

QUALITY OF LIFE OF MIDDLE-AGED WOMEN: EFFECTS OF FAMILY RESOURCES AND DEMANDS

Rosemary Walker, Meesok Lee, Margaret Bubolz, Dennis Keefe, Michigan State University¹

Components of the Deacon-Firebaugh family resource management model were used as the conceptual framework to study relationships of selected family variables to the quality of life of women in the middle stages of the life cycle. Path analysis was used to examine the factors which contributed directly and indirectly to life satisfaction. Satisfaction with family life, level of health, marital happiness, and income adequacy had the greatest total effects.

PURPOSE AND CONCEPTUAL FRAMEWORK

The purpose of this research was to investigate the impact of family resources and demands on quality of life as perceived by middle-aged women. Attention focused on women in the middle years because this stage of the life cycle includes a variety of potentially stressful life events that can influence quality of life. These events include rearing and launching of children, mid-life physical and biological changes, illness, aging and death of older kin, and imminent retirement from paid employment.

Components of the Deacon and Firebaugh Family Resource Management Model (Deacon and Firebaugh, 1988) served as the conceptual framework. Deacon and Firebaugh conceptualize family resource management as a system comprised of: 1) inputs consisting of demands (e.g. goals, needs, events) and resources; 2) throughputs of planning and implementing; and 3) outputs of met demands and used resources.

In this research the focus was on the effect that inputs (demands, including events, goals, and resources) had on quality of life, an output. Demands were represented by economic, time, and health stressors; number of dependents; and problems with children. Level of income, perceived income adequacy, years of education, employment status, and level of health were indicators of resources, providing the means to respond to demands. Marital happiness, a satisfying family life, and a high quality of overall life were assumed to be family goals. Respondents' assessments of their marital happiness, family life, and quality of life represented the degree to which these demands were met and were an evaluation of the output of the system. Throughput variables were not investigated. Figure 1 presents the general conceptual model.

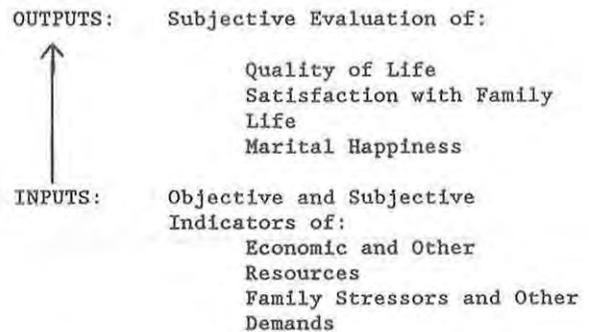


Figure 1. Conceptual Model

Previous research has found that objective circumstances, such as level of income, do contribute to people's overall assessment of life quality and of some specific domains of life (Berry and Williams, 1987; Hafstrom and Dunsing, 1973). However, subjective indicators, such as income adequacy, have been found to make a larger contribution and are better predictors of people's quality of life (Ackerman and Paolucci, 1983). Many studies have found that satisfaction with family life is one of the highest predictors of overall quality of life (Andrews & Withey, 1976; Campbell, 1981; Campbell, Converse, & Rodgers, 1976; Bubolz, et al, 1980; Sontag, Bubolz, & Slocum, 1979).

Several researchers have found that stress leads to depression (Caplan, 1979; Holmes and Rahe, 1967; Perlin, et al, 1981; Selye, 1956, 1980). However, the relationship of family stressors, within the context of a family resource management model, to quality of life has not been studied. The intent of this research is to elucidate this relationship.

METHODOLOGY

The data for this research were part of a longitudinal regional research project involving Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Missouri, and Nebraska. The focus of the project (CSRS Project NC 164) was on family stress. Support was provided by the Cooperative Research Service of the USDA and the Agricultural Experiment Stations of the participating states.

Sample

The sample was randomly selected from a marketing corporation's list of families in the middle years of the family cycle, defined as wife age 35-65, who had at least one child. Each state selected a Standard Metropolitan Statistical Area (SMSA) with a population of 200,000 or more for the site for the urban sample. The rural sample

¹Associate Professor, Graduate Student, Professor, and Assistant Professor, Department of Family and Child Ecology

was drawn from a county not part of or adjacent to a SMSA. Sampling areas were representative of the state in terms of median family income and educational attainment of persons age 18 and older. Because of the primary interest of the research team, rural families were over-represented.

