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ABSTRACT

Social support has been found to be positively related to well being in elderly individuals. To examine the effects of social integration (social resources, social interaction, and perceived adequacy of resources), and health, age, marital status, and socioeconomic status (SES) on mental health among urban elderly individuals, 1,727 persons from Cleveland, Ohio, aged 62 or older, were interviewed using the Older American Resources and Services Questionnaire. Subjects' psychological well-being was assessed using selected items from the Minnesota Multiphasic Personality Inventory. An analysis of the results showed that physical health strongly correlated with psychological well being. Two measures of social integration, social resources and perceived adequacy of resources, were also correlated with well being. Although social resources and social interaction were strongly correlated with each other, they were not at all related to the elderly individuals' perceptions of the adequacy of the resources or interaction. SES had a moderate effect on well being, largely through the better health experienced by higher status individuals. The findings suggest that although assisting the elderly to identify and use available social resources is important, simply increasing their level of interaction may have minimal effect on mental health. (BL)

Social Integration and Mental Health of the Aged*

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Abstract

This research examines the effects of social integration variables and health, age, marital status, and SES on mental health for 1,800 urban elderly utilizing a path model. The model accounted for 38 percent of the variance in mental health. In addition to physical health, which had a strong independent effect, both the availability of social resources and their perceived adequacy made significant independent contributions. Social interaction, however, was found to make an insignificant contribution to the explanation of mental health. Focusing on the predictors of perceived adequacy of social resources, social interaction and social resources had minimal independent effects, considerably less than the effects of health. These findings support previous research which demonstrate the importance of health and subjective social integration.

Key Words: Social resources; Social interaction; Perceived Social Adequacy

The interest in defining elements of successful aging as well defining the dimensions of frailty and vulnerability among the aged (Larson, 1978; Palmore, 1979) has stimulated research on the association between social integration, operationalized in terms of the social resources and social interaction, and mental health (Harel, Sollod, and Bognar; 1982). The concept social resources, one aspect of social integration, has been utilized in a variety of studies. It has been measured using a number of different items generally tapping the availability and utilization of social support. It also has included items tapping the elderly individual's level and patterns of social interaction.

In general, the availability and utilization of social support have been found to have a positive effect on the aged's functioning and well-being (Harel and Noelker, 1982; Snow and Gordon, 1980). Specific research findings show that greater levels of social support received from close relationships with family members, friends and acquaintances and the community at large operate to reduce stress and illness and that social support is instrumental in sheltering eldery from the effects of stress and thus are a potential correlate of mental health (Dean and Lin, 1977; Harel and Noelker, 1982).

Because of the generally positive influence that social resources play in the elderly's well-being and mental health, particular interest has been stimulated in better understanding <u>how</u> social supports operate to prevent stress and illness. House (1981), for

example, suggests that social resources act as a buffer between stress and the individual's health. However, there is little empirical evidence to indicate the specific types of resources, or which individuals in the resource network operate most effectively to create this buffer. Further, as Dean and Lin (1977) note, it is not clear whether social supports act as an antecedent influence that reduce the likelihood of an undesirable experience or whether they ameliorate the effects of such an experience after it has occurred.

In addition to a lack of clear research findings on how social resources effect the well-being and mental health of the aged, an important issue regarding their operationalization remains. Most studies of social integration including those focusing on social resources and social support have considered these variables to be single constructs. Recently, Laing et al., (1980) have identified the need to differentiate between objective and subjective indicators of social integration. Simliarly, Blazer (1982) has demonstrated the importance of perceived adequacy of social supports as a subjective indicator distinct from more objective measures of support and interaction. Both of these studies recognize the importance of treating these important concepts as multidimensional.

The aim of this article, then, is to examine the way in which three measures of social integration (social resources, social interaction and the perceived adequacy of social resources) operate to effect the mental health of the aged. Other important antecedent

influences such as the elder's age, physical health, marital status, and socio-economic status are also examined in terms of the impact they have directly on social integration and indirectly on mental health.

