The Relationships Between Volition, Activity Pattern, and Life Satisfaction in the Elderly

Nancy Riopel Smith, Gary Kielhofner, Janet Hawkins Watts

This study examines the relationships between the volition subsystem, activity pattern, and life satisfaction of 60 elderly individuals. The volition subsystem includes an individual's interests, values, and personal causation. The Occupational Questionnaire (OQ) was developed to measure volition subsystems and activity patterns, and it was pilot tested for reliability and validity. Scores on the OQ were compared with measures of subjects' life satisfaction.

Results of the study identified several aspects of the subjects' occupations that were related to their level of life satisfaction. The most important findings were the positive correlations between the degree of interest, value, and personal causation in occupation and life satisfaction. Time spent in work and leisure was found to be correlated more highly with high levels of life satisfaction than was time spent in daily living tasks and rest. Although further verification of these results is needed, these findings indicate that occupational therapists may enhance the life satisfaction of their elderly patients by emphasizing interests, values, personal causation, work, and leisure in their treatment programs.

Many factors influence the life satisfaction of the elderly. Of particular concern to occupational therapists is occupation, defined as the life span manifestations of work, daily living tasks, and play (1). According to the Model of Human Occupation, which served as a framework for this study, performance, habituation, and volition interact and influence occupation (2-5). Increasing age often leads to declines in the habituation and performance subsystems, such as the loss of life roles or a decrease in physical abilities. Changes in volition may compensate for these declines because the volition subsystem influences decisions that an individual makes concerning engagement in occupations (2). If the volition subsystem can lead individuals to engage in new and more adaptive occupations as they age, volition may have a large influence on life satisfaction. For this reason, volition was chosen as the major occupational variable to be examined in this study. An additional variable, the activity pattern, defined as the relative amount of work, daily living tasks, recreation, and rest in which an individual typically engages, was also examined.

Review of Literature

Many factors influence the life satisfaction of the elderly. Of particular concern to occupational therapists is occupation, defined as the life span manifestations of work, daily living tasks, and play (1). According to the Model of Human Occupation, which served as a framework for this study, performance, habituation, and volition interact and influence occupation (2-5). Increasing age often leads to declines in the habituation and performance subsystems, such as the loss of life roles or a decrease in physical abilities. Changes in volition may compensate for these declines because the volition subsystem influences decisions that an individual makes concerning engagement in occupations (2). If the volition subsystem can lead individuals to engage in new and more adaptive occupations as they age, volition may have a large influence on life satisfaction. For this reason, volition was chosen as the major occupational variable to be examined in this study. An additional variable, the activity pattern, defined as the relative amount of work, daily living tasks, recreation, and rest in which an individual typically engages, was also examined.

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included. The final section examines the few studies that considered more than one of the volition sub-system components and the relationship of these components to life satisfaction.

Interests

Interests are personal dispositions to find pleasure in certain objects, events, or people that lead an individual to initiate or maintain involvement in various occupations (2, 6). The occupational therapy literature considers the elderly person's interests important for structuring newly acquired free time after retirement. For example, Wong (7) found that 80% of the elderly subjects felt that "having a hobby..." (p. 54). Another study (8) identified interests as a dimension of adjustment, noting that the elderly must be interested in their daily occupations if they are to maintain a high level of life satisfaction.

In developing programs to meet the needs of the elderly, it is important to identify any unique characteristics or determinants of the interests of the elderly. One factor that may influence the interests of the elderly is their cultural background. For example, Gutmann (9), in studying leisure interests, found large differences between native and foreign-born elderly Jewish citizens in cultural background, interests, and activity preferences. Even though some variation in interests can be attributed to cultural factors, the interests of the elderly have evolved throughout their lives and are therefore unique for each individual (9). Although further research is needed to clarify these studies, it appears that to provide optimal programming for the elderly, occupational therapists must identify and address the interests of unique cultural groups and ultimately each individual within their client population (10, 11).

Values

Values are concepts of what is good or right, which greatly influence an individual's perception and choice of occupation (2). Many factors influence values, such as cultural background, socioeconomic status, age, sex, educational group, family membership, and psychological state (12, 13). At times the values expressed by the elderly may also represent their perception of available opportunities rather than their deepest beliefs. For example, the elderly may say they do not value work because they believe it is not an option available to them (13). Since there is such a wide range of factors that influence the values of the elderly, values are likely to vary considerably among individuals, which makes it difficult to characterize the values of the group as a whole.

