BIRTH ORDER, MARITAL QUALITY, AND STABILITY:

A PATH ANALYSIS OF TOMAN'S THEORY

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

During the twentieth century, the upward trend in divorce has drawn more attention than the concurrent rise in marriages (Carter & Glick, 1978). However, the frequency of marriage and the percentage of adults who marry attest to the continuing and increasing value of the institution of marriage (Scanzoni & Rogers, 1972; Shultz & Rogers, 1975). Stuart (1980, p. 7) stated, "Married is what most adult Americans would like to be." When most Americans continue to look to marriage as a means of fulfillment, it is important to understand the nature and character of modern marriages.

People are reacting to a shifting and fading of old structures in an increasingly impersonal societal atmosphere. Satir (1967) characterized this situation by stating, "When people feel like nothing they are more anxious to feel like everything to somebody (spouse" (p. 23). Shultz and Rogers (1975) described present marital expectations as unprecedented in history. They related that at no previous time has the marital relationship been called upon to meet the needs for personal fulfillment and exclusive friendship in addition to sharing the usual burden of daily living and childrearing. While some marriages may be equipped to carry this extra load, most achieve a precarious success and many fail (Ackerman, 1958b).

Concurrent with the tremendous changes in demographics and views regarding marriage has been a significant rise in the study of the marital relationship. Concepts such as marital happiness, quality, and adjustment may be the most frequently studied variables in the field (Spanier & Lewis, 1980). However, two variables, marital quality and marital stability, stand out as providing a comprehensive description of marital functioning (Hicks & Platt, 1970; Price-Bonham & Balswick, 1980). Spanier (1979) called these two dimensions of marital functioning the best empirical descriptors available for assessing the marital relationship. However, at present, the understanding of these variables is inadequate. Spanier and Lewis (1980) believed that comprehending the relationship of marital quality to marital stability is a major gap in marriage and family research. This seems especially true in situations where low quality is associated with high stability, since this is a frequent finding in the study of American marriages (Hicks & Platt, 1970; Spanier & Lewis, 1980).

Clinically, this matter also has drawn attention. Lederer and Jackson (1968) described the forms that quality and stability may take. Their analysis of low-quality, lasting relationships attests to the growth or destruction produced in certain kinds of marriages. Citing the effects on persons in an enduring, yet emotionally alienated relationship, Ackerman (1958b) emphasized the need for careful scrutiny.

Family-systems theory and social-learning theory, focusing on role acquisition, have been two major and somewhat related attempts to explain marital behavior. Several systems experts asserted that

understanding background factors present in the family of origin is fundamental in comprehending marital functioning (Ackerman, 1958a; Boszormenyi-Nagy & Ulrich, 1981; Bowen, 1978; Framo, 1976). Framo (1981) summed up this position when he stated: ". . . of all the forces that impinge on people, cultures, society, work, neighborhood, family . . . the family of origin is by far the greatest imprinting influence" (p. 133).

Social learning theory has attempted to describe the effects of acquired roles on marital quality and stability. Murstein (1970) stated that deciding on role compatibility is the crucial stage of marital choice. A somewhat different approach to role behavior has focused on the interpersonal dimensions of dominance and expressiveness in explaining marital functioning. Primarily focusing on marital quality, several studies have produced findings that variation in role behavior is important in predicting marital quality (Armer, 1980; Burger & Jacobson, 1979; Hope, 1980; Kraft, 1980; McCurdy, 1978).

A long-standing theory of interpersonal behavior which has blended the importance of family of origin factors and role behavior was first proposed by Adler (1930). Dreikurs (1974) has applied Adler's original notion of "Style of Life" to various aspects of family life, including marriage. Toman (1976) has drawn on the idea that family constellation is an important factor in predicting later interpersonal behavior. Of particular interest has been the effects of birth order on the marital relationship. Research suggests that the birth-order hypothesis is a promising variable in the prediction of some aspects of marital functioning (Kemper, 1966; Toman, 1962; Toman & Gray, 1961; Weller, Natan, & Hazi, 1974). Baxter (1965) has

stated, "Toman has drawn attention to spouses' sibling positions in their family of origin as a social learning variable of importance in determining adjustment to the conjugal role" (p. 149). The birth-order theory of marital complementarity is based on Toman's (1959, 1962, 1976) assumption that a marriage of individuals who had different sibling positions brings to the relationship relatively opposite interpersonal needs and styles and thus form a complementary dyad.

Significance of the Study

The variables of marital quality and marital stability have emerged over the last 20 years as dimensions of importance for theory, study, and clinical assessment (Hicks & Platt, 1970; Lederer & Jackson, 1968; Spanier, 1979). However, the factors which contribute to these dimensions and the relationship of these variables in actual marital functioning is, at present, not well understood (Spanier & Lewis, 1980). Researchers (Hicks & Platt, 1970; Ortiz, 1981; Spanier & Lewis, 1980) have stated a need to study stability and quality with objective, valid, and reliable measures. They also suggested that marital quality should be studied from the perspective of both spouses.

The theory relative to persons developing more or less consistent interpersonal behaviors referred to as "roles," has been advanced as an important construct in predicting and explaining marital quality and stability. Ackerman (1958b) asserted that roles are formed in the family of origin relationship system and continue to effect relationships throughout life. Dreikurs (1974) also placed importance on family of origin factors in the development of attitudes and role

behaviors. The original dimensions of dominance and nurturance identified by Leary (1957) as basic to understanding interpersonal behavior, has been utilized in developing role theory based on flexibility (Bem, 1977; Wiggins & Holtzmuller, 1981). Marcus (1983, p. 120) asserted, ". . . with mutual flexibility each individual in a marital couple becomes part of a purposeful unity." In general, role theory has been fruitful in predicting certain aspects of marital functioning. The construct of role flexibility has been found associated with higher degrees of marital quality (Armer, 1980; Hope, 1980; Kraft, 1980; McCurdy, 1978). The birth-order hypothesis, a theory of patterned roles acquired in sibling interaction, has also developed a research basis for predicting marital adjustment (Ortiz, 1981).

The present research focuses on the birth-order theory of marital complementarity. The Toman (1976) hypothesis states that a marriage relationship has a better chance of happiness and lasting success when the relationship duplicates the sibling pattern that existed in each of the spouse's family of origin.

There is evidence that birth-order complementary relationships show less marital disturbance, decreased need for therapy, more children, increased length of marriage, and fewer separations and divorces (Toman, 1976). These variables are indices of marital stability (Hicks & Platt, 1970; Price-Bonham & Balswick, 1980). However, research concerning marital quality based on birth-order complementarity has not revealed a relationship as clear as the studies on marital stability (Birtchell & Mayhew, 1977; Kemper, 1966; Levinger & Sonnheim, 1965; Weller et al., 1974). In fact, research on birth-order complementarity has tended to treat the variables of quality and

stability as the same, with little effort to distinguish between these dimensions (Levinger & Sonnheim, 1965; Ortiz, 1981). Toman (1976) advocated this lack of distinction by equating quality and stability when he stated that the only way to define marital quality unambiguously is for the partners to voluntarily continue the relationship.

From a larger frame of reference on marital research, several authors question this definition of quality, since they found that many couples continue their relationship even though they report little satisfaction (Hicks & Platt, 1970; Lederer & Jackson, 1968; Lewis & Spanier, 1979; Spanier & Lewis, 1980). Ortiz (1981) discussed the need to distinguish dimensions of quality and stability in birth-order research with refined operational definitions. She also emphasized that perception of quality varies between spouses and stresses the necessity of including both spouses in marriage assessment. Finally, she questioned the adequacy of marital quality measures utilized in birth-order research.

The present study is designed to test Toman's birth-order complementary theory regarding marital adjustment by assessing the relationship of birth order to marital quality and stability. The test of the predictive capacity of birth-order theory in marital functioning may be of value to theorists and researchers by adding to the literature relative to the validity of the Toman hypothesis. Also, those interested in understanding the relationship of family of origin and social learning factors to dyadic success may find value in the results of the study. Findings from the study may also be useful in premarital and marital counseling. The results may suggest a means of

understanding interpersonal skills which spouses developed or failed to develop in early life.

Statement of the Problem

One explanation of marital success, birth-order complementarity, has been found to be associated with higher levels of marital stability (Baxter, 1965; Hall, 1965; Toman, 1962; Toman & Gray, 1961). However, a relationship between marital quality and birth-order complementarity is, as yet, not established. Furthermore, the relationship between quality and stability in complementary marital dyads is unclear (Ortiz, 1981). Tests of the association of birth-order complementarity and marital quality have produced conflicting results (Birtchell & Mayhew, 1977; Kemper, 1966; Levinger & Sonnheim, 1965; Weller et al., 1974). Research has been uninterpretable due to methodological flaws; inadequate and incomparable measures of quality; failure to distinguish between marital stability and marital quality; and failure to take quality measures from both spouses, providing a more complete assessment of the unit (Hicks & Platt, 1970; Levinger, 1965a; Ortiz, 1981; Spanier & Lewis, 1980). Despite the problems found in research relative to the relationship of birth order and marital quality, the Toman hypothesis maintains that birth-order complementarity determines marital quality.

A research plan was developed to test the birth-order complementarity hypothesis and its assumptions. A model of the theoretical relationship between birth-order complementarity, marital quality, and marital stability was constructed and was statistically assessed for its consistency with the Toman hypothesis. This research is designed

to answer the question: "Does the birth-order complementarity theory provide a possible explanation of the quality and stability prevailing in a marriage?"

Definition of Terms

Birth-Order Complementarity

This construct denotes a relationship between people, who on the basis of different sibling positions, bring to a marriage or other enduring relationship, different interpersonal roles, needs, and styles. For purposes of the study, a marriage's complementarity will be described as a statistical coefficient ranging from -1 to +1. This value describes the degree of rank conflict existing in a marriage through a formula which considers the sibling configuration of each spouse. One value is assigned to the marriage. Zero represents a pure complementary (no rank conflict) relationship, while +1 or -1 represents a complete noncomplementarity or rank conflict relationship (Toman, 1976). Absolute values were used to express complementarity scores.

Marital Stability

Marital stability is the perceived absence in the relationship of occurrences which indicate unresolved conflict and the tendency to use partings such as separation or divorce as a means of conflict resolution. The total score on the seven-item, true-false Marital Stability Scale (MSS) was used to operationally define each spouses' perceptions of marital stability. This questionnaire has a score range of 0-7.

Lower scores reflect a perception of more stability, while higher scores are interpreted as a perception of less marital stability.

Marital Quality

Marital quality is a report of spouses' subjective happiness with being married and the satisfaction they experience from their mate and their relationship (Spanier, 1976; Spanier & Lewis, 1980). The total score of each spouse on the 32-item Dyadic Adjustment Scale (DAS) was utilized to operationally define the individual spouse's perception of their relationship. Higher scores reflect higher quality.

Limitations

This study is limited to a population of church members with an equal number of people drawn from three large metropolitan churches of different denominational affiliations. The sample is comprised of couples married at least three years who are either Catholic, Reformed, or Baptist. Largely, the sample is Caucasian, lower-to-upper-middle-class surburban dwellers. Therefore, the results are not generalizable to other populations.