These relationships are examined using correlational analysis and also through the presentation of a path model which depicts the effects of these factors on the mental health of the elderly. The findings presented are based on secondary analyses of data derived from interviews with a 1,727 persons aged 62 or older randomly selected from among aged living in the city of Cleveland, Ohio (Comptroller General, 1977). These in-person interviews were conducted using the Older American Resources and Services Questionnaire (OARS) developed by Duke University Center for the Study of Aging and Human Developemnt (Blazer, 1978).

Measurement

Three categories of variables are utilized in this analysis. They are; first, predisposing variables which include the elder's age, marital status, physical health, and socio-economic status; second, social integration variables which include social resources, social interaction, and perceived adequacy of social resources/interaction; and third, psychological well-being as measured by the selected items from the Minnesota Multiphasic Personality Inventory (MMPI).

Because of the potential importance of the elderly individual's age as a correlate of their physical health and their capacity to

engage in social activites outside the home, the elder's age is included in this analysis as a antecedent or predisposing variable. As data in Table 1 shows, the mean age of the elders in this sample was 74.2 years. While 30 percent of the sample were under 70 years of age, 20 percent were 80 years of age or older. Thus, the individuals in this sample represent a wide variation in age.

The second predisposing measure, the elder's physical health, is included in this category because the elder's health largely defines their capacity to participate in activities and thus may affect their level of interaction. Data presented in Table 1 indicate that the elders in this sample on average were relatively healthy, although considerable variation did exist. For example, over 30 percent of the elders were rated as moderately to severly impaired, while slightly less than 30 percent were rated as having good to excellent health. Given the range of health characteristics of this sample, it is not surprising that a considerable range of social interaction levels were demonstrated. On average, this group of older individuls demonstrated considerable social interaction ($\bar{X}$=9.3, range=1-12).

The third predisposing variable included in this analysis is the elder's marital status. As a number of researchers have demonstrated (Larson, 1978), aged individuals' patterns of social interaction, as well as their available social resources, vary considerably depending on their marital status. In this sample, 36 percent of the elders are currently married. Of the remaining unmarried elders the vast majority (38 of the total sample) lived alone.

The fourth predisposing variable included in the analysis was socio-economic status (SES). Research has shown that social class is implicated in the availability of social resources and also the interaction patterns of the elderly. Moreover, physical health, which is related to the capacity of the elderly to participate in social or group activities, is also class linked (Larson, 1979). For these reasons, the elders' socio-economic status is included in this analysis. The SES measure created for this study utilized the education and pre-retirement occupation of the elder for male elders. For female elder respondents their spouse's education and occupation were utilized. (The income of these aged was not utilized as a measure of SES inasmuch as income is highly homogenous for this sample.) The resulting indicator includes five SES categories.

(Table 1 about here)

The data shown in Table 1 indicate that most of the elderly in this sample were in the lowest two SES categories ($\bar{X}$=2.1). Other descriptive data on the sample show that over 50 percent of these elders had personal incomes under $6,000 per year. Further, based on interviewer ratings of the elder's economic resources, over half were mildly, moderately, or severly "impaired" economically.

The second group of measures utilized in this analysis are related to the social integration of the aged. Among these are; first, the elder's social resources as rated by the interviewer on a 1-6 range; second, the elder's reported level of social interaction;

and third, the elder's perceived adequacy of their resources and interaction measured on a 1-4 range.

These elders demonstrated relatively high levels of social resources, with nearly 60 percent of the sample being rated as having good or excellent resources. However, nearly 15 percent were rated as being moderately to severely impaired in this area. Participants in this research also demonstrated relatively high levels of social interaction ($\bar{X}$=9.3). Of the three variables that operationalize social integration, the first two, social resources and social interaction of the elder, represent relatively objective indicators. However, the third measure, perceived adequacy of social resources/interaction, approaches the issue of resources and interaction from the subjective perspective of the respondent. The elders were asked to respond to two questions related to the adequacy of their social resources and interaction, such as "Do you see loved ones as much as you would like" and combining scores on their responses created a one to four-point indicator.