Two survey instruments were mailed to each family, one for each husband and wife in February 1983. In February 1985, husbands and wives who had responded in 1983 were mailed new survey instruments. The overall 1985 response rate was a little over 50 percent.

The present study utilizes the data from the 634 married women in the 1985 survey. Two-thirds of the women lived in rural areas or towns with population less than 50,000. Ages ranged from 37-67; the median educational level was 12 years; median income was between \$35,000 and \$40,000.

VARIABLES

Dependent Variable

The dependent variable, overall quality of life, was measured using the Campbell, Converse, and Rodgers (1976) Index of Well-Being. It was obtained by adding the mean score of 8 statements in a semantic differential scale concerning feelings about present life (e.g., a scale of 1-7 relative to life being boring-interesting, miserable-enjoyable, and useless-worthwhile) to the weighted (1.1) score of satisfaction with life as a whole. The latter was measured on a 7 point scale ranging from completely satisfied to completely dissatisfied.

Independent Variables

Independent variables included measures of demands, such as family and economic stressors, and measures of resources such as level of health, income, wife's employment status, and education.

Family level of income was the category of total family income before taxes from all sources in 1984. Educational level was years of school completed. A health symptoms variable was constructed as an indicator of level of health. It was computed by adding scores of 12 statements relating to health such as trouble sleeping, had headaches, and been depressed. Each statement had a possible score of 1 to 5 (never to almost always) with the total possible score ranging from 12 to 60. A higher score represented a lower level of health.

Employment status had three categories: working full-time was 35 or more hours a week; part-time was less than 35 hours a week; other included unemployed, homemakers, retired, student, and disabled respondents. Number of dependents was the number of persons (other than respondent) in the household who depended upon the family income for at least 25 percent of their support.

Family and economic stressors, serving as indicators of demands, were constructed as 5 composite variables from 26 of the 43 items in the Family Life Events Scale in the questionnaire. This scale was an adaptation of the Family Inventory of Life Events (FILE), an instrument designed to measure family stress (McCubbin, Patterson, and Wilson, 1983). It includes events related to family transitions and relations, finances, health, school, and law. Respondents were asked to indicate if certain events had occurred in their families within the last two years. If so, they identified the degree to which the event was disturbing, using a five point scale ranging from not to extremely disturbing. The values for the items in each composite variable were added to create a score.

The five composite variables were family conflict, problems with children, and economic, time, and health stressors. Family conflict consisted of events and stress related to marital separation and relations with married children, relatives, or in-laws. Kid problems consisted of events and stress related to adult children having problems achieving independence; member moving back home; pregnancy of unmarried member; member demanding new privileges; member dropping out of school.

Economic stressors consisted of events and stress related to nine items: job loss by major wage earner; family member's job demotion or re-tooling; financial assistance required by own or husband's parents or siblings; cut in family income; going into debt; major financial loss; going on welfare; having to increase debt; forced to dip into savings.

Health stressors was a composite variable consisting of scores from these items: major wage earner has serious illness or accident; child has serious illness; grandparents require direct care or becomes institutionalized; a family member has serious emotional problems. The time stressors variable was constructed from the following items: member accepts time consuming volunteer work, change in member's work schedule, outside activities draw adult away from home, household chores pile up.

A variable related to perception of community changes and the effects of those changes was in the original model but was dropped because there was little variation. Most respondents said there were no changes.

Other Variables

Three variables were employed as dependent variables in some regression equations and as independent variables in others because of their hypothesized intervening effect. These were: income adequacy, marital happiness, and quality of family life.

Income adequacy concerned the extent to which the respondent thought her income was enough to live on presently. Responses ranged from 1= can't buy

necessities to 5- can afford everything we want and have some left.