The instruments chosen to study the dependent variables are measures of marital quality and marital stability. The marital stability measure designed by the researcher has some data regarding reliability and validity. However, further evidence of its measurement qualities would be needed for utilization of the MSS in other studies.

The research was designed to test the relationship of birth-order complementarity with marital quality and stability. Therefore, the

results cannot be applied to other aspects of marital and family functioning.

The design level of this research was descriptive and predictive. Generalizations to cause and effect explanations are speculative and will not be confirmed by the data.

Hypotheses

The .10 level of significance was specified as necessary in testing the following hypotheses. Identical hypotheses were tested for male and female spouse groups.

1. The path analysis regression coefficient between birth-order complementarity (rank conflict score) and marital quality (DAS score) is not statistically significant.

2. The path analysis regression coefficient between birth-order complementarity (rank conflict score) and marital stability (MSS score) when marital quality is controlled is not statistically significant.

Organization of the Study

The significance of the study, limitations, statement of the problem, definition of terms, and hypotheses are presented in Chapter I. A review of the literature pertinent to this study is contained in Chapter II. The design and methodology, including a discussion of subjects, data-gathering procedures, the instruments, methodology, and statistical analysis of the data are discussed in Chapter III. The results of the study are contained in Chapter IV, and the summary, conclusions, and recommendations of the study are presented in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

This review of the literature is divided into three sections. The first two sections contain literature pertinent to birth-order complementarity in the prediction of marital quality and of marital stability. Literature relative to the definition and measurement of marital quality and marital stability is reviewed in the final section.

Birth Order

Toman (1976) assumed that a person's family of origin represents the most influential context of his or her life and that its effects are more extensive, powerful, and lasting than any other life context. An individual's sibling position in the family is considered to have a profound effect on personality development and social behavior (Adler, 1930; Toman, 1959, 1976). The birth-order effect is related to the different psychological experiences of children of the same parents reared in the same family (Ortiz, 1981). Birtchell and Mayhew (1977) described the learning that takes place in sibling interaction as the development of senior or junior attitudes toward others. Birth order may be looked upon as a role a person has learned to take in the family which remains the most elementary of a person's social behavior preferences (Toman, 1976).

Sibling position tends to determine role preferences in social contact and in enduring peer relationships outside the original family relationships (Toman, 1971). Since Adler's (1930) original theorizing about the effects of family constellations, theorists and researchers have attempted to describe the interpersonal style and preference tendencies of each sibling position.

Oldest children have been viewed as aligning themselves with those in authority and holding a rather traditional view of family roles (Altus, 1971; Furer, 1969). Giving orders, assuming responsibilities, and liking to lead are considered eldest behavior (Toman, 1976). Hall and Bellwarner (1977) researched the question of assertiveness for female oldest and found them more assertive than other birth-order positions. They also characterized the oldest sibling as achievement- and production-oriented. Toman (1976) asserted that their production drive may override the needs of others. Eldest siblings prefer the role of responsibility-taking and caring for others (Toman, 1976; Weller, Hazi, & Natan, 1975).

Middle children having both younger and older siblings are considered the most interpersonally flexible of the sibling types. Since a middle child's role is not as clearly delineated as that of the younger or older sibling, the interpersonal role thay enact is determined by their identification with the older or younger children in their family (Furer, 1969). However, middle children can be observed to adapt and change their interpersonal style, depending on whether they are dealing with a more powerful or less powerful sibling (Toman, 1976). The ability to approach situations with more or less dominance

and with the sensitivity to get along with others is the mark of the middle child (Furer, 1969; Weller et al., 1975).

Youngest children may develop a style in which they lean on others to take responsibility, make decisions, and meet emotional needs (Adler, 1930). Weller et al. (1974) believed latter-borns may view themselves as impotent and unable to compete, since they are always surrounded by people who can do more. Therefore, they may rely on others and not develop their own abilities. Their self-esteem and status may be extensively based on the love, admiration, and respect they receive from others (Toman, 1976; Weller et al., 1974). In relationships, youngest children tend to be kindhearted and forgiving (Toman, 1976).

Furer (1969) pointed out that, like youngest children, only children may develop needs to rely on others. Toman (1976) stated that only children may expect special treatment because they have experienced undivided parental attention. While these children tend to display an independence in thought and behavior, they probably do not develop social skills and interpersonal flexibility to the same extent as those who have brothers and sisters (Toman, 1976).

Birth-order theory is conceived and applied to relationships as a theory of interpersonal need (Weller et al., 1974) and as a transfer of learning or generalization theory from a social learning perspective (Baxter, 1965). Toman (1976), in discussing birth order and significant adult relationships, stated:

> . . . the closer the new relationship comes in kind to the old ones, to those already entertained, other things being equal, the better will the person be prepared for

> the new one and the greater the likelihood (of the relationship) to last and be happy and successful (p. 6).

Of particular interest in the application of birth-order theory has been spouse-sibling position as an important variable in determining adjustment to the conjugal role (Baxter, 1965).

Birth Order and Marriage

Birth Order and Marital Quality

Weller et al. (1974) hypothesized that marriages, where the partners were of certain sibling positions, would be more satisfying than marriages with other sibling combinations. The following list describes their prediction from the most satisfied to least satisfied marriages on the basis of birth order of husbands and wives: (a) first-born male to latter-born female; (b) first-born female to latter-born male; (c) one of the partners is middle-born; (d) only-child male and first-born female; only-child female and first-born male; (e) first-born male and first-born female; (f) latter-born male and latter-born female; and (g) only-child male and only-child female.

Subjects were 258 married females attending an International Zionist Institute in Israel. Birth-order information on themselves and their husbands was acquired and the women also completed the Marital Adjustment Scale (Nye & McDougall, 1959). To disguise intent, information other than marital satisfaction was requested. Mean scores on the marital adjustment scale rank ordered with birth-order combinations exactly as hypothesized. The significance of this rank correlation was greater than the .001 level of confidence. The

birth-order combinations were further divided into three categories: high marital satisfaction composed of the first three categories, medium marital satisfaction representing the combinations of only and oldest, and low satisfaction representing the remaining birth-order category. The means of categories were found to differ in marital satisfaction by t test comparisons with p .005. The authors concluded that the level of marital satisfaction could be predicted on the basis of husband and wife's sibling positions. Also, the findings supported the birth-order theory that adjustment in marriage is affected by the differing interpersonal needs of each spouse.

Kemper (1966) examined data on 246 business executives and their wives taken from a study by the Russell Sage Foundation on the personality and performance of business executives. The study attempted to answer two questions. First, would the men more frequently select mates who were complementary on the basis of birth order and sex of siblings? Secondly, would the men be more satisfied married to spouses who held certain sibling positions and had opposite sex siblings? Several hypotheses based on different sibling combinations were tested using the chi-square statistic to determine whether individuals more frequently select partners who are complementary in birth order and sex of sibling. None of these results was significant. To test the relationship of sibling factors to satisfaction, several birth order and sex of sibling combinations were compared to 42 variables pertaining to the husband's satisfaction and the perception of the quality of the relationship with his wife. A total of 21 sets of t tests comparing sibling factors and relationship variables were performed. Significance was set at .10 to extend the exploratory

nature of the research. The results indicated that men were more satisfied and perceived their relationship quality higher if their wife's sibling pattern complemented his relative to birth order and sex of siblings. The results suggested that men married to women who held a different sibling position and who had brothers perceived their marriage to be more satisfying.

A test of birth-order complementarity in predicting marital satisfaction and stability was conducted (Levinger & Sonnheim, 1965). The satisfaction measure was 15 indices derived from an earlier study (Levinger, 1964). Subjects were 24 clients of a family service agency and 36 married couples who were parents of elementary students. The scores of the marital satisfaction measure were in the direction predicted by the birth-order complementarity theory. However, a test of the proportion by Fisher's Exact Test did not reach significance. Furthermore, analysis of the data indicated that different combinations of sex of siblings contributed more to the positive finding than did sibling positions of husband and wife. The findings of this study regarding marital stability are presented in the section entitled "Birth Order and Marital Stability."

Toman's birth-order hypothesis regarding success in marriage was tested by asking one question of a large sample of Britains (Birtchell & Mayhew, 1977). One thousand successful and unsuccessful marriages were compared. These were drawn from a sample of 20,000 persons interviewed on the street. Each was asked, "Would you say your first marriage was successful, fairly successful, or unsuccessful?" Those answering "fairly successful" were eliminated. Other questions were asked to gain family constellation data. No significant differences

were found between those answering "successful" and those answering "unsuccessful" on the basis of birth-order variables.

Research has examined the relationship of sibling configuration to perceived quality in another heterosexual form of interaction--dating (Mendelsohn, 1972; Mendelsohn, Linden, Gruen, & Curran, 1974). Mendelsohn (1972) hypothesized that rank complementarity (different sibling position) and sex complementarity (presence of opposite sex sibling) would enhance dyadic dating success. Enjoyment of the first date and the number of additional dates defined success. A questionnaire, the Date Enjoyment Form, measured perceived quality of the first date interaction. A telephone inquiry was used to determine the extent of additional dating. The dating pairs were selected from a computer dating service and matched on physical attractiveness, religious preference, social and economic status, and age-spacing between siblings.

The data was analyzed using an analysis of variance. Pre and post hoc analyses were performed. The hypotheses were tested by planned comparisons, with significance set at $\alpha = .05$. Analyses were performed for males, females, and dyads. Rank complementarity, sex complementarity, and combined complementarity were found to significantly predict dating success. While combined complementarity was the most powerful predictor, birth order was the second. A conclusion of the study was that when young adults had the opportunity to experience as children a variety of peer roles by interacting with siblings of different ages and sexes, their interpersonal skills were facilitated. A replication of the study reported the same relationships between sibling configuration and dating success (Mendelsohn et al., 1974).

After reviewing the literature on birth order and marriage, Ortiz (1981) believed that a relationship exists between birth order and marital quality. Levinger and Sonnheim (1965) asserted the simple straight line thinking of the birth-order hypothesis will not account for the complexity of the marital situation. Spanier and Lewis (1980) pointed out the availability of marital quality scales which are valid and reliable for research purposes. Ortiz described measures of quality in birth-order research as inadequate in the Birtchell and Mayhew (1977) study and incomparable in the Kemper (1966) and Weller et al. (1974) studies. Ortiz also cited problems with operational definitions and failure to distinguish the quality from the stability of marriages in assessment. The only positive findings regarding birth order and marital quality were based on the ratings of only one sex (Kemper, 1966; Weller et al., 1974). Ortiz asserted the need to study the relationship of birth order and marital quality on the basis of a unit analysis rather than that of the single spouse. This need also has been cited elsewhere (Hicks & Platt, 1970). Ortiz emphasized the need for studies on the capability of the birth-order hypothesis to predict marital quality which employ clear operational definitions and sound measures of quality.

