

Relating Health and Social Contacts to the Morale of Elderly Persons

ILSE J. VOLINN, Ph.D., and JESS B. SPIELHOLZ, M.D., M.P.H.

IN 1963 a group of public-spirited citizens in a metropolitan area of the Pacific Northwest discussed their concern about the well-being of elderly persons in their community. Together with board, committee, and staff members of voluntary and public agencies, they personally observed services provided in clinics, housing projects, and public recreation facilities. Plans for a household survey became formalized by 1965 when the division of health services, State department of health, and the planning division of United Good Neighbors offered to participate in further efforts to search for objective information on the subject.

Statistical data from the 1960 census were first examined for information relevant to local population trends. The demographic data helped to interpret the subjective concern expressed by citizens at large and by professional staff. Neither informal observations nor secondary data served to assess satisfactorily a possible gap between demand and supply of health and welfare services available in the community.

The decision was made at this point to con-

Dr. Volinn is research project director, health manpower project, and Dr. Spielholz is deputy director, Washington State Department of Health, Seattle. Mrs. Jane Dawson, an economist in the planning division of the Seattle United Good Neighbors, assisted in all phases of data gathering and analysis.

duct the survey, applying scientific principles of data collection and data analysis. Coupled with the survey was a built-in procedure for future action. An additional goal was to contribute to knowledge in the field of gerontology.

An overall ad hoc committee and five subcommittees representing specific areas of interest were selected. Consultants from a university and community representatives with wide experience in public health and social welfare were chosen for the study areas of health, personal and social adjustment, economics, housing, and recreation. After these groups defined several objectives to be accomplished by the survey, they assigned priority ratings to each informational item to decide whether to include it in the questionnaire.

Methodology

The sample was a stratified cluster sample, and the primary sampling unit was the census tract. From the 1960 census figures, the 15 census tracts with the largest number of persons 55 years and older were determined. Because the census data were based on 1960 information and the survey was conducted in 1965, the lower age limit of 55 was used for survey sampling procedures. A purposive sample to include non-whites was added to the general sample.

Within each of the 15 census tracts, seven blocks were selected at random by using a map indicating block numbers. A table of random

numbers was used for the procedure. Households with persons in the desired age range were located by interviewers through door-to-door canvassing. One interview per dwelling unit was conducted. All institutions, retirement homes, nursing homes, and transient hotels were excluded from the sample.

The total return rate was 92 percent. The rejection rate was 8 percent; 4 percent consisted of persons who were unable to become respondents, and the rest refused to be interviewed because of their physical condition.

Table 1 shows that the sample of respondents drawn for the study is comparable in demographic characteristics to the noninstitutionalized aged population of the city as a whole.

Several city blocks were assigned to each interviewer as his work territory. The number and location of assigned sampling areas depended on population density, difficulty of terrain (the city is hilly), and an effort to put interviewers outside their own home territory. Each interviewer was given a map of his work area.

The intent to recruit interviewers within the same age range as the prospective respondents had been conceived during the early planning stages of the survey. Not known to the research staff at the time was that aged persons had been put in charge of data gathering in a survey conducted by the Newton (Mass.) Department of Health and the Medical Foundation, Inc. (1). Elderly male interviewers were employed to test the feasibility of using the skills of older people to gather quantifiable data.

In our study, like that in Massachusetts, elderly persons were used both to perform a specified task and to test the effectiveness of such an endeavor. Interviewers were recruited from several clubs of retired employees of local companies and through a golden age club of a low-income housing project. Of the initial 28 recruits, only 15 men and women from 55 to 77 years (median age 69) remained after three rigorous training sessions.

Interviewers' training consisted of discussion of general principles of survey interviewing, the sample design, and the survey instrument. Their assignments were explained at length, and difficult interviewing situations were anticipated through role playing. After the last training session, each trainee conducted a minimum of

three trial interviews. All completed questionnaires were evaluated for completeness, discrepancy of information, or other detectable errors of the interviewer. Weekly training and work evaluation sessions were held during the entire survey.