This subjective measure of adequacy was included in the analysis because it is assumed that the interpretation that older people make of their objective conditions is as important as the objective conditions themselves in determining their psychological well-being. Individuals who have limited resources and choose to interact with others in a limited manner may interprete those resources and activities as highly adequate. In this case, their actual resources and

activity level may be far less important in determining their sense of well-being. In contrast, elders who have considerable resources or who are quite active may interprete their resources and activities to be inadequate.

In this sample the general level of perceived adequacy is relatively high ($\bar{X}$=2.7, range=1-4). Moreover, the generally high level of perceived adequacy is consistent with the levels of resources and activity level of the sample as a whole. However, the association of these measures on a individual basis remains to be examined in the analysis that follows.

The final measure included in the analysis is the dependent variable of psychological well-being. The elder's psychological well-being was measured by 15 items from the MMPI included in the Older Americans Resources and Services Questionnaire (Blazer, 1978). Data in Table 1 indicates that the elders in this sample demonstrated relatively high levels of well-being ($\bar{X}$=11.1, range=1-15).

Findings

The remainder of this article examines the inter-relationship between the predisposing social integration variables and the psychological well-being of the elders in this sample. The first part of the analysis utilizes correlational analysis to determine the direction and strength of association between all of these measures. Second, the additive and independent impact of each of the predisposing measures and the social interaction measures on well-being is

examined using the results of regression analysis depicted in a path model of psychological well-being.

Turning first to the correlational analysis, data in Table 2 indicate that the aged's physical health is strongly correlated with their psychological well-being (r=.56). This corroborates the findings of other researchers that show a consistent correlation between physical and mental health. This association may be explained in very direct terms. That is, as physical health deteriorates, the associated difficulties may cause a deterioration in mental health. Less directly, however, physical health may have an impact on mental health by limiting the elder's ability to participate in social activities and thus reinforcing their isolation. In this sample, however, only a moderate association was found to exist between physical health and social interaction (r=.14).

(Table 2 about here)

The other predisposing variable that is moderately correlated with well-being directly is the elder's socio-economic status (r=.20). (This positive correlation indicates that higher status aged generally received higher scores on the psychological well-being measure. A number of explanations are possible.) The relationship demonstrated may be in part due to greater interaction levels among higher status aged (r=.19). It may also be related to the generally better physical health experienced by higher status individuals. This latter explanation is supported by the modest correlation found between SES and physical health (r=.20).

The examination of the relationship between the other two measures of social integration and the MMPI among aged in this sample reveals significantly moderate correlations between the elder's social resources, the perceived adequacy of resources/interaction and mental health (r=.30 and .28 respectively). This indicates that aged with greater social resources, and those that perceive those resources to be more adequate, had higher scores on the well-being measure. Similarly, there was a positive even though substantially weaker association found between the aged's level of social interaction and their well-being.

Looking at the relationship among the three social integration measures, the two objective measures of integration, social resource and interaction, were highly correlated (r=.52). However, neither one of these measures were even moderately correlated with the aged's peception of the adequacy of their resources/interaction (r=.10 and .03 respectively). This suggests that the level of resources available to the aged and their actual levels of interaction are largely unrelated to their perception of social integration adequacy, and that these subjective perceptions may represent an entirely separate dimension. Further, these data suggest that the relationship that the objective indicators of social integration have with psychological well-being (r=.3[illegible]with social resources and r=.16 with social interaction) are likely to be independent from the relationship that perceived adequacy has with well-being (r=.28). The nature of these relationships will be further examined in the presentation of the path model.

In summary, the single strongest correlate of mental health among the aged was shown to be their physical health. Two objective measures of social integration also show evidence of substantial and significant association with mental health in this research. While these two objective measures of social integration are correlated with each other they are virtually unrelated to the aged's perception of the adequacy of resources and interaction.

In order to examine these basic relationships in a multivariate context, an extensive series of regression equations was estimated. The results of these equations were the basis for the creation of the path diagram shown in Figure 1.. The decomposition of the direct and indirect effects of the variables included in that model were based on these equations and are presented in Tables 3 and 4.