Marital happiness was measured with a statement about how happy respondent was with her marriage, ranging from 1, extremely unhappy, to 7, extremely happy. Overall quality of family life was measured by the Kansas Family Life Satisfaction Scale (Schumm, et al, 1986). It consisted of the mean score of 4 statements regarding satisfaction with family, relationship with spouse, relationship with children, and children's relationships with each other. Each statement was measured on a 1 to 7 scale, from completely dissatisfied to completely satisfied.

ANALYSIS

Regression and Path Analysis

Step one of the analysis involved multiple regression analysis to help elucidate the complex relationships among the variables. Step two employed a path analysis model which depends on the strength of the relationships found among the variables tested in step one. Path analysis provides a method of analyzing the decomposition of the effects of predictor variables on the variable of interest and the interpretation of linear relationships among selected variables, by assuming a prior causal ordering provided by the researchers, based on the theoretical model. Assumptions underlying path analysis were tested for violations. Linearity between the independent and dependent variables was found. High multicollinearity among the independent variables was not found, except for a higher than acceptable correlation between marital happiness and quality of family life. Therefore, in the final equation in which quality of life was the dependent variable, marital happiness was excluded. No correlations among the residuals were found, and a normal distribution of residuals was observed.

The basic path model is diagrammed in Figure 2.

The five structural equations providing the basis for the analyses follow:

$$(1) X_{10} = \beta_{10,6} X_6 + \beta_{10,7} X_7 + \beta_{10,8} X_8 + \beta_{10,9} X_9 + \epsilon$$

$$(2) X_{11} = \beta_{11,1} X_1 + \beta_{11,2} X_2 + \beta_{11,3} X_3 + \beta_{11,4} X_4 + \beta_{11,5} X_5 + \beta_{11,6} X_6 + \beta_{11,7} X_7 + \beta_{11,8} X_8 + \beta_{11,9} X_9 + \beta_{11,10} X_{10} + \epsilon_2$$

$$(3) X_{12} = \beta_{12,1} X_1 + \beta_{12,2} X_2 + \beta_{12,3} X_3 + \beta_{12,4} X_4 + \beta_{12,5} X_5 + \beta_{12,6} X_6 + \beta_{12,7} X_7 + \beta_{12,8} X_8 + \beta_{12,9} X_9 + \beta_{12,10} X_{10} + \beta_{12,11} X_{11} + \epsilon_3$$

$$(4) X_{13} = \beta_{13,1} X_1 + \beta_{13,2} X_2 + \beta_{13,3} X_3 + \beta_{13,4} X_4 + \beta_{13,5} X_5 + \beta_{13,6} X_6 + \beta_{13,7} X_7 + \beta_{13,8} X_8 + \beta_{13,9} X_9 + \beta_{13,10} X_{10} + \beta_{13,11} X_{11} + \beta_{13,12} X_{12} + \epsilon_4$$

$$(5) X_{14} = \beta_{14,1} X_1 + \beta_{14,2} X_2 + \beta_{14,3} X_3 + \beta_{14,4} X_4 + \beta_{14,5} X_5 + \beta_{14,6} X_6 + \beta_{14,7} X_7 + \beta_{14,8} X_8 + \beta_{14,9} X_9 + \beta_{14,10} X_{10} + \beta_{14,11} X_{11} + \beta_{14,12} X_{13} + \epsilon_5$$

Where, X1 = Level of Income
 X2 = Economic Stressors
 X3 = Number of Dependents
 X4 = Employment Status
 X5 = Years of Education
 X6 = Kid Problems
 X7 = Time Stressors
 X8 = Health Stressors
 X9 = Family Conflict
 X10 = Health Symptom
 X11 = Income Adequacy
 X12 = Marital Happiness
 X13 = Quality of Family Life
 X14 = Quality of life