The study instrument. The questionnaire consisted of structured and open-ended questions which were categorized before coding. It was divided into the five topical areas (health, personal and social adjustment, economics, housing, and recreation) represented by the committees. This report pertains to physical and mental health items. The interrelationship of three variables—changes in health, changes in social relationships, and an expression of contentment—will be discussed. To determine the degree of contentment, a quantitative measure was selected, Kutner's (2) seven-item Guttman-type scale. That measure expresses the respondent's general outlook on life within a range of extreme pessimism to extreme optimism. It expresses a person's perception of his own contentment or well-being. This point is made because we considered using an anomie scale constructed by Srole (3) which expresses the respondent's perception of his social environment.

Limitations of the Kutner scale were discussed by Neugarten and co-workers (4). Two major shortcomings of the Kutner scale are its lack of validation against outside criteria and its assumption that psychological well-being is a unidimensional phenomenon. These shortcomings, however, do not invalidate the survey findings. In addition to the Kutner scale, measures of satisfaction related to each context area were applied.

Pretest. Six volunteers pretested the questionnaire with 25 respondents. Some of them had been assigned, others were self-chosen. Modifications of the questionnaire followed the pretest.

Statistical analysis. Trivariate and bivariate analyses were undertaken, and the degree of association between ordered variables was determined by the gamma measure, which was translated into a z score. Association between variables was considered significant if the z score was 1.96 or higher. The higher the z score, the greater was the confidence in the association between the variables.

The chi-square was used for significance tests

Table 1. Demographic characteristics of the 1965 sample population (60 years and older) compared with those of the census population (55 years and older)

Characteristics of sample population	Number	Percent	Characteristics of city's population	Number	Percent
Age:			Age (1960 census): ¹		
60-64-----	94	17.8	55-59-----	30,447	24.6
65-74-----	259	49.0	60-69-----	49,620	40.2
75 and older-----	176	33.2	70 and older-----	43,411	35.2
Sex:			Sex (1960 census): ¹		
Male-----	195	36.7	Male-----	56,993	46.2
Female-----	336	63.3	Female-----	66,485	53.8
Marital status:			Marital status (SMSA): ²		
Single-----	61	11.5	Single-----	16,285	11.9
Married, living with spouse----	194	36.6	Married, living with spouse----	60,945	44.4
All other-----	276	51.9	All other-----	59,844	43.7

¹ U.S. Bureau of the Census: Census of population and housing: 1960. Census tracts, Final Report PHC (1)-142, U.S. Government Printing Office, Washington, D.C., 1962.

² Standard Metropolitan Statistical Area. U.S. Bureau of the Census: Detailed characteristics, Washington, 1960. Final Report PC (1)-49D, U.S. Government Printing Office, Washington, D.C., 1962.

when one or both of the variables tested was not ordered. All statistical data were based on actual responses. Nonresponses on specific questionnaire items were omitted to fulfill all requirements for use of the gamma measure. Magnitude of nonresponses can be detected by examining the totals of the statistical tables.

Health and deteriorating health defined. The concern of this study is to define health as perceived by the respondents and not clinical morbidity. Limitations of such research tools have been elaborated at length at the occasion of the National Health Survey (5). Correlation of self-perceived health and clinical health has been reported (6).

Lawton and co-workers (7) reported that self-perceived health and physician-rated health both provided meaningful indices of health. They concluded that there was no single factor of health which could be reduced to an operational definition. With increased generalization of the concept, the chances of inclusion of non-physical elements increased, and the authors concluded that it was possible to obtain an internally consistent measure of health from the older person himself (7). Sullivan (8) stated, "The health of individuals is classified by very different procedures in different situations; however, possibly the simplest procedure is to accept the individual's judgment of his own state of health, as is frequently done in everyday life." He further pointed out that most

morbidity concepts consisted of a combination of (a) clinical evidence, (b) subjective evidence, and (c) behavioral evidence. Our study deals only with subjective evidence.

Health attitudes were studied in a time perspective. The specific question asked was "Do you think your health is currently better, the same, or worse than 10 years ago?"

