Southern Illinois University Carbondale
OpenSIUC

Publications | Department of Psychology

1-1-1988

Subjective Well-being among the Rural Elderly

Jay Meddin

Alan Vaux
Southern Illinois University Carbondale

Follow this and additional works at: http://opensiuc.lib.siu.edu/psych_pubs
Published in *International Journal of Aging and Human Development*, Vol. 27, No. 3 (1988) at 10.2190/NQ0J-FWHT-CF8M-P17X.

Recommended Citation
Meddin, Jay and Vaux, Alan, "Subjective Well-being among the Rural Elderly" (1988). *Publications.* Paper 1.
http://opensiuc.lib.siu.edu/psych_pubs/1

This Article is brought to you for free and open access by the Department of Psychology at OpenSIUC. It has been accepted for inclusion in Publications by an authorized administrator of OpenSIUC. For more information, please contact jnabe@lib.siu.edu.

INT'L. J. AGING AND HUMAN DEVELOPMENT, Vol. 27(3), 1988

SUBJECTIVE WELL-BEING AMONG THE RURAL ELDERLY POPULATION

JAY MEDDIN
Centre for Advanced Studies
Curtin University of Technology

ALAN VAUX
Southern Illinois University

ABSTRACT

The purpose of this study was to investigate the relationship between psychosocial factors and subjective well-being among rural elderly persons. A broad range of psychosocial factors (such as mastery, social support, and perceived health) and measures of well-being (such as positive and negative affect and life satisfaction) were employed in bivariate correlation, canonical correlation, and multiple regression analysis. The findings show significant relationships between subjective well-being measures and psychosocial factors that are concomitant with other populations, both elderly and general.

This study is an investigation of the subjective well-being of the rural elderly population. A growing body of knowledge is developing that furthers our understanding of the subjective well-being of the general population of the United States [1, 2], and with this increase in understanding is a concomitant increase in interest in the subjective well-being of subcategories of the population such as the aged.

AGE VARIATION IN SUBJECTIVE WELL-BEING

We know that subjective well-being varies across the life span [3]; as students of life course have long observed, life experiences, subjective interpretations, and needs change as we move from young adulthood through the middle years and into older age [4]. The reasons for change are myriad and include social, psychological, and health factors.

© 1988, Baywood Publishing Co., Inc.

doi: 10.2190/NQ0J-FWHT-CF8M-P17X
http://baywood.com

From the social perspective, patterns of work, family life, and general social integration change systematically over the life span. For example, Blau has observed that friendship ties tend to be most important in adolescence and older age while nuclear family ties tend to be more important during the middle years [5]. From the personality perspective, life goals and perceptions of personal success also vary as one moves through the life course. To illustrate, Levinson found that for a sample of men, striving and establishing one's self were very important up to about the mid-forties; later, coming to terms with one's achievements and accepting them became more important than striving [6]. In regard to older populations, Campbell's survey data indicate that elderly persons (over sixty-five) tend to be "more serene and less worried" than younger age groups [2, p. 176]. However, Campbell as well as others have found that satisfaction with health is one area that is an exception [3]. Not surprisingly, elderly people report less satisfaction with their health than do younger people.

Within the social environment, life changes influence individuals with varying frequency and intensity depending upon their location within the social structure [7], and clearly, age is one important factor in determining that location. In fact, the transition through the life span, until older age, can be viewed as a series of role entrances and exits [5], with concomitant changes in social resources (such as social support), psychological states, and health status.

SUBJECTIVE WELL-BEING AND ELDERLY PERSONS

Though well-being varies over the life span, it often does so in a manner that commonsense would not predict. As we indicated, findings show elderly persons to be generally more satisfied with their lives than other age groups [3], to worry less, except in regard to health [2], and to evidence less negative affect [8] and depression [9]. The stereotypes of older age as a period of decline in the quality of life do not hold up.

In speaking of elderly persons, as with any large social category, we must interject a note of caution, for they are a heterogeneous group. As Blau insightfully points out, structural factors such as education, ethnicity, employment, and marital status mediate the effects of age upon physical and mental health and self-conception [5]. In order to develop a more precise understanding of well-being among elderly persons, we need to focus upon particular aged populations and the psychosocial factors that influence their well-being.

