

맞벌이 부부가족에 있어서의 일과 가정생활의 역할 긴장에 관한 이론적 모델 연구: 이론적 모델의 검증

Work-Family Role Strain in Dual-Earner Families : A Theoretical Model for Wives

Department of Family, Child, & Consumer Sciences,
College of Human Sciences, Florida State University.

Professor: Elizabeth B. Goldsmith

Department of Home Economics Education
College of Education, Chung-Ang University

Part-time Instructor: Yeong-Hee Kim

中央大學校 師範大學

家庭教育科 講師 : 김 영 희

〈 목 차 〉

I . INTRODUCTION

II . THEORETICAL FRAMEWORK

III . METHODS

IV . RESULTS

V . DISCUSSION

[REFERENCE]

〈Abstract〉

본 연구는 가족스트레스 이론적 모델인 Double ABCX Model과 일과 가정생활의 역할 긴장에 관한 선행연구를 기초로하여 제안된 이론적 모델을 검증하는데 목적이 있다. 이론적 모델의 검증을 통하여 일과 가정생활의 역할 stressor나 두 가지 역할의 누적으로 쌓이는 역할 긴장이 가족스트레스 이론으로 설명될 수 있는가? 또한 매개 변수인 가족자원과 대처방안에 의해 어떻게 중재되어 삶의 질에 영향을 미치는 가를 규명하고자 한다.

미국 로스앤젤레스 지역의 한국교민 중 맞벌이 부부인 가족을 연구대상으로 선정하고 설문지 법으로 남편과 부인의 자료를 분리하여 표집하였는데 본 연구에서는 153명의 부인으로 부터 얻은 자료만을 분석하고자 한다. 자료는 이론적 검증에 유용한 LISREL VII 프로그램을 사용하여 분석한다.

자료의 분석결과가 처음 제안된 모델은 검증하지 못했지만 가족자원 변인과 대처방안 변인간의 상호 관계 효과를 고려하여 수정된 모델은 가족스트레스 이론으로 일과 가정생활을 병립하는데서 오는 stressor나 누적된 역할 긴장을 이해할 수 있음이 검증되었다. 모델의 검증을 통하여 맞벌이 부부가족의 부인에게는 일과 가정생활의 stressor가 누적되어 역할긴장을 증가

시켰으며 이 역할긴장은 주로 가정생활의 역할 stressor에서 기인하는 것으로 나타났다. 또한 가족자원은 일과 가정 생활의 두 역할 stressor에 의해 강도를 더하는 역할 긴장을 감소시키고 삶의 질을 증가시키는 중요한 매개변수로 나타났다.

I. INTRODUCTION

Recent research suggests that dual-earner families, in which both wives and husbands are working outside the home, experience multiple stresses and strain in trying to manage their work lives and family lives simultaneously. The most well-documented strain for these dual-earner families is inter-role conflict resulting from the cross-pressure of work and family roles (Beach, 1989; Bronfenbrenner & Crouter, 1983; Eckenrode & Gore, 1990; Goldsmith, 1988; Googins, 1991; Greenhaus, 1988; Lewis & Cooper, 1987; Small & Riley, 1990; Voydanoff, 1988; Voydanoff & Donnelly, 1989).

In particular, Greenhaus and Beutell (1985) reviewed the literature on conflict between work and family roles using the role conflict framework. They conclude that work-family conflict is aroused by the presence of role pressures from work and family domains that are mutually incompatible in time, strain, and behavior respects (Greenhaus & Beutell, 1985).

Therefore, the multiple role pressures experienced by dual-earner families in today's society render work-family conflict virtually inevitable, resulting in stress and strain (Cooke & Rousseau, 1984; Katz & Piotrkowski, 1983; Voydanoff, 1988). Moreover, the impact of extensive work-family conflicts on deteriorated mental and physical well-being (Kopelman, Greenhaus, & Connolly, 1983; Piotrkowski, 1984; Pleck & Stains, 1985; Voydanoff & Donnelly, 1989) provides an additional reason for the need to understand the concept of work-family conflict within the stress perspective.

A critical development in stress research has been the movement away from the static approach of conceptualizing and studying stress and its effects, to an approach which emphasizes an appreciation of the dynamic processes linking stress exposure to mental and physical outcomes. Accordingly, research on the effects of work and family role conflicts can lead to an understanding of the "static role strain" paradigm as an "on-going process model" from the stress perspective.

Within the ecological framework, Bronfenbrenner (1977) and Pearlin et al. (1978) have begun to focus on "chronic and normative stress" as related to work and family life roles. Their individual stress theories provide a conceptual framework in which work and family role conflict can be seen as the normative and on-going stress. That is, balancing work and family life can lead to conflict and create a considerable stress or strain if dual-earner couples are unable to handle their joint work and family obligations.

Under the family stress perspective, the underlying dynamics of work and family role stress can be better explained in terms of why some individuals or families are more resistant than others to the stress or strain experienced by dual-earner families. A model of family stress developed by Hill (1958) has provided a framework for conceptualizing family adaptations to stress that allows researchers to more effectively examine stress in families. That is, in the Hill model, the crisis (X) resulting from a stimulus event (A), is mediated by the family's resources (B) and definition of the event (C).

More recently, McCubbin and Patterson (1982)

redefined the concept of "pile-up" of stressors to provide a mechanism for examining multiple stressors, events, and strains in the Double ABCX model. This conceptual model was hypothesized that the pileup of cumulative stressors and strains may lead to greater vulnerability for the family as opposed to dealing with Hill's single stressor event. That is, the Double ABCX model focuses on family responses to stressful situations over time so that aA represents pile-up of stressors; bB, the resources families build up and employ to cope with the situation; cC, how they perceive events or how they manage the situation during their period of adjustment; and xX, the outcome for the family defined in terms of bonadaptation or maladaptation.

Although frequent mention is made of the stresses or strains on dual-earner families, no single unifying theoretical framework exists within family science (Piotrkowski, Rapoport, & Rapoport, 1987). Therefore, the present study has attempted to examine the clustering effects of work and family role strain within the context of a theoretical framework: namely, the Double ABCX model of McCubbin and Patterson (1982, 1983). The main question of this study is whether the ways dual-earner families produce, encounter, and cope with on-going cross-pressures of work and family roles can be understood as a stress process in the Double ABCX model.

Therefore, the purposes of this study are (a) to test a theoretical model of the clustering effect of work and family role stressors and strain, mediated by family system resource and coping strategy, on the quality of life; (b) to explore the implications of specifying mediators such as family system resource and coping strategy to intervene work and family role stressors and strain; and (c) to examine the applications of the Double ABCX model to understand the dynamics of work-family role conflict as a normative, on-going stressor. Each of these purposes will be achieved through the test of the theoretical

model specified in this study.

II. THEORETICAL FRAMEWORK

The model depicted in Figure 1 attempts to examine factors that influence quality of life following work and family role stressors. The specification of causal relationship among the variables in the model is guided by the Double ABCX(McCubbin & Patterson, 1981) model and a review of literature on family stress as well as the more general literature related work-family role conflict.

The primary difference between the Double ABCX model and the model used in this study is that the former model includes normative and nonnormative life events as stressors, but the latter includes only work and family roles as normative and on-going stressors. It has been recognized by Lavee et al. (1985) that the relationships among stressors, resources, perception, and adaptation within the Double ABCX model should be examined in other sets of stressor.