Sorokin and Merton (9) formulated the dual aspect of time. They juxtaposed quantitative astronomical time to qualitative social time. Social time was based on the premise that "Notions form eras in terms of some remarkable event which has social implication." They explained that in the field of psychology time is influenced by the number and importance of concrete events occurring in the particular period under observation.

The health related question in our study reflects qualitative social time which might have been shaped through the impact of a particularly traumatic morbidity event.

DiCicco and Apple (10) made the point that health became important to persons in their study only when it interfered with their daily activities or threatened their independence. Health self-evaluation does not necessarily depend on the factor emphasized by DiCicco and Apple. Baumgarten (11) distinguished three categories of health-illness orientation: (a) a general feeling of well-being, (b) absence of general or specific symptoms of illness, and (c)

measures of ability to perform. She reported that her second category, symptoms orientation, decreased with age. Persons affected with chronic illnesses probably learn to accept persistent physical shortcomings.

Health

Health studies. To validate the self-reported changes in health conditions, additional health related questionnaire replies were considered. To assess a general satisfaction with their current health status, respondents were asked, "Do you consider your health as very good, good, average, poor, or very poor?" More than half of the respondents, 282 (53 percent) thought their health was very good or good, 157 (30 percent) thought it was average, and 92 (17 percent) stated it was very poor or poor.

When queried about current conditions of morbidity, 122 (23 percent) of the respondents denied having any such conditions, 230 (43 percent) identified one or more of the diagnostic categories, and the remaining 179 (34 percent) were noncommittal.

A question to determine conditions that were incapacitating followed. The exact wording was "Are your everyday activities limited?" Ninety-seven (18.3 percent) replied "yes," 160 (30.1 percent) "somewhat," and 274 (51.6 percent) said "no activity limitations." The following table summarizes the preceding data on the self-evaluation of 531 respondents.

Self-evaluation	Number	Percent
Health good or average.....	439	83
Health poor.....	92	17
No morbidity.....	122	23
Morbidity.....	230	43
Noncommittal.....	179	34
No activity limitations.....	274	52
Activity limitations.....	257	48

Temporal changes in self-perceived health will be discussed next. When asked how their health compared with their condition 10 years ago, slightly more than one-third reported it had deteriorated. The replies were categorized as follows.

Health status	Number	Percent
Remained the same.....	268	52.3
Improved.....	62	12.1
Became worse.....	182	35.5

Self-reported health has been discussed from different viewpoints of the respondents. Morale was determined by a quantitative measure. The

next step was to assess the relationship between the two variables.

Health and morale. In this study, morale was considered the dependent variable and health perception the independent variable. This relationship had been tested empirically. Lowenthal (12) reported that two-thirds of the mental patients participating in her survey stated that physical ill health was their main problem in life. Youmans (13) noted that the degree of perception of ill health was closely related to a high degree of pessimism, probably because the ill person is denied access to means of goal achievement.

Survey results. High morale was observed in 56 percent of the respondents who reported "improved health," in 50 percent reporting "unchanged health," but in only 19 percent reporting "deteriorating health" (table 2).

The z score (5.216) indicated that the distribution could not have occurred by chance. The gamma value (0.459) expressed the degree of association.

Based on the data in table 2, it can be concluded that respondents who thought that their health had not deteriorated were the most likely to have a rather optimistic view about themselves and life in general. But when health had declined during the past 10 years, the chances of such a point of view became unlikely.

Friendships

Social contact studies. One of the many misconceptions about the aged is the assumption that involuntary isolation always brings about emotional suffering. Although such cases do occur, several studies reveal a reversed trend. Rose and Peterson (14) described the formation of subcultures composed of older people. This social phenomenon is explained by modern med-

Table 2. Morale and perceived changes in health, in percent

Morale	Better health (N=62)	Same (N=268)	Worse (N=182)
High.....	56.5	50.0	19.2
Average.....	27.4	33.2	40.1
Low.....	16.1	16.8	40.7

NOTE: Gamma, 0.459; z, 5.216.

ical advances which lead to an increased number of elderly persons within the population which, in turn, leads to various forms of self-segregation in social activities, in housing, and in independent economic and welfare arrangements. Rose and Peterson described the opportunities for new social roles for those who became conscious of their subgroup.