As suggested by Blau's observations, there are a wide range of factors that might produce differences in subjective outlook and well-being among elderly persons. The rural elderly population is of particular interest, for the values of urban populations often differ by significant degree from those of the more traditional rural populations [10]. In this study, we focus on the rural elderly population, a category of elderly people that comprises over 28 percent of the elderly population of the United States [11].

Even though they comprise over 28 percent of the older population, we believe that rural elderly people are both understudied and underserved. We think it desirable to improve our knowledge base both in order to understand this segment of the older population better and to better ascertain their needs. In terms of emotional well-being, we want to know how rural elderly people differ from other elderly populations and how they are similar.

THE STUDY

The specific purpose of this study is to examine psychosocial influences on subjective well-being among a rural, elderly, midwestern population. The study employs multiple measures of well-being: specific and global, and positive and negative. The psychosocial influences include coping resources, social support, perceived physical well-being, life change, and income.

METHOD

Sample

Interviews were conducted with older adults at four senior citizens' nutrition and activity centers in four rural midwestern towns. One town had a population of 26,000 (some 70% of whom were students), while the remainder were considerably smaller (under 6,000). Previous research by Gunter on the aged in this geographic area indicated that persons attending these sites are representative of older people in their respective areas [12]. The median age of the study participants was seventy years. The sample was predominantly female (69%), white (81%), low income (median annual income was $7,000), nonworking (83%), and of low education (33% had reached grade 8 or less, 71% had reached grade 12 or less, and 40% did not have a high school diploma). Of the 140 interviews conducted, 100 provided complete data on all seventeen of the variables used in this study (many of which were multi-item scales), and analysis was restricted to these interviews.

Procedure

Structured interviews were conducted at the sites by the first author and three graduate students trained in interviewing and the use of the present instrument. Participants were carefully monitored for fatigue or loss of interest during the interviews. Very few interviews (less than 3%) were terminated prematurely.

Subjective Well-Being (Dependent Variables)

Seven indices of well-being were utilized in this study. Together these measures tapped the major components of well-being [8, 13]. Their selection

was based on their demonstrated reliability and validity, and widespread use in community surveys of psychological well-being and quality of life [1, 2, 8, 14-16].

Positive affect – Two measures tapping positive affect were used: Bradburn's 5-item Positive Affect Scale taps the experience of five positive feelings during the previous few weeks [17], and has shown very good reliability and convergent and discriminant validity; a single item tapping current "happiness" was used that has shown good reliability and convergent validity [18].

Negative affect – Two measures tapping negative affect were used: Bradburn's 5-item Negative Affect Scale taps the experience of five negative feelings during the previous few weeks [17], and has demonstrated very good reliability and convergent and discriminant validity; a single item tapping the experience of "low spirits" has shown good reliability and convergent validity [18].

Composite well-being – Several more global measures of well-being were used. The Centre for Epidemiological Studies Depression Scale (CESD) assesses both negative and positive affect to yield a measure of depressed mood. The 20-item CESD has shown excellent internal consistency, good stability, and good convergent and discriminant validity [9, 19]. Dohrenwend et al. suggest that, like many similar measures, the CESD is best seen as a measure of "demoralization" when used with community samples [20]. Also used was a global satisfaction index, measuring satisfaction with major areas of respondents' lives: self, health, income, family, friends, town, and housing. The 7-item global satisfaction index was the sum of 5-point satisfaction ratings ("not at all satisfied" to "extremely satisfied") with each of these areas. These items have been used widely in community surveys and have shown good psychometric properties [18]. A single-item was used to tap overall satisfaction with life; this item also has been used in community surveys and has shown good psychometric properties [18].

Psychosocial Variables (Independent Variables)

Life events – An inventory of fifty-three life events was used. These events were drawn from previous research with community samples, especially the PERI [21], with the addition of items thought especially relevant to elderly people (e.g., overnight visits to friends or relatives). In addition, respondents could add life events they had experienced which were not listed. Few respondents added events, suggesting the relative completeness of the inventory. Participants indicated whether they had experienced the event during the past year. After reviewing classification of the same or similar items in previous research, the authors classified sixteen events as positive, twenty-eight as negative, and the remainder as ambiguous. Independent classification yielded

virtually complete agreement. Further, of the forty events shared with the PERI, our classification of events as positive or negative showed 98 percent agreement with that of Dohrenwend et al. [21]. Positive and negative life event scores were computed as unweighted sums of items experienced within the last year.