Also, while the xX factor of the Double ABCX model focuses on the crisis and post-crisis level of adaptation reached by the family, this study focuses on quality of life as an outcome measure of the xX factor. As McCubbin and Patterson (1987) suggest, the study of family response to stress has been delayed somewhat by lack of systematic, theoretically guided research of "normal" families' response to "normal" ranges of stressors and strain. Accordingly, since the subjects in the present study are from normal (i.e., non-clinical) families, it is not assumed that a crisis has occurred as a result of the work-family role strain. Most researchers have used life satisfaction, and physical and emotional well-being of family members as outcome measures of the work and family role strain (Benin & Neinstedt, 1985; Freudiger, 1983; Kessler & McRae, 1982; Kopelman, Greenhaus, & Connolly, 1983; Pistang, 1984; Pleck

& Stains, 1985; Ross, Mirowsky, & Huber, 1983; Tiedje, 1990; Voydanoff, 1988; Voydanoff & Donnelly, 1989).

The model can be described by a set of hypothesized relationships which are the following: (a) quality of life is negatively affected by a family role stressor, a work role stressor, and work-family role strain, (b) family system resource and coping strategy are hypothesized to increase quality of life, (c) coping strategy is hypothesized to be influenced positively by family system resource and to be affected negatively by work and family role strain, (d) family system resource is hypothesized to be negatively affected by work-family role strain, and (e) work-family role strain is hypothesized to be affected positively by a family role stressor and a work role stressor. Each variable was examined to rationalize the predicted causal paths among the major variables and the indicators predicted to define the construct of variables. Additional details about rationales for the model are available in Kim (1991).

III. METHODS

Sample

Subjects of this study were collected from Korean churches located in the downtown and South Bay areas of Los Angeles, California in the United States, where a high population of Korean-Americans live. A non-random, multi-stage sampling technique was used to select the dual-earner couples of Korean-American. Criteria for participation included ethnicity (Korean-American) and dual-earner families, in which both wives and husbands were employed in full-time jobs and had at least one child. To determine ethnic status, Korean-American was defined as having a birthplace in Korea but permanent residence in the United States.

Each wife and husband of 247 dual-earner couples was provided a separate questionnaire with instructions to fill out the measure separately. Self-addressed stamped envelopes were given for both wife and husband so that the questionnaire could be returned separately. Because of the great potential for the differences in perspective, feelings, and belief about work-family role between husbands and wives in dual-earner families (Belsky et al., 1983; Berk, 1985; Bryson et al., 1978; Pleck, 1985), the theoretical model as proposed is estimated separately for wives and husbands. That is, although data have been collected at the couple level, the unit analysis is on an individual level. First of all, the analysis of wives' model is addressed at this point.

Out of 247 couples, 182 wives' questionnaire were completed, yielding a completion rate of 74%. Out of this total, however, 27 wives' questionnaires were excluded from the analysis because the data were not complete. The final sample consisted of 155 wives.

The mean age was 38.5(SD=10.7), ranging from 26 to 58. Approximately 2% had less than 12 years of schooling, while 32% were high school graduates. Nearly 61% had completed college and 5% had graduate degrees. Half of the respondents reported that annual family income was above \$ 50,000. Sixteen percent were found to be professionals and semiprofessionals, 40% were proprietors or managers, 24% were white collar workers, 11% were skilled workers, and the remaining 5% were semiskilled or unskilled workers. The mean hours spent at work each day was 8 hours (SD=2.51) on week days and 5 hours (SD=4.08) on the weekends. The average number of children was 2; the mean age of these children was 13. The mean number of family members living with subjects was 4. The length of residence in America was 12 years (SD=5.9).

Variables

A complete model specification showing multiple indicators and measurement errors is presented in Figure 2. It is the recursive model in LISREL (Joreskog & Sorbom, 1989) notation. Causal relations are shown by unidirectional arrows both between latent variables and between each latent variable and its indicators. A curved double-sided arrow indicates noncausal relationship between latent variables. The circles represent latent variables in the structural model, while the rectangles reflect measured variables in the measurement model. A definition of symbols is presented in Table 1.

Generally, variables in a structural equations model can be either exogenous(i.e., independent, external to the model because they are not to be explained or caused by the model) or endogenous (caused by other variables in the model). In the model of this study two exogenous variables—family role stressor and work role stressor—were specified by three indicators.

Four endogenous variables were operationalized as latent variables or unobserved variables, that is, as common factors of a priori specified indicators (measured or observed) variables. Four endogenous variables were as follows; (a) work-family role strain were specified as a common factor of two indicators such role conflict and role overload; (b) family system resource as specified as a common factor of three measured variables such as family strengths II, family strength I, and financial well-being; (c) coping strategy was specified as a common factor of three observed variables such as maintaining perspective and reducing tension, modifying roles and standards, and maintaining family system; and (d) quality of life was specified as a common factor of three indicators—emotional well-being, physical well-being, and life satisfaction.

Table 1

Definition of Variables Used in Figure 2

ξ_1 = Family Life Role Stressor
X_3 = Item 3 & 7
X_4 = Item 4 & 6
X_5 = Item 1, 2, & 5
ξ_2 = Work Role Stressor
X_3 = Item 3 & 7
X_6 = Item 4 & 6
X_8 = Item 1, 2, & 5
η_1 = Work-Family Role Strain
Y_1 = Role Conflict
Y_2 = Role Overload
η_2 = Family System Resource
Y_3 = Family Strengths II
Y_4 = Family Strengths I
Y_5 = Financial Well-Being
η_3 = Coping Strategy
Y_6 = Maintaining Perspective & Reducing Tension
Y_7 = Modifying Roles & Standards
Y_8 = Maintaining Family System
η_4 = Quality of Life
Y_9 = Emotional Well-Being
Y_{10} = Physical Well-Being
Y_{11} = Life Satisfaction
ξ (xi) = latent exogenous variables
η (eta) = latent endogenous variables
ζ (zeta) = latent errors in equations
Y = observed indicators of η
X = observed indicators of ξ
λ (lambda) = coefficients relating unobserved or theoretical variables to observed variables
γ (gamma) = coefficients relating exogenous, theoretical variables to the endogenous variables

Measures

The procedure of back-translation was undertaken by using Lininger's methods (1975) to examine the applicability of a self-reported survey instrument translated English into Korean. Details of instrumenta-

tion is available in Kim (1991). Family life role stressor was measured by 7 items to assess the level of discomfort, pressure, tension, or frustration which dual-earner family members experience in performing family life roles (Pearlin & Schooler, 1978). Because the LISREL program cannot compute the residual of a single indicator, and because a full reliability can not be assumed, 7-items of the family role stressor scale were divided into three observed variables as X1, X2, and X3. That is, for statistical treatment, similar content items were grouped together as separate indicators of family role stressor. Coefficients of internal consistency (using Cronbach's alpha) were .48 for X1 and .64 for both X2 and X3.

Work role stressor was assessed the same way as family life role. Seven items of the scale were divided into three observed variables as X4, X5, and X6. Coefficients of internal consistency (α) were .54 for X4, .63 for X5, and .60 for X6.

Work-family role strain was measured by Job-Family Role Strain Scale (Bohen & Viveros-Long, 1981). of work-family role strain. Since the scale has been modified and used in multiple forms by various authors, two factors were modified and used for the present study : role conflict and overload. Role conflicts was measured by 4 items to assess family members' feeling of conflict in fulfilling the requirements of work and family roles. Cronbach's alpha was .65, which indicated that the reliability was not high enough. Role Overload (6-item) assessed family members' feelings of overload in performing work and family roles. Cronbach's alpha estimate of internal consistency was .83.

Family system resource was measured by the Family Inventory of Resources for Management (FIRM). The FIRM developed by McCubbin and Comeau (1981), is a 4-point Likert-type, 69-item scale designed to assess the ability of the family to cope effectively with stressful situations. Items were

in the form of statements, with respondents indicating how well they described the family (not at all = 1 to very well =4). Three sub-scales were used as the indicators to measure family system resources in this study : family strengths II, family strengths I, and financial well-being.

