Need Satisfaction of Older Persons Living in the Community and in Institutions, Part 2.

Role of Activity

(environment, Maslow, motivation)

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A descriptive study was conducted in order to examine the types of need satisfaction older persons gained from activities they performed in their living environments. This is the second of two articles that examines the relationships among need satisfaction, environment, and activity. Subjects included 20 community and 21 institutionalized older persons. It was found that the subjects' most important activities were visiting and being involved in church functions. Using Maslow's need hierarchy as the theoretical framework, both of these activities were found to be associated with satisfying belongingness/love needs. The implications the findings have for occupational therapy intervention with older persons are included.

This article is the second of a study on the need satisfaction of older persons living in the community and in institutions. The purpose of the first article was to compare the need satisfaction of older persons living in different environments. Maslow's (1) need hierarchy theory of motivation provided the conceptual structure for examining these needs. It was found that belongingness/love and esteem needs were met to a greater degree in the community than in the institution. Factors that also influenced these findings were race, mental status, and the living arrangement of the community residents.

The purpose of the second part of the study was to examine the types of need satisfaction older persons gained from activities they performed in their environments. This area was thought to be of primary concern for occupational therapists who, at times, may have difficulty determining what activities are therapeutically beneficial for a given client. A major assumption of this investigation was that satisfaction of needs is necessary for the physical and mental well-being of older persons.

Review of the Literature

Activity was defined in this study as a class of behavior that is goal directed and purposeful, and is equivalent to Maslow's (1) concept of "coping behavior." This type of behavior is directed toward manipulating the environment in order to satisfy the five basic needs—physical, safety, belongingness/love, esteem, and self-actualization. For this study, activity was delimited to the two activities that older persons liked and considered to be their most important.

Two hypotheses were formulated to suggest some of the relationships among the components of need, environment, and activity. The hypotheses and supporting literature are presented below.

Hypothesis 1: Specific activities satisfy different needs for different older persons.
Montagu (2) and Maslow (1) believed that culture grows out of a response to Man's basic needs and, in turn, teaches its members to satisfy needs through culturally specific forms of activity. The type of activity selected, therefore, varies from culture to culture and to a lesser extent from individual to individual. In other words, two persons may do two completely different activities to fulfill the same need.

In two studies (3, 4) of leisure activity among middle-aged and older individuals, it was found that the purpose for which an individual did an activity, or the meaning derived from it, was not related to the content of the activity. Any given activity could have several different meanings, and any given meaning could be attached to a variety of activities.

A person's activity is highly influenced by environmental opportunities (1) and the perception of those opportunities. It logically follows that, if the environment is perceived by the person as containing the elements necessary for satisfying a need, he or she will interact with the environment in such a way as to fulfill the need. On the other hand, the individual perceives that the environment does not permit the satisfaction of a certain need. He or she will not make futile attempts to meet the need; in short, the person will give up and become "unmotivated." The findings of Donald and Havighurst (3), which examined socioeconomic status (an indication of environmental opportunities) and the meanings attributed to activity, provided tentative support to this theoretical formulation. A trend in their data suggested that meanings varied according to social class. Persons who lived in different social environments performed activities for different reasons, that is, to meet different needs.

Methods

Subjects. A correlational survey design was used to examine the relationships among activity, need satisfaction, and environment. A total of 41 persons more than 60 years of age consented to participate in the study. The nonrandomly derived institutional sample consisted of 21 sub-

Figure 1
Need Satisfaction of Activity Interview (NSAI)*

1. What kind of things do you like to do around here?
2. Of all of those things that we have been talking about, which is of the most importance to you?
3. How often are you able to do (activity) ____________________________ ?
4. Do you feel that you get to do (activity) as often as you would like to? yes. no.
5. Now I'm going to give you five cards. (Give 5 cards.) Each card has written on it reasons for why people think the things they do are important to them. The reasons on each card are related to one another. Take your time and carefully read each card, then think why you feel that (activity) ____________________________ is important to you. Pick the card that has the group of reasons which you feel are closest to your reason. After you have chosen the card, give it to me. ($ picks one of the following cards.)

   (Level I) "It is important to me because:
   a. It gives me exercise.
   b. It makes me feel good physically.
   c. It relaxes me and reduces my tension."

   (Level II) "It is important to me because:
   a. It gives me a secure feeling.
   b. It is a good habit.
   c. It organizes my day."