Social support – Two indices of social support were used here, focusing on support resources and perceived support respectively. First, support resources were represented by an index computed as the product of network size (the number of different persons providing four distinct kinds of social support), the frequency of contact with, and closeness to, network members [22]. Second, perceived support was assessed through a shortened (10-item) version of the 23-item Social Support Appraisals Scale (SSA) [23]. Respondents rate statements such as "I am loved dearly by my family" and "I am held in high esteem" on a 4-point agree-disagree scale. The SSA has shown excellent internal consistency and convergent validity in both students and community samples.

Coping resources – Measures of three coping resources were used: a sense of mastery, low self denigration, and self-esteem. Pearlin and Schooler performed factor analysis of items thought to represent coping resources, resulting in these three measures [24]. The scales have shown good reliability and validity [24].

Income, age, and perceived health problems – Finally, respondents provided data on their income, age, and perceived health problems. Income and age were recorded straightforwardly. Perceived health problems were assessed by the item "Do you have any problems with your health?"

RESULTS

In analysis we have posed four questions. First, which *specific* psychosocial factors are associated with which *specific* well-being variables? We have chosen to approach this question through bivariate correlation. Second, as a *set*, how well do the psychosocial variables correlate with the well-being variables as a *set*? Here we employ canonical correlation as the mode of analysis. Third, how well do the psychosocial factors predict each of the well-being variables? Fourth, which *particular* psychosocial factors stand out as important predictors of well-being? We seek to answer both these questions with multiple regression analysis.

Correlation between specific psychosocial and well-being variables – Correlations between the well-being and the psychosocial variables are presented in Table 1 (Panel A). In addition, correlations among well-being measures and among psychosocial factors are also presented in Table 1 (Panels B and C).

Panel A of Table 1 shows a number of statistically significant correlation coefficients; however, in the interest of space, only those coefficients at .30 or above are reported here. Negative life events correlates inversely at .31 with global satisfaction. Two of the more "psychological" resources, a sense of

Table 1. Correlation of Well-Being and Psychosocial Variables[a]

Panel A: Well-Being with Psychosocial Variables

	Positive Affect	*Happiness*	*Negative Affect*	*Low Spirits*	*Depressed Mood*	*Life Satisfaction*	*Global Satisfaction*
1. Positive Events			-.11		-.13		
2. Negative Events				.17	.16	-.24*	-.31**
3. Mastery	.18*		-.42***	-.36***	-.45***	-.29**	.38***
4. Low Denigration	.23*		-.46***	-.42***	-.43***	-.13	.25*
5. Self-Esteem	.13			-.16		-.25**	.27**
6. Perceived Support	.21*	.11	-.32***	-.33***	-.29**	-.22*	.25**
7. Support Resources		.15			-.12	-.10	.15
8. Income	.12		-.19*	-.22*	-.17		.19*
9. Age	.12	.21*	-.26**	-.17			.19*
10. Health Problems		-.20*		-.21*		-.28**	-.40***

Panel B: Well-Being Variables

	1	*2*	*3*	*4*	*5*	*6*
1. Positive Affect	–					
2. Happiness	.49***	–				
3. Negative Affect	-.23*	-.29**	–			

4. Low Spirits	-.31**	-.33***	.59***	—		
5. Depressed Mood	-.24*	-.15	.62***	-.47***	—	
6. Life Satisfaction	.18	.32***	-.38***	-.42***	-.32***	—
7. Global Satisfaction	.31**	.33***	-.32***	-.34***	-.31**	.46***

Panel C: Psychosocial Variables

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Positive Events	—								
2. Negative Events	.31**	—							
3. Mastery	.23*	-.23**	—						
4. Low Denigration	.17		.52***	—					
5. Self-Esteem	.18	-.31**	.12		—				
6. Perceived Support	.16		.26**	.29**	.19*	—			
7. Support Resources	.19*	.16					—		
8. Income		.11	.10	.33***			.24*	—	
9. Age	-.17	.10		.21*	-.17	.31**			—
10. Health Problems		.13	.20		-.12		.20*	.22*	-.11

[a] Only those correlation coefficients exceeding .10 are included in the table.

* $p < .05$
** $p < .01$
*** $p < .001$

mastery and low self denigration, are moderately associated with a number of well-being measures. Both mastery and low denigration correlate inversely at greater than -.40 with negative affect and depressed mood. Low denigration correlates inversely at -.42 with low spirits, and in addition, mastery correlates inversely at above -.30 with low spirits[1] and positively with global satisfaction. Perceived social support (but not support resources) correlates inversely at greater than -.30 with negative affect and low spirits. Finally, perceived health problems and global satisfaction show an inverse correlation of -.40.