Family strengths II (mastery and health) was measured by 17 items to assess resources in the areas of a sense of mastery over family events and outcomes, family mutuality, and physical and emotional health. Cronbach's alpha for this subscale was .85, indicating that it was a reliable measure. Family strengths I (esteem and communication) was measured by 12 items to assess the presence of a combination of personal, family, and social support systems in six areas : family esteem, communication, mutual assistance, optimism, problem-solving, and encouragement of autonomy. The reliability coefficient of this subscale was .89. Financial well-being was measured by 13 items reflecting perceptions of family members regarding the family's present and future financial efficacy. Cronbach's alpha was .80.

Coping strategy measures were derived from the Dual-Employed Coping Scales (DECS) developed by Skinner and McCubbin (1982). The DECS is a 5-point Likert-style, 58-item scale designed to identify and assess coping behaviors spouses find helpful in managing work and family roles when both partners are employed outside the home. Three sub-scale were indicators of coping strategies in this study.

Maintaining perspective and reducing tension contained 11 items which focused on reducing stress and demands of the present situation. A reported alpha coefficient was .70. Modifying roles and standards was scored by 15 items. These items focused on coping behaviors which attempt to accommodate the situation, maintain an optimistic definition of the situation, and maintain belief in the value of the lifestyle. Cronbach's alpha was .70, indicating that the scale had moderate reliability/

internal consistency. Maintaining family system consisted of 16-items to assess coping behaviors utilized within the family system that are aimed at restructuring roles, family-related decision making, and maintaining the family system. This subscale showed an internal consistency reliability of .68.

Quality of life was operationalized by three measures: emotional well-being, physical well-being, and life satisfaction. Emotional well-being was measured by the depression subscale of the SCL-90-R (Derogatis et al., 1976) with 11-items. The alpha coefficient was .91. Physical well-being was also measured by the SCL-90-R (Derogatis et al., 1976) with 12-items. Internal-reliability (alpha) was .90. Life satisfaction was measured by a modified version of Olson and Barnes' Quality of Life Scale (1989). This scale had adequate internal consistency for the respondents examined here, yielding alpha coefficients of .88.

IV. RESULTS

Throughout the visual inspection of the data, two sets of wives' data were defined as outliers and influential data points. These data were eliminated because the results of analysis could be quite sensitive to outliers. Thus the number of cases for analysis were reduced to 153 for wives.

In addition, correlations and bivariate scatterplots were used to detect direction of association, degree of colinearity, and departure from normality. Table 2 contains the preliminary analysis of correlations, means, and standard deviations for all of the measured variables used in this analysis.

Testing the Proposed Model

To test whether or not the data supported the proposed model, the covariance matrix of the observed variables, shown in Table 3, was analyzed using LISREL VII (Joreskog & Sorbom, 1989).

Contrary to most significance tests, the goal here was not to reject the null hypothesis. In other words, the null hypothesis is that the model as proposed accurately reproduces the variance-covariance matrix.

This initial model had a chi-square of 147.93 with 107 degrees of freedom ($p=.005$). The ratio of chi-square to degrees of freedom was 1.38. The goodness of fit index (GFI) was .91 and the adjusted goodness of fit index (AGFI) was .88. Root mean square residual was .10. There were several large standardized residuals and several modification indices were over 15. The Q-plot of the standardized residuals did not represent a very good fit. As indicated by several indicators of model fit, the results of the initial test of the wives' model were in marginal. Because the model could not be assumed to fit the data satisfactory, model revision was considered to improve the model fit.

Given the initial model testing, model revisions were attempted using large standardized residuals, modification indices, and T-value. However, model changes were determined only when it made sense from a substantive point of view in the context of the research. Examination of standardized residuals indicated that some covariances were not sufficiently accounted for by the model.

Modification indices in the measurement model also suggested that some observed variables could have loaded on more than one latent variable. For example, if modifying role variable (Y_1) was allowed to load not only on coping strategy (η_3) but also on family system resource (η_2), the model's fit would have improved. Also, if the direct effects of family system strength II (Y_3) and family strength I (Y_4) on coping strategy (η_3) were added to the model, the resulting modified model would fit the data better.

Other large modification indices in the measurement model were in PSI matrix (i.e., covariance among

〈Table 2〉 Correlation Matrix, Means, and Standard Deviations of the Observed Variables in the Wives'

Model		Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	
OVERLO	Y ₁	1.000								
CONFL	Y ₂	.456	1.000							
FSS I	Y ₃	-.338	-.297	1.000						
FSS II	Y ₄	-.320	-.273	.658	1.000					
FSS III	Y ₅	-.271	-.248	.533	.550	1.000				
COP I	Y ₆	-.213	-.158	.472	.492	.431	1.000			
COP II	Y ₇	-.167	-.132	.421	.444	.383	.706	1.000		
COP III	Y ₈	-.132	-.132	.443	.437	.351	.651	.563	1.000	
E-W-B	Y ₉	-.465	-.397	.313	.602	.500	.386	.371	.408	
P-W-B	Y ₁₀	-.443	-.387	.593	.543	.440	.333	.199	.298	
SATIS	Y ₁₁	-.452	-.467	.618	.590	.465	.391	.353	.340	
FAM I	X ₁	.352	.289	-.554	-.637	-.501	-.471	-.433	-.416	
FAM I	X ₂	.343	.286	-.613	-.607	-.444	-.392	-.364	-.431	
FAM III	X ₃	.302	.260	-.592	-.512	-.433	-.341	-.221	-.297	
WOR I	X ₄	.260	.291	-.463	-.418	-.315	-.313	-.242	-.221	
WOR II	X ₅	.274	.241	-.448	-.436	-.382	-.301	-.261	-.301	
WOR III	X ₆	.230	.209	-.398	-.405	-.324	-.233	-.212	-.180	
		(Y ₁)	(Y ₂)	(Y ₃)	(Y ₄)	(Y ₅)	(Y ₆)	(Y ₇)	(Y ₈)	
MEAN		15.39	12.86	35.64	50.34	34.15	46.76	35.38	47.36	
SD		4.89	3.32	5.29	8.63	5.34	6.60	5.21	5.81	
		Y ₉	Y ₁₀	Y ₁₁	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
E-W-B	Y ₉	1.000								
P-W-B	Y ₁₀	.680	1.000							
SATIS	Y ₁₁	.703	.618	1.000						
FAM I	X ₁	-.577	-.537	-.569	1.000					
FAM II	X ₂	-.600	-.505	-.574	.756	1.000				
FAM III	X ₃	-.565	-.439	-.474	.699	.635	1.000			
WOR I	X ₄	-.432	-.376	-.435	.509	.462	.484	1.000		
WOR II	X ₅	-.449	-.375	-.498	.521	.539	.514	.815	1.000	
WOR III	X ₆	-.390	-.338	-.362	.478	.466	.368	.679	.685	1.000
		(Y ₉)	(Y ₁₀)	(Y ₁₁)	(X ₁)	(X ₂)	(X ₃)	(X ₄)	(X ₅)	(X ₆)
MEAN		20.32	20.32	48.88	4.88	4.47	6.02	4.77	4.72	6.46
SD		6.97	6.97	8.92	1.57	1.52	2.02	1.53	1.50	2.08

Key: OVERLO Y₁=Role Overload. CONFL Y₂=Role Conflict. FSS I Y₃=Family System Strength II. FSS II Y₄=Family System Strength I. FSS III Y₅=Financial Well-Being. COP I Y₆=Maintaining Perspective and Reducing Tension. COP II Y₇=Modifying Roles and Standards. COP III Y₈=Maintaining Family System. E-W-B Y₉=Emotional Well-Being. P-W-B Y₁₀=Physical Well-Being. SATIS Y₁₁=Life Satisfaction. FAM I X₁, FAM II X₂, & FAM III X₃=Family Role Stressor. WOR I X₄, WOR II X₅, & WOR III X₆=Work Role Stressor.