Cumming and Henry (15) challenged the assumption that stabilization of social contacts is important to the morale of the elderly. They noted that although morale was significantly related to social contacts, increasing age brought decreasing desire for interpersonal relationships. Maddox (16) observed a relationship between activities and morale only under certain conditions. Morale could be maintained in the absence of interpersonal activities if the subjects believed themselves to be in good health. In other words, respondents who considered themselves healthy had high morale even if they were socially isolated.

Quality of friendship ties as a dimension and their decrease in depth during later years is discussed by Rosow (17). Blau (18) reported that friendship ties among aged persons were greatly limited by socioeconomic differences as well as by differences in marital status.

The assumption that the quantity of social activities depends on the health status has been questioned by Rosow (17). On the basis of empirical studies he observed that "health is a substantially weak variable, much weaker than expected. . . . Contact differences are strictly a function of density (of living arrangements) with poor health contributing nothing to the pattern." He further asserts, "While poor health may restrict social life, this apparently applies mainly to outside activity. . . . The significance of the health factor remains ambiguous."

Sorokin and Merton (9) discussed the fact that reports of contracting social circles either reflect the loss of a particular close friend, marking qualitative social time, or an overall decrease of the social circle forming the quantitative time element. Rosow (17) referred to a study conducted in England in 1957 in which it was noted that the loneliest people were not those with fewest contacts but those who had had the greatest relative decline of contacts.

Survey findings. In our study, friendship

was defined as the respondent's perception of his social ties. No attempt was made to define the degree of closeness achieved in these social ties. Friendship, like health, was considered in a social time perspective.

Some general findings related to the subject will be discussed before considering changes in friendships. A crude composite score of social contacts was established on the basis of replies to the following three questions, "How many times during the past 7 days have you seen each of the following members of your family?" (The list included immediate family as well as members of an extended family group.) "How often during the past week have you heard by telephone or mail from some member of your family?" "How often during the past week did you get together with one of your friends?" Frequency of contacts was translated into scores. A zero score representing no contacts was reported by 6.2 percent of the total sample, or 33 respondents. Respondents with a range of contact scores of one to three were noted in 25.6 percent of the group. The majority, 68.2 percent, fell into the highest category of four or more social contacts. Two-thirds of the whole sample reported several social contacts during a week.

We can now proceed to consider friendships in the time perspective. The question asked was "Compared to 10 years ago, do you have now: more friends, fewer friends, about the same?" About one-fourth of the respondents felt their friendship circle was contracting; three-fourths reported unchanged or increasing social contacts. Table 3 shows the relationship of perceived changes in social contacts to morale.

Fifty percent of those whose friendships were increasing had high morale; those whose pattern of friendships was unchanged were some-

Table 3. Morale by perceived changes in friendships, in percent

Morale	More friends (N=83)	Same number (N=299)	Fewer friends (N=131)
High.....	50.6	43.1	25.2
Average.....	33.7	34.1	37.4
Low.....	15.7	22.7	37.4

NOTE: Gamma, 0.294; z, 3.030.

what less likely to express such feelings of general optimism. Only one-fourth of the respondents whose score showed high morale reported decreasing numbers of friends.

The z score (3.030) signified that the distribution could not have occurred by chance, but the gamma value (0.294) showed that statistically the degree of association between the two variables was relatively weak. By comparing the gamma values in table 2 (0.459) and table 3 (0.294), it becomes apparent that the relationship of friendships to morale was weaker than that of health to morale. About 40.7 percent of the respondents with deteriorating health had low morale, and 37.4 percent of those whose friendships were diminishing had low morale.

Morale, Health, and Friendships

The following discussion deals with three subsamples separately: respondents who thought their friendships had been diminishing, those who felt they had the same number of friends 10 years ago, and those who considered that their circle of friends had increased. A general comparison of the three subgroups precedes the detailed discussion.