Positive life events show only a small negative correlation with negative affect and depressed mood. Income and age show small associations with most of the well-being variables and in the directions that one would expect.

Turning to the associations *among* well-being measures and psychosocial factors (Panel C), a number of relationships are worth mentioning; however, only the most notable are reported here. In Panel B, the correlations between negative affect and low spirits (.59) and negative affect and depressed mood (.62) stand out. In Panel C, the correlation between mastery and low denigration (.52) is worth noting (See Footnote [1] for further discussion of the relationship between these two variables.)

Canonical correlation between well-being and psychosocial variables – To get a global picture of these relationships, the association between the set of well-being measures and the set of psychosocial variables was examined through canonical correlation. The results are presented in Table 2. Only one canonical function was significant (canonical $r = .73$). Consonant with the previous findings, this function suggests a relationship largely between global satisfaction, low spirits, negative affect, depressed mood, and happiness on the one hand, and low denigration, mastery, perceived support, perceived health problems, negative life events, and income on the other. The canonical r is high, suggesting that the relationship between the sets of variables is strong.

Regression of well-being measures on psychosocial variables – How well do the psychosocial variables examined here predict each of the well-being indicators? In order to get a better understanding of the influence of psychosocial variables on the specific well-being indicators, separate regression analyses were performed with *each* well-being measure as the criterion variable. The results of these analyses are presented in Table 3. The psychosocial variables show significant relationships with five of the seven well-being measures. These variables account for about one-third of the variance in negative affect, low spirits, global satisfaction, and depressed mood, somewhat less in life satisfaction. Only about 10 percent of the variance could be explained in positive affect and happiness, and the regression equations were non-significant. Therefore, these latter results are not presented in Table 3, and positive affect and happiness are not discussed further.

[1] As we shall see in Panel C of Table 1, both mastery and low denigration are correlated with one another at above the .50 level. That they behave similarly in correlation with the negative well-being measures is hardly surprising.

Table 2. Canonical Correlation of Well-Being with Psychosocial Factors

Well-Being	*Standard Canonical Coefficients*	*Psychosocial Factors*	*Standard Canonical Coefficients*
Depressed Mood	.23	Income	-.26
Global Satisfaction	-.51	Age	-.10
Positive Affect	-.13	Health Problems	.22
Negative Affect	.25	Positive Events	-.09
Low Spirits	.39	Negative Events	.25
Happiness	-.28	Mastery	-.34
Life Satisfaction	-.04	Low Denigration	-.36
		Self-Esteem	.09
		Perceived Support	-.28
		Support Resources	.13

Canonical Correlation = .73
Wilk's Lambda = .24
Chi-Square (70) = 127.65***

*** $p < .001$

Which specific psychosocial variables are important in predicting well-being? The findings are basically consistent with previous results. However, in answering this question, it is important to recognize that intercorrelations among the psychosocial variables might mask their predictive importance in the final regression equations. As suggested by previous findings, mastery, low denigration, and perceived health problems are statistically significant predictor variables. However, perceived social support drops slightly below the level of significance as a predictor (though its pattern of bivariate associations with well-being was noteworthy), and negative life events become significant.

Specifically, negative life events prodict global satisfaction. Mastery is a statistically significant predictor of both negative affect and depressed mood. Low denigration significantly predicts low spirits. Perceived health problems is a significant predictor of both life satisfaction and global satisfaction. Perceived social support predicts low spirits and depressed mood at a level of borderline significance. Variables that quite consistently contribute little to the prediction of well-being are positive life events, self-esteem, and income.