(Table 3) Covariance-Variance Matrix of the Observed Variables in the Wives' Model

Variables	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈										
OVERLO	Y ₁	.688																
CONFL	Y ₂	.309	.665															
FSS I	Y ₃	-.140	-.125	.260														
FSS II	Y ₄	-.115	-.100	.147	.194													
FSS III	Y ₅	-.098	-.092	.121	.108	.198												
COP I	Y ₆	-.090	-.068	.125	.113	.100	.272											
COP II	Y ₇	-.060	-.048	.094	.086	.075	.162	.194										
COP III	Y ₈	-.045	-.046	.094	.080	.065	.141	.103	.173									
E-W-B	Y ₉	-.230	-.200	.190	.169	.135	.122	.100	.103									
P-W-B	Y ₁₀	-.210	-.187	.175	.139	.114	.101	.051	.072									
SATIS	Y ₁₁	-.235	-.247	.200	.166	.132	.130	.099	.090									
FAM I	X ₁	.090	.075	-.088	-.088	-.070	-.077	-.060	-.054									
FAM I	X ₂	.085	.072	-.095	-.081	-.060	-.062	-.049	-.054									
FAM III	X ₃	.083	.073	-.102	-.076	-.065	-.060	-.033	-.042									
WOR I	X ₄	.087	.060	-.072	-.057	-.043	-.050	-.033	-.028									
WOR II	X ₅	.067	.060	-.068	-.058	-.051	-.047	-.034	-.038									
WOR III	X ₆	.065	.060	-.070	-.062	-.050	-.042	-.032	-.026									
	Y ₉	Y ₁₀	Y ₁₁	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆									
E-W-B	Y ₉	.368																
P-W-B	Y ₁₀	.240	.338															
SATIS	Y ₁₁	.272	.229	.406														
FAM I	X ₁	-.110	-.098	-.114	.099													
FAM I	X ₂	-.111	-.089	-.111	.072	.092												
FAM III	X ₃	-.116	-.086	-.102	.074	.065	.114											
WOR I	X ₄	-.080	-.067	-.085	.049	.043	-.050	.094										
WOR II	X ₅	-.082	-.065	-.095	.049	.049	.052	.075	.090									
WOR III	X ₆	-.082	-.068	-.080	.052	.049	.043	.072	.071	.12								

Key: OVERLO Y₁=Role Overload. CONFL Y₂=Role Conflict. FSS I Y₃=Family System Strength II. FSS II Y₄=Family System Strength I. FSS III Y₅=Financial Well-Being. COP I Y₆=Maintaining Perspective and Reducing Tension. COP II Y₇=Modifying Roles and Standards. COP III Y₈=Maintaining Family System. E-W-B Y₉=Emotional Well-Being. P-W-B Y₁₀=Physical Well-Being. SATIS Y₁₁=Life Satisfaction. FAM I X₁, FAM II X₂, & FAM III X₃=Family Role Stressor. WOR I X₄, WOR II X₅, & WOR III X₆=Work Role Stressor.

the disturbance terms of the structural equations) between family system resource and coping strategy. These also suggested that the model could be improved by allowing the latent error variance of family system resource (ζ_2) to covary with the latent error variance of coping strategy (ζ_3), reflecting

the specification error. This might be because the models involved reciprocal causation and/or causal feedback loops.

Moreover, modification indices of the structural model representing the overall chi-square value would be decreased if the direct effect from coping

strategy to family system resource (B_{23}) was estimated. As a consequence of reciprocal relationship, the model also allowed the latent error of family system resource (ζ_2) to covary with the latent error variance of coping strategy (ζ_3). These results represented a decrease in the chi-square from 147.93 to 107.78 so that the difference between the two chi-squares indicated a significant improvement in the fit of the model to the data ($\Delta\chi=40.15$ $\Delta df=2$, $p < .05$).

As a final analysis, free parameters with non-significant T-value were inspected to identify the possibility of excluding the non-significant paths that did not contribute to the fit of the model. However, the results not only lessened the model fit but also showed unexpected negative signs in the structural parameters.

Therefore, the initial model was modified by adding only one causal path from coping strategy to family system resource and by allowing structural errors to covary between two endogenous variables of family system resource and coping strategy. In order to prevent the risk of exploratory testing, a revised model was formulated based on results from testing the initial model as well as from theoretical and empirical backgrounds. Moreover, since the initial model had converted a recursive model into a non-recursive model, an empirical check on identification was performed by using the LISREL computer program (Joreskog & Sorbom, 1989). No identification problem occurred in further analysis.

Assessment of the Revised Model Fit

The test of revised model resulted in a chi-square of 107.78 with 105 degrees of freedom ($P=.43$), indicating a very good fit and a significant improvement in the model's fit compared with initial model. The ratio of chi-square to degrees of freedom

was close to 1.00. The goodness-of-fit index (GFI) was .93 and the adjusted goodness-of-fit index (AGFI) was .91. The root mean square residual was very low (.01). The standardized residuals also indicated good fit. Only a few of the standardized residuals were larger than 2. The points in the Q-plot were in linear with patterns, which means the residuals were normally distributed. The new modification indices were also small. The largest, 2.18, referred to the loading of the measure of physical well-being on coping strategy which was not valid.

In addition, the squared multiple correlations for Y variables and X variables were .99 and .98 respectively. What this means is that over 99% of variance in Y and over 98% in X were accounted for by the four endogenous variables jointly and the two exogenous variables jointly. These measures showed that the observed variables served well, separately or jointly, as measurement instruments for the latent variables. The total coefficient of determination for structural equations was .93, indicating that the model was consistent with the data.

Having determined that the revised model had a good fit to the data, that is, the null hypothesis was supported by the data, the estimated parameters could be discussed in detail. Therefore, the rest of this section focuses on the parameter estimates of this revised model.

Measurement Model

Table 4 presents the results of the measurement model showing the relationship of the observed variables to the latent variables, and the error variances and reliabilities (R^2) for the observed variables. For each latent variable, one observed variable in unstandardized coefficients was fixed to 1.0 in order to give the latent variable a referent, and the others were freely estimated.

As can be seen in Table 3, the constructs seem

Standardized and Unstandardized Factor Loadings, Error Variances, and Reliabilities of Latent Construct Indicators of Wives' Model

Latent Construct: Indicators	Factor Loadings		Error Variance	R ²
	Unstandardized Coefficient	Standardized Coefficient		
Family Role Stressor:				
X1 (item 3 & 7)	1.00* (-)	.88	.22	.78
X2 (item 4 & 6)	.93* (.07)	.85	.28	.72
X3 (item 1, 2, & 5)	.94* (.08)	.77	.40	.60
Work Role Stressor:				
X4 (item 3 & 7)	1.00* (-)	.89	.21	.79
X5 (item 4 & 6)	1.01* (.07)	.91	.17	.83
X6 (item 1, 2, & 5)	.96* (.08)	.76	.43	.57
Work-Family Role Stain:				
Role Conflict	1.00* (-)	.70	.58	.42
Role Overload	.94* (.16)	.65	.51	.49
Family System Resource:				
Family Strength II	1.00* (-)	.81	.34	.66
Family Strength I	.87* (.08)	.81	.33	.67
Financial Well-being	.71* (.08)	.66	.56	.44
Coping Strategies:				
Maintaining Perspective & Reducing Tension	1.00* (-)	.89	.21	.79
Modifying Roles & Standards	.75* (.07)	.79	.38	.62
Maintaining Family System	.66* (.07)	.74	.46	.54
Quality of Life:				
Emotional Well-being	1.00* (-)	.85	.27	.73
Physical Well-being	.87* (.08)	.77	.40	.60
Life Satisfaction	1.02* (.08)	.83	.32	.68

* Fixed value

* p<.05

Note: Standard errors shown in parentheses.

reasonably well defined : all the factor loadings of the observed measures (not fixed as referent indicators) on latent variables were high and significant ($p<.05$). Also, standard errors were so low that these parameters were precise. The error variances were generally moderate in size. The explained variations were moderate to high, ranging from approximately

42% to 83%, depending on the measure and model examined.