Birth Order and Marital Stability

Toman (1962) conducted a study to determine whether married couples and divorced couples differed in factors related to family constellation. A total of 16 divorced couples and 12 couples married for more than 10 years were the subjects. All couples had two or more children. Toman (1962) proposed three hypotheses concerning the

divorced group: (a) older siblings married older siblings more frequently, (b) the partners came from more sex-like sibling configurations, and (c) early loss of family members was more prevalent. The hypothesis relevant to the present study concerned sibling position. To test the sibling position hypothesis, a coefficient of rank conflict was calculated for each person from which a total rank conflict index was derived to describe the marriage (Toman, 1976). Chi-square analysis showed the groups to be significantly different at $\underline{p} > .01$ in the expected direction. The divorced group was found to show less birth-order complementarity or more rank conflict than the married group.

Toman (1971) replicated the previous study using 2,300 families in Germany. These families provided similar expectancy values between married and divorced couples on sibling configuration variables, thus adding support to the conclusion of the initial study. However, a further analysis of the data suggested the birth-order factor may impact another facet of stability--the length of time couples are married before divorcing. Toman subdivided the 2,300 families into high, medium, and low birth-order complementarity. He hypothesized that higher complementarity couples who eventually divorce will "hold out longer" (Toman, 1971). A chi-square test of this relationship between complementarity and the length of time until divorce was significant at the $\alpha = .05$ level in the direction of higher complementarity with longer marriages.

Hall (1965 provided another examination of the relationship between birth order and dyadic stability. He studied the data of a longitudinal survey of marriages conducted by Burgess and Associates

at the University of Chicago. The subjects were 1,000 couples who were engaged when the longitudinal survey began. A total of 131 couples broke their engagements. The marital status of 742 were known at 15 years and at 20 years of marriage. A total of 80 of the couples were known to have separated or divorced. Those who broke engagements and the separated and divorced people were compared to couples whose marriages remained intact. He found that couples who did not remain together either prior to or after marriage differed from the intact married group in birth order and sex of sibling factors. This difference was significant at the .05 level as tested using the chi-square statistic.

Besides separation and divorce, another index of marital instability, conflict, or disturbance, has been researched in the birth-order literature (Baxter, 1965; Levinger & Sonnheim, 1965; Toman & Gray, 1961). Baxter (1965) questioned whether the degree of parental conflict existing in a family was related to sibling factors of the parents. The subjects were 1,800 entering freshmen at the University of Kentucky in 1963. Each completed a questionnaire concerning sibling information of parents. Chi-square analysis was performed and the significance level was set at .01. The results indicated birth-ordered complementarity marriages showed less parental conflict than noncomplementary relationships.

The difference between disturbed and normal marriages was the focus of a study by Toman and Gray (1961). The disturbed marriage group was distinguished from the normal marriage group by defining the disturbed married couples as having a child who was in psychotherapy. The experimental or disturbed group consisted of 93 couples, parents

of children who frequented three guidance centers in the Boston area. The control group consisted of 309 couples, parents of college students or other married couples taken from the Boston area. Toman and Gray hypothesized that the disturbed group would show less birth-order complementarity and more like-sex siblings. A rank conflict index was derived for each couple (Toman, 1976). Eight who fell in the middle positions were not included in the chi-square comparison. Significance was found beyond the .01 level in the direction of the disturbed group lacking both birth-order complementarity and sex of sibling complementarity. The authors concluded a lack of complementarity in sibling factors contributed to marital instability.

Levinger and Sonnheim (1965), using a design similar to Toman and Gray (1961), compared 24 clients at a family service agency with a group of 36 married couples who were parents of elementary students. The clients of the family service agency were defined as "disturbed"; the latter group as "normal." The questions examined were: (a) do the normals show greater birth-order complementarity? and (b) do the normals show greater combined complementarity?" Group proportions were calculated and tested for significant differences. The disturbed and normal groups were not found to be significantly different on the basis of birth order or sex of sibling factors. Earlier, in the review of the literature, it was reported that this study also found no significant relationship between marital quality and birth order. In commenting on these negative findings, the authors acknowledged other research support for the theory of birth-order complementarity in marriage but asserted that it is difficult to confirm the existence of a simple, straightforward complementary pattern in relationships.

Evidence has accumulated for the hypotheses that birth-order factors are predictive of various aspects of marital functioning; in particular, the stability of the relationship (Baxter, 1965; Hall, 1965; Ortiz, 1981; Toman, 1962; Toman & Gray, 1961). Toman (1965) preferred what he termed objective indicators of marital functioning: disturbance, number of children, and length of marriage. Ortiz (1981), referring to the prevalance of these factors in the literature related to birth order and marriage, referred to this as a problem because it points out the failure to distinguish marital quality from marital stability in studies. She emphasized that a large number of stable relationships are unhappy ones (Hicks & Platt, 1970; Ortiz, 1981; Spanier & Lewis, 1980). She also criticized the operational definitions of marital disturbance as "child in therapy" and attendance at a family service agency in the research of Toman and Gray (1961) and Levinger and Sonnheim (1965). She questioned the degree of marital disturbance in both studies and the unhappiness of the couples in the Levinger and Sonnheim study. Levinger and Sonnheim asserted that it is essential that the birth-order hypothesis be viewed within a larger frame of reference by integrating it with other theory and research in the marriage area.

Marital Quality and Marital Stability

The two primary dimensions available for empirically describing any marriage are dyadic quality and stability (Spanier, 1979). These dimensions are closely related, since marital quality is the primary factor determining whether a marriage will remain stable or intact (Spanier, 1979). However, marital research reveals the importance of

distinguishing these variables in an effort to fully comprehend a marital relationship and the forms these dimensions may take. Hicks and Platt (1970), after reviewing 10 years of marriage research, reported that low happiness may often be associated with high stability. Ten years later, in another decade review, Spanier and Lewis (1980) described the present understanding of how these variables operate in a marital relationship as a major gap in marriage research. This research area is troubled by definitional ambiguity and measurement problems (Hicks & Platt, 1970; Price-Bonham & Balswick, 1980; Spanier & Lewis, 1980).

Definition of Marital Stability

Various terms are employed in the literature to describe marital instability: divorce, marital dissolution, marital disturbance, marital breakdown, and separation (Price-Bonham & Balswick, 1980). The process and stages which the unstable relationship appears to pass through has been described by Bohannon (1970), Herman (1974), and Wiseman (1975). However, the basis for relationship stability is defined in three general ways in the literature: group dynamics or field theory, spousal expectations, and role theory.

Group dynamics or field theory is used to define stability (Hicks & Platt, 1970). Viewing marriage as a special instance of a social group, Levinger (1965b) offered the following definition of stability:

> The strength (cohesion of the marital relationship) is a direct function of the attractions within and the barriers around the marriage and an inverse function of such attraction and barriers from other relationships (p. 19).

Stability has been related to the expectations of the partners. Focusing on role expectation, Nye and Bernardo (1973, p. 503) stated: ". . . when roles are performed at a level that spouses believe they are receiving what they should, the more satisfied they will be and the less likely to initiate a divorce." Another definition related to expectations has been proposed by Lenthall (1977) and Spanier and Lewis (1980). They defined stability as a function of the comparison between one's best nonmarital alternatives and one's marital outcome.

An interpersonal role definition of marital stability is offered by Toman (1976). Terming stability endurance, he focused attention on generalizing a consistent role from an earlier context to a later situation in his duplication theorem. He stated, ". . . new social relationships are more enduring and successful the more they resemble the earlier and earliest (intrafamial) social relationships of the persons involved" (p. 80). Interpersonal flexibility, a very different emphasis from Toman, has been advanced as a role basis for defining the stable relationship. Levinger and Sonnheim (1965) asserted that partners who complement each other and remain married is based on the degree to which they are ". . . willing and able to fulfill their mutual needs and to mesh in their mutual actions" (p. 148). Role equality has also been proposed as a foundation for stability (Walster, Berscheid, & Walster, 1973). They proposed that the "stable" relationship is equal and when inequality exists which cannot be restored, the relationship will eventually dissolve.

Measurement of Marital Stability

The literature principally offers two means of measuring marital

stability. The first is through paper and pencil inventory and the second is through objective indicators of relationship stability. Two types of questionnaires are available for measuring marital stability. One type exclusively measures stability, while the other type has stability-related subtests, but measures other aspects of marital adjustment as well. Farber (1957) and Hurvitz (1960) designed scales which primarily focused on marital stability. Nye and MacDougall's (1950) Marital Adjustment Scale has subtests which measure marital stability as well as subscales assessing marital quality.

Objective indices have been employed to distinguish stable and unstable relationships. Divorce and separation has been an "after the fact" means of identifying unstable relationships (Hicks & Platt, 1970; Price-Bonham & Balswick, 1980; Spanier, 1976; Toman, 1962). Years of marriage has been used to define stability (Toman, 1971). The presence of conflict and disagreement has been utilized to study instability (Baxter, 1965; Spanier, 1976). Instability has been defined as participation in counseling (Cattell & Nesselroade, 1967; Clements, 1967; Levinger & Sonnheim, 1965; Toman & Gray, 1961).

Definition of Marital Quality

The positive and negative feelings which married persons have toward their state, their partner, and their relationship have been labeled with various terms. These include: marital quality, marital success, marital satisfaction, and marital happiness. Generally, the definition of these terms can be subsumed under three categories: intrapersonal definitions, interpersonal definitions, and definitions which combine the intra and interpersonal.

The intrapersonal or affective definitions focus on happiness somewhat removed from an evaluation of the partner or the relationship. Rollins and Feldman (1970) and Burr, Leigh, Day, and Constantine (1979) characterized satisfaction as the subjectively experienced reaction to one's marriage at a given point in time.

Interpersonally, marital quality is conceived in terms of the congruence between one's expectations and the behavior of their spouse. Lenthall (1977) defined satisfaction as the difference between marital expectation and actual marital outcome. This type of definition is also termed "Social Exchange Theory" (Spanier & Lewis, 1980). Toman (1976) offered an interpersonal definition of quality when he stated that the only way to discuss success or satisfaction unambiguously is on the basis of a "voluntary continuation of the relationship" (p. 80). However, according to Price-Bonham and Balswick (1980), this definition would equate quality with stability.

A third view combines the previous intrapersonal and interpersonal conceptions of satisfaction and defined this as marital quality (Spanier, 1976; Spanier & Cole, 1976; Spanier & Lewis, 1980). Therefore, marital quailty is defined in terms of happiness at a given point in time and as an ongoing evaluation which compares expectations to outcomes in various aspects of marital functioning.

Measurement of Marital Quality

Questionnaires are the most widely-used method of assessing marital quality. Seventeen scales measuring quality-related variables were available prior to 1970 (Spanier, 1976). Since then, however, other scales have been developed and adapted to research and

counseling (Spanier & Lewis, 1980). The construction of these more recent scales is increasingly guided by issues related to validity, reliability, and response set. For instance, Snyder (1981) developed a measure of quality-related variables. Construction of the test was on an empirical rather than a theoretical basis. Spanier's (1976) DAS was developed out of a factor analysis study of items used in all previous marital quality scales. The scale has been shown to be reliable and valid.

Summary

The review of literature focused on the theory assuming that birth order is an important variable in predicting interpersonal behavior. The birth-order effect related to interpersonal preferences and behavior styles was presumed to be based on the idea that each sibling position represents a different psychological experience in the family of origin. Theoretically, the birth order hypothesis can be viewed in terms of role theory, interpersonal need, and social learning.