(Figure 1 about here)

The path coefficients shown in Figure 1, which are standardized partial regression coefficients, show that of the four predisposing variables, SES, marital status and physical health have significant direct effects on one or both of the objective measures of social integration. The path coefficient for the relationship between SES and social interaction is the greatest of these.(.25). There is also a substantial direct effect for marital status on social resources (.21). This is largely due to the presence of a spouse living with the elder (the bulk of unmarried aged in this sample live alone) and, as a result, receiving a lower score on the resources measure.

In this path analysis model of psychological well-being, health was found to have a substantial direct effect on well-being (.49). Adding to these direct effects, the indirect effects (shown in Table 4) of health through perceived adequacy (.02) produces a slightly greater total effect of .51. Clearly, the elder's physical health, in and of itself, plays the major role in determining psychological well-being and that role is not necessarily mediated by either social interaction or social resources.

(Tables 3 and 4 about here)

Looking next at the relationship between the social integration measures and well-being, the strongest direct effects are produced by social resources (.17) and by the perceived adequacy of resources/interaction (.17). Social interaction did not have a significant direct effect on well-being (.02) and had an equally small indirect effect through perceived adequacy (.01). Evidently for aged in this sample the level of interaction was not nearly as important as either their available social resources or their perception of the adequacy of those resources and interaction.

The model presented here explains approximately two-fifths of the total variance in the aged's psychological well-being and the bulk of that explanatory power is contributed by a single predictor, the aged's level of physical health. Next in importance are social resources and the perception that those resources are adequate. The level of social interaction was not found to be important at all in

this model as a factor in determining these elder's psychological well-being. Moreover, a lack of interaction on the part of these individuals does not translate into a perception that their resources/interaction is inadequate.

The data presented in Figure 1 also demonstrate that this model does not explain the aged's perception of resource/interaction adequacy ($\underline{e}$=.97; $\underline{R}^2$=.06). The fact that the perceived adequacy measure, which is an important correlate of well-being, is largely unexplained by either the predisposing variables or by the other social integration variables suggests a need for the inclusion of other possible predictors in the model. Objective measures of resources and interaction do not adequately explain the elders' perceptions of adequacy. This suggests that these perceptions may be based on factors not included in this research.

Implications

The implications of these findings are that efforts to improve the psychological well-being of the aged in the general population (as distinct from those elderly in institutions) must focus on improving their health and physical functioning. These data also suggest that assisting the elderly in identifying and utilizing available social resources is also important. The data here are equally clear that simply increasing the aged individual's level of interaction and activities may have a minimal effect of their mental health. Of course, for isolated individuals, with little opportunity for interaction,

these data may not be relevant. In their cases, improvement in opportunities for meaningful interaction may be extremely important. The data here simply do not address their case.

These data may further be interpreted as indicating that the moderate effect that SES has on well-being is largly through the better health experienced by higher status individuals. Class differences in social participation and interaction do not translate as directly into higher levels of mental health as do differences in physical health. This suggests that eliminating the effects of social status on well-being may be best approached by improving the delivery of health care services and those designed to improve the general level of health. Programs for community elderly where health and rehabilitative services as well as occupational therapy and physical therapy are available along with socialization experiences would seem to have the greatest potential for having an impact on the mental health of those elderly who are able to participate.

Of course, the findings discussed here are based on a cross-section of a largely well-elderly population. Replication of these analyses with subpopulations of more isolated or less-healthy elderly may well produce different findings. However, the predominance of physical health as well as social integration in determining the aged's well-being dictates a need for additional research in this area.

REFERENCES

Blazer, D.

1978 The Durham Survey: Description and Application. In Multidimensional Functional Assessment -- The OARS Methodology: A Manual (2nd. ed.). Durham, NC: Center for the Study of Aging and Human Development, Duke University Medical Center.

1982 "Social support and mortality in an elderly community population." Amer. J. of Epidemiology 115: 684-694.

Comptroller General of the United States.

1977 The Well-Being of Older People in Cleveland, Ohio: A Report to Congress. Washington, DC: United States General Accounting Office.