   (Level III) "It is important to me because:
   a. It brings me into contact with my friends and loved ones.
   b. I like being involved with groups of people.
   c. It makes me popular among other people."

   (Level IV) "It is important to me because:
   a. It makes me feel worthwhile and useful.
   b. It gives me respect from other people.
   c. I feel I can respect myself for doing these things."

   (Level V) "It is important to me because:
   a. It allows me to grow and to develop my talents.
   b. It allows me to express my individuality.
   c. It gives me a new experience—I feel I learn something from it."

6. Of all of the activities we talked about earlier (read list from #1), which is of the second most important to you, after (activity in #2) ____________________________ ?

7. Repeat questions #3, 4, and 5.

Frequency: ____________

Often Enough? yes. no.

Need Satisfaction Level ____________________________

*Questions derived from Maslow (1), Nystrom (4), and Havighurst (6).
jects who resided in one of three convalescent hospitals in Los Angeles County. The typical institutionalized subject was 79 years of age, female, white, widowed, Protestant, and chronically ill with heart disease. The community sample, also nonrandomly derived, consisted of 20 subjects who were outpatients of Rancho Los Amigos Hospital in Downey, California, and were residents of Los Angeles County. The community subject typically was 70 years old, female, black, widowed, Protestant, and chronically ill with diabetes and related disorders. The institutional subjects tended to have slightly more cognitive impairment than the community subjects, as measured by the Mental Status Questionnaire (5). For detail on controlled variables during the subject selection process, see Part I.

**Instrumentation.** Subjects were interviewed at their residences, at which time the Need Satisfaction of Activity Interview (NSAI) was administered. This instrument was developed to determine the subject's two most important activities, the frequency of participation in them, and the type of need each activity primarily satisfied. Figure 1 presents the complete NSAI. The use of cards to determine the type of need satisfied by the activity was adapted from the methodology of Donald and Havighurst's (3) study on the meaning of activity. The items listed on each card were derived from the works of Maslow (1), Havighurst (6), and Nystrom (4). A pilot study with six hospitalized older persons was conducted in order to revise the NSAI for greater clarity and ease of administration.

Content validity was established before the data were collected by mailing the NSAI to 41 occupational therapist consultants to convalescent hospitals and other institutions who were asked to assign each of the proposed items on the five cards of the NSAI to a level of Maslow's need hierarchy. Fifteen occupational therapists responded. The three items of each level, of four or five items included in the validity testing, that received the highest percentage of agreement were included in the final NSAI draft. The mean percentage of agreement for the five need levels was 88 percent.

A test-retest reliability procedure was performed with five subjects participating in the formal study. The NSAI was readministered 2 weeks after the initial interview. The average reliability for the seven items constituting the instrument was .66. This coefficient was considered satisfactory for research employing a newly developed instrument with a relatively unstructured format.

**Statistical Procedure.** Activities identified as most important in Item 2 of the NSAI were categorized according to patterns found in the data. The following categories were thus developed: academic study, bingo, creative activities, helping people, household activities, involvement in church functions, outings, participating in men's clubs, physical exercise, reading, visiting, and watching out the front door. These activity categories were then ranked according to the number of times they were mentioned within each environment.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution ( (n = 21) )</th>
<th>Community ( (n = 20) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visiting (11)</td>
<td>Church Activities (10)</td>
</tr>
<tr>
<td>2</td>
<td>Watching Television (7)</td>
<td>Visiting (9)</td>
</tr>
<tr>
<td>3</td>
<td>Reading (6)</td>
<td>Creative Activities (6)</td>
</tr>
<tr>
<td>4</td>
<td>Physical Exercise/Sports (5)</td>
<td>Household Activities (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Creative Activities (5)</td>
</tr>
<tr>
<td>5</td>
<td>Church Activities (2)</td>
<td>Reading (3)</td>
</tr>
<tr>
<td></td>
<td>Outings (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bingo (2)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Academic Study (1)</td>
<td>Watching Television (2)</td>
</tr>
<tr>
<td></td>
<td>Watching Out Front Window (1)</td>
<td>Helping People (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outings (2)</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Men's Club (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Exercise/Sports (1)</td>
</tr>
</tbody>
</table>

*There were two observations per subject.*
Table 2
Relationship Between the Activities of Older Persons and the Type of Need Those Activities Satisfy