Table 3. Regression of Well-Being on Social and Psychological Variables

	Negative Affect		*Low Spirits*		*Life Satisfaction*		*Global Satisfaction*		*Depressed Mood*	
	β	*F*	β	*F*	β	*F*	β	*F*	β	*F*
Positive Events	.04	<1	–	–	–	–	–	–	-.04	<1
Negative Events	.03	<1	.12	1.47	.13	1.55	-.20	4.50*	.14	1.84
Mastery	-.24	4.18*	-.08	<1	.11	<1	.15	2.01	-.26	5.29*
Low Denigration	-.22	3.26	-.30	6.28*	.12	<1	.11	<1	-.21	3.03
Self-Esteem	-.04	<1	-.07	<1	.17	2.67	.13	1.89	-.10	1.15
Perceived Support	-.15	2.19	-.19	3.66	.13	1.50	.11	1.32	-.18	3.50
Support Resources	.11	1.36	.04	<1	.10	<1	.08	<1	.18	3.67
Income	-.10	1.04	-.10	1.00	.15	1.90	.07	<1	-.13	1.84
Age	-.19	3.52	.04	<1	.03	<1	.12	1.63	.05	<1
Health Problems	.04	<1	.16	2.81	-.24	5.38*	.32	12.09*	–	–
R^2	.33		.31		.23		.39		.33	
(d.f.) *F*	(10,88)	4.27**	(10,88)	4.01**	(10,88)	2.59**	(10,88)	5.53**	(9,89)	4.93**

* $p < .05$
** $p < .01$

INTERPRETATION AND DISCUSSION

The results clearly indicate a relationship between well-being and variety of psychosocial variables. Canonical correlation analysis suggested that the relationship between well-being and psychosocial variables is quite strong. The regression analyses suggested that, with the exception of positive affect and happiness, indices of well-being are predicted by psychosocial variables. Mastery, low self denigration, perceived health problems, negative life events, and (less strongly) perceived support emerge as the psychosocial variables most consistently related to subjective well-being.

The profile that emerges for this sample of rural elderly respondents is quite consistent with the subjective well-being profiles both for the general and other elderly populations. The importance of mastery, nondenigration, social support, and perceived health status are readily interpretable on the basis of known literature.

The importance of efficacy and concomitant self-regard are themes that cut across clincal, community survey, and national survey literature. Bandura argues that enhanced efficacy is a major outcome of all successful counseling interventions [25]; Pearlin and Schooler (from whom the measures of mastery and nondenigration used in this study are derived) clearly demonstrated the importance of these variables in a large community study. In an extensive survey done in the Chicago area, mastery and nondenigration were found to be related to coping capacity and ultimately to subjective well-being. Campbell reports the findings of the Institute for Social Research's Quality of American Life national survey show that respondents with a strong sense of personal control also tend to report high levels of subjective well-being and satisfaction with self [2, 18].

The importance of mastery and nondenigration in subjective well-being persists across populations and age groups. The rural elderly population in this study are clearly no exception. These psychosocial factors are as important to their well-being as they are for others.

In general, health status tends to be an important issue for aged populations. As briefly mentioned at the beginning of this article, an extensive review and reanalysis of community and national surveys shows that a decline in health satisfaction seems to be one of the most important negative well-being relationships associated with age [3]. That perceptions of health is an important associative and predictive variable in this study is compatible with these findings. Perceived health status influences satisfaction for this rural elderly population just as it does for other elderly populations.

Social support universally is recognized as a major factor in emotional well-being [26]. Perceived support, though not support resources, showed a number of bivariate relationships with well-being, though these associations were attenuated by other predictors in the regression analyses. We think it noteworthy that it is *perceived* social support that is important and not support

resources. Like so much of human affairs, social support is mediated cognitively, and the interpretation that we give to this resource has a major influence on its contribution to well-being. In regard to social support, as with mastery, nondenigration, and perceived health status, this sample of rural elderly persons seems similar to other populations.

The impact of life change varies with one's location in society and one's position in the life cycle [7]. In general, elderly persons experience fewer life changes that do younger populations, though these events tend to be more profound, e.g., death of a spouse or of friends. Although negative life events were significant in the prediction of global satisfaction, we find it surprising how little life events, negative or positive, contributed to subjective well-being in this analysis.

In conclusion, we find a moderate relationship between a wide range of well-being and psychosocial variables within this sample (note especially the canonical correlation findings). The influences on well-being among rural elderly people seem quite similar to those of other elderly populations, and to some degree, general populations. Factors such as a sense of mastery, nondenigration of self, health status, and social support, seem universal in contributing toward subjective well-being.

We think these findings worth noting. Though rural elderly persons comprise over 28 percent of the U. S. elderly population, comparatively less is known about their emotional well-being than urban elderly persons. To know that the same factors are associated with emotional well-being for both populations is useful. This information furthers our understanding of well-being among elderly people in general and helps us to understand well-being among rural elderly persons in particular.