Studies investigating whether values change from adulthood to old age have yielded contradictory results (13–15). Studies based on cross-sectional data may reflect cohort differences, creating a false impression that values change with age (12, 16, 17). In a longitudinal study, Rokeach (18) found that values did not change appreciably during a 5-year period, supporting the argument that values in old age are stable and reflect continuity with adult values.

Personal Causation

Personal causation refers to an individual's self-image as an actor in the world (2). This image includes individuals' expectation of success, belief in their skills, belief in the efficacy of their skills, and locus of control (i.e., whether they feel in control or controlled by external forces) (19). This inner image is based on routine actions that over time can produce areas of special competence. On retirement elderly individuals lose access to their work as an area where they are able to demonstrate competence. This loss may be especially problematic for individuals who held high status vocations and for whom retirement resulted in economic hardships and feelings of external control (20). In spite of such potential difficulties, retirement appears to have little direct effect on self-ratings of control or autonomy for the majority of the elderly (21).

Physical and social environments may also influence personal causation. Research has shown that the elderly's ability to maintain a sense of competence and self-reliance partially depends on the opportunities, rewards, and punishments they encounter in their physical and social environment (22). For example, patronizing remarks have been found to encourage the elderly to become increasingly helpless and to hold a negative view of themselves (22). In addition, institutions such as nursing homes, which promote helplessness and dependency and lack opportunities for mastery, often result in the residents adopting an external locus of control (23–26). Other studies (23, 27–29) concluded that with increased opportunities for self-control, elderly individuals reduce their negative self-concepts, feel more in control, and improve their functional independence.

Physical decline may also influ-
ence personal causation for elderly individuals who view their physical problems as inevitable consequences of the aging process (26). When physical deterioration accelerates during the last few months of life, this feeling of loss of control may be accentuated (30).

The literature reviewed so far deals with the volitional variables of interests, values, and personal causation on an individual basis. The literature suggests that these variables may or may not change with increasing age, that they are influenced by the environment, and that they vary considerably among individuals. There is some evidence that at least interests and personal causation may influence life satisfaction.

Two gerontologic studies considered more than one of the volitional variables. Maguire (31) found that an elderly person's "perceived adequacy of participation in valued activities" (a variable that includes a values component and a personal causation component) was a significant predictor of life satisfaction. Gregory (32) found that both interests and personal causation were significantly and positively correlated with life satisfaction. A limitation of the Gregory study was its general measure of occupation. Respondents were given a list of 23 activities which they ranked according to whether they were done three times a week, once a week, or not at all. Further research is needed to confirm these results, assess the three volitional variables simultaneously, and provide a more detailed assessment of the relationship between volition and an individual's occupations.

Method

This descriptive study sought to determine whether the degree of interest, value, and personal causation reflected in daily occupations would correlate with life satisfaction and whether the activity pattern would correlate with life satisfaction.

Subjects

Sixty subjects, 30 from a senior center and 30 from a nursing home, participated in the study. Their mean age was 78 years, with a range from 65 to 99 years of age.

Instruments and Procedure

All of the subjects completed three questionnaires. The Demographic Information Questionnaire was used to gather information on the subjects' characteristics. The Attitude Index, a subscale of the Attitude Inventory developed by Cavan and others (33), was used to measure life satisfaction. The Occupational Questionnaire (OQ), which was developed for this study (see Figure 1) is based on an activity configuration (34). The OQ was used to measure occupation. It focuses on the components of the volition subsystem that are reflected in everyday occupational activities and on the respondent's view of the type of occupation that each activity represents. To complete the OQ, respondents indicate their main activity during each waking half hour on a typical day; classify each activity as either work, daily living task, recreation, or rest (Question 1); and then rate from 1 to 5 the degree of personal causation (Question 2), value (Question 3), and interest (Question 4) for each activity. The results from the OQ can be summarized by percentages. For example, the results indicate the percentage of time that the subject classified as work each day or the percentage of time that the subject was extremely interested in any of his or her activities each day.