<table>
<thead>
<tr>
<th>Activity</th>
<th>Physiological</th>
<th>Safety</th>
<th>Love</th>
<th>Esteem</th>
<th>Self-actualization</th>
<th>$X^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Visiting</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>13.50</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>2. Church Activities</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>13.99</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>
| 3. Creative Activities          | 2             | 1      | 2    | 1      | 5                 | 4.90  | N.S.
| 4. Watching Television          | 4             | 3      | 1    | 0      | 0                 | -    | -   |
| 5. Reading                      | 3             | 4      | 0    | 1      | 1                 | -    | -   |
| 6. Physical Exercise/Sports     | 3             | 1      | 2    | 0      | 0                 | -    | -   |
| 7. Outings                      | 3             | 0      | 0    | 1      | 0                 | -    | -   |
| 8. Household Activities         | 1             | 0      | 1    | 2      | 0                 | -    | -   |
| 9. Bingo                        | 2             | 0      | 0    | 0      | 0                 | -    | -   |
| 10. Helping People              | 1             | 0      | 1    | 0      | 0                 | -    | -   |
| 11. Men's Club                  | 0             | 0      | 1    | 0      | 0                 | -    | -   |
| 12. Academic Study              | 0             | 0      | 0    | 1      | 0                 | -    | -   |
| 13. Watching Out Front Door     | 1             | 0      | 0    | 0      | 0                 | -    | -   |
| Total                           | 25            | 13     | 25   | 9      | 8                 |      |     |

*Chi-square test for $k$ probabilities, where $k = 5$ and $df = 4$.
$\alpha = .05$
†Activities that were mentioned less than ten times were not statistically analyzed.
§$n = 41$. There were two observations per subject and two missing observations.

To test the hypothesis that specific activities would satisfy different needs for different older persons, a chi-square test of $k$ proportions (7) was used. A chi-square test of independence (7) was performed to test the hypothesis that the types of need satisfaction older persons derive from their activities are dependent upon their environment. An alpha level of .05 was selected to determine statistical significance.

The following demographic variables were analyzed through correlational analyses to ascertain if any of these variables influenced the results: age, sex, race, country of birth, mental status, marital status, education, religion, occupation, living arrangement in the community, number of children, ambulatory status, illnesses, and length of institutionalization. Pearson's $r$ was the measure of association used with dichotomous or interval level data, whereas Cramer's $V$ was used with nondichotomous, nominal, or ordinal level data. A correlation of .40 was considered significant.

### Results

Table 1 depicts the rank ordering of the most important activities of older persons living in different environments. The activity most frequently identified by institutional subjects was visiting. Other frequently mentioned activities included watching television, reading, exercise/sports, and creative activities (crafts or fine arts). Community subjects most frequently identified involvement in church functions. This finding was influenced by the demographic variable of race. Black subjects tended to mention participation in church-related activity more than white subjects did. Other frequently mentioned activities, which were not found to be associated with any demographic variables, were visiting, creative activities, and household activities (such as cooking or home repair).

The majority of the subjects participated in their most important activities at least once each week. Approximately one-half of the activities were performed often enough, according to the subjects, whereas one-half of them were not. There was no difference between the two environments in this area.

Table 2 presents the analysis of the relationship between activity and type of need satisfaction. Specific activities were found to satisfy the same needs for different individuals, contrary to expectations. Visiting and church activities were found to be associated with meeting belongingness/love needs ($p < .01$).
Table 3

<table>
<thead>
<tr>
<th>Environment</th>
<th>Physiological</th>
<th>Safety</th>
<th>Love</th>
<th>Esteem</th>
<th>Self-Actualization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution</td>
<td>14</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Community</td>
<td>11</td>
<td>4</td>
<td>14</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: χ² = 2.68, df = 4, p > .05.

There are two observations per subject, except for two institutional subjects for each of which there is only one observation. These subjects felt that none of the need satisfaction categories explained why the activities were important to them.

Creative activities did not significantly meet a specific need. However, this finding may have resulted from the small sample of observations. Other activities could not be evaluated statistically because they were mentioned too infrequently.

The hypothesis stating that institutionalized older persons would derive different types of need satisfaction from their activities than the community residents was also not supported (p > .05), as shown in Table 3. There was a trend indicating that more activities of institutionalized subjects than community subjects met physiological and safety needs. More activities of the community subjects met belongingness/love, esteem, and self-actualization needs. However, there was no statistical support for these trends.

