

**Stress and Well-Being Among the Elderly:
The Effect of Social and Recreational Services**

Tanya R. Fitzpatrick, D.S.W., R. N.
Boston College Graduate School of Social Work

Statement of the Research Problem

Little attention has been given to the effect of recreational services on reducing the impact of stress among frail elders. The purpose of this research was to assess whether recreational services buffer the impact of stress on the well-being of noninstitutionalized frail elderly. Two samples were drawn based upon a functional assessment as measured by an activities of daily living (ADL) scale from the Study of Older People in Cleveland, Ohio. Multiple regression equations were utilized for each group to determine whether the effects of stress were reduced by participation in recreational services. The results revealed that recreational services mediated and buffered the level of stress among both groups of elderly people. However, the more impaired ADL group benefitted the most. Implications for practice and future research are discussed.

Given the increasing aged population, and therefore the increasing number of frail elderly, the task of maintaining elderly persons in the community requires specific social supports to minimize dependence and to assist in the promotion of well-being. The study of social supports, life stress, and well-being has been a major topic for research in the field of gerontology in recent years. Such research is important, as the results can influence and improve future well-being and life satisfaction among the frail and disabled elderly.

The population of persons in the USA age 65 and over will increase from 26 million to 52 million between 1985 and 2020, and 85 percent of this age group have at least one chronic condition (Osberg et al., 1987). A large percentage of elderly individuals are functionally competent; however, the number of those who require assistance with activities of daily living (ADL) "doubles with each successive decade up to age 84, and triples between 85 and 94" (Almy, 1988, p. 70).

The purpose of this research was to examine whether recreational services reduce or buffer the negative and harmful impact of stress on the well-being of noninstitutionalized elderly. Based on a study conducted in Cleveland, Ohio, two groups of elderly persons were utilized in the analysis: those with good to excellent functioning on activities of daily living (the good ADL group), and those with mild to total impairment on ADL (the poor ADL group). The use of recreational services may serve as a buffer or a mediator against stress and serve to enhance feelings of well-being and self-worth among elderly people with ADL limitations and impairment.

Research Background

Many studies have indicated that functional ability declines with age (Haug & Folmar, 1986; Kane, Saslow, & Brundage, 1991); Logue, 1990; Osberg et al., 1987). This can lead to stress, isolation, and other harmful effects associated with the impact of physical impairment (Krause & Tran, 1989). Activities of daily living represent basic responsibilities and duties that comprise the individual's daily functioning, such as bathing, dressing, eating, toileting, and transferring. Impairment in activities of daily living is illustrative of a stressful life situation and, in turn, affects the elderly individual's experience of well-being (Revicki & Mitchell, 1990). Stress may result from the chronicity of the situation.

Recreational services represent a formal community service available to the elderly in community day care centers, senior centers, churches, and drop-in centers. Recreation can be defined as "any planned or organized activities designed to increase and encourage a person's ability to socialize and utilize leisure time" (General Accounting Office [GAO] Study, 1977, Appendix 1, p. 1). Recreation and leisure are considered crucial to "life quality" (Howe-Murphy & Charboneau, 1987, p. 4; Russell, 1990). The activities associated with recreation provide support and socialization through interaction with other elderly persons and staff members. Such activities also take the elder outside the home, thus preventing isolation. The purpose of recreational services is to increase and encourage socialization and interactions, whether this is obtained primarily through socialization with others, or in combination with various activities. It is also understood that a significant number of elders are extremely active and participate in less formal community activities, such as those associated with health clubs or with family and friends.

Little research has been conducted to measure the effects of formal community services and, in particular, recreational services, as they relate to the specific needs of elderly recipients who experience stress as a result of ADL impairment. One previous study examined recreational and medical services but only in relation to factors affecting their use, such as need, enabling factors, and predisposing factors (Coulton & Frost, 1982). Other studies have shown that specific social supports have an effect on the reduction of stress and improvement of well-being, but these studies did not address well-being and its relationship to activities of daily living (Cohen & Wills, 1985; Pearlin et al., 1981). Past studies (Krause, 1986, 1987a, 1990; Krause & Tran, 1989; Pearlin et al., 1981; Thoits, 1982; Wheaton, 1985) have also demonstrated the function of stress-buffering as applied to specific supports and stressors. Little attention, however, has been given to the question of whether recreational services lessens the effects of stress from ADL impairments on the individual's sense of well-being.