Figure 1

Sample worksheet of the Occupational Questionnaire

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Question 2</th>
<th>Question 3</th>
<th>Question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I consider this activity to be:</td>
<td>I think that I do this:</td>
<td>For me this activity is:</td>
<td>How much do you enjoy this activity:</td>
</tr>
<tr>
<td>1-Work</td>
<td>1-Very well</td>
<td>1-Extremely important</td>
<td>1-Like it very much</td>
</tr>
<tr>
<td>2-Daily living task</td>
<td>2-Well</td>
<td>2-Important</td>
<td>2-Like it</td>
</tr>
<tr>
<td>3-Recreation</td>
<td>3-About average</td>
<td>3-Neither nor dislike it</td>
<td>3-Neither like nor dislike it</td>
</tr>
<tr>
<td>4-Rest</td>
<td>4-Poorly</td>
<td>4-Rather not do it</td>
<td>4-Rather like it</td>
</tr>
<tr>
<td>5-Very poorly</td>
<td>5-Total waste of time</td>
<td>5-Strongly dislike it</td>
<td>5-Strongly dislike it</td>
</tr>
</tbody>
</table>

* For a copy of the instructions and the complete worksheet, please write to Nancy Riopel Smith, Rt. 2, Box 27, Earlysville, VA 22936.
Pilot Test of the OQ

The reliability and validity of the OQ were explored in a pilot study before it was used in this study. To assess the questionnaire's test-retest reliability, the OQ was administered two times, 2 weeks apart, to a convenience sample of 20 elderly adults. For the entire sample, 68% of a typical day's activities reported during the first administration were again reported during the same time period of the second administration. There was also 87% agreement for type of activity (i.e., work vs. recreation), 77% for personal causation, 81% for values, and 77% for interests. These results indicate that the OQ has an acceptable level of reliability.

To assess the questionnaire's validity, the OQ and the Household Work Study Diary (35), a record of a specific day's activities, were administered to 18 senior college students. If the day on which the students recorded the diary of activities turned out to be atypical, they completed the diary a second time. When results of the two tests were compared, it was found that 82% of the typical daily activities reported on the OQ were reported during the same time period on the diary.

When the activities reported during the same time periods on both forms were categorized, 97% of the activities classified as work on the questionnaire were so designated on the diary, and 90% of activities classified as leisure on the questionnaire were so designated on the diary. A comparison between those activities that persons rated as pleasant and satisfying on the diary and their equivalent rating of the same activities in terms of their values, interests, and feelings of personal causation yielded 86%, 84%, and 92% agreement, respectively. The degree of agreement between the OQ and the diary suggests that the OQ gives a valid estimate of the occupational activities an individual pursues on a given (typical) day and of how they are viewed by the respondent.

Data Analysis

Spearman correlations were used to assess the relationship between volitional characteristics and life satisfaction. The relationship between activity pattern and life satisfaction was examined with two different approaches. In the first approach the subjects were divided into high and low life satisfaction groups. Using chi-square tests, these groups were compared to identify similarities and differences in the activity pattern. The second approach involved computing Spearman correlations between subjects' life satisfaction scores and the percentage of time they spent in the different categories of activity (i.e., their activity pattern).

Results

Demographic information appears in Table 1. A significant relationship was identified between the volitional characteristics and life satisfaction. The Spearman correlations were .26 (p = .04) for interests, .40 (p = .002) for values, and .39 (p = .002) for personal causation.

The overall activity pattern for the 60 subjects was 6% work, 7% rest, 20% daily living tasks, 27% recreation and 40% sleep. Many were not sure how to classify periods of time when they were “waiting” or “just passing time till meals.” They usually selected the categories rest or daily living tasks to describe these activities.

Aside from sleep, recreation occupied the largest percentage of the elderly subjects' time, and work occupied the smallest percentage. Since the subjects used their own subjective definitions to classify their activities, many may have underestimated the amount of time they spent working. For example, a middle-aged woman who described herself as a housewife would probably classify vacuuming as work. Since elderly individuals often subscribe to the cultural view of the elderly as retired and non-contributing members of society (13, 36), the same woman might classify vacuuming and other types of housework as daily living tasks once she entered old age.

Interesting differences in activity pattern became apparent when the high and low life satisfaction groups were compared. Table 2 shows that the high life satisfaction group spent more time in recreation and work, whereas the low satisfaction group spent more time in rest and daily living tasks. These relationships were supported by