Research pertinent to the ability of the birth-order complementarity hypothesis to predict marital functioning was reviewed. The review was divided into the topics of birth order and marital quality and birth order and marital stability to provide a more informed basis for selection of the criterion variables of the present study. Considerable evidence is accumulating that birth-order complementarity is a promising variable in predicting the endurance or stability of a conjugal relationship. The review of the literature, however, indicates a need for more research which distinguishes marital quality

from marital stability and which measures marital quality with valid and reliable measures completed by both spouses. Research also indicates that birth-order theory regarding marriage must be integrated into the wider sphere of marriage research and theory.

The definition and measurement of marital quality and marital stability also was discussed. Marital stability was shown to be related to role behavior, group dynamics, and spousal expectations. Marital stability may be measured by questionnaire or through objective indices. Marital quality was defined as positive and negative feelings about one's state at a given point in time and as an evaluation process of one's partner and of one's relationship against one's expectations. A review of the literature relative to the measurement of marital quality and marital stability was conducted in order to select and construct instrumentation for the present study.

CHAPTER III

METHODOLOGY AND INSTRUMENTATION

The purpose of this study was to provide a test of Toman's birth-order theory of marital functioning. This was accomplished by determining whether the variables of birth-order complementarity, marital quality, and marital stability form a pattern of correlations consistent with Toman's theory. This chapter presents a description of the methodology, instrumentation, and statistical analysis used in this study.

Methodology

Research Design

The research design utilizes the path analysis method developed by Wright (1934). Wright emphasized that path analysis is not intended to deduce causal relations but instead ". . . to combine quantitative information (regression coefficients) with qualitative information at hand on causal relations to give a quantitative interpretation" (p. 193). Path analysis is considered appropriate in theory testing but not as a means of generating causal or theoretical statements (Kerlinger & Pedhazur, 1973).

Underlying the application of path analysis are four assumptions (Kerlinger & Pedhazur, 1973). The first states that the theoretical

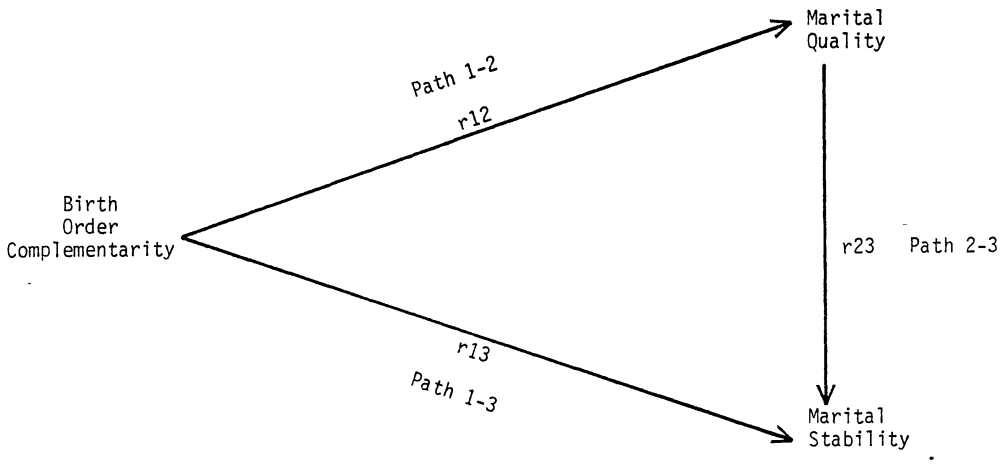
variables are linear, additive, and causal. Toman's (1971) thesis revealed that he considers the effects of birth order on marital functioning to be consistent with this assumption. Toman stated:

> Sibling positions tend to determine role preferences in social contacts and enduring peer relationships outside the family. Friends and partners in love and/or marriage will tend to get along better and for longer times, other things being equal, if their role preferences are compatible (p. 380).

The first assumption is met by sibling position being described as adding to relationship quality and affecting stability. The second assumption is that all relevant variables of the theory are included in the correlation study. Toman (1971) considered birth order or age order of siblings to be the most objective means of determining role preferences. In Toman's (1971) thesis, he considered that "getting along" and "lasting time" to be the important variables for describing a relationship outside the family of origin. Spanier (1979) stated that the two primary dimensions available for empirically describing any marriage are dyadic quality and stability, which corresponded closely to Toman's descriptions of "getting along" and "lasting time." The third assumption states that the variables in the system have a one-way causal flow. In Toman's system, birth order determines role preferences which, in turn, affect both marital quality and marital stability. However, implication, logic, and research would suggest that stability is also affected by marital quality (Spanier, 1979). Lastly, the variables are assumed to be measured on an interval scale.

The measures of this study's dependent variables and the complementarity values derived from Toman's (1976) formula can be considered to be measured at the interval level.

Based on Toman's theory and assumptions, a mediated cause variation of path analysis was employed. Both marital quality and marital stability were considered as dependent on birth-order complementarity. However, it was assumed that marital quality will also affect marital stability (Figure 1).



Note: Arrows represent the directional flow of the assumed causal relationships.

Figure 1. Theoretical Relationships of Birth-Order Complementarity to Marital Quality and Stability

Subjects

A total of 300 church-member husbands and wives were the sample for this study. Participation in the study was limited to couples married at least three years who were members of a Reformed, Catholic,

or Independent Baptist church. Each church was located in a suburban area of a large southwestern city. Combined, the three churches provided a potential population of approximately 700 couples. The sample was composed of volunteer couples who were contacted through a request for subjects made to adult education groups and in one church, at a weekly fellowship function.

Initially, 50 couples from the Independent Baptist church, 53 couples from the Catholic church, and 57 couples from the Reformed church returned completed questionnaires. To equalize the number of couples drawn from each church, seven couples' questionnaires from the Reformed church and three couples' questionnaires from the Catholic church were randomly withdrawn from the completed questionnaires of these two groups to provide a sample of 150 couples with an equal representation from each church.

Demographic and religious activity data of the sample was acquired from information provided on the General Information Form (Appendix A). Characteristically, this sample of married persons was found to be almost exclusively Caucasian. While the life stage range of these couples was from early adulthood to later life, most couples fell into the 30-to 40-year-old range. The individuals tended to be well educated. Two-thirds of the couples were married more than 10 years. A large majority had not been previously married. A total of 88% of the couples had at least one child and most had two or more children. A total of 87.3% of the couples had a family income greater than $25,000 per year. Most of these church members actively participated in church and had attended church since childhood. The data related to marriage and family characteristics of the sample are

summarized in Table 1. A summary of demographic characteristics and religious involvement of the subjects is reported in Table 2.

A birth-order complementarity score was computed for each couple from information given on the Brothers and Sisters Form shown in Appendix A. A complementarity score of zero was computed for 32 of the 150 marriages. Therefore, only 21% of the couples were fully birth-order complementary. A total of 17.3% of the marriages were found to be completely noncomplementary in birth order, as represented by a score of one. The majority of couples (61.32%) were shown to fall into the midrange of partial complementarity, as represented by a coefficient between 0 and 1.

The completed DAS and MSS served as a means of reporting the perceived marital quality and marital stability for husbands and wives. The means for each spouse group and the total sample is summarized in Table 3. The mean score on the MSS was less than one for each spouse group and the total sample where a zero score is indicative of the highest degree of perceived stability. This suggested that, overall, the sample tended to perceive their marriages as extremely stable. The mean of the total sample (114.41), the husbands' group (114.72), and the wives' group (114.09) on the DAS differed little from the normative population mean (114.80) reported in Spanier's (1976) original study of this scale.

Procedure

Participating couples were volunteers from adult education classes or a fellowship function held at the respective churches. An introduction of the researcher, the academic reasons for gathering the

Table 1

Marriage and Family Characteristics of the Sample

Characteristics	Marriages N=150	Husbands N=150	Wives N=150
Years of Marriage			
Range	3-50		
Average	14.89%		
Number of Children			
Range	0-9		
Average	2.22%		
Family Income			
$50,000 +	34.0%		
$25,000-49,000	53.3%		
$20,000-24,000	9.3%		
$15,000-19,000	2.6%		
$10,000-14,000	.6%		
Previous Marriages			
Married once before		11.3%	10.8%
Married twice before		.6%	.6%
Not previously married		88.1%	88.6%

Table 2

Percentage of Sample in Demographic and Religious Activities Categories

Demographic and Religious Characteristics	Husbands N=150		Wives N=150	
Average Age	39.36 years		37.80 years	
Race				
Caucasian	149	99.3%	148	98.6%
Hispanic	1	.7%	1	.6%
Eurasian	--	--	1	.6%
Education				
Completed high school	5	3.0%	24	16.0%
Some college	49	32.6%	59	39.3%
College degree	42	28.0%	45	30.0%
Graduate work	54	36.9%	22	14.6%
Length of Church Attendance				
Entire life	113	75.3%	126	84.0%
Since adolescence	18	12.0%	15	10.0%
Fairly recently	19	12.6%	9	6.0%
Average Church Participation				
More than once per week	56	37.3%	67	44.6%
Every week	61	40.6%	59	39.3%
Three times per month	20	13.3%	15	10.0%
Twice per month	5	3.3%	6	4.0%
Once per month	2	1.3%	--	--
Less than once per month	6	4.0%	3	2.0%

data, and a statement concerning confidentiality was addressed to groups ranging from 30 to 40 couples in the classroom settings. The same information was given to couples individually at the fellowship function. All couples were invited to a meeting where the general findings of the research would be discussed. They were informed that a notice would be posted in the church newsletter notifying them of the time and place of this presentation.

Table 3

Mean and Standard Deviation Scores on the Marital Stability and the Dyadic Adjustment Scale for Husbands, Wives, and Total Sample

Instrument	Husbands	Wives	Total Sample
Marital Stability Scale	0.466 (1.12)*	0.626 (1.32)	0.546 (1.22)
Dyadic Adjustment Scale	114.72 (13.60)	114.09 (15.02)	114.41 (14.31)

*Standard deviations are reported in parentheses.

The church classroom facilities served as the site for questionnaire administration. Each of the 300 husbands and wives (composing 150 couples) filled out four instruments, which took approximately 15

minutes to complete. Subjects not understanding the written instructions or having other questions were helped individually.

Following data collection, demographic and religious activity data was compiled for the sample from the completed General Information Forms. A birth-order complementarity score was computed for each couple using Toman's (1976) Rank Conflict Formula from data obtained from the Brothers and Sisters Form completed by each spouse. A marital stability score was calculated for each husband and wife from the data provided on the MSS. Likewise, a marital quality score was assigned to each husband and wife from the completed DAS. Therefore, in preparation for the regression analyses, three scores were assigned to each husband and to each wife, a birth-order complementarity score based on the sibling configuration of husband and wife, a marital stability score, and a marital quality score.

Instrumentation

Subject Information

In order to describe characteristics of the sample, each subject completed the General Information Form (Appendix A). The questionnaire requested demographic information, educational background, previous marriages, and extent of religious involvement.

Quantification of Birth-Order Complementarity

A complementary marriage based on birth-order means spouses held different positions in their family of origin. These may be at extremes, in the case of an oldest married to a youngest which would be

full complementarity, or a marriage may possess partial complementarity when a middle child has a spouse who is a youngest or oldest. Couples who hold the same position would be considered a noncomplementary relationship. The couples provided family constellation information on the Brothers and Sisters Form (Appendix A).