Friendships	Number	Percent of total
Diminishing-----	136	25.7
Unchanged-----	307	58.0
Increased-----	86	16.3

It should be noted that the number of respondents in each of the three subgroups varied slightly from that reported in the following cross-tabulations, because respondents who did not reply to items of the morale scale were omitted from the computation.

Diminishing friendships. A strong relationship between perception of health changes and morale was observed in this group. Only 8 per-

Table 4. Diminishing friendships by health and morale, in percent

Morale	Better health (N=14)	Same (N=52)	Worse (N=64)
High-----	50.0	40.4	7.8
Average-----	35.7	36.5	39.1
Low-----	14.3	23.1	53.1

NOTE: Gamma, 0.582; z, 3.699.

Table 5. Unchanged friendships by health and morale, in percent

Morale	Better health (N=34)	Same (N=171)	Worse (N=93)
High-----	58.8	50.9	23.7
Average-----	20.6	33.9	39.8
Low-----	20.6	15.2	36.6

NOTE: Gamma, 0.400; z, 3.264.

Table 6. Increased friendships by health and morale, in percent

Morale	Better health (N=14)	Same (N=44)	Worse (N=24)
High-----	57.1	59.1	33.3
Average-----	35.7	27.3	41.7
Low-----	7.1	13.6	25.0

NOTE: Gamma, 0.312; z, 1.282.

cent of the respondents thought their health as well as their social contacts had been deteriorating. The morale of the majority, 53 percent of those who considered themselves thus doubly disadvantaged, was low (table 4).

Number of friends unchanged. The relationship between health perception and morale was weaker in the group with stable friendships than when friendships seemed to be diminishing (table 5). Statistically, this was measured through gamma. When friendships remained stable, 24 percent of those with deteriorating health had high morale, which is 16 percentage points more than in table 4. In the stable friendship subgroup, only 37 percent of those with deteriorating health had low morale compared with 53 percent in the preceding subsample.

Increased friendships. In this group of 82 respondents the relationship between morale and health had further decreased compared with the two subgroups discussed in the preceding paragraph (table 6). With a z value of 1.282, the null hypothesis could not be rejected.

The percentage of respondents with high morale whose health was deteriorating had increased to 33 percent from the preceding 24 percent and 8 percent in the respective subsamples. Only one-fourth of the respondents with de-

teriorating health had low morale compared with 53 percent of the group who reported that their friendships were diminishing.

Discussion

It was shown that deteriorating health was significantly associated with morale when friendships were diminishing or remained stable. Of the respondents with deteriorating health and stable friendships, 36.6 percent had low morale, as did 53.1 percent of the respondents with deteriorating health and diminishing friendships. Only 25.0 percent of those with deteriorating health and increased friendships had low morale. Low morale was related to positive and negative changes in health and friendship status as shown in the following table.

Friendships	Health deteriorating		Same or improved	
	Number	Percent	Number	Percent
Diminishing-----	34	53	14	21
Same or improved..	40	34	40	15

Low morale was noted in 53 percent of the respondents with adverse changes in health as well as in friendships and in 34 percent of the respondents with adverse changes in health only. When changes were in friendships only and not in health, only 21 percent had low morale. As can be expected if neither friendships nor health was perceived as deteriorating, a relatively small percentage, 15 percent, were not optimistic toward life.

Conclusion

Several possible applications of the findings to the practice of public health can be considered. Some applications would strengthen already existing programs, others could add renovative aspects. These observations could supply some guidelines in the setting of priorities in community services for the aged.

Because perception of changes in health status has great impact, the following procedures could be considered in working with elderly persons.

1. When treating elderly people with chronic illnesses, detailed explanations of the nature of the disease would be useful.

2. Physical rehabilitation should be related to emotional rehabilitation and morale.

These facts certainly are not new but only a confirmation of existing knowledge. The data further show how closely the social environment of the aged person is linked to his physical health.

The procedure followed in this study reinforced close cooperation between a statewide public health agency and the private sector of community welfare services. The goal of both agencies was to improve the physical and emotional welfare and the environment of elderly persons in general.

Summary

A public agency and a private agency in a large city cooperated in a survey of the opinions of aged persons about their health and welfare. The ultimate goal was to develop community services based on personal expression of these needs.