The indicators of family and work role stressors attained relatively high reliabilities, considering that the three dimensions for each latent variable were operationalized with products of only, 2, 2, and 3 items, respectively. The strength of association was

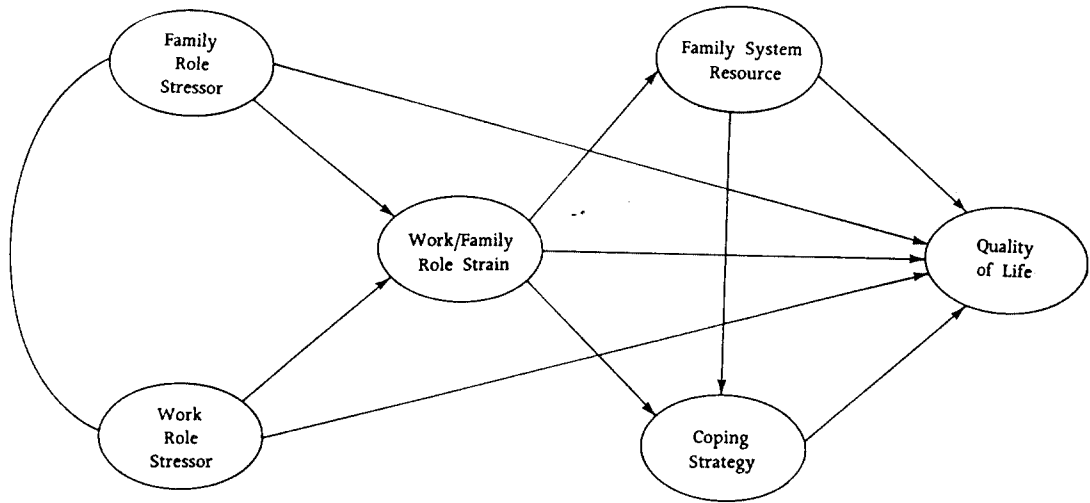


Figure 1: Initial Model

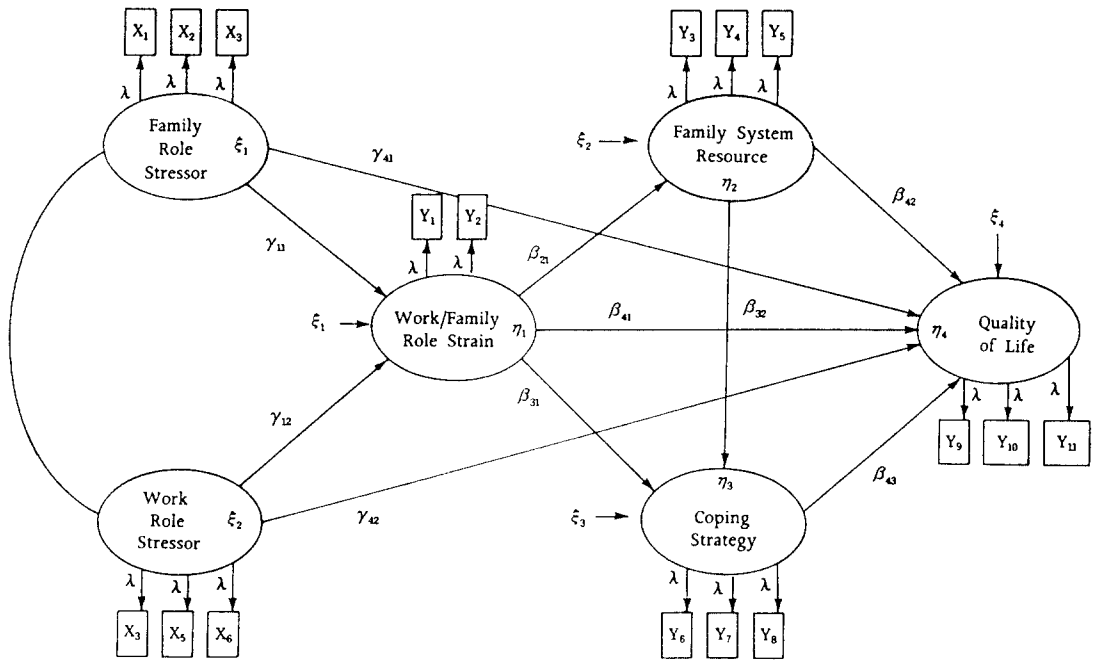


Figure 2: Model Specification of the Initial Model

indicating reasonably moderate. The reliability of coping strategy and quality of life were also moderately high ranging from .54 to .79. As a

moderate for the indicators of work-family role strain. The reliabilities for the family system resource were .66, .67, and .44 for the respective indicators,

result, it was concluded that the latent variables were assessed with a reasonable degree of precision and that the measures were adequate indicators of these variables.

Structural Model

Figure 3 shows (a) path coefficients among latent exogenous and latent endogenous variables (γ) and (b) path coefficients among latent endogenous variables (β). It presents the standardized path coefficients for the structural model with the factor loadings of each latent variable. As the results indicated, both family role stressor and work role stressor positively affected work-family role strain. Although the effect of family role stressor on work-family role strain was

significant ($\gamma=.518$), the effect of work role stressor on work-family role strain was insignificant ($\gamma=.049$). The coefficients of effects of family role stressor ($\gamma=-.009$) and work role stressor ($\gamma=-.018$) on quality of life were not significant.

As proposed, work-family role strain had a significant negative influence on family system resource ($\beta=-.866$) and quality of life ($\beta=-.399$). While the effect was not significant, work-family role strain positively affected coping strategy ($\beta=.117$).

As expected, the results showed that family system resource had a strong effect on quality of life ($\beta=.712$). It was also positively affected by coping strategy ($\beta=.669$), while it was not significant. However, quality of life was negatively and insigni-

Direct, Indirect, and Total Effects of Latent Variables for Vives' Model

From	Direct	Indirect	Total Effect	To
Family Role Stressor	.518*	--	.518	Work-Family Role Strain
Family Role Stressor	-.009	-.470*	-.479	Quality of Life
Work Role Stressor	.049	--	.049	Work-Family Role Strain
Work Role Stressor	-.018	-.045	-.063	Quality of Life
Work-Family Role Strain	-.866*	.086	-.780	Family System Resource
Work-Family Role Strain	.117	-.579*	-.462	Coping Strategy
Family System Resource	-.399*	-.508*	-.907	Quality of Life
Family System Resource	.732*	.262*	.994	Coping Strategy
Family System Resource	.712*	-.073	.639	Quality of Life
Coping Strategy	.669	.262*	.931	Family System Resource
Coping Strategy	-.100	.476*	.376	Quality of Life

* P < .05.

ificantly affected by coping strategy ($\beta=-.10$), which was unexpected. Coping strategy appeared to be positively and significantly affected by the family resource system ($\beta=.712$).