It is possible to quantify the data provided on the Brothers and Sisters Form so that birth-order complementarity can be treated as a continuous variable. Toman (1976) developed a means of doing this through a Measure of Conflict Formula. Essentially, the derived value represents the amount of rank conflict prevailing in a marriage on the basis of the sibling position of each spouse and the number of older or younger siblings in their family of origin. A rank coefficient for each spouse is calculated by the formula

$$dr = \frac{N_{jun} - N_{sen}}{N-1}$$

where the rank coefficient (dr) is a function of the number of younger siblings (N_{jun}) and the number of older siblings (N_{sen}) divided by the number of siblings minus one (N-1). The degree of rank conflict (drm) prevailing in a marriage is derived by summing the dr of the husband and wife and dividing the value by two. A rank conflict coefficient ranges from -1 to +1. Zero represents perfect marital complementarity or no rank conflict. Values which move away from zero in either direction are interpreted as increasing degrees of noncomplementarity of birth order.

A Marital Quality Scale

After reviewing available instruments, the DAS (Spanier, 1976)

was selected for measuring marital quality (Appendix A). The DAS is a brief, reliable, and valid means of obtaining an estimate of the level of marital happiness, an evaluation of role performance, and a judgment of the functioning of the marital unit.

The DAS is a self-report scale of 32 items which can be group administered. Thirty items require a response on a Likert-type scale. However, items vary in their range of responses. Some are seven-point, some are six-point, and some are four-point scales. Two items are forced choice, requiring yes and no answers. Items also vary in the basis on which choices are made. Fifteen items ask about agreement on marital matters, ranging from "always agree" to "always disagree." Twelve items request information in terms of the frequency of things happening in the relationship. One item assesses overall relationship happiness affectively on a scale from "perfect" to "extremely unhappy." The variables reflected in each item are considered as approximately equal weight and are scored as such. Theoretically, the scale has a range of 0-151. Higher scores are presumed to reflect better adjustment or quality.

The DAS questions are a final refinement from a pool of 300 items which were identified from all other published scales of marital adjustment, quality, or satisfaction. Out of this pool, duplicate items were eliminated and three judges removed items not meeting the content validity criteria: relevance for contemporary relationships; and of content reflecting quality, adjustment, or related concepts (Spanier & Cole, 1976). The remaining 200 items were administered to 218 married people of the middle and working class and to 94 people who had obtained divorces in the previous 12 months. The divorced

people were asked to respond on the basis of their last month in the relationship. Frequency distributions were analyzed and all items with low variance or high skewedness were eliminated. The remaining items were analyzed using a t test for significant difference between means for the married and divorced sample. Items for which responses of people in the two groups were not significantly different at the .001 level were eliminated. The remaining 40 items were factor analyzed to determine the adequacy of definitions and hypothesized components of the scale. Low factor loading eliminated eight questions. The final 32-item scale included four factor components identified as dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression (Spanier, 1976).

Spanier (1976) reported internal reliability estimates using Cronbach's (1951) coefficient alpha. These correlations are presented in Table 4.

Content validity was established during test construction for the DAS by evaluation of the items for relevance in contemporary relationships and their consistency with nominal definitions of marital satisfaction, cohesion, and consensus.

Construct validity was tested by assessing the correlations of the DAS with the Locke Wallace Marital Adjustment Scale (Locke & Wallace, 1959) which, in the past, had been the most frequently-used instrument for measuring dyadic adjustment. The correlation between responses to these scales was .86 among married respondents and .88 among divorced persons. Correlations in both populations were significant at $\underline{p} > .001$ (Spanier, 1976).

Table 4

Internal Consistency of the Dyadic Adjustment Scale, Subscales, and Total Scale

Scale	Reliability	No. of Items
Dyadic Consensus	.90	13
Dyadic Satisfaction	.94	10
Dyadic Cohesion	.86	5
Affectional Expression	.73	4
Total Scale	.96	32

Criterion-related validity was assessed by administering the scale to 218 married people and 94 divorced people. Each of the 32 items was found to correlate significantly ($p > .001$) with the external criteria of marital status. The mean total scale scores for the married and divorced sample were 114.8 and 70.7, respectively. A t test of sample means indicated that these scores differed significantly at the .001 level.

A Measure of Marital Stability

Marital stability was measured by the seven-item, true/false MSS developed for this study (Appendix A). Each item is assigned a one-point value which is scored when the response is toward the direction of instability. The MSS has a score range of 0 to 7. Lower scores

are considered reflective of more relationship stability and high scores of more instability.

After reviewing marriage literature, three factors were selected to serve as the general content basis for the MSS. Factors having experimental evidence for their relationship to stability or used to operationally define marital stability were selected. These factors were: participation in counseling, separation, and divorce.

Participation in counseling has been used to operationally define an unstable relationship (Cattell & Nesselroade, 1967; Levinger & Sonnheim, 1965; Toman & Gray, 1961). Marital breakup through separation or divorce has been a primary means of identifying and defining marital instability. Spanier (1976) found couples who eventually divorce discuss separation or divorce more frequently than couples who remain married. Actual separation has served to distinguish stable and unstable relationships (Cattell & Nesselroade, 1967; Hall, 1965; Monahan, 1962). Divorce has been utilized to define instability (Hall, 1965; Hicks & Platt, 1970; Price-Bonham & Balswick, 1980; Toman, 1962, 1971).

Three doctoral level counseling psychologists, two doctoral level clinical psychologists, and one counseling psychology doctoral student served as a panel of judges in establishing jury validation for the MSS. All judges had at least three years of experience in marriage counseling. Judges were asked to independently rate the MSS for how consistently it measured marital stability on the basis of an empirical definition which states that relationships low in stability are moving toward dissolution, while those higher in stability will cohere (Hicks & Platt, 1970). They also were requested, on the basis of

their knowledge and experience, to judge the usefulness of the questionnaire for distinguishing relationships which are high or low in marital stability. Using the Judge's Rating Form (Appendix B), each judge rated the definitional consistency and usefulness of the MSS on a percentage basis from 0 to 100. In terms of definitional consistency, two judges rated the scale at 90%, one judge at 85%, one judge at 80%, one judge at 70%, and one judge at 60%. As to its general usefulness as a means of distinguishing stable and unstable relationships, one judge rated the scale at 90%, four rated it at 80%, and one at 60%. In summary, four of the six judges rated the scale as definitionally consistent at 80% or above. Five of the six judges rated the scale as a useful measure of stability at 80% or above.

The MSS was tested to determine whether the scores of those in intact relationships would differ from those whose relationships ended in divorce. The procedure provided a measure of criterion-related validity on the external criteria of marital status. Scores on the MSS of 22 married persons were compared to a group of 22 divorced persons. A total of 11 males and 11 females comprised the married group. The divorced group, composed of 9 males and 13 females, was instructed to complete the questionnaire on the basis of whether these events occurred during their previous marital relationship. Based on the seven-point range of the MSS, the married group mean was 1.00, while the mean of the divorced group was 3.09. The difference in means between the married and divorced groups was analyzed using the t test statistic. The difference was found to be significant at $\underline{p} > .001$. These findings provided evidence that the MSS possesses validity for the criterion of marital status and can be used to

discriminate between intact relationships and relationships which did not endure.

Reliability of the MSS was assessed as stability over time or test-retest. The MSS was administered to 22 persons who were all married and who ranged in age from 24 to 60. The sample consisted of 11 males and 11 females. Three weeks after the first administration, the same subjects answered the same items in an item order different than the first administration. The scores of the first and second administrations correlated at $r = .98$, as calculated by the Pearson Product Moment Correlation (Bruning & Kintz, 1978). This provided evidence that the MSS is stable over time.

Statistical Analysis

One multiple and three simple regression analyses (Kerlinger & Pedhazur, 1973) were used to explore the significance and path relations of the variables found in the Birth-Order Complementarity Theory of marital functioning. Since this research was exploratory in nature, statistical significance set at $\alpha = .10$ was used to test the significance of F values and the standardized parameter coefficient estimate of each path in the model. R-square was also examined to determine the variance contributed by birth-order complementarity to the dependent variables of marital quality and marital stability.

Summary

The research design, the population characteristics, and a complete description of the methods of implementation were covered in Chapter III. The methods by which variables were measured was also

discussed. A total of 150 married couples from three churches of different denominations were the subjects. Subjects were administered the General Information Form for demographics, the Brothers and Sisters Form for birth-order data, the DAS for a perception of marital quality, and the MSS for perception of marital stability. The data from the General Information Form was used to describe the religious and marriage and family characteristics of the sample. The birth-order complementarity scores, the DAS scores, and the MSS scores were analyzed by regression analysis. These results were used to determine the statistical significance between these variables and to construct a statistical path model of Toman's birth-order complementarity theory.

CHAPTER IV

RESULTS

The results of this study are presented in this chapter. A total of 150 church-member couples were used as subjects to test two hypotheses regarding the ability of birth-order complementarity to predict marital quality and marital stability and to determine the consistency of the birth-order complementarity theory of marital functioning with the statistical path model developed for the study. Subjects were drawn from Reformed, Catholic, and Independent Baptist churches.

Three simple regression analyses and one multiple regression analysis were necessary to test the two hypotheses of this study and to evaluate the consistency of the path model developed for the study with Toman's hypothesized relations of marital functioning based on birth-order complementarity. Each analysis was computed separately for husbands and wives. However, identical hypotheses were tested for each spouse group. The .10 level of significance was set to test variable relationships of the hypotheses and the significance of each path in the path model. R-square and standardized parameter coefficient estimates were computed for use in the path anaysis. All analyses were conducted using the SAS computer regression program (Helwig & Council, 1979).

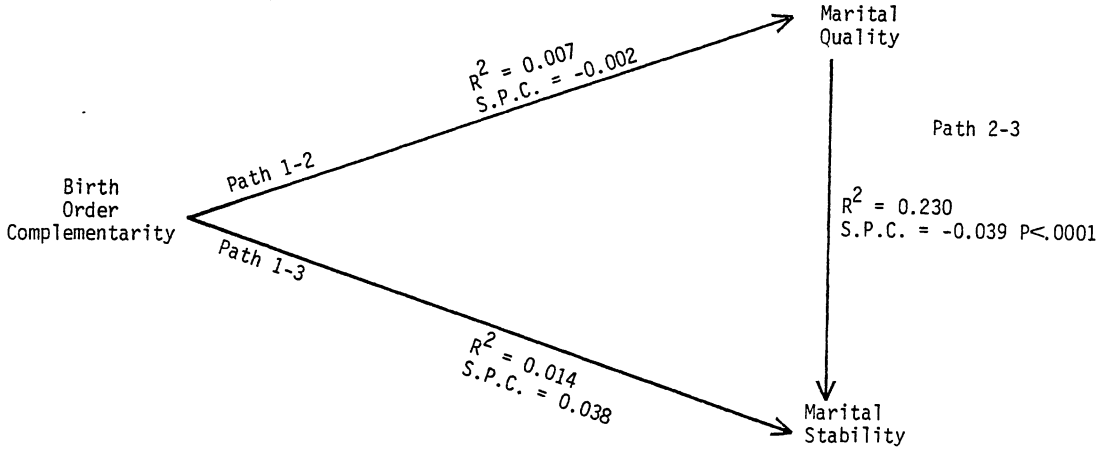
Hypothesis 1. The path analysis regression coefficient between birth-order complementarity (rank conflict score) and marital quality (DAS score) is not statistically significant.