A random sample of seven city blocks was drawn from the 15 metropolitan census tracts containing the largest number of residents 60 years old and older. Fifteen interviewers, similar in age to the study population, made personal calls and collected data, using a pre-tested questionnaire.

Data were quantified from a total of 531 respondents, and the following statistical measures were applied. Gamma was used as a measure of association among the three ordered variables. A z score tested the degree of certainty with which the null hypothesis could be rejected.

Relationships between health self-evaluation, perception of social ties, and personal morale are the only aspects of the survey discussed in this paper. The emotional impact of changes in health and changes in friendships was assessed. A higher association between health and morale than between social contacts and morale was discovered. An exception to this trend were those persons who believed that their circle of friends had been widening. When friendships were increasing, deteriorating health was not related to low morale. In contrast, when number of friends remained relatively stable or even decreased, deteriorating health could be expected to bring about low morale.

The findings of the study can be applied to the planning of community services for the

aged. Priorities should be assigned to preventive, curative, and physical rehabilitative services. Psychological rehabilitation, frequently linked to social activities, nevertheless warrants serious consideration.

REFERENCES

- (1) Kravitz, S., and Lambert, C., Jr.: Volunteer interviewers among the elderly. *Gerontologist* 3: 55-60, March 1963.
- (2) Kutner, B., Fanshel, D., Togo, A. M., and Langner, F. S.: Five hundred over sixty. Russell Sage Foundation, New York, 1956.
- (3) Srole, L.: Social integration and certain corollaries. *Amer Sociol Rev* 21: 709-721, December 1956.
- (4) Neugarten, B. L., Havighurst, R. J., and Tobin, S. S.: The measurement of life satisfaction. *J Geront* 16: 134-143, April 1961.
- (5) U.S. National Center for Health Statistics: Health interview responses compared with medical records. PHS Publication No. 1,000, Ser. 2, No. 7. U. S. Government Printing Office, Washington, D.C., July 1965.
- (6) U.S. National Center for Health Statistics: Interview data on chronic conditions compared with information derived from medical records. PHS Publication No. 1,000, Ser. 2, No. 23. U.S. Government Printing Office, Washington, D.C., May 1967.
- (7) Lawton, M. P., Ward M., and Yaffe S.: Indices of health in an aging population. *J Geront* 22: 334-342, July 1967.
- (8) Sullivan, D. F.: Conceptual problems in developing an index of health. *Vital Health Statist* 2: 1-18, May 1966.
- (9) Sorokin, P. A., and Merton, R.: Social time, a methodological and functional analysis. *Amer J Sociol* 42: 615-629, March 1937.
- (10) DiCicco, I., and Apple, D.: Health needs and opinions of older adults. *In* Social studies of health and sickness. McGraw-Hill Book Co., New York, 1960, pp. 26-39.
- (11) Baumgarten, B.: Diversities in conception of health and physical fitness. *J Health Hum Behav* 2: 39-49, spring 1961.
- (12) Lowenthal, M. F.: Lives in distress, the paths of the elderly to the psychiatric ward. Basic Books, Inc., New York, 1964.
- (13) Youmans, E. G.: Pessimism among older rural and urban persons. *J Health Hum Behav* 2: 132-137, summer 1961.
- (14) Rose, A. M., and Peterson, W. A.: Older people and their social world, the sub-culture of the aging. F. A. Davis, Co., Philadelphia, 1965.
- (15) Cumming, E., and Henry, W. E.: Growing old. The process of disengagement. Basic Books, Inc., New York, 1961.
- (16) Maddox, G. L.: Activity and morale. A longitudinal study of selected elderly subjects. *Social Force* 42: 195-204, December 1963.
- (17) Rosow, I.: Social integration of the aged. Free Press, New York, 1967.
- (18) Blau, Z.: Structural constraints of friendships in old age. *Amer Sociol Rev* 26: 429-439, June 1961.

Tearsheet Requests

Dr. Ilse J. Volinn, Washington State Department of Health, Room 815, Smith Tower, Seattle, Wash. 98104