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ABSTRACT

Data on demographics, physical capability and social-emotional behavioral variables for 134 residents between the ages of 50 and 96 were collected in four nursing homes to examine the dimensions related to problem behaviors. Social-emotional behaviors related on six scales of reliabilities ranging from .90 to .74. The scales included depression, social interaction, cognitive functioning, physical hostility, verbal hostility and high hospitalization risk. Correlational analysis revealed that physical disability was significantly related to cognitive functioning, social interaction, and messy behavior. Another finding was that place of living prior to entry into the nursing home significantly related to behavioral problems. This finding has implications for creating various types of programs at the time of entry into the nursing home for the new residents. Interestingly, age related significantly to cognitive functioning and social interaction, and had no significant relationship with verbal hostility, physical hostility, psychotic behavior and messiness. It is of interest that depression had a significant negative correlation with age. These findings have implications for testing preventive psycho-social approaches for different types of residents in nursing homes. (Author)

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IN NURSING HOMES

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FACTORS RELATED TO SOCIAL-EMOTIONAL PROBLEM BEHAVIORS  
IN NURSING HOMES

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Today with the increase attention to physical, psychological, and social welfare of nursing home residents, (Butler & Lewis, 1973) it is vital to determine factors that influence psycho-social problem behaviors in nursing homes. The present study examines the effect of demographic variables, physical variables, and social situational variables on the emotional and social behaviors of residents. An investigation of social-emotional well-being was conducted beyond the labeling of diagnostic categories. Behaviors indicative of psychosocial well-being were identified and measured.

Demographic variables. Researchers have found that certain demographic variables increase the risk of an older person being placed in a mental hospital. For example, divorced, widowed, and single individuals and those of low socio-economic status were found to have a high-risk for entering mental hospitals than others (Malzberg, 1956). Pasamanick and associates (1957) also discovered that males have higher risks for impairment than females.

There have been numerous studies examining the effect of age on mental disorder; however most of these studies involved older people in mental hospitals and not in nursing homes. Many of the findings indicated an increase of mental disorder with age, with the most prevalent disorder being organic brain syndrome (Lowenthal, 1963; Issen, Moller, 1961; Gruenberg, 1961, & Pasamancik, 1962.)

The literature indicates that age is not related to the occurrence of psychoneurosis (phobias, anxieties, and obsessions) (Pasamanick, 1962; Srole, et al., 1962; Rieley & Foster, 1968). Furthermore Leighton and associates (1963) and Gurin (1960) report higher incidents of psychoneurosis for women than men in old age. The following study examined the effects of age, sex, marital status and occupation on the social-emotional well-being of nursing home residents as measured by the

Social Situational Variables. Since it is evident that elderly residents in the nursing homes are confronted with many losses, it is important to examine the relationships between social situational variables which reflect the degree of loss experienced by the residents and their impact on social-emotional well being. The social situational variables that were studied include number of visits received by the resident, length of stay in the home, and living situation prior to placement in the nursing home.

Physical Capabilities. Physical health as a predictor of mental disorders has been of great interest to researchers. For instance, Bellin and Hordt (1958) found that socioeconomic status and physical health were the best predictors for mental disorders. Other studies have documented that a significant relationship exists between physical disability and mental disorder (Gruenberg, 1961; Simon, 1968; Gurin, 1960; and Leighton, 1963). Kahn, Goldfarb, Pollack and Cerber's study of institutionalized aged persons revealed that cognitive functions were highly related to physical functions (1960). The relationships between specific physical disabilities and social-emotional behaviors were examined in this study.

#### METHOD

Nurses evaluated 155 randomly selected nursing home residents between ages 50 to 96 in four facilities, using the Behavior of Older Patients Instrument and Physical Capabilities Checklist. In addition, data on length of stay, number of visits received, living situation prior to nursing home placement, and demographic variables were gathered.

The four homes were privately run and profit-making with 110-125 beds per home. Staffing patterns for the four facilities were similar as all of the homes kept to the minimum standards set by the Department of Public Health. The interrelationships of demographic variables, social situational variables and physical capabilities to social-emotional behaviors were examined by correlational analysis.

#### Description of Patients

The average age of patients in these homes was 81 years. Seventy-one percent of them were females. Seventy percent of the residents were widowed, sixteen percent were single or divorced with married people making up fourteen percent of the population. Interestingly enough, thirty-six percent of the married residents had spouses living with them in the nursing home. The method of payment for fifty-three percent of the patients was Medicaid, while thirty-four percent of them were private payers and three percent were covered by Blue Cross. More than half of the residents came to the homes from general hospital settings while about nineteen percent came from independent living situations. Fifteen percent lived with relatives prior to entrance into the nursing home and eleven percent of the residents were transferred from other nursing home facilities. Length of stay at these homes ranged from 2 months to 99 months with an average of 32.5 months, over fifty-five percent of the residents have been in the home over two years. Number of visitors varied widely with a mean of 9.7 visits per month.