The motivation for this study concerning the effects of recreational services on stress and well-being is based on the following factors. As people age, disabilities tend to increase, therefore, dependence on both formal and informal supports will also increase. This can lead to severe stress, anxiety, and other psychological manifestations. Premature institutionalization may result if disabled elderly do not receive adequate or specific supports to address their emotional and physical needs. The study of activities of daily living and well-being among elderly people have implications for social policy and community services. As a result, state and federal governments should continue to develop eligibility criteria to target benefits for those most in need.

Attempts have been made to understand, analyze, and provide theoretical models to explain the relationship between the concepts of social support and stress as they relate to the

promotion and maintenance of well-being (Krause, 1986; O'Brien, 1987; Wheaton, 1985). Subjective well-being can simply be defined as the individual's own perception of general well-being or life quality (George et al., 1991). Lawton et al., (1991) describe Bradburn's (1969) two-factor view of well-being: the presence of both positive and negative events or feelings. Both aspects constitute a necessary component of psychological well-being. Wheaton (1985) provides models to examine the buffering effects of social resources (any coping resource) on stress and well-being. Alwin (1991) also provides models to explain the mediating effects of social support on stress. Because social and recreational services can have stress-buffering properties and play a role in the stress-buffering process, they may serve as a coping resource (Krause & Tran, 1989). In addition, the relationship between recreational services and well-being was examined by Goodman (1985), Russell (1990), and Weiner et al., (1987), who found that formal activities/recreation had a positive relationship with life satisfaction and well-being.

The theoretical framework of the study was derived from object relations theory (Goldstein, 1986; Greenburg & Mitchell, 1983), activity theory (Longino & Kart, 1982; Maddox, 1988), as well as theories of social support and stress (Krause, 1986; Thoits, 1982; Wheaton, 1985). Based on the literature review, it is hypothesized that: 1) Social and recreational services will exert a differential buffering effect against the harmful effects of stress on the well-being among two samples of elderly individuals according to their ADL functioning, and 2) Social and recreational services will have a stronger buffering effect on stress and well-being among those elderly people with more severe ADL impairment than on those elderly with less ADL impairment. The effects of social and recreational services on stress and well-being were examined by the stress-buffering process and the moderator model.

Methodology

The data used for this study came from the Study of the Well-Being of Older People in Cleveland, Ohio in 1975 and 1976. The purpose of the Cleveland study was to assess the elderly person's social, economic, mental, and physical well-being. The Cleveland study utilized a longitudinal design from a survey of older adults in Cleveland, Ohio, which was conducted by the U.S. General Accounting Office (GAO). A random sample was selected according to a cluster sampling procedure which assured selection of only one member of a married couple. The sample included 1,834 noninstitutionalized persons aged 62 years and over in the baseline interview (T1) and 1,519 in the follow-up interview (T2), and was selected from the Medicare rolls and Supplemental Security listing. The sample was demographically representative of elderly people residing in Cleveland, Ohio, and was collected at two time periods, one year apart, in 1975 and 1976. The Older American Resources and Services (OARS) Functional Assessment Questionnaire was utilized for the interviews (Pfeiffer, 1975), which is included in the Cleveland study.

Sample: For the purposes of this study, the sample from the Cleveland study was divided into two samples representing different levels of activities of daily living (ADL) functioning. These samples were created from the ADL performance rating scale which provided a summary assessment for each subject. The performance rating scale was obtained from the Older American Resources and Services (OARS) instrument which contains a physical ADL section rating eating, dressing, toileting, bathing, and transferring. There were six levels to represent the appropriate level of ADL functioning: excellent, good, mild, moderate, severe, and totally

impaired. In this study, level one and two was compressed to form the good ADL sample; and level three, four, five, and six, was compressed to form the poor ADL, or more impaired, sample. The identical levels of grouping were utilized at the baseline (T1) and the follow-up (T2) interviews.

Of the total of 1,834 respondents in the baseline interview (T1), and 1,519 respondents in the follow-up interviews (T2), two different samples were selected for the study:

Good ADL. The first sample included those respondents who had good ADL capacity (N=1126) (T1) and (N=851) (T2).

Poor ADL. The second sample include those respondents who had poor ADL impairment (N=708) (T1) and (N=661) (T2).

The two samples were utilized to measure the buffering effect of social and recreational services on stress and well-being among two samples of elderly individuals based on their ADL scores. According to the scale categorizing ADLs, respondents in the good ADL functioning sample represented 61.3 percent of the sample, and respondents with poor ADL functioning represented 38.7 percent of the sample in (T1). These percentages changed only slightly in (T2). The two time periods: the baseline (T1) and the follow-up interviews (T2), were also utilized in this study as a means of further understanding the patterns of normal aging, and to examine aging as a process rather than a specific state or stage.