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographic Characteristics of 60 Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
</tr>
<tr>
<td>Health problems</td>
<td>55</td>
</tr>
<tr>
<td>Illness or death in family</td>
<td>45</td>
</tr>
<tr>
<td>Few friends</td>
<td>20</td>
</tr>
<tr>
<td>Housewife</td>
<td>20</td>
</tr>
<tr>
<td>Business</td>
<td>19</td>
</tr>
<tr>
<td>Clerical Work</td>
<td>18</td>
</tr>
<tr>
<td>Health and teaching</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
</tr>
<tr>
<td>Retired less than 10 years</td>
<td>36</td>
</tr>
<tr>
<td>Retired 11-20 years</td>
<td>25</td>
</tr>
<tr>
<td>Retired more than 20 years</td>
<td>38</td>
</tr>
<tr>
<td>Voluntary retirement</td>
<td>81</td>
</tr>
<tr>
<td>Income less than adequate</td>
<td>9</td>
</tr>
<tr>
<td>Income adequate</td>
<td>75</td>
</tr>
<tr>
<td>Income more than adequate</td>
<td>16</td>
</tr>
</tbody>
</table>
the Spearman correlations computed between activity pattern and life satisfaction. Table 3 shows that work and recreation were positively correlated with life satisfaction and that daily living tasks and rest were negatively correlated (although the correlation with daily living tasks was not at the $p < .05$ level of significance). These results suggest that recreation and work may contribute to increased life satisfaction in old age, whereas a concentration on rest and daily living tasks may contribute to decreased life satisfaction.

**Discussion**

The results of this study indicate that interests, values, personal causation, recreation, and work are positively correlated with life satisfaction. These correlations do not imply cause and effect, but if cause-and-effect relationships can be demonstrated in future studies, this finding would substantiate occupational therapists' use of occupations for treatment with the elderly. It would also direct occupational therapists to focus their treatment programs on the areas of occupation that increase life satisfaction by (a) using activities that address the interests and values of their clients; (b) using activities that promote the personal causation of their clients; and (c) emphasizing work and recreation.

Other factors may account for the pattern of relationships found in these subjects. Time in work and recreation, and the degree of interest, value, and competence in daily occupations are likely to be associated with socioeconomic status, health, retirement experience, death of a spouse, previous occupation, sex, and age. Since all of these factors have been associated with life satisfaction (37–40), they may have a more direct impact on life satisfaction than variables related to occupation. However, the interrelationships between these variables are complex and difficult to unravel. For example, the association between work and life satisfaction may be mediated by increased socioeconomic status of those who are able to be employed. The participation in leisure activities is also likely to depend on health status and on whether a spouse is living or not. In these cases, the lack of sufficient funds, poor health, and the loss of a partner may have not only a direct influence on life satisfaction but also an indirect one through changes in the activity pattern and constraints on volitional components.

This study supports previous findings (31–32) of a positive correlation between interests, values, and personal causation, and life satisfaction. It extends past research in that it examines the three volitional variables simultaneously and includes activity pattern variables. The OQ developed for this study provides a more precise method of analyzing the relationship between volition and daily occupations and therefore enhances the accuracy of comparisons between these variables and life satisfaction. Future studies should attempt to control for factors such as age and socioeconomic status when examining relationships between occupational variables and life satisfaction. Additional limitations of this study include its relatively small sample and the use of convenience sampling to select subjects.

**Summary**

This study provides further evidence of relationships between volition, activity pattern, and life satisfaction in elderly persons. It also introduces an instrument, the OQ.

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**Table 2**

Comparison of Activity Pattern of Low and High Life Satisfaction Groups

<table>
<thead>
<tr>
<th>Daily Occupation</th>
<th>Mean Percent of Time Spent in Occupations</th>
<th>Degrees of Freedom</th>
<th>t Values</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>Low Life Satisfaction</td>
<td>High Life Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>7</td>
<td>42.4</td>
<td>-1.87</td>
</tr>
<tr>
<td>Daily living</td>
<td>23</td>
<td>19</td>
<td>15.6</td>
<td>1.06</td>
</tr>
<tr>
<td>Rest</td>
<td>18</td>
<td>31</td>
<td>17.8</td>
<td>-2.73</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>5</td>
<td>13.5</td>
<td>2.05</td>
</tr>
</tbody>
</table>

* n = 13.
† n = 40.

**Table 3**

Correlation of Life Satisfaction with Percent of Time Spent in Daily Occupations

<table>
<thead>
<tr>
<th>Daily Occupation</th>
<th>Spearman Correlation</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>0.27</td>
<td>0.007</td>
</tr>
<tr>
<td>Daily living</td>
<td>0.18</td>
<td>0.05</td>
</tr>
<tr>
<td>Recreation</td>
<td>-0.23</td>
<td>0.02</td>
</tr>
<tr>
<td>Rest</td>
<td>-0.11</td>
<td>0.21</td>
</tr>
</tbody>
</table>
which facilitates the measurement of volition and activity pattern. Further research is needed to refine and empirically investigate the OQ and to further investigate the relationship between types of occupations and their volitional traits and life satisfaction. Knowledge about how occupation influences life satisfaction in the elderly is essential for the occupational therapist who must make choices of occupations to be provided for elderly clients in therapy.

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REFERENCES