Behavior of Older Patients (BOP). The instrument, Behavior of Older Patients, was developed to provide behavioral information to mental health consultants and data on social-emotional wellness of patients for research purposes. Items were kept as brief in length as possible in order

that the busy nurse could readily use the instrument. It was important to select items that were meaningful for the nursing staff, the mental health consultant and yet meet the needs of the research project.

Some of the items were selected from the Yale Psychiatric Rating Scale. Other items were created by examining common behavioral complaints received by mental health workers from nursing homes.

This instrument was tested for its inter-rater reliability. Three pairs of nurses rated 20 patients each. Reliability measures were obtained from patient's total score on the instrument. The inter-rater reliabilities obtained were .92, .91, and .70.

In addition to inter-rater reliability, internal consistency measures were obtained for seven scales that were rationally created. The internal consistencies were fairly high as will be shown by the discussion of each dimension.

Cognitive Functioning. This dimension measures the patients ability to: (1) recall past and present events, (2) identify time, place, and person, and (3) possess sound judgement with regard to daily activities. The internal consistency for this scale was .92, the highest reliability for all seven scales.

Social Interaction. The degree to which patients initiate and participate in conversation and activities is measured in this dimension. It thus could also be characterized as an activity scale. The internal consistency was .88.

Verbal Hostility. This dimension measures degree of anger and irritability voiced by the patient. It also taps lying and verbal expressions about people attacking, or cheating him/her. The internal consistence was .86.

Physical Hostility. Both physical violence to objects and people are measured in this dimension. The internal consistency was .79.

Depression. This dimension and the social interaction dimension should be jointly examined when assessing depression since this dimension covers verbal expression of worthlessness while the social interaction dimension reflects the patient's willingness to participate and socialize, behaviors which are sometimes indicative of depression. For this scale patients were rated on the degree to which they had verbalized feelings of depression, worthlessness and thoughts of suicide. Crying was also examined. The internal consistency was .82.

Psychotic Behavior. This dimension measures delusional, hallucinatory and other psychotic behaviors which may indicate a need for psychiatric hospitalization. The internal consistency measure was .81.

Measiness. This dimension taps physical capability for self care as well as willingness to care for oneself. The internal reliability for this dimension is .74.

The mean scores for each of the dimensions in the Behavior of Older Patients instrument showed that the three highest problem areas for residents in nursing homes were (1) social interaction, (2) cognitive functioning, and (3) verbal hostility. The areas where residents seem to have the least problems are (1) physical hostility, (2) psychotic behavior, and (3) depression.

#### Physical Capabilities Checklist

Residents were evaluated on a 5-point scale ranging from self sufficiency to total incapability of performing particular physical functions on the Physical Capabilities Checklist. This checklist measured the following areas: (1) self-care, (2) movement, and (3) sensory functioning.

The self-care component included toileting, feeding, dressing, bathing, and grooming. Movement included activity and walking. Sensory functioning included seeing, hearing, and speaking. The means for each of the three Physical Capabilities dimensions indicate that residents have most difficulty in self-care, especially in bathing, followed by ambulation problems and problems in seeing, hearing, and speaking.

### Results

Correlations Between Demographic Variables and Social-Emotional Dimension. The correlations between sex and seven social-emotional behavioral dimensions show that females significantly have more cognitive problems than males and demonstrate psychotic and hallucinating behaviors more than males. There were no other significant relationships between sex and socio-emotional well being.

Age was significantly related to cognitive, and social interaction. It thus appears that age is related to loss of cognitive ability and a decrease in active social interaction. Interestingly age related negatively with depression.

Since prior occupation did not relate significantly to any of the behavioral dimensions, occupation seems to be a poor predictor for social-emotional adjustment in nursing homes. This is a somewhat contrary finding to a previous study where socio-economic status was a high predictor of psychotic behavior.

Marital status was a significant discriminator of social-emotional behaviors. Widows and widowers were found to be significantly less physically hostile. Singles were significantly less active in social interaction. Living location of the spouse for the marrieds was also an important factor. Residents with spouses living in the nursing home tended to be physically hostile while the married residents with spouses living elsewhere tended to have problems with cognition and tended to be less verbally hostile.