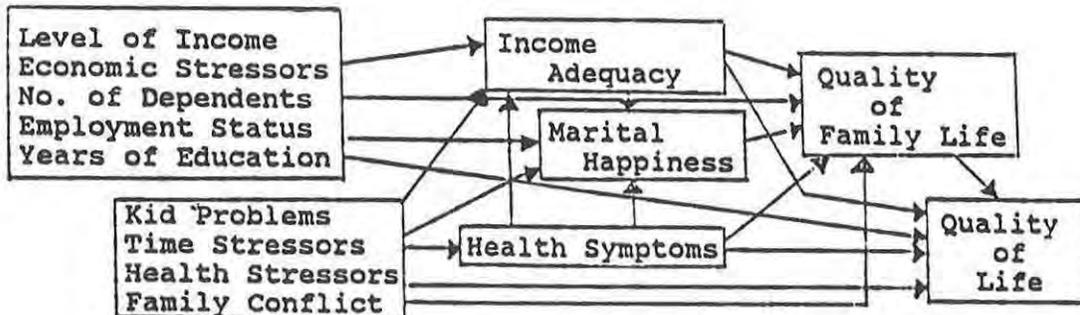


Figure 2. Basic Path Model

Figure 3 shows the path diagram of the model.

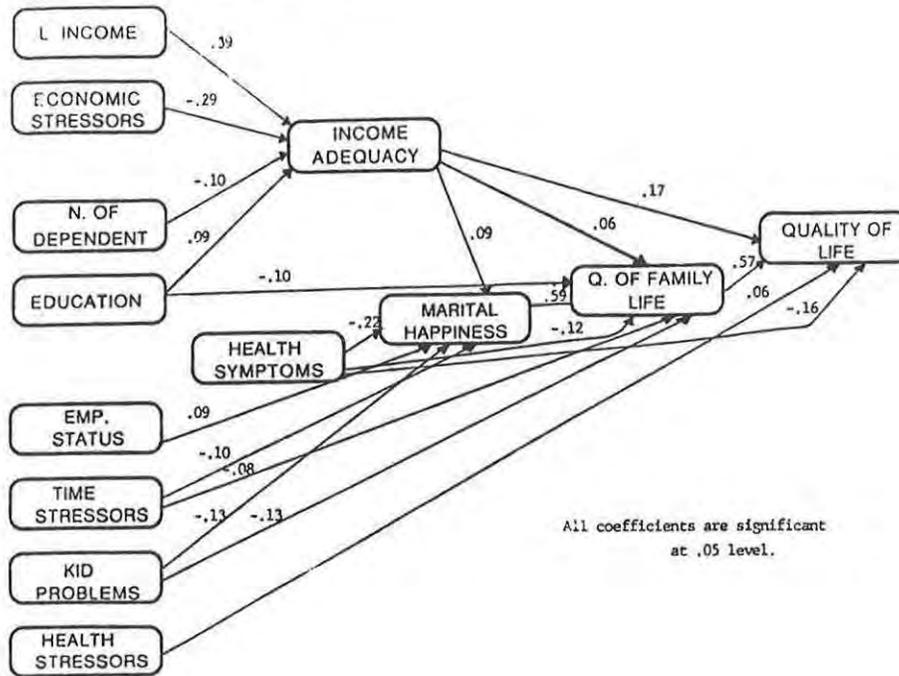


Figure 3. Path Diagram of Quality of Life

All analyses employed the Statistical Package for the Social Science (SPSS-X) computer program. The analysis of the five equations involved a hierarchical exclusion method of multiple regression.

Quality of family life was the strongest direct predictor ($r = .57$) of quality of life for the women. The following variables also had a direct influence, but to a lesser extent: income adequacy ($r = .17$), health symptoms ($r = -.16$), and health stressors ($r = .06$). Forty seven percent of the total variance in quality of life was explained by the four direct predictors. Notice the negative influence of health symptoms on quality of life, indicating that the more symptoms and the greater their severity (frequent headaches and flu) the lower the women perceived their quality of life.

Table 1 shows the direct, indirect, and total effects of the variables. The effect of marital happiness was mediated through quality of family life. Its total effect, however, was high (.34).

Health symptoms not only directly impacted on quality of life but also on quality of family life, marital happiness, and income adequacy; thus, mediated by these three variables, its total effect on quality of life ($r = .30$) placed it third in magnitude.

Income adequacy, a direct predictor of quality of life for the women, was itself directly influenced by level of income, economic stressors, education, and number of dependents. The total effect of level of income on quality of life was significant but small (.08), mediated by income adequacy, marital happiness, and quality of family life.