During the twelve months interval between (T1) and (T2), and out of a total of 1,834 valid cases, 17 respondents were institutionalized, 27 moved out of the metro area, 13 moved, but whereabouts were unknown, 96 were deceased, and 179 respondents did not wish to participate in the second phase of the interviewing (Study of the Well-Being of Older People, Cleveland, Ohio, Code Book, p. 514). The sample for the follow-up interviews in (T2) was therefore 1,519 individuals.

The data analysis for the study utilized the SPSS-X (1988) and the SPSS (1990) statistical software program to obtain demographic data and the frequency distribution of the responses from the baseline and follow-up interviews. Factor analyses were used to assess the fit of the model to the data for the scales of measurement for stress and well-being. The assessment of well-being for the respondents in the two samples of ADL functioning: good ADL and poor ADL, was measured using four items from the 15-item MMPI psychiatric evaluation scale in the OARS. These items are reflective of both positive and negative feelings toward life, as either interesting and happy, or feeling lonely or useless. The questions are based on the assumption that there are positive and negative factors contributing to feelings of well-being. A high score indicates a greater sense of well-being.

The assessment of stress in the two samples of ADL functioning was measured using eight items from the 15-item MMPI psychiatric evaluation scale included in the OARS questionnaire. The statements from the eight items cover the areas of physical symptoms such as fatigue and weakness, psychosomatic symptoms of headaches, shortness of breath, and heart pounding, which are indicative of feelings associated with stress. The questions are based on the assumption that certain factors contribute to feelings of stress, and that these feelings are a result of chronic life stress. Stress was scored on a scale indicating that a high score reflects a greater amount of stress and a low score indicates minimal stress.

The assessment of social and recreational services, the second major independent variable, was measured using one item contained in part B of the OARS questionnaire. This item is representative of a question pertaining to the actual use of recreational services or activities that the subjects have received in the past 12 months. The unit of measure is

represented by the number of respondents who used the service.

The data used in this study have also included a variety of demographic variables that assisted in defining the relationships between the major concepts of social support, stress, and well-being, such as age, race, marital status, education income, and health status.

Cross-tabulations were used to examine the relationships for the indicators of the dependent variable of well-being by all the control variables. Regression analyses were used to examine whether social and recreational services could mediate and buffer the impact of stress on the well-being among elderly individuals with good ADL functioning and among those with poor ADL functioning. Ordinary least squares (OLS) multiple regression equations were utilized within a hierarchical analysis framework to test the direct effects of the control variables, employing a baseline model (Model 1), a mediating model (Model 2), which added the support measure of social and recreational services, and the moderator model (Model 3) which added the interaction effect of social and recreational services and stress.

Results

The results of the analyses revealed that: (1) The support measure of social and recreational services does provide beneficial effects for elderly people in both samples of ADL functioning. (2) In the high ADL sample of elderly people, although the moderator model did not reveal any significant statistical interaction effects between stress and recreational services, the mediating model did demonstrate a reduction in stress through the mediation of the support measure of recreational services. Self-rated health status and stress were also shown to exhibit a detrimental effect on the well-being of elderly in this sample. (3) In the low ADL sample of elderly people, however, the data did reveal both a significant mediating effect and a moderating effect, in which stress was mediated by the use of recreational services. In addition, a significant effect was found between the interaction of stress and recreational services on the well-being of elderly people in this sample. Recreational services appear to be an important support in maintaining feelings of well-being by either mediating the level of stress or by buffering stress, and as a result, has a beneficial effect on feelings of well-being. (4) In spite of the fact that health problems affect all the elderly individuals in both samples, elderly people, especially those in the more impaired sample, as hypothesized, benefit more from the use of recreational services.

Utility for Social Work Practice

This study has discussed implications for social work practice, social policy, and future research. The important implications are: 1) Expand participation of impaired elders in social and recreational services; 2) Disseminate information on the access of availability of social and recreational services to appropriate caregivers; 3) Increase utilization of social and recreational services by impaired elders through provision and improvement of transportation services; 4) Large scale data collections should incorporate a longitudinal design, and 5) Future research should address specific types of recreational activities.

An important finding of this study is that stress is associated with different levels of ADL

functioning and impairment, therefore, social workers should base their clinical practice on theories of stress and social support. Moreover, appropriate community interventions should be directed toward programs which foster and promote socialization and participation in activities for all level of ADL functioning elderly persons. Since the more dramatic effect of social and recreational services was found on the stress of the more impaired elders, greater attention should be given to this group. Future research efforts should focus on additional longitudinal studies to include more than two time periods as a means of continuing the search for knowledge and insight into the changes occurring within the aging process, the supportive resources being utilized, and their impact on stressful life events.

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