A simple linear regression was used to explore whether a significant relationship existed between birth-order complementarity (rank conflict score) and marital quality (DAS score). This analysis corresponds to the path between birth-order complementarity and marital quality (path 1-2) shown in Figure 2 for husbands and in Figure 3 for wives. The results of the regression analysis are summarized in Table 5 for husbands and wives.

For husbands, the computed F value of this regression analysis was 1.01. This value is not significant at the .10 level; thus, hypothesis 1 was not rejected for the husband group. Therefore, there was no statistically significant ($p > .10$) correlation between the predictor variable of birth-order complementarity and marital quality. Failure to reach significance made an exmaination of the R-square value of 0.007 unnecessary. The standardized parameter coefficient estimate of this analysis was found to be -.002. The negative sign of the standardized parameter coefficient estimates is a measurement artifact where higher quality is reflected in higher DAS scores, while lower birth-order complementarity scores are reflective of higher complementarity.

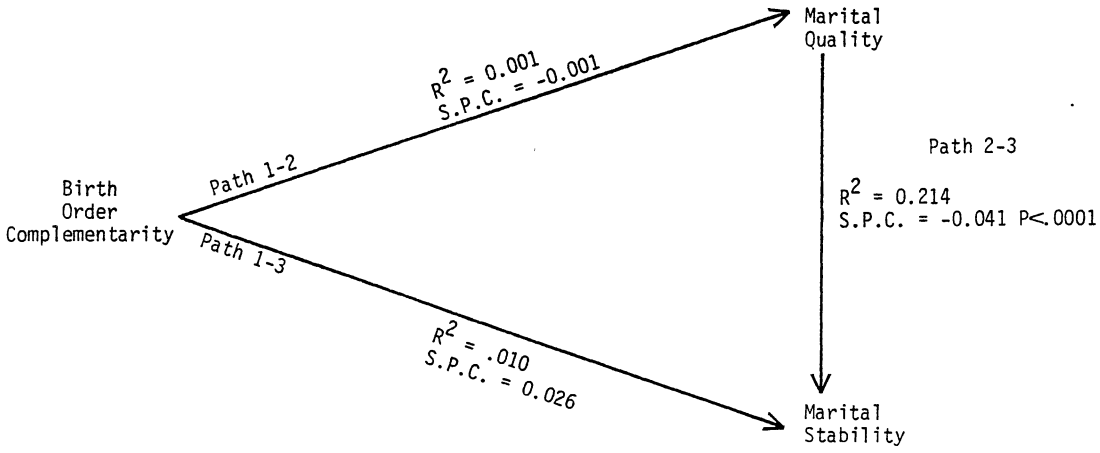
An F value for wives of 0.11 ($p < .10$) was computed for the simple regression analysis of birth-order complementarity (rank conflict score) and marital quality (DAS) score; therefore, a significant correlation was not demonstrated between wives' birth-order complementarity and marital quality. The R-square value of .001 and the standardized parameter coefficient estimate of -.001 are reported in Table 5 and in the path model for wives (Figure 3).

Hypothesis 2. The path anaysis regression coefficient between birth-order complementarity (rank conflict score) and marital



Note: S.P.C.: Standardized Path Coefficient

Figure 2. Path Model of Birth-Order Complementarity Theory for Husbands



Note: S.P.C.: Standardized Path Coefficient

Figure 3. Path Model of Birth-Order Complementarity Theory for Wives

stability (MSS score) is not statistically significant when marital quality (DAS score) is controlled.

Table 5

Simple Linear Regression of Birth-Order Complementarity and Marital Quality for Husbands and Wives

Group	S.P.C.E.	F Value	p*	R-square
Husbands	-0.002	1.01	.318	0.007
Wives	-0.001	0.11	.743	0.001

*α tested at .10

Note: Negative sign is merely a scoring artifact; S.P.C.E.: Standardized Parameter Coefficient Estimate

To test the significance of the relationship between variables in this hypothesis and to provide the remaining quantitative data necessary to complete the hypothesized path relations of Toman's birth-order complementarity theory, the results of three regression analyses are reported for husbands and wives. First, a multiple regression analysis was used as a test of the full model of Toman's theory of marital adjustment based on birth-order complementarity. In this analysis, the dependent variable of marital stability (MSS score) was

regressed on the predictor variables of birth-order complementarity (rank conflict score) and marital quality (DAS score). The F value of the full-model multiple regression analysis for husbands was 1.09 and the F value for wives was .74. Neither of these values was significant at the .10 level. The R-square for husbands was 0.015 and for wives was 0.010. The standardized parameter coefficient estimate of the marital quality variable was -0.001 and .001 for husbands and wives, respectively. Parameter coefficient estimates for the variable of marital stability were .032 for the husband group and 0.029 for the wife group. The data of this analysis are summarized in Table 6.

Hypothesis 2 was not rejected for either the husband or wife group, since the F values were not significant. The nonsignificant F values made it unnecessary to partial the effects of marital quality from the effects of birth-order complementarity on marital stability.

To report the remaining statistical relations of the models' paths and to test the implication in hypothesis 2 that marital quality would better predict marital stability than birth-order complementarity, two simple regression analyses were conducted. The simple regression of marital stability on birth-order complementarity was computed. The data of this analysis (which refers to path 1-3 in Figure 2 for husbands and Figure 3 for wives) are summarized in Table 7. The analyses produced an F value of 2.07 for husbands and an F value of 1.43 for wives. Neither of these F values was significant at the .10 level. An R-square of 0.014 for husbands and 0.010 for wives was computed. Standarized parameter coefficient estimates of 0.038 and 0.026 were computed for the husband group and wife group, respectively. The analyses failed to establish a statistically significant path between birth-order complementarity and marital stability.

Table 6

Multiple Regression of Birth-Order Complementarity, Marital Quality, and Marital Stability for Husbands and Wives

Group	S.P.C.E.	F Value	p*	R-square
Husbands				
Full model	----	1.092	.338	0.015
Stability	0.032		.279	
Quality	-0.001		.720	
Wives				
Full model	----	0.744	.477	0.010
Stability	0.029		.242	
Quality	0.001		.801	

*α tested at .10

Note: Negative sign is merely a scoring artifact; S.P.C.E.: Standardized Parameter Coefficient Estimate

The final statistical analysis of the study was utilized to provide the quantitative information for the last path of the model (path 2-3) for Figure 2 for husbands and Figure 3 for wives and to examine the hypothesized relation of hypothesis 2 that marital quality would predict marital stability better than birth-order complementarity. The simple regression of the variables' marital quality (DAS score) and marital stability (MSS score) resulted in an F value of

44.17 for husbands and 40.24 for wives. These F values for both spouse groups are significant ($p < .0001$). The R-square value for husbands was 0.230 and for wives was 0.214. The husband's standardized coefficient estimate was -.039 and for wives was -0.041. The regression analysis between marital quality and marital stability produced the only significant ($p \leq .0001$) relationship in the model. The data of this analysis are reported in Table 8.

Table 7

Simple Linear Regression of Birth-Order Complementarity and Marital Stability for Husbands and Wives

Group	S.P.C.E.	F Value	p*	R-square
Husbands	.038	2.068	.153	0.014
Wives	.026	1.434	.233	0.010

*α tested at .10.

Note: S.P.C.E.: Standardized Parameter Coefficient Estimate

Table 8

Simple Linear Regression of Marital Quality and Marital Stability for Husbands and Wives

Group	S.P.C.E.	F Value	p*	R-square
Husbands	-0.039	44.173	0.001	.230
Wives	-0.041	40.237	0.001	.214

*α tested at .10

Note: Negative sign is merely a scoring artifact; S.P.C.E.: Standardized Parameter Coefficient Estimate

Summary

The results of the statistical analysis of this study were reported in this chapter. The data was analyzed using regression analysis. The null hypotheses were not rejected based on the results of the regression analysis. Correspondingly, neither of the paths between birth-order complementarity and marital quality or marital stability were statistically significant as evaluated by path analysis. However, marital stability was shown to be significantly ($p < .0001$) related to marital quality.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine whether the variables of birth-order complementarity, marital quality, and marital stability found in Toman's (1976) theory of marital complementarity formed a correlational pattern consistent with his theorized model. The variables were operationally defined by scores based on family constellation data and the scores of each subject on measures of marital quality and marital stability. The rank conflict score of the marriage computed by Toman's (1976) formula served to operationally define birth-order complementarity. Marital quality was determined by a score on the DAS (Spanier, 1976). Marital stability was defined as the subject's performance on the MSS developed for this study.

The Path Analysis Method developed by Wright (1934) served as the design for this research. Using regression analysis, the goal of the research was to determine whether a statistical model could be constructed which would be comparable to Toman's theory of marital complementarity based on birth order. The significance, quantity, and meaningfulness of the effects of birth-order complementarity on marital quality and marital stability were assessed. Also, the effects of

marital quality on marital stability were compared to the effects of birth-order complementarity on marital stability.

The two hypotheses of the study were tested for each spouse group and distinct path models were constructed for husbands and wives. The hypotheses were: (a) the path analysis regression coefficient between birth-order complementarity (rank conflict score) and marital quality (DAS) score is not statistically significant and (b) the path analysis regression coefficient between birth-order complementarity (rank conflict score) and marital stability (MSS score) is not statistically significant when marital quality (DAS score) is controlled. An alpha level of .10 was used.

The subjects for this study were 150 couples who were members of either a Reformed, Catholic, or Independent Baptist church located in a suburban area of a large, southwestern city. Couples participated on a volunteer basis with the requisites that they were members of one of the churches and married for at least three years. Each church was represented by 50 couples.

Subjects were administered the General Information Form for demographic data, the Brothers and Sisters Form for birth-order information, the MSS, and the DAS (Spanier, 1976) in the churches' classroom facilities. Regression analyses was used to analyze the data for husbands and wives separately.

No statistically significant ($p > .10$) relationship was found between birth-order complementarity and marital quality for either the husband or wife group. Thus, the path between birth-order complementarity and marital quality in the path analysis was not consistent with Toman's hypothesized relation of these variables. Further, no

statistically significant ($p > .10$) relationship was found between birth-order complementarity and marital stability for either spouse group. This finding suggested a failure to demonstrate a statistically viable path between birth-order complementarity and marital stability. A test of the full model based on birth-order complementarity where all variables were entered into the regression analysis did not reach statistical significance. However, a significant ($p < .0001$) relationship was found when birth-order complementarity was removed from the analysis and the relationship between marital quality and marital stability was tested. The path between marital quality and marital stability produced the only significant relationship ($p > .0001$) in the path analysis for both husbands and wives. Interpretation of the R value in this path for husbands suggested that 23% of the variance in marital stability could be accounted for by marital quality. This estimate for wives was 21%.

