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Abstract and executive summary

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Abstract

Objectives: One of the major challenges of aging societies is to reduce the years of living with disabilities by maintaining elders' health and independency in the later years of life. The purpose of this study was to investigate the part that the aged individual plays in addressing this challenge and achieving successful aging by examining the effects of various psychosocial resources that people accumulate over the course of their lives and the coping patterns they use, when confronted with decline in health and/or functioning.

Methods: Data were collected from 249 elders aged 75+ at baseline by structured interviews. After one year, 199 of the participants were interviewed again using the same questionnaire. The questionnaire included indicators of well-being to evaluate successful aging, personal resources (self-efficacy, loss-based self-efficacy, social support, education and economical status), proactive and reactive coping patterns, and socio-demographic variables. **Findings:** Over one year, decline in health/functioning was detected among 117 of the participants (59%). Significant correlations were found between the decline in health/functioning and a decline in well-being - the steeper the deterioration in health/functioning, the worse was the reported level of well-being. Significant correlations were found between self-efficacy and loss-based self-efficacy, and social support and most of the studied indicators of well-being - the higher the scores on the resources, the higher were their scores on well-being. Results of the final multivariate analysis indicated that the only significant variables predicting decline in health/functioning were: social support, gender, proactive coping of planning for the future, and the reactive coping of goal reengagement.

Conclusions: The group of elders aged 75+ is at high risk for decline in health and functioning, and such a decline has a negative effect on elders' well-being. However, their well-being is also positively influenced by proactive and reactive coping patterns. Therefore, we recommend implementing frequent follow-up examinations in order to detect new risk factors and decline in health/functioning at an early stage, and provide the appropriate interventions for maintaining and enhancing elders' health and functioning for as long as possible within the framework of multidisciplinary centers for the aged.

Executive Summary

Introduction: The global increase in longevity and in the proportion of old age groups in the populations of most nations create new needs and challenges on the personal, familial and societal levels. One of the main challenges, with significant implications on all levels, is to reduce the years of living with disabilities by maintaining and enhancing independency and quality of life in the later years of life.

Objectives: The purpose of this study was to examine the part that the aged individual plays in shaping his future and the course of his life in later years. The study examined the contribution of various resources that people accumulate over the course of their lives, and the coping patterns they adopt in order to achieve successful aging when challenged with a decline in health and function, as ultimately occurs in old age. The uniqueness of this study is its focus on two different coping patterns that may be differentiated from one another by a time axis: *Proactive coping*, which precedes the decline in health and functioning and constitutes preparation for potential scenarios of loss of health and functioning in later years, and *reactive coping*, which comes into play following such losses.

The study's hypotheses focused on the negative associations between a decline in health and/or functioning and successful aging, the positive associations between coping patterns and successful aging, the positive associations between various resources and coping patterns, and the long-term influence of personal resources and coping patterns on successful aging in the presence of a decline in health and function as occurred over the course of one year.

Methods: We assumed that among people aged 75 and over, a significant portion will experience a decrease in health and/or physical functioning over the course of one year. Based on this assumption, we randomly sampled people aged 75 and over, living in two Israeli towns (Bat-Yam and Rishon-Letzion) from the lists of Macabbi Health Services. Altogether 249 persons participated in the baseline stage (Time 1) after a process of selection according to age, independency in daily functions, mental competence and being able to respond to questions in Hebrew or in Russian. The attrition was 47%. After a year, (in Time 2), we were able to interview 199 participants, since 20 percent of the participants in the original sample were not able or willing to participate.

The participants were interviewed at their homes by skilled interviewers. The interviews were based on structured questionnaires composed of closed questions. Most of the tools used in this study are well established in the literature. Some of them were translated into Hebrew according to the acceptable research methodology, and a small number of tools were built especially for this study.

The dependent variable was *successful aging*, measured by indicators of well-being including morale, satisfaction with life, happiness, the will to live, mood, and a composite score of all of these factors.

The study included three groups of independent variables: Decline in health and functioning, personal coping resources and patterns of coping behavior. *Decline in health and functioning was assessed by*: Self-evaluation of health, self evaluation of change in health in the last year, hearing and seeing capabilities, and by the reported number of chronic diseases and number of symptoms. Functioning was assessed by measures of ADL and IADL and part of the Sf-36. The total sample was divided into two groups according to whether deterioration in health and/or functioning occurred during the study year. The group of people who did not experience deterioration included 77 persons and the group of people who experienced either deterioration in health or functioning included 117 persons. *Personal resources* included economic status, education, *self-efficacy* (the perception that one is able to cope with difficulties and that a person's actions are responsible for good outcomes), *loss-based self-efficacy* (the perception that one is able to cope with a decline in health and functioning - a tool especially developed for this study), and two measures of *social support*. Two groups of measures were used to assess patterns of *reactive coping* and *proactive coping*. *Reactive coping* was measured by means of 2 different scales: 1. Freund & Baltes' *Selection-Optimization-Compensation* (SOC) scale (2002), and 2. Worsch et al's *Goal-Management* scale (2003), which includes the dimension of disengagement from goals no longer attainable and the dimension of goal reengagement. *Proactive coping* was evaluated by two scales: 1. Sorensen & Pinquart's *Preparation for Future Care Needs* (PFCN) scale (2001), within which 2 dimensions were differentiated by factor analysis: proactivity, indicating awareness and expectation of possible future losses and taking actions representing preparation for such losses, and a dimension of avoidance of proactivity that represents avoidance of such actions. 2. Friedman et al's *Long-Term Care Planning* scale (LTCP) (2004), which primarily addresses thought and planning for the future. The questionnaire also included socio-demographic variables (age, gender, number of children, marital status, place of residence, primary profession, employment status, volunteering, and degree of religious observance.) All variables, except the socio-demographic variables, were evaluated twice, at baseline and after a year.