Dean, A., and N. Lin

1977 "The stress-buffering role of social support." J. of Nervous and Mental Disease 165: 403-417.

Harel, Z., and L. S. Noelker

1982 "Social integration, health, and choice: Their impact on the well-being of institutionalized aged." Research on Aging 4: 97-111.

Harel, Z., R. N. Sollod, and B. J. Bognar

1982 "Predictors of mental health among semi-rural aged." Gerontologist 22: 499-504.

House, J.

1981 Work Stress and Social Support. Reading, MA: Addison-Wesley Publishers.

Larson, R.

1978 "Thirty years of research on the subjective well-being of older Americans. J. of Gerontology 33: 109-129.

Liang, J., L. Dvorkin, E. Kahana, and F. Mazian

1980 "Social integration and morale: A re-examination." J. of Gerontology 35: 746-757.

Palmore, E.

1979 "Predictors of successful aging." Gerontologist 19: 427-431.

Snow, D. L., and J. B. Gordon

1980 "Social network analysis and intervention with the elderly." Gerontologist 20: 463-467.

Table 1. Description of Indicators

	Range Lo		Hi	$\bar{X}$	S.D.	Median
Age	62	-	100	74.2	6.7	73.0
Physical Health	1	-	6	4.1	1.0	4.2
Socio-Economic Status	1	-	5	2.1	1.2	1.9
Social Resources	1	-	6	4.7	1.1	4.9
Social Interaction	1	-	12	9.3	2.2	9.7
Perceived Adequacy of Social Resources	1	-	4	2.7	0.7	2.8
Well-Being (MMPI)	0	-	15	11.1	3.0	12.7

Table 2. Zero-Order Correlation Matrix for Predisposing, Social Resources/Interaction and Well-Being Variables

		1	2	3	4	5	6	7	8
1	Age	-							
2	Marital Status	-.26	-						
3	Physical Health	-.17	.10	-					
4	SES	-.07	.10	.20	-				
5	Social Resources	.09	.23	.20	.14	-			
6	Social Interaction	-.14	.10	.14	.19	.52	-		
7	Perceived Adequacy	-.05	.17	.16	.11	.10	.03	-	
8	Well-Being (MMPI)	-.09	.15	156	.20	.30	.16	.28	-