Conclusions

Based on the findings of this research, the following conclusions were drawn:

1. The results did not indicate a significant relationship between birth-order complementarity and marital quality. This finding did not support the Toman hypothesis that birth-order complementarity effects the happiness or quality of a dyadic relationship. These results are consistent with the research of Levinger and Sonnheim (1965) and Birtchell and Mayhew (1977). However, the findings are contrary to reports of significant effects of birth-order complementarity on perceived marital quality for women (Weller et al., 1974)

and for men (Kemper, 1966). Findings on the relationship between birth-order complementarity and perceived marital quality presents one of the most contradictory areas of the birth-order literature (Ortiz, 1981).

The results of the present research may point out one explanation for the confused research picture in the relationship between birth-order complementarity and marital quality. This problem may lie in the level at which these variables are measured. Traditionally, marital satisfaction, quality, adjustment, and other related concepts have been measured and treated in research as continuous or interval level variables. The present study provided the first comprehensive test of Toman's notion that birth-order complementarity and other family constellation factors can be assessed at the interval level. His quantification of birth-order complementarity asssumes the ability to rather precisely measure its effects. However, comparing the negative findings in this research with previous studies on the effects of birth-order complementarity on marital functioning makes this precision assumption highly questionable. All prior studies revealing a relationship between birth-order complementarity and marital quality or marital stability rendered their variables to a categorical level and most employed the chi-square statistic (Hall, 1965; Kemper, 1966; Toman, 1962; Toman & Gray, 1965; Weller et al., 1974).

When Levinger and Sonnheim (1965) attempted to demonstrate the effects of birth-order complementarity on marital quality using a statistical test of proportion, they failed to do so. It may be that the effects of birth-order complementarity on marital quality can only be detected when the data is nominally organized and tested categorically.

If this is true, the logic of precisely quantifying family constellation factors so that increases in complementarity would bring concurrent increases in marital quality is certainly debatable.

The conclusion that birth-order complementarity is truly a categorical variable would have important implications for family constellation theory in general. It may be that any effects of birth-order complementarity on marriage success may only be found if a couple holds either identical or extreme opposite positions in their family of origin. This poses the question of the generalizability of marital birth-order complementarity and, specifically, to which couples can the theory be applied? In the present study, only 38.6% of the sample was shown to possess either total complementarity or full noncomplementary marriages. Therefore, the majority of marriages were composed of at least one spouse who held a middle position as represented by a midrange complementarity score. Toman and Gray (1965), in a study of birth-order complementarity and marital stability, reported a significant relationship after removing couples in the midrange of birth-order complementarity from the analysis. The failure in the present study to show a significant effect of birth-order complementarity on marital adjustment may be caused by the high proportion of couples which fell in the midranges of complementarity. This population make-up may have masked the actual effects of birth-order complementarity.

2. A significant correlation of birth-order complementarity and marital stability was not indicated. Thus, Toman's hypothesized relation between these variables was not supported by the findings of this research. These results are consistent with the Levinger and Sonnheim (1965) study, which did not reveal a significant effect of birth-order

complementarity on marital stability. However, the results of the present study are somewhat surprising in light of several previous reports of a significant relationship between the stability of a marriage and the couple's complementarity based on birth order (Baxter, 1965; Hall, 1965; Toman, 1962; Toman & Gray, 1961).

The inconsistency of these findings with previous research may be the result of testing a sample of married couples which were found to perceive their relationship as extremely stable. Perhaps this high level of reported stability may be accounted for by the phenomena of marriage conventionalization observed in researching highly religious populations (Pederson, 1977). Studies of groups differing in religious beliefs and values variables may be fruitful in further understanding the relationship of birth-order complementarity and marital stability. The statistical interrelationship between the variables in the path model showed that marital quality had both a significant and meaningful effect on marital stability. This finding collaborates the assertion that quality is the primary determinant of marital stability in most American marriages (Spanier, 1979). Marital quality was shown to be clearly superior to birth-order complementarity as a predictor of marital stability as hypothesized.

Recommendations

Analyses of the path model did not support Toman's theory that birth-order complementarity effects the quality or stability of a marriage. However, the hypothesized significant and meaningful contribution of marital quality to marital stability was observed. Based on these results, the following recommendations are made:

1. The question remains whether birth order complementarity actually affects the perceived quality of a relationship. Further study should be conducted to determine whether a relationship exists between these variables.

2. The population in this study was rather narrowly defined. Other populations previously studied regarding marital birth-order complementarity have been limited. The need exists to study birth-order complementarity in populations with differing demographic, religious, and value characteristics.

4. Birth-order complementarity failed to produce an effect on marital quality or marital stability. These dependent variables are rather global measures of marital functioning. These variables are probably composed of or built on other specific characteristics of the relationship. It may be helpful to conceive and conduct research on marital variables which could be thought of as preceding quality and stability in a causative model of birth-order complementarity. By studying the effects of birth-order complementarity on such variables as instrumental and nurturing role behaviors of spouses, agreement on expected roles, self-disclosure, agreement on values and beliefs, and similarity in expected and perceived adjustment, research may be able to fill the gap in understanding the relationship of complementarity in marital functioning. The Pittman, Price-Bonaham, and McKenry (1983) path analysis study of marital cohesion provides a good model and some promising variables for this kind of research.

4. Research needs to be conducted to determine what type of variable birth-order complementarity is. The assumed precision with

which this variable can be measured, according to Toman, needs empirical demonstration.

5. Studies should be conducted on the birth-order complementarity theory using multivariate designs and statistics capable of assessing several variables of both a categorical and interval type.

6. Studies designed to determine the generalizability of birth-order complementarity should be undertaken. These studies could provide information regarding the extent to which this variable may affect relationship functioning in all marriages by comparing its effects on marriages in the midranges of complementarity with marriages possessing extremes of complementarity or noncomplementarity of birth order.

References

Ackerman, N. (1958a). Behavior trends and disturbances of the contemporary family. In I. Gladstone (Ed.), The family in contemporary society (pp. 57-84). New York: International University Press.

Adler, A. (1930). The education of children. London: George Allen & Unwin.

Altus, W. (1971). Role dissatisfaction, birth order and parental favoritism. Proceedings of the 74th Annual Convention of the American Psychological Association, 6, 161-162.

Armer, L. (1980). Sex role attitudes, perceived sex role behaviors and marital adjustment of clients from a family counseling center. Dissertation Abstracts International, 40, 3879-3880.

Baxter, J. (1965). Parental complementarity and parental conflict. Journal of Individual Psychology, 21(2), 149-153.

Bem, S. (1977). On the utility of alternate procedures for assessing psychological androgyny. Journal of Consulting and Clinical Psychology, 4(2), 196-205.

Birtchell, J., & Mayhew, J. (1977). Toman's theory: tested for mate selection and friendship formation. Journal of Individual Psychology, 33(1), 18-35.

Bohannan, P. (1970). The six stations of divorce. In P. Bohannan (Ed.), Divorce and After (pp. 29-55). Garden City, NY: Doubleday.

Boszormenyi-Nagi, I., & Ulrich, D. (1981). Contextual family therapy. In A. Gurman & D. Kniskern (Eds.), Handbook of family therapy (pp. 159-186). New York: Brunner/Mazel.

Bowen, M. (1978). Family therapy in clinical practice. New York: Aronson.

Bruning, J., and Kintz, B. L. (1968). Computational handbook of statistics. Glenview, IL: Scott, Forman.

Burger, A., & Jacobson, N. (1979). The relationship between sex role characteristics, couple satisfaction and couple problem solving skills. American Journal of Family Therapy, 7(4), 52-60.

Burr, W. A., Leigh, G. K., Day, R. D., and Constantine, J. C. (1979). Symbolic interaction and the fmaily. In W. R. Burr, A. Hill, F. I. Nye, and I. L. Reiss (Eds.), Contemporary theories about the family (pp. 42-111). New York: Free Press.

Carter, H., & Glick, P. (1978). Marriage and divorce. Cambridge, MA: Harvard University Press.

Cattell, R., & Nesselroade, J. (1967). Likeness and completeness theories examined by 16 personality factor measures on stable and unstable married couples. Journal of Personality and Social Psychology, 7, 351-361.

Clements, J. (1967). Marital integration and marital stability: A point of view and a descriptive comparison of stable and unstable marriages. Journal of Marriage and Family, 29, 697-702.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 81-105.

Dreikurs, R. (1974). The challenge of marriage. New York: Hawthorne.

Farber, B. (1957). An index of marital integration. Sociometry, 20, 117-134.

Framo, J. (1976). Family of origin as a therapeutic resource for adults in marital and family therapy: You can and should go home again. Family Process, 15, 193-210.

Framo, J. (1981). The integration of marital therapy with sessions with family of origin. In A. Gurman & D. Kniskern (Eds.), Handbook of family therapy (pp. 133-150). New York: Brunner/Mazel.

Furer, L. (1969). Birth order and life roles. Springfield: Charles Thomas.

Hall, E. (1965). Ordinal position and success in engagement and marriage. Journal of Individual Psychology, 21(2), 154-158.

Hall, J., & Bellwarner, D. (1977). Ordinal position, family size and assertiveness. Psychological Reports, 40(3), 1083-1088.

Helwig, J., & Council, K. (Eds.) (1979). SAS users guide, 1979 edition. Cary, NC: SAS Institute.

Herman, S. J. (1974). Divorce: A grief process. Perspectives in Psychiatric Care, 12, 108-112.

Hicks, M., & Platt, M. (1970). Marital happiness and stability: A review of the research in the sixties. Journal of Marriage and the Family, 32, 553-574.

Hope, K. (1980). The prediction of marital satisfaction by creativity level and sex role variables. Dissertation Abstracts International, 41, 1491.

Hurvitz, N. (1960). The marital role inventory and the measurement of marital adjustment. Journal of Clinical Psychology, 16, 377-380.

Kemper, T. (1966). Mate selection and marital satisfaction according to sibling type of husband and wife. Journal of Marriage and the Family, 28, 346-348.

Kerlinger, F., & Pedhazur, E. (1973). Multiple regression in behavioral research. New York: Holt, Rinehart & Winston.

Kraft, K. (1980). Role flexibility and the quality of marital functioning. Dissertation Abstracts International, 40, 3943.

Leary, T. (1957). Interpersonal diagnosis of personality. New York: Ronald.

Lederer, W., & Jackson, D. (1968). Mirages of marriage. New York: W. W. Norton.

Lenthall, G. (1977). Marital satisfaction and marital stability. Journal of Marriage and Family Counseling, 3, 25-32.

Levinger, G. (1964). Task and social behavior in marriage. Sociometry, 27, 433-448.

Levinger, G. (1965a). Complementarity in marital adjustment: Rejoinder. Journal of Individual Psychology, 21(2), 147.

Levinger, G. (1965b). Marital cohesiveness and dissolution: An integrative review. Journal of Marriage and Family, 27, 19-28.

Levinger, G., & Sonnheim, M. (1965). Complementarity in marital adjustment: Reconsidering Toman's family constellation hypothesis. Journal of Individual Psychology, 21(2), 127-145.