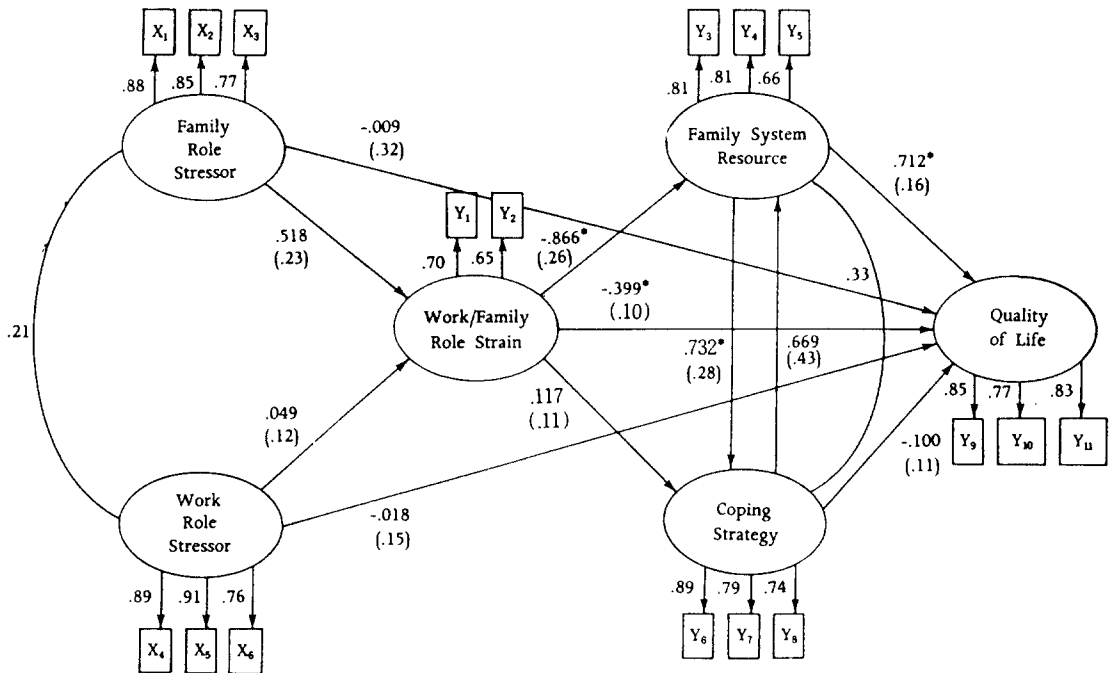
Thirty-one percent of work-family role strain variable was explained by two exogenous variables such as work and family role stressor. Two exogenous variables and work-family role strain accounted for 36% of the variance for family system resource. Almost half(49%) of the variability in coping strategy was explained by the four antecedents posited to affect it. Ninety-one percent of the variance of quality of life as the model's outcome variable was explained by the other five latent variables of the model. It suggested that quality of life was substantially accounted for by the model. The residuals of family system resource and coping strategy variables were correlated($\psi_{23}=.33$), and the covariance between

two exogenous variables was $.21(\phi_{12})$.

Direct, Indirect and Total Effects

As depicted in figure 3, a variable affected by another variable not only directly, but also indirectly by affecting one or more intervening variables. Table 5 summarizes the direct(DE), indirect(IE), and total effects(TE) of the model's variables. The significance of indirect effect was tested by using Sobel's methods(1987).

Family role stressor had a positive and significant direct effect on work-family role strain(DE=.518). Also, while it had an insignificant direct effect (DE=-.009), family role stressor had a significant indirect effect on quality of life(IE=-.470). Work role stressor had a positive direct effect on work-family role strain(DE=.049), and a negative direct



* Standardized path coefficients that are significant at the p<.05 Standard errors shown in parentheses.

Figure 3: Results of Revised Model for Wives

and indirect effect on quality of life; both were insignificant(DE=-.018, IE=-.045).

Work-family role strain, in turn, had a significantly negative direct effect and an insignificantly positive indirect effect on family system resource(DE=-.866, IE=.086). To a degree, the positive indirect effect of work-family role strain on family system resource was unfavorably affected by the positive relationship between work-family role strain and coping strategy. Work-family role strain also appeared to have a positive and insignificant direct effect, and a negative and significant indirect effect on coping strategy (DE=.117, IE=-.579). Furthermore, work-family role strain was shown to have a negative direct effect and indirect effect on quality of life; as expected, both were significant(DE=-.399, IE=-.508).

It should be noted that the relationship between family system resource and coping strategy is reciprocal in the nonrecursive model. Their indirect effect on each other was .262. However, the direct effect of family system resource on coping strategy was significant while the reverse effect was insignificant. Family system resource appeared to have a major impact on quality of life positively and significantly by its direct effect and combined indirect effects with coping strategy(DE=.712, IE=-.073). This negative indirect effect was also unfavorably affected by the negative relationship between coping strategy and quality of life.

Coping strategy seemed to have large total effects on quality of life but these effects were mostly due to indirect effects(DE=-.100, IE=.476). Therefore, while coping strategy had no significant direct effect, it did have a significant indirect effect on quality of life.

V. DISCUSSION

Significance of the Findings for Wives

As the result indicated, the clustering of family

role stressor and work role stressor did intensify the amount of work-family role strain. However, it is interesting to note that family role stressor had a significant effect on work-family role strain, while work role stressor was not significant for wives of dual-earner families.

The results also indicated that neither family role stressor nor work role stressor had a direct effect on quality of life, although the indirect effect of family role stressor on quality of life was significant. These findings clearly support previous research results that the family role is the primary stressor for working women(Oakley, 1974; Pearlin, 1975; Piotrkowski, 1984; Voydanoff, 1987; also Pleck's analysis of asymmetrical boundaries).

Furthermore, the findings that family role stressor and work role stressor had no direct effect on quality of life suggest that the negative relationships between the two stressors and quality of life was due largely to the effects of stressors on work-family role strain. In other words, work-family role strain appears to be a mediating factor between family and work role stressors and quality of life.

The results also indicated that work-family role strain, more than work and family role stressors, predicted a decrease in quality of life. This finding is consistent with previous research that work-family role strain is significantly associated with greater emotional stress and physical symptomatology(Barnett & Baruch, 1985, 1986; Bohlen & Viveros-Long, 1981; Greenberger et al., 1988; Greenberger & O'Neil, 1990; Piotrkowski, 1977; Voydanoff, 1988).

In addition to its negative impact upon quality of life, work-family role strain decreased significantly in regarding to family system resource. It appears that increased work-family role strain reduced the strength of family system resource. As the standardized coefficients reveal, the effect of work-family role strain was clearly controlled by family system resource. Not only was the effect of work-family

role strain on quality of life reduced by family system resource. These findings add to previous family stress by suggesting that family system resource acts as an intervening or mediating factor between strain and family well-being(Lavee et al., 1985; Lavee et al., 1987; McCubbin et al., 1981; also in empirical research on work-family by Baruch & Barnett, 1985, 1986; Blumstein & Schwartz, 1983; Greenhaus & Beutell, 1984; Hall, 1972; Holahan & Gilbert, 1979; Pearlin & Schooler, 1978; Pearlin et al., 1981; Schoenbach, 1985).

As predicted, quality of life was positively and strongly affected by family system resource. That is, the greater the family system resource the greater the quality of life. These findings clearly support the notion of the importance of adaptive family resources to the family's ability to prevent stressors and associated hardships from creating crisis or the family's ability to recover from crisis (Boss, 1988; Hill, 1958; McCubbin & Patterson, 1983, 1985, 1987; Wheaton, 1985).

The results also confirmed the hypothesis that coping strategy was influenced positively by family system resource. Coping strategy was another factor affecting family system resource although its coefficient was not significant. That is, family system resource and coping strategy affected each other reciprocally. However, the findings suggest that the relationship between family system resource and coping strategy provided a markedly incomplete picture within the context of this study.