Discussion

The types of activities performed by the older individuals involved in this study reflected the opportunities available in the two environments. Visiting and creative activities were identified frequently in both settings. Both of these categories of activity are easily performed in different environments because of minimal tool and environmental requirements. Community subjects tended to mention activities that were more dependent upon tools being available and special settings for their performance; these were involvement in church functions and household activities.

Two activities that were equally available in both environments but identified more often as important by institutional subjects were watching television and reading. Both solitary and sedentary in nature, it is possible that these were identified as important because there were so few other activities available. Carp (8) found that, with expanded opportunities to perform other activities, public housing residents who had previously spent a great deal of time watching television significantly decreased their viewing time.

Physical exercise/sports was another category of activities frequently mentioned in the institutions but not in the community. All three institutions in the study incorporated daily exercise groups into their activity programs. Possibly, persons in the community did not have such programs regularly available to them.

The only demographic variable that influenced the findings was race. Identification of church activities as important was related to being black (V = .50). This finding was consistent with other studies, which had shown that black older persons engaged in more religious activities than did white older persons (9) and considered them more important (10).

The activities mentioned most frequently in both settings were found to be related to belongingness/love need satisfaction. The need for love may be one of the strongest needs among older persons. Visiting and involvement in church functions, which includes visiting, appeared to be the major methods by which the subjects satisfied this need. Nystrom (4) found that socializing was one of the most frequently mentioned, favorite leisure activities among community older persons.

In Part 1 of this study, it was found that the community appeared to be a more need-satisfying environment in terms of belongingness/love and esteem. Therefore, the finding that the activities performed in the two different environments did not satisfy different needs was unexpected. There was a slight trend indicating that more activities in the community met belongingness/love and esteem needs, but the sample size may have been too small to detect a statistically significant difference. In addition, the NSAI did not tap the degree to which an activity satisfied a need, nor did it collect information about all of the activities in an individual's life, limitations that could affect the findings.
Implications for Occupational Therapy

The findings of Parts I and 2 of this investigation stressed the importance of understanding the interrelationship of older persons' needs and perceptions of their environments and activities when attempting therapeutic intervention. The occupational therapist's traditional approach of selecting and adapting activities and environments to best meet client needs fits easily within the framework presented here. The following discussion integrates the findings presented in both articles.

In the institution, belongingness/love and esteem needs may not be adequately met because of a focus on physical maintenance. The occupational therapist could promote environmental conditions that are conducive to satisfying these needs; for example, this could be done by: (1) educating the staff on the therapeutic importance of treating the residents with acceptance and respect during daily interactions; and (2) structuring the activity room to provide a private area where residents who are attempting to establish friendships may meet. In addition, the occupational therapist, using the NSAI, could assess what type of activities meet the belongingness/love and esteem needs of each resident in order to incorporate them into the activity program.

Because the community, as found in this study, is a more need-satisfying environment than the institution, occupational therapy intervention may be directed toward older persons in the community who are at risk of being institutionalized. The living arrangements of the older persons seemed to be a crucial environmental variable in need satisfaction. Those individuals who lived alone or who were at risk of losing familial support may have been the ones who were the most vulnerable to physical and emotional crises. Comprehensive adult day health care programs have the potential for meeting the needs of at-risk community older persons. The occupational therapist in such a setting functions to help older persons maintain their independence and competency. Adapted activities, provision of adaptive devices, alteration of the environment to conform to the older person's capacities, training in activities of daily living, and leisure skills development are traditional occupational therapy interventions that would be appropriate in the community setting.

Conclusion

Maslow's theory of the need hierarchy was used to explore the effect of environment and activity upon the need satisfaction of older persons. The institutional environment did not appear to satisfy belongingness/love and esteem needs as much as the community environment did. Within the community, ethnicity and living arrangement seemed to be important variables affecting need satisfaction. Individuals who were black or who did not live alone were more satisfied than those who were more satisfied than those who were white or lived alone.

Activities of the older persons reflected opportunities available in their environments. Those activities most frequently identified as important satisfied belongingness/love needs, indicating that this need may be very strong among older persons.

Many questions were raised by this research. Some questions that might be addressed in the future are: (1) What is the relationship between ethnicity and need satisfaction? (2) To what degree do different activities meet different needs? (3) What kinds of activities meet the basic needs in different age groups? Is involvement in activities identified as important by older persons influential in their adherence to therapeutic programs?

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REFERENCES