Correlations Between Social Situational Variables and Social-Emotional Dimensions. Social situational variables in addition to demographics of patients provided further information on possible predictors of social-emotional behaviors. Prior living status before nursing home living, was a significant factor which revealed some unexpected relationships. First of all, being in a general hospital setting or living with relatives and friends were not related significantly to any of the behavioral scales. Surprisingly, patients who had lived independently before coming into the nursing home were significantly less depressed and less verbally hostile than others. Transfers from other nursing homes displayed more verbally hostile behavior than others. This may have been the reason for the transfer.

It was interesting that length of stay only related significantly to physical hostility. Other problems did not increase with long term nursing home living as expected.

Another surprising finding was that number of visits did not relate significantly to any of the social-emotional behavioral dimensions. This finding raises the question of what impact do visitors have on patients in the home.

Correlations Between Physical Capability and Social-Emotional Dimensions. Social-emotional behavioral dimensions were more highly correlated with physical capabilities of the patients than with the patients demographics, and social situational variables. A patient's ability to care for himself/herself by being able to dress, feed, bathe, groom, was found to be related to cognitive functioning, interaction, physical hostility, messiness and high risk behaviors.

Non-ambulatory patients seemed to have significantly more problems in cognitive functioning, interaction, and messiness. Ambulation did not seem to relate to hostility, depression, or psychotic behavior.

Problems of hearing, seeing and speaking were positively related to problems in cognitive functioning, social interaction, and messiness. On the other hand, patients with sensory difficulty seemed to be less depressed and less verbally hostile.

The results on the effect of physical capabilities on social-emotional behaviors of nursing home patients suggest the importance of helping patients to be self-sufficient as much as possible for the maintenance of healthy psychosocial well being.

CORRELATIONS BETWEEN DEMOGRAPHIC, SOCIAL SITUATIONAL AND PHYSICAL CAPABILITY

	VARIABLES AND SOCIAL EMOTIONAL VARIABLES							
	Social-Emotional Variables				Verbal			
	Cognitive Functioning	Interaction	Depression	Hostility	Verbal Hostility	Physical Hostility	Psychotic Behavior	Messiness
<u>Demographic Variables</u>								
Sex	.1550*	.0391	.1235	.0131	-.1021	.1865*	.1014	
Age	.1873*	.1645*	-.1443*	-.0298	.0632	.1248	.0499	
Occupation	.0122	-.0242	-.090	-.1235	-.0596	-.0025	-.0327	
<u>Marital Status</u>								
Widowed	-.0109	-.1045	-.0010	.0046	-.1395**	.0538	-.0693	
Single	-.0228	.1460*	.0150	.0805	.1235	.0012	.0628	
Divorced	-.1060	-.0784	-.0269	.0077	-.0287	-.0880	-.1026	
Spouse living in NH	-.0395	.0880	.1145	.1130	.1880*	-.0737	.0508	
Spouse not living in NH	.1394*	-.0202	-.0873	-.1914*	-.0521	.0241	.0625	
<u>Social Situational Variables</u>								
Prior living status								
Independent	-.0487	-.0496	-.1976*	-.1326*	-.0966	-.1221	.0391	
Relatives & Friends	.0207	-.0096	.0304	-.0269	.0721	-.0357	-.1178	
Other Nursing Home	.0082	.0417	.1167	.1805*	.1052	.0704	-.0630	
General hospital	-.0025	-.0088	.0513	-.0269	-.0611	.0541	.0952	
Length of Stay	.0837	.0997	-.0798	.0460	.2358**	.0709	.0583	
Number of Visitors	.0831	.0222	.1211	.1006	.0032	.070	.0625	
<u>Physical Capability Variables</u>								
Self-Care	.6068**	.4064**	-.1301	.0364	.2265**	.2763**	.3680**	
Movement	.3120**	.3410**	-.0560	.0145	.1230	.0323	.1602*	
Senses	.3077*	.2391**	-.2693**	-.1502*	.0291	.0869	.2547**	

\* p < .05  
\*\* p < .005

Discussion

The results of this study support some of the findings from previous studies and question assumptions made about residents living in nursing homes. The interrelationships between demographic variables and social-emotional variables revealed that age, sex and marital status were associated with certain social-emotional behavioral problems while occupation did not significantly relate to any of the seven behavioral dimensions. Age was related to cognitive and social interaction problems, but interestingly, age did not influence hostile behavior, messiness and psychotic behavior. Age in fact was negatively related to the depression dimension. It should be noted that the depression scale consisted of only verbal displays of depression. Thus it seems that growing old in the nursing home may decrease cognitive functioning and decrease social interaction abilities but does not necessarily lead to psychotic, hostile, messy or depressed behavior. The decrease in cognitive functioning with age may be explained by the prevalence of arteriosclerosis with the increase in age (Kay et al., 1964; Butler and Lewis, 1973).