REFERENCES

1. A. Campbell, P. Converse, and W. Rogers, *The Quality of American Life: Perceptions, Evaluations, and Satisfaction,* Russell Sage, New York, NY, 1976.
2. A. Campbell, *The Sense of Well-Being in America,* McGraw-Hill, New York, NY, 1981.
3. A. R. Herzog, W. Rogers, and J. Woodworth, *Subjective Well-Being among Different Age Groups,* Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI, 1982.
4. R. Linton, Age and Sex Categories, *American Sociological Review, 7,* pp. 589-603, 1942.
5. Z. Blau, *Aging in a Changing Society,* Franklin Watts, New York, NY, 1981.
6. D. Levinson, *The Seasons of a Man's Life,* Alfred Knopf, New York, NY, 1978.
7. M. Tausig, Measuring Life Events, *Journal of Health and Social Behavior, 23,* pp. 52-64, 1982.

8. A. J. Zautra, Social Resources and Quality of Life, *American Journal of Community Psychology, 11,* pp. 275-290, 1983.
9. L. Radloff, The CES-D Scale: A Self-Report Depression Scale for Research in the General Population, *Applied Psychological Measurement, 1,* pp. 385-401, 1977.
10. L. Wirth, Urbanism As a Way of Life, in *Perspectives on the American Community,* R. Warren (ed.), Rand McNally, Chicago, IL, 1966.
11. R. C. Atchley, *Social Forces and Aging,* Wadsworth, Belmont, CA, 1985.
12. P. Gunter, *A Survey of Needs of the Rural Elderly in Selected Counties in Southern Illinois,* unpublished doctoral dissertation, Southern Illinois University at Carbondale, Carbondale, IL, 1980.
13. F. M. Andrews and A. C. McKennel, Measures of Self-Reported Well-Being: Their Affective, Cognitive, and Other Components, *Social Indicators Research, 8,* pp. 127-155, 1980.
14. M. Block and A. J. Zautra, Satisfaction and Distress in a Community: A Test of the Effects of Life Events, *American Journal of Community Psychology, 9,* pp. 165-180, 1981.
15. L. Radloff, Sex Differences in Depression, *Sex Roles, 1,* pp. 249-265, 1975.
16. A. J. Zautra and L. Simons, Some Effects of Positive Life Events on Community Mental Health, *American Journal of Community Psychology, 7,* pp. 441-451, 1979.
17. N. Bradburn, *The Structure of Psychological Well-Being,* Aldine, Chicago, IL, 1969.
18. A. Campbell and P. Converse, *The Quality of American Life, 1978,* (machine readable data file), First ICPSR edition, Survey Research Center, Institute for Social Research, Ann Arbor, MI (producer), 1978; Inter University Consortium for Political and Social Research, Ann Arbor, MI (distributor), 1980.
19. L. Radloff, *Depression in Youth: Epidemic or Artifact,* paper presented at the American Psychological Association meeting in Washington, D.C., August 1982.
20. B. P. Dohrenwend, B. S. Dohrenwend, M. S. Gould, B. Link, R. Neugebauer, and R. Wunsch-Hitzig, *Mental Illness in the United States: Epidemiological Estimates,* Praeger, New York, NY, 1980.
21. B. S. Dohrenwend, L. Krasnoff, A. R. Askenasy, and B. P. Dohrenwend, Exemplification of a Method for Scaling Life Events: The PERI Life Events Scale, *Journal of Health and Social Behavior, 19,* pp. 205-229, 1978.
22. A. Vaux and D. Harrison, Support Network Characteristics Associated with Support Satisfaction and Perceived Support, *American Journal of Community Psychology, 13,* pp. 245-268, 1985.
23. A. Vaux, J. Phillips, B. Thomson, L. Holly, D. Williams, and D. Stewart, The Social Support Appraisals (SSA) Scale: Studies of Reliability and Validity, *American Journal of Community Psychology,* in press.
24. L. I. Pearlin and C. Schooler, The Structure of Coping, *Journal of Health and Social Behavior, 19,* pp. 2-21, 1978.
25. A. Bandura, Self-Efficacy: Toward a Unifying Theory of Behavioral Change, *Psychological Review, 84,* pp. 191-215, 1977.

26. R. Leavy, Social Support and Psychological Disorder: A Review, *Journal of Community Psychology, 11*, pp. 3-21, 1983.

Direct reprint requests to:

Jay Meddin
Curtin University of Technology
Kent Street
Bentley, Western Australia 6102
Australia