Two explanations for this apparent complexity are possible. First, little systematic research has focused on the constructs of family system resource and coping strategy variables. Review of the literature and knowledge of the Double ABCX model(McCubbin & Patterson, 1982, 1983) reveals that one of the most important resources used by families is coping strategies. It suggests that the coping strategy variable, particularly with the use of incorporating

measures with family system resource, may yet permit their importance in the causal chain between family system resource and coping strategy to be quantified.

Second, the direction of causal relationships between bB factor(family system resource) and cC factor(coping strategy) is still open to speculation in family stress theory. On the basis of cross-sectional data, the causal interpretation of the McCubbin and Patterson(1983) model appears to be inconsistent with the Dunst et al.(1988), Orr et al.(1991), and Zeitlin et al.(1987) family intervention models. The results of these studies suggest that the McCubbin and Patterson Double ABCX(e. g., A to B to C to X) model might more accurately be interpreted as a Double ACBX(e.g., A to C to B to X) model. Therefore, it is necessary to examine the Double ABCX model longitudinally to examine the transactional relationship between the two intervening variables, B and C, over a period of time.

Accordingly, further study of the coping strategy variable is needed to affirm whether this variable has a unique power to add to the theoretical framework. Moreover, future work is critical to confirm the causal relationships between family system resource as bB factor and coping strategy as cC factor in the Double ABCX model.

Coping strategy, the most widely mentioned mediating variable, behaves unexpectedly. The results show that work-family role strain affected positively coping strategy which in turn affected negatively quality of life, while both were insignificant. Only coping strategy linked indirectly to quality of life through its association with amount of family system resource.

Studies of Lavee, McCubbin, and Olson(1987) contribute an alternative explanation for this curious result. In their model, because coping strategy is enhanced by work-family role strain(when controlled for family system resource), coping strategy acts as a

stress-buffer ; that is, it reduces the total effect of work-family role strain on quality of life.

Another explanation is that there are controversial issues about how coping strategy should be conceptualized and measured. There is repeated reference in the literature of the need to understand more about the interactions of individual coping strategies and their combined effects on family relationships(e.g., Menaghan, 1983 ; Voydanoff, 1982) to integrate individual-level and family-level variables (Patterson & McCubbin, 1983) in an attempt to understand the process of families under stress.

Recent efforts to formulate models of family coping(Reiss & Oliveri, 1983) and to integrate family coping into family stress model(McCubbin & Patterson, 1983) have begun to yield key information toward the development of a family-level concept. However, the present stage of development in integrating individual and family level of coping strategy is insufficient to interpret the findings of the present study, especially the negative relationship between coping strategy and quality of life, and the positive relationship between coping strategy and work-family role strain. Future research should investigate the role of additional coping strategy variables in mediating the influence of work-family role strain on quality of life.

Implications of Theoretical Model for Wives

In the empirical testing of theoretical models, this study contributes to the continuous work of refining family stress theory because the findings from wives' model provide some support to the basic interrelationships between variables hypothesized by the Double ABCX model. Thus, it seems that a study applying the Double ABCX model to work-family role strain of working wives is a reasonable preliminary step toward the more general application of the model.

While the present study was an attempt to specify the causal relationships among the major variables of the Double ABCX model, the theoretical framework has not been explicit enough about the exact interrelations among the constructs. A more complete theoretical framework is limited by several concerns. First, the inclusion of correlation between structural residuals of family system resource and coping strategy weakens interpretation of the theoretical model in the present study.

In general, correlated residuals imply that these two variables might be underlying the similar theoretical variables. In other words, this covariation suggests, yet whether the proposed model really captures the concepts it purports to capture remains an open question.

Second, much more study is needed to better define the reciprocal causal linkage between family system resource and coping strategy. More extensive analyses of longitudinal data would be able to explore interactions between these two factors and test the importance of one variable set versus another.

Third, progress should be made to clarify whether the coping strategy variable is the unique variable to guide the theoretical framework. Also, more investigation is needed to determine whether the conceptual clarity and interrelation of variables are at the family level and not the individual level. These ambiguities might account for the reciprocal causal relationship between family system resource and coping strategy, covariation between two structural residuals, the positive relationship with work-family role strain, and the negative relationship with quality of life in this study.

Finally, the goal of the present study has been to provide an explicit model that may be more suggestive to understanding work-family role strain by the processes underlying constructs relationships in the Double ABCX model. However, alternative and additional models (e.g., cross-validation) should be

tested and developed so that a more complete theoretical model will be incorporated all relevant variables at various points and to determine the value of this model used in the present study.

[REFERENCES]

- 1) Barnett, R.C., & Baruch, G.K. Women's involvement in multiple roles and psychological distress. *Journal of personality and social Psychology*, 49, 135-145, 1985.
- 2) Barnett, R.C., & Baruch, G.K. Role quality, multiple role involvement and psychological distress. *Journal of Personality and Social Psychology*, 50, 578-585, 1986.
- 3) Beach, B. *Integrating work and family life: The home-working family*. Albany, NY: State University of New York Press, 1989.
- 4) Belsky, J., Perry-Jenkins, M., & Crouter, A.C. The work-family interface and marital change across the transition to parenthood. *Journal of Family Issues*, 6, 205-220, 1985.
- 5) Benin, M.H., & Nienstedt, B.C. Happiness in single and dual-earner families: The effects of marital happiness, job satisfaction, and life cycle. *Journal of Marriage and the Family*, 47, 975-984, 1985, 1985.
- 6) Blumstein, P., & Schwartz, P. *American Couples*. New York: William Morrow, 1983.
- 7) Bohlen, H.H., & Viveros-Long, A. *Balancing jobs and family life: Do flexible work schedules help?* Philadelphia: Temple University Press, 1981.
- 8) Boss, P. *Family stress management*. Beverly Hills, CA: Sage Publications, 1988.
- 9) Bronfenbrenner, U. Toward an experimental ecology of human development. *American Psychologist*, 32, 513-531, 1977.
- 10) Bronfenbrenner, U., & Crouter, A.C. The evolution of environmental models in developmental research. In W. Kessen(Ed.), *Handbook of child psychology(Vol.1): History, theory, and methods* (p.357-414). New York: Wiley, 1983.
- 11) Bryson, R.B., & Bryson, J. B. Salary and job performance differences in dual-career couples. in F. Pepitone-Rockwell(Ed.), *Dual-career couples*. Beverly Hills, CA: Sage Publication, 1980.
- 12) Cooke, R. A., & Rousseau, D.M. Stress and strain from family roles and work-role expectations. *Journal of Applied Psychology*, 69, 252-260, 1984.
- 13) Derogatis, L., Lipman, R., Rickels, K., Uhlenhuth, E., & Coti, L. The Hopkins Symptom Checklist(HSCL): A self report symptom inventory. *Behavioral Science*, 19, 1-13, 1974.
- 14) Dunst, C., Trivette, C., & Deal, A. *Enabling and empowering parents*. Cambridge: Brookline Books, 1988.
- 15) Eckenrode, J., & Gore, S. Stress and coping at the boundary of work and family. in J. Eckenrode & S. Gore(Ed.), *Stress between work and family*. New York: Plenum, 1990.
- 16) Freudiger, P. Life satisfaction among three categories of married women. *Journal of Marriage and the Family*, 45, 213-219, 1983.
- 17) Goldsmith, E.(Ed.). Work and family: Theory, research, and application (special Issue). *Journal of Social Behavior and Personality*, 3, 1988.
- 18) Googins, B.K. *Work-family conflicts: Private lives public responses*. New York: Auburn House, 1991.
- 19) Greenberger, E., & Crawford, T., & Granger, J. Beliefs about the consequences of maternal employment for children. *Psychology of Women Quarterly*, 12, 35-59, 1988.
- 20) Greenberger, E., & O'Neil, R. Parents' concerns about their child's development: Implications for fathers' and mothers' well-being and attitudes toward work: *Journal of Marriage and the family*, 52, 621-635, 1990.
- 21) Greenhaus, J.H. The intersection of work and