Income adequacy, health symptoms, employment status, kid problems, and time stressors were direct predictors of marital happiness and indirectly influenced quality of family life as well as quality of life.

Although family conflict was hypothesized to be a significant indirect predictor of quality of life for the women, it was not.

DISCUSSION

A unique contribution of this research was examination of the relationship of family stressors to the quality of life of middle-age women. Four of the stressor variables in the study had an effect on their quality of life. Health stressors had a direct impact, while economic, time, and kid stressors had indirect influences. Economic stressors impacted through perceptions of income adequacy. Problems with children affected evaluation of marriage and family life. All of these stressors may be especially acute in

Table 1.
 Decomposition of Effects of Significant Predictors of Quality of Life

Variables	Path Coeff. Direct Effect	Indirect Effect	Total Effect
Quality of Family Life	.57	-----	.57
Income Adequacy	.17	-----	.17
Health Symptoms	-.16	-.07 (thr. Marital Happiness & Quality of Family Life) -.07 (thr. Quality of Family Life)	-.30
Health Stressors	.06	-----	.06
Marital Happiness		.34 (thr. Quality of Family Life)	.34
Level of Income	N.S. ^a	.08 (thr. Income Adequacy, Marital H. & Quality of Family Life)	.08
Economic Stressors	N.S.	-.07 (thr. Income Adequacy)	-.07
Employment Status	N.S.	.04 (thr. Marital Happiness & Quality of Family Life)	.04
Kid Problems	N.S.	-.04 (thr. Marital Happiness & Quality of Family Life) -.07 (thr. Quality of Family Life)	-.11
Number of Dependents	N.S.	-.02 (thr. Income Adequacy & Marital H.)	-.02
Time Stressors	N.S.	-.06 (thr. Quality of Family Life) -.03 (thr. Marital Happiness & QFL)	-.09
Education	N.S.	-.04 (thr. Income Ad., Marital H., & QFL)	-.04

a Not Significant

the middle years of life when children are becoming independent and launched, personal health problems increasing and demands on time and economic resources high.

Also of special interest is the subjective variable, income adequacy. Three variables influencing it were objective measures of available resources and demands (level of income, number of dependents, and education). They did not directly affect quality of life. Rather, the women's assessment of resource availability relative to demands, income adequacy, made a big difference in the quality of their lives. The gap between an individual's present situation and her aspirations may also be subsumed by income adequacy

(Campbell, et al., 1976). This research illustrates the utility of using both objective and subjective indicators of resources.

Health was an area which had a large impact on quality of life. This is consistent with previous research. The finding that the number of health symptoms was significantly related to overall quality of life, as well as to evaluations of marriage and family life, indicates that this is an especially sensitive indicator of quality of life and influences many life domains. It may be especially salient to those in the middle stage of life. Health symptoms represent level of health and ability to respond to stress-

ors. In the model used here, health symptoms were conceptualized as independent variables in relation to marriage and other family variables. In actuality, there probably is an interactive effect. Illness or symptoms of poor health can affect family relationships, creating stress which feeds back and impacts further on health symptoms. Future research should examine these relationships from a nonrecursive model.

Health stressors as measured by illnesses of other family members also had some effect on quality of life, but to a lesser extent than health symptoms. One's own health seems to make a bigger difference to one's quality of life than the health or illness of other persons. The findings related to the strong relationship of family life to quality of life are consistent with several research studies over the past 15-20 years. They attest to the continuing significance of intimate interpersonal relationships to well-being. Likewise, the importance of assessment of marriage to quality of family life was reinforced. Marital happiness may be an especially salient factor in middle-aged women's assessment of their family life.

CONCLUSIONS

This research has demonstrated the usefulness of using a family resource management model to study quality of life. From this perspective perceived quality of life can be considered an assessment of the extent to which demands are met with available resources. Stressor events represent critical demands upon the family system that impact quality of life. The findings of this research have identified three major domains, representing demands and resources, which affect quality of life of middle age women. These are: family relationships, income adequacy and health. This research has demonstrated the usefulness of broadening the concept of resources to include such social aspects as relationships within the family. Quality of life is dependent not only on objective conditions and resources but also on subjective evaluations of these conditions in relation to demands and aspirations.

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