences their level of happiness.²⁷

In the current study, higher levels of happiness were associated with lower perceived daily stressors, as supported by previous studies.²⁸ This association is in accordance with the SAC⁴ as well as with previous studies on stress situations.²⁹ Challenge appraisals occur when individuals perceive they have the ability to control a situation, such as daily stressors.¹⁴ In such cases, people expect positive outcomes¹² and perceive the stressful situation as an opportunity for growth and development.⁴

The present results are cross-sectional and thus cannot explain the causes of happiness. However, they do suggest a pathway for the development of happiness among older adults. When demographic variables were controlled for, the associations between perceived daily stressors and happiness were no longer significant while higher levels of optimism and social support were associated with higher levels of happiness. This finding is in line with previous studies claiming that greater optimism and perceptions of an adequate social support network can attenuate a decline in happiness.³⁰

Our findings indicate that optimism serves as a mediator between daily stressors and happiness among older adults. This finding reinforces other studies which found that the resource of optimism is a protective factor which serves as a mediator between stress and a sense of happiness and satisfaction in life (e.g.,³¹). These findings also support the approach stating that optimism is a personal resource perceived as a fixed personality attribute that continues throughout life.¹² This view is in line with the salutogenic model.³² This model sees factors that support stress resistance as resources that do not change, but rather remain with the individual throughout life. Optimism is an especially important resource in old age,

Table 2
Mediating effects of optimism and social support (N = 114).

Type of effect	Effect	Boot SE	BOOTLCI	BOOTULCI	p value
Direct, daily stressors on happiness	-.002	.009	-.020	.016	0.83
Indirect, optimism as a mediator	-.008	.004	-.020	-.002	0.04
Indirect, social support as a mediator	-.023	.007	-.038	-.012	0.03

when the individual must cope with life events and stressors on a daily basis.³³

The external resource of social support was also found to serve as a mediator between daily stressors and happiness. This finding is consistent with other research indicating that stable sources of social support are important for older people.³⁴ Moreover, positive social interactions with family and friends were associated with fewer depressive symptoms, suicidal ideation, and suicide attempts.³⁵ These social interactions become especially important in old age because older adults tend to rely more heavily on peer social networks.³⁴ A study conducted among 163 adults aged 65 and above found that social support served as a mediator between stress and mental health. When older adults have more opportunities to interact with someone they trust, they feel less lonely.³⁶ This finding reinforces the importance of social support and the potential impact of loneliness during old age.

The moderator analyses we conducted failed to yield significant findings, suggesting that although optimism and social support are important predictors of happiness, they are not necessarily able to counteract the power of the association between daily stressors and happiness.³⁷ This finding contradicts other findings indicating that optimism and social support have a moderating influence on perceived stress, emotional distress and satisfaction (e.g.,³⁸). A possible explanation for the finding in the current study is that we examined perceptions of social support rather than the number and quality of the older participants' social connections.³⁹ However, as we were unable to find any interaction among the study variables, the question of whether optimism and social support serve as moderating factors between daily stressors and happiness remains to be addressed in future studies.

This study has limitations. The fact that we employed a convenience sample limits the generalizability of the results. Nevertheless, the use of several sources for recruiting participants provides some indication of the sample's representativeness. Another limitation is the study's cross-sectional nature, which does not allow for drawing conclusions about either the direction of the relationships among the variables or about causality. Longitudinal studies with larger groups of participants are needed to provide a better understanding of the nature of the associations linking daily stressors, coping resources and happiness across time. Another limitation is that additional causes of stress (e.g., chronic physical and mental illness) were not controlled in the current study. It is suggested that future studies will include these stressors.

Despite these limitations, this study is the first to examine the associations linking daily stressors, coping resources and happiness among older adults, based on SAC.⁴ Although future work is needed to clarify the role of these factors among older adults across time, the results of the current study are encouraging. Our findings bring new knowledge to improve population health policies and programs for older adults as they suggest paths through which happiness can be enhanced among this population. According to our findings, psychosocial interventions targeting coping resources may help older adults experience higher happiness levels. In particular, these interventions should concentrate on helping older adults reinforce their optimism and social support. For example, cognitive-behavioral therapy methods or positive-psychology methods were found to increase optimism by encouraging individuals to focus more on the positive aspects of their life.⁴⁰ In addition, the high number of daily stressors experienced by this population group underscore the need for specific psychosocial interventions to help them cope with these stressors over the years, thereby boosting their feelings of happiness.

Conflicts of interest

Author(s) declared no potential financial and non-financial conflicts of interest.

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