- family roles: Individual, interpersonal, and organizational issues. In E. Goldsmith (Ed.), *Work & family: Theory, research and application* [Special Issue]. *Journal of Social Behavior and Personality*, 3, 317-328, 1988.
- 22) Greenhaus, J. H. & Beutell, N. Sources of conflict between work and nonwork roles. *Academy of Management Review*, 10, 76-88, 1985.
- 23) Hall, R. Genetic features of families under stress. *Social Casework*, 49, 139-150, 1958.
- 24) Hill, D.T. A model of coping with role conflict. *Administrative Science Quarterly*, 4, 471-496, 1972.
- 25) Holahan, C.K., & Gilbert, L.A. Conflict between major life roles: Women and men in dual-carrer couples. *Human Relations*, 32, 451-467.
- 26) Joreskog, K.G., & Sorbom, D. *LISREL VII: Analysis of linear structural relationships by the method of maximum likelihood: User's guide*. Moreville, IN: John Wiley and Sons, 1989.
- 27) Katz, M.H., & Piotrkowski, C.S. Correlates of family role strain among employed black women. *Family Relations*, 32, 331-339, 1983.
- 28) Kessler, R.C., & McRae, J.A., Jr. The effect of wives' employment on the mental health of married men and women. *American Sociological Review*, 47, 216-227, 1982.
- 29) Kim, Y.H. *Work-family role strain in Korean-American dual-earner families: A theoretical model*. Unpublished doctoral dissertation, Florida state University, Tallahassee, 1991.
- 30) Kopelman, R.E., Greenhaus, J.H., & Connolly, T.F. A model of work, family, and interrole conflict: A construct validation study. *Organizational Behavior and Human Performance*, 32, 198-215, 1983.
- 31) Lavee, Y., McCubbin, H.I., & Patterson, J.M. The Double ABCX model of family stress and adaptation: An empirical test by analysis of structural equations with latent variables. *Journal of Marriage and the Family*, 47, 811-825, 1985.
- 32) Lewis, S.C., & Cooper, C.L. Stress in two-earner couples and stage in the life-cycle. *The British Psychological Society*, 60, 289-303, 1987.
- 33) Lininger, C.A. *the sample survey: Theory and practice*. New York: McGraw Hill.
- 34) McCubbin, H.I., Comeau, J.K., & Harkins, J.A. Family inventory of Resources for Management (FIRM). In H.I. McCubbin & A.I. Thompson (Ed.), *Family assessment for research and practice*. Madison: University of Wisconsin Press, 1981.
- 35) McCubbin, H.I., Patterson, J.M. Family stressors. In H.I. McCubbin & A. Thompson (Ed.), *Family assessment for research and practice*. Madison: University of Wisconsin Press, 1981.
- 36) McCubbin, H.I., & Patterson, J.M. Family adaptation to crisis. In H.I. McCubbin, A.E. Cauble, & J.M. Patterson (Ed.), *Family stress, coping, and social support*. Springfield, IL: Charles C. Thomas Publishers, 1982.
- 37) McCubbin, H.I., & Patterson, J.M. The Family stress process: The Double ABCX model of adjustment and adaptation. *Marriage and Family Review*, 6, 7-37.
- 38) McCubbin, H.I., Lavee, Y., & Olson, D.H. (1987). The effect of stressful life events and transitions on family functioning and well-being. *Journal of Marriage and the Family*, 49, 857-873, 1987.
- 39) Menaghan, E.G. Individual coping efforts and family studies: Conceptual and methodological issues. In H.I. McCubbin, M.B. Sussman, & J.M. Patterson (Ed.), *Social stress and the family*. New York: Haworth Press, 1983.
- 40) Oakley, A. *The sociology of housework*. New York: Pantheon, 1974.
- 41) Orr, R.R., Cameron, S.J., & Day, D.M. Coping with stress in families with children who have mental retardation: An evaluation of the Double ABCX model. *American Journal on Mental Retarda-*

- tion, 95, 444-450, 1991.
- 42) Patterson, J.M., & McCubbin, H.I. The impact of family life events and changes on the health of a chronically ill child. *Family Relations*, 32, 255-264, 1983.
- 43) Pearlin, L. Sex roles and depression. In N. Dalton(ed.), *Life-span developmental psychology: Normative life crises*. New York: Academic Press, 1975.
- 44) Pearlin, L.I. & Schooler, C. The structure of coping. *Journal of Health and Social Behavior*, 19, 2-21, 1975.
- 45) Piotrkowski, C.S. *Role strain and the quality of women's jobs*. Paper presented at the Yale University Conference, Modern Women: Managing Multiple Roles, New Haven, CT, 1984.
- 46) Piotrkowski, C.S., Rapoport, R., & Rapoport, R.N. Families and work. In M.B. Sussman & S.K. Steinmetz(Ed.), *Handbook of marriage and the family*. New York: Plenum, 1987.
- 47) Pistang, N. Women's work involvement and experience of new motherhood. *Journal of Marriage and the Family*, 46, 433-448, 1984.
- 48) Pleck, J.H. The work-family role system. *Social Problems*, 24, 417-427, 1977.
- 49) Pleck, J.H. *Working wives/working husbands*. Beverly Hills, CA: Sage Publications, Inc., 1985.
- 50) Pleck, J.H., & Staines, G.L. Work schedules and family life in two-earner couples. *Journal of Family Issues*, 6, 61-82, 1985.
- 51) Reiss, D., Oliveri, M.E. Family stress as community frame. In H.I. McCubbin, M.B. Sussman, & J.M. Patterson (Eds.), *Social stress and the family*. New York: Haworth Press, 1983.
- 52) Ross, C.E., Mirowsky, J., & Huber, J. Dividing work, sharing work, and in-between: Marriage patterns and depression. *American Sociological Review*, 48, 809-823, 1983.
- 53) Shoebach, C. Effects of husband's and wife's social status on psychological functioning. *Journal of Marriage and the Family*, 47, 597-607, 1985.
- 54) Skinner, D.A., & McCubbin, H.I. *Coping in dual-employed families: Spousal differences*. Paper presented at the annual conference of the national council on family Relations, Washington, Dc, 1982.
- 55) Small, S.A., & Riley, D. Toward a multidimensional assessment of work spillover into family life. *Journal of Marriage and the Family*, 52, 51-61, 1990.
- 56) Sobel, M.E. Direct and indirect effects in linear structural equation models. In J. S. Long(Ed.), *Common problems/proper solution*. Beverly Hills: Sage Publications, 1988.
- 57) Tiedje, L.B., Wortman, C. B., Downey, G., Emmons, C., Biernat, M., & Lang, E. Women with multiple roles: Role-compatibility perceptions, satisfaction, and mental health. *Journal of Marriage and the Family*, 52, 63-72, 1990.
- 58) Voydanoff, P. *Work and family*. Newbury Park, CA: Sage Publications, Inc, 1987.
- 59) Voydanoff, P. Work and family: A review and expanded conceptualization. In E. Goldsmith (Ed.), *Work & Family: Theory, research and application*. Special Issue of the Journal of Social Behavior and Personality, 1988.
- 60) Voydanoff, P. Work role characteristics, family structure demands, and work/family conflict. *Journal of Marriage and the Family*, 50, 749-762, 1988.
- 61) Voydanoff, P., & Donnelly, B.W. Work and family roles and psychological distress. *Journal of Marriage and the Family*, 51, 923-932, 1989.
- 62) Zeitlin, S., Williamson, G.G., & Rosenblatt, W. P. The coping with stress model: A counseling approach for families with a handicapped child. *Journal of Counseling and Development*, 65, 443-446, 1987.