Although a previous study has shown that men are more likely to have greater cognitive impairment than females, (Pasamanick et al., 1957) in this study the females in the nursing home tended to have more cognitive problems and psychotic behavior.

It should be noted that there is a high frequency of older females residing in nursing homes and that females, after age 75, tend to have equal chances for mental impairment as men (Gruenberg, 1961). Thus this finding could be an artifact of the nursing home population distribution of sex and age.

The data on marital status indicates that widowers and widows were less physically hostile and singles tended to have social interaction problems. The singles may not have married because of their having difficulty with social interaction. Perhaps the effect of congregate living for singles who have social interaction problems should be examined. It may be helpful if nursing homes were to aid singles who exhibit social interaction problem behaviors by providing as much privacy as possible or implementing programs that would teach them skills to enhance their social interaction with others.

The presence and absence of spouses living in the nursing home with the patient related significantly to a degree of some behavioral dimensions. While there appeared to be no significant positive effect of the spouses' presence in the nursing home there was indication that physically hostile behavior may increase with their presence. Those patients with spouses living elsewhere seem to have cognitive problems but demonstrate less verbally hostile behavior. Perhaps instead of examining the effect of the presence or absence of spouses, it may be more vital to study the social situations that increase social-emotional growth for patients with spouses at the home and those with spouses elsewhere.

The highest correlations were obtained between physical capability variables and social-emotional behaviors. However it should be noted that some of the dimensions of the Behavior of Older Patients are rationally similar to the scales in the Physical Capabilities Checklist. For example the ability to socially interest was related to sensory functions and ambulation for it was important to perform these physical functions to socialize. The verbal hostility and depression dimensions required patients to articulate. Thus the significant negative correlation between depression and sensory functions is an artifact of our method of measurement.

Physical capability significantly related to many social-emotional behaviors. Patients with problems in self care, movement, hearing, seeing and speaking had problems in cognition, social interaction and messy behavior, supporting findings from previous studies (Simon, 1970; Kahn et al., 1960). In addition patients with self care problems tended to be physically hostile and to demonstrate psychotic behavior. These findings reaffirm the powerful influence of physical abilities on social-emotional behaviors. There is thus a need to maintain physical health of patients if we are to curb a significant amount of social-emotional impairment.

Correlations between the social situational variables and social-emotional behaviors were the most interesting part of the findings. Although it was expected that a patient coming from an independent living situation would experience depression in adjusting to congregate living, depression and verbal hostility were negatively related to independent living status prior to nursing home placement. Furthermore, social interaction, another indicator of depression, did not significantly relate to prior independent living status. These findings suggest that perhaps the persons coming from independent living status to the nursing home do not cause visible behavioral problems related to depression; however, this does not necessarily mean that they are not depressed as the Behavior of Older Patients instrument may only be sensitive to gross problems. Moreover, questions related to personal life satisfaction and morale, indicators of depression, have not been answered through the Behavior of Older Patients instrument.

Similarly it was thought that the longer a patient stays in a home, the greater the likelihood to exhibit problem behaviors. This belief was not totally supported as length of stay significantly related only to physical hostility. A selection factor may be operating here for nursing homes may transfer patients demonstrating gross behavioral problems over a period of time to other homes or the state hospitals.

Finally no relationships were found between number of visits received and the seven social-emotional dimensions. It appears that visits are not only received by residents demonstrating social-emotional wellness but by others who are less well too. The sensitivity of the Behavior of Older Patients instrument may be questioned. Again variables which may reflect the impact of visits, such as morale and life satisfaction were not assessed. In future studies the impact of visits on patients should be assessed with more qualitative questions covering satisfaction and morale. Benefits of visits for the family or friend who visits patients and the value of the visits for the patient should be examined. What circumstances enhance visits for patients and their visitors could also be studied. These questions are highly relevant as many homes engage in programs such as the Friendly Visitor Program and solicit volunteers to visit with patients.

In summary, the findings from this study indicate a need to examine those variables that can be manipulated and have impact on social-emotional well being of patients in nursing homes. First of all it was recognized that physical health is important to maintain social-emotional wellness; and thus supportive rehabilitation programs to maintain and increase physical health should be encouraged in nursing homes. What circumstances

and situations enhance visitations and husband and wife living together in homes need to be examined. Finally it is recognized that the Behavior of Older Patients is just one method to measure social-emotional wellness. Other techniques which are sensitive to morale and life satisfaction (Kastenbaum and Sherwood, 1972) need to be used jointly with the Behavior of Older Patients instrument to broaden the scope of social-emotional behavioral measurement.



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