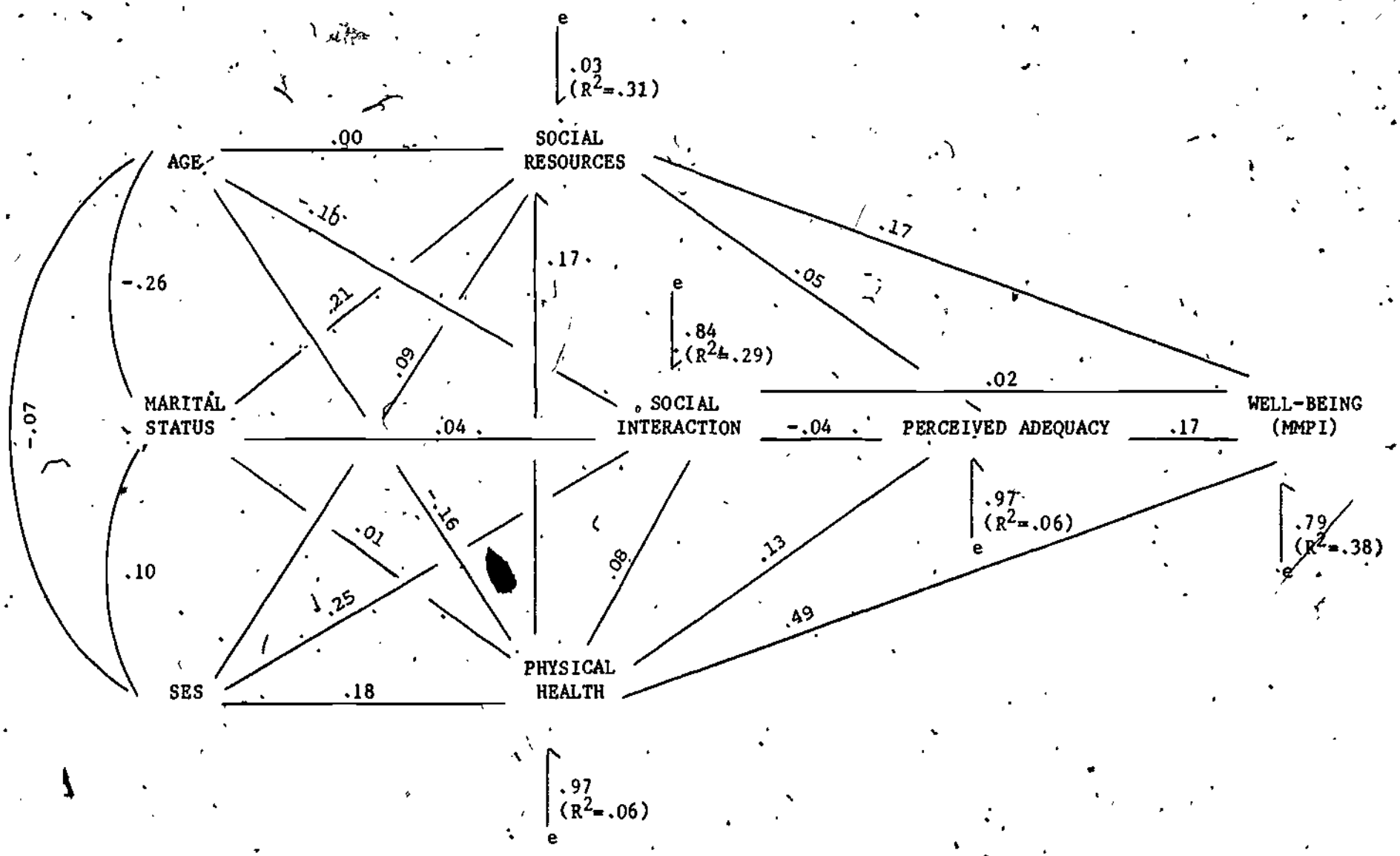
Table 3. Direct and Indirect Effects of Age, Marital Status, and SES on Social Resources, Social Interaction and Physical Health

	Social Resources			Social Interaction			Physical Health	
	Direct	Indirect (through Physical Health)	Total	Direct	Indirect (through Physical Health)	Total	Direct	Total
Age	.00	.03 (.16x.17)	.03	.10	.01 (.16x.08)	.11	.16	.16
Marital Status	.21	.00 (.01x.17)	.21	.04	.00 (.01x.08)	.04	.01	.01
SES	.09	.03 (.18x.17)	.12	.25	.01 (.18x.08)	.26	.18	.18

Table 4. Direct and Indirect Effects of Social Resources/Interaction, Perceived Adequacy and Physical Health on Perceived Adequacy and Physical Health

	Perceived Adequacy				Well-Being		
	Direct	Indirect (SI)	Indirect (SA)	Total	Direct	Indirect (SA)	Total
Social Resources	.05	-	-	.05	.17	.01 (.05x.17)	.18
Social Interaction	.04	-	-	.04	.02	.01 (.04x.17)	.02
Physical Health	.13	.00 (.08x.04)	.01 (.17x.05)	.14	.49	.02 (.13x.17)	.51
Perceived Adequacy	-	-	-	-	.17	-	.17

Figure 1. Path Diagram of the Well-Being Model


e
.03
(R^2=.31)
.00
SOCIAL RESOURCES
AGE
-.16
.17
.05
.17
-.26
.21
.09
e
.84
(R^2=.29)
.02
MARITAL STATUS
-.07
.04
SOCIAL INTERACTION
-.04
PERCEIVED ADEQUACY
.17
WELL-BEING (MMPI)
.10
.01
-.16
.08
.13
.97
(R^2=.06)
e
.79
(R^2=.38)
e
.25
.49
PHYSICAL HEALTH
SES
.18
.97
(R^2=.06)
e