THE EFFECTS OF A RESOCIALIZATION PROGRAM ON COGNITIVE AND PHYSICAL FUNCTIONING IN AN ELDERLY POPULATION.

Marcella B. Weiner, Ed.D.
Senior Research Scientist,
Gerontology Unit,
Biometrics Research, N.Y. State
Department of Mental Hygiene,
Adj. Asst. Professor,
Program in Leisure Education & Gerontology,
Teachers College, Columbia U.
and
Comilda S. Weinstock, Ed.D.
Associate Research Scientist,
Gerontology Unit,
Biometrics Research, N.Y. State
Department of Mental Hygiene,
Adj. Associate Professor,
Program in Leisure Education & Gerontology,
Teachers College, Columbia U.

*Paper Presented at 81st Annual Convention of the American Psychological Association, Montreal, Quebec, Canada, August 27-August 31, 1973.*
Previous research (Weinstock and Bennett, 1971) has shown that positive changes in cognitive functioning can occur when aging persons are part of a stimulating environment. The present study is concerned with the effects on cognitive functioning and health in community elderly as a consequence of environmental manipulations.

This problem has been studied by several other investigators (Post, 1953; Gottesman, 1965; Donahue, 1953; Maddox, 1965) using different methodologies. In the present study, a sample of 65 elderly subjects (58 F's and 9 M's) was randomly assigned to 3 conditions. Two experimental groups totaling 27 subjects, mean age 71.5, were lead by an active trained group leader who used accepted group intervention techniques. These techniques included interrogation, used by the leader to help point up significant material; clarification, to elucidate a point not adequately dealt with; and confrontation, in order to indicate verbal inconsistencies. (Slavson, 1964). In addition consistent use was made of verbal reinforcement methods throughout the discussions. Two intermediate groups totalling 20 subjects, mean age 74.4, met as a "talk" group with the same leader who assumed a passive, group-member role only. The third condition consisted of the 20 zero control subjects, mean age 73.8, who were never assigned to any group. All 67 subjects were tested before the onset of group sessions as well as at the conclusion of the study. The sub-tests of Information, Comprehension and Similarities of the Wechsler Adult Intelligence Scale (WAIS) along with the Cornell Medical Index (CMI) were part of a battery (Weiner, 1972) administered to the sample. The WAIS tests were selected because they correlate highly with total WAIS scores and were easily administered, valid and reliable measures of cognitive functioning in the elderly.
Group sessions, conducted for one hour weekly, were held at a large metropolitan general hospital used by all subjects, clinic out-patients, for medical problems. A total of 12 sessions were held for each of the experimental and intermediate groups over a period of approximately 3 months.

Results

The data were analyzed using a one-way analysis of variance for change score. Results using the summation scores of the 3 WAIS subtests, i.e. WAIS "total", are presented in Table 1.

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>345.04</td>
<td>2</td>
<td>172.52</td>
<td>4.310</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Within</td>
<td>1962.94</td>
<td>49</td>
<td>40.06</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It appears that the difference between groups for the WAIS "Total" were statistically significant at the .05. Thus, cognitive functioning, as measured by the WAIS, showed greater positive change for the experimental group, than for the other conditions.

When the data for health status as measured by CMI were analyzed results showed significant changes again for the experimental group only. The "Yes" and "No" components of the CMI are reciprocal parts of the same instrument. For instance, on the question "Do you suffer from arthritis?" one can answer either "Yes" or "No". Scores are then analyzed in terms of numbers of ailments admitted to or denied. This is shown in Tables 2 and 3.
TABLE 2

"YES" CHANGE SCORES ON THE CORNELL MEDICAL INDEX FOR THE EXPERIMENTAL, INTERMEDIATE AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>178.33</td>
<td>2</td>
<td>89.15</td>
<td>5.553</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Within</td>
<td>786.51</td>
<td>49</td>
<td>16.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 3

"NO" CHANGE SCORES ON THE CORNELL MEDICAL INDEX FOR THE EXPERIMENTAL, INTERMEDIATE AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>654.88</td>
<td>2</td>
<td>327.44</td>
<td>4.625</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Within</td>
<td>3468.65</td>
<td>49</td>
<td>70.79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It would appear that this experience for the experimental group resulted in a significantly greater reduction of self-reports of physical complaints than over the same time period for the other groups.

DISCUSSION

Our findings indicating positive changes in cognitive functioning and health status for the experimental group, are consistent with other studies which show that when elderly persons are involved in meaningful social situations which offer opportunities for interaction with peers along with reinforcement of appropriate social behaviors and communications, positive changes can be anticipated. One implication of these
findings suggests that decline in cognitive functioning observed in other elderly populations may well be a function of the lack of stimulation available to the older adult which leads to reduced capacity for intellectual performance.

The results showing decrease in physical complaints for the experimental group, may be explained by the fact that this intervention approach, may have the effect of reducing the focus on ones bodily ailments. It has been shown that (Busse, 1959) when the older person, fearing that he or she is failing in achievement and that society expects him or her to be ill, he is likely to accept such expectations, and assume the sick role. Given other more constructive outlets, the older person can respond positively and appropriately to external stimuli and be relieved of his concern with his illnesses.

SUMMARY

Sixty-seven aged, community-based subjects were given pre and post tests of cognitive functioning and physical health status. Only those individuals exposed to a structured stimulating milieu in the form of a group resocialization program conducted within a community-based hospital, showed significant changes.

These findings suggest that the reduction in performance on tests of cognitive functioning reported for elderly populations elsewhere (Wechsler, 1958) may well be a function of the lack of stimulation available to older adults. Resocialization experiences would also seem to effect a reduction in physical complaints noted in this population.

It is clear from our findings that the aging process need not be concomitant with decrements, either in physical or cognitive functioning. A resocialization program, as an intervention approach for the elderly, may be a mitigating factor between aging and cognitive and physical declines.
REFERENCES


Weinstock, Comilda and Bennett, Ruth, "From 'Waiting on the List' to Becoming a 'Newcomer' and an 'Oldtimer' in a Home for the Aged: Two Studies of Socialization and Its Impact upon Cognitive Functioning." Aging and Human Development, II, February 1971. 11-32.