Main findings and conclusions: Most of the results support our hypotheses: Statistically significant linear correlations were found between all the scores on health and functioning and the scores on all measures of well-being in the expected direction. That is, the better the health and/or functioning, the higher the level of reported well-being. In addition, significant correlations were found between a decline in health/functioning and a decline in well-being - the steeper the deterioration in health/functioning, the worse was the reported level of well-being. The group of persons that experienced a decline in health/functioning had significantly lower scores on all measures of well-being in comparison to the group that did not experience deterioration in health/functioning.

Regarding personal resources, in the group that experienced a decline in health/functioning, significant correlations were found between self-efficacy and loss-based self-efficacy and most of the studied indicators of well-being, so that the higher the scores on both measures of self-efficacy the higher were their scores on well-being. Social support was also found to correlate positively with well-being. Economical status and level of education had significant associations only with some of the indicators of well-being. The correlations among the different patterns of coping and well-being were not systematically significant and much weaker than the correlations between personal resources and well-being. However, significant correlations were found between resources and both patterns of coping, especially between self-efficacy and loss-based self-efficacy, social support and education and proactive and reactive coping patterns. The correlations between resources to reactive coping were positive, that is, the more people felt capable of dealing with difficulties and losses in health, the more they reported using reactive coping behavior. However, the more people reported feeling capable of dealing with difficulties, and the higher was their level of education, the less they reported being involved in proactive coping such as planning for difficulties in the future. These conclusions were also supported by a series of multivariate analyses conducted on coping resources as dependent variables and personal resources as independent variables.

In order to assess the predictive power of the various personal resources and coping patterns of successful aging, a multivariate linear regression analysis was conducted on the dependent variable of general well-being (using a stepwise procedure) in the group that experienced a decline in health/functioning. The independent variables included: A decline in health, a decline in functioning, gender, which was significantly related to all scores of well-being with lower scores for women, all the resources, and coping patterns. The results indicated that the only significant variables in order of importance were: social support, gender, proactive coping of planning for the future, and the reactive coping of goal reengagement.

The conclusions drawn from these findings are that a decline in health and functioning has a negative effect on well-being. However, elderly people’s well-being is also positively influenced by proactive and reactive coping patterns.

Recommendations: In order to address the challenge of maintaining health, functioning and well-being in the third and fourth age, it is important to increase awareness of the fragility of adults aged 75 and over, and invest in prevention of decline in their health, functioning and well-being. On the level of health, functioning and nutrition, it is important to conduct frequent follow-up examinations in order to detect as early as possible, risk factors and decline, and enact programs for maintaining and enhancing health and functioning. Some of these interventions can be implemented by medical surveillance, medications and treatment, and others through education and training programs on

nutrition, physical activity, and methods for strengthening self-efficacy and using appropriate coping behaviors. In order to reduce cost, many of these interventions can be introduced in the existing social clubs, day-care centers, sheltered houses, and supportive communities. In addition, because most of the elderly do not use these facilities, it is important to create new attractive sites to encourage more of the aged population to participate in preventive activities. Such interventions are mostly performed in groups, which serve a dual function by also becoming support groups.

We recommend conducting a pilot study which will include a multidisciplinary program in which theory and practice will be combined in interventions to promote health, functioning and well-being. Such programs are described in the existing literature, with reported proven contributions to improved abilities for dealing with age-related losses.

We also recommend performing on-going surveillance by multidisciplinary teams of professionals in centers providing comprehensive evaluation and treatment. In such centers, old persons will have to go through a comprehensive evaluation, followed by a treatment program designed to meet each person's specific needs. Some similar centers, which focus on medical aspects, have been established by some sick funds. Despite the expensive costs of such centers, if managed effectively and efficiently by qualified and updated professionals, they will lead to longer years of independency and high quality of life for the elders. Such achievements will have positive outcomes for the society at large as well, including family members who will be less involved in care-giving, and the workforce which will benefit from less absenteeism from workplaces due to care obligations. In addition, all of these achievements will result in significantly reduced expenses for the elders and their families, medical and welfare services, and the society at large.

The purpose of the study was to examine the factors affecting successful aging on the personal level. However, the conclusion and recommendations to initiate regulated interventions reconnect the individual to society and express the approach that a person does not have to age alone. In the same way that society prepares its members through socialization processes to enter social roles along the whole life course, from childhood to adulthood and retirement from work, it should also assist them in entering the roles of aging and developing capabilities to deal with losses in their later years.