Lewis, R., & Spanier, G. (1979). Theorizing about the quality and stability of marriage. In W. R. Burr, R. Hill, F. I. Nye, & I. L. Reiss (Eds.), Contemporary theories about the family (pp. 268-284). New York: Free Press.

Locke, H., & Wallace, K. (1959). Short marital adjustment and prediction tests; Their reliability and validity. Marriage and Family Living, 21, 251-255.

Marcus, I. (1983). The need for flexibility in marriage. Medical Aspects of Human Sexuality, 17(9), 120-131.

McCurdy, P. (1978). Sex role, decision making practices, marital satisfaction and family problems with economically disadvantaged Anglo, Black and Chicano couples. Dissertation Abstracts Internatioanl, 3, 6970.

Mendelsohn, M. B. (1972). Successful heterosexual pairing, sibling configuration and social expectancy. Dissertation Abstracts International, 33, 4521.

Mendelsohn, M. B., Linden, J., Gruen, G., & Curran, J. (1974). Heterosexual pairing and sibling configuration. Journal of Individual Psychology, 30, 202-209.

Monahan, T. P. (1962). When married couples part: Statistical trends and relationships in divorce. American Sociological Review, 27, 625-633.

Murstein, B. (1970). Stimulus-Value-Role: A theory of marital choice. Journal of Marriage and the Family, 32, 465-481.

Nye, F., & Bernardo, F. (1973). The family: Its structure and interaction. New York: Macmillan.

Nye, F., & MacDougall, E. (1959). The dependent variable in marital research. Pacific Sociological Review, 2, 67-70.

Ortiz, B. (1981). Birth order and marital satisfaction: A review of the literature. Family Therapy, 8, 29-32.

Pederson, J. (1977). The relationship of spouse, sex-role stereotyping to marital adjustment and communication. Dissertation Abstracts International, 38(4-B), 1957.

Pittman, J. F., Price-Bonaham, S., & McKenry, P. (1983). Marital cohesion: A path model. Journal of Marriage and the Family, 9(2), 521-531.

Price-Bonham, S., & Balswick, J. (1980). The noninstitutions: Divorce, desertion and remarriage. Journal of Marriage and the Family, 42, 959-972.

Rollins, B., & Feldman, H. (1970). Marital satisfaction over the family life cycle. Journal of Marriage and the Family, 32, 20-27.

Satir, V. (1967). Conjoint family therapy. Palo Alto, CA: Science & Behavior Books.

Scanzoni, D., & Rogers, S. C. (1972). Sex bargaining: Power politics in the American marriage. New York: Prentice-Hall.

Shultz, D., & Rogers, S. C. (1975). Marriage, the family and personal growth. Englewood Cliffs, NJ: Prentice-Hall.

Snyder, D. (1981). Marital satisfaction inventory: Manual. Los Angeles: Western Psychological Services.

Spanier, G. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

Spanier, G. (1979). Factors sustaining marriage: Factors in adjusting to divorce. Families Today, 2, 205-232.

Spanier, G., & Cole, L. (1976). Toward clarification and investigation of marital adjustment. International Journal of the Sociology of the Family, 6, 121-146.

Spanier, G., & Lewis, R. (1980). Marital quality: A review of the seventies. Journal of Marriage and the Family, 42, 825-838.

Stuart, R. (1980). Helping couples change. New York: Guilford.

Toman, W. (1959). Family constellation as a basic personality determinant. Journal of Individual Psychology, 15, 199-211.

Toman, W. (1961). Family constellation: Theory and practice of a psychological game. New York: Springer.

Toman, W. (1962). Family constellation of the partners in divorced and married couples. Journal of Individual Psychology, 18(1), 48-51.

Toman, W. (1965). Complementarity in marital adjustment: Comment. Journal of Individual Psychology, 21(2), 145-147.

Toman, W. (1971). The duplication theorem of social relationships as tested in the general population. Psychological Review, 78(5), 380-390.

Toman, W. (1976). Family constellation: Its effects on personality and social behavior. New York: Springer.

Toman, W., & Gray, B. (1961). Family constellation of normal and disturbed marriages: An empirical study. Journal of Individual Psychology, 17(1), 93-95.

Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. Journal of Personality and Social Psychology, 17(1), 93-95.

Weller, L., Natan, O., & Hazi, O. (1974). Birth order and marital bliss in Israel. Journal of Marriage and the Family, 30, 794-797.

Weller, L., Hazi, O., & Natan, O. (1975). Birth order and the feminie sex role of married women. Journal of Individual Psychology, 31, 65-70.

Wiggins, S., & Holzmuller, A. (1981). Further evidence on androgyny and interpersonal flexibility. Journal of Research in Personality, 15, 67-80.

Wiseman, R. S. (1975). Crisis theory and the process of divorce. Social Case Work, 56, 233-240.

Wright, S. (1934). The method of path coefficients. Annals of Mathematical Statistics, 5, 161-215.

APPENDIXES

APPENDIX A

DATA-GATHERING INSTRUMENTS

GENERAL INFORMATION

PLEASE CIRCLE

Sex: M or F

Race: Caucasian
Black
Hispanic
Oriental
American Indian
Other_____

Family Income:
$50,000 or more
25,000 - 49,000
20,000 - 24,000
15,000 - 19,000
10,000 - 14,000
5,000 - 9,000
Under $5,000

Education: Less than 12 years
Completed High School
Some College
College Degree
Graduate Work
Other Training:
_____

Church Membership:
Baptist
Catholic
Reformed

Church Attendance:
Entire Life
Since Adolescence
Fairly Recent

Average Church Participation in the Last Year:
Less than once per month
Once a month
Twice a month
Three times per month
Every week
More than once a week

Age:_____

Fill in the Blanks

Number of years in present marriage_____

Number of children born or adopted in present marriage_____

Number of previous marriages_____

MARITAL EVENTS QUESTIONNAIRE

Instructions: Write in True (T) if this has occurred in your present marriage and False (F) if it has not.

T or F

_____ 1. We have seriously discussed an extended separation.

_____ 2. I have gone to counseling because of unresolved marital conflicts.

_____ 3. At least twice we have separated from each other for more than a week because of marital differences.

_____ 4. We once separated for an extended period of time because of unresolved marital difficulties.

_____ 5. We have seriously discussed divorce.

_____ 6. Once one of us filed a divorce petition against the other but withdrew it before it was finalized.

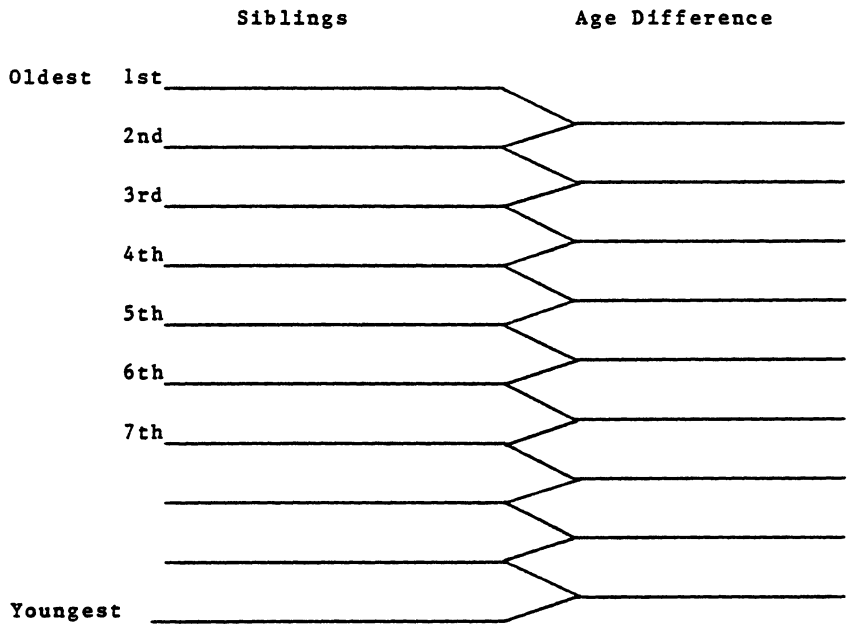
_____ 7. My spouse and I have actually been divorced from each other but reunited.

Directions: Indicate how you feel about the strength of your marriage by circling the appropriate number.

I'm sure that my marriage will break up						My marriage will never break up
1	2	3	4	5	6	7

BROTHERS AND SISTERS

List from oldest to youngest your brothers and sisters. Use (B) for brother and (S) for sister. Write in "self" and your sex on the correct line. Then indicate the approximate age difference between each sibling. Please note any children that may have died prior to age 18.



MARITAL QUESTIONNAIRE

Directions: Use the following questionnaire to describe your marriage. Circle the number under each category for each item that best describes your relationship or your feelings.

		Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1.	Handling family finances	5	4	3	2	1	0
2.	Matters of recreation	5	4	3	2	1	0
3.	Religious matters	5	4	3	2	1	0
4.	Demonstrations of affection	5	4	3	2	1	0
5.	Friends	5	4	3	2	1	0
6.	Sex relations	5	4	3	2	1	0
7.	Conventionality (correct or proper behavior)	5	4	3	2	1	0
8.	Philosophy of life	5	4	3	2	1	0
9.	Ways of dealing with parents/in-laws	5	4	3	2	1	0
10.	Aims, goals and things believed important	5	4	3	2	1	0
11.	Amount of time spent together	5	4	3	2	1	0
12.	Making major decisions	5	4	3	2	1	0
13.	Household tasks	5	4	3	2	1	0
14.	Leisure time interests & activities	5	4	3	2	1	0
15.	Career decisions	5	4	3	2	1	0

		All the Time	Most of the Time	More Often than Not	Occasionally	Rarely	Never
16.	How often do you discuss or have you considered divorce, separation, or terminating your marriage?	0	1	2	3	4	5
17.	How often do you or your mate leave the house after a fight?	0	1	2	3	4	5
18.	In general, how often do you think that things between you and your partner are going well?	5	4	3	2	1	0
19.	Do you confide in your mate?	5	4	3	2	1	0
20.	Do you ever regret that you married (or lived together)?	0	1	2	3	4	5
21.	How often do you and your partner quarrel?	0	1	2	3	4	5
22.	How often do you and your mate "get on each other's nerves"?	1	1	2	3	4	5

		Every Day	Almost Every Day	Occasionally	Rarely	Never
23.	Do you kiss your mate?	4	3	2	1	0

		All of Them	Most of Them	Some of Them	Very Few of Them	None of Them
24.	Do you and your mate engage in outside interests together?	4	3	2	1	0

How often would you say the following occur between you and your mate:

		Never	Less Than Once a Month	Once or Twice a Month	Once or Twice a Week	Once a Day	More Often
25.	Have a stimulating exchange of ideas	0	1	2	3	4	5
26.	Laugh together	0	1	2	3	4	5
27.	Calmly discuss something	0	1	2	3	4	5
28.	Work together on a project	0	1	2	3	4	5

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Circle Yes or No).

	Yes	No	
29.	0	1	Being too tired for sex
30.	0	1	Not showing love

31. The dots on the following line represent different degrees of happiness in your relationship. The point, "happy," represents the degree of happiness of most relationships. Please circle the dot that best describes the degree of happiness, all things considered, of your relationship.

0	1	2	3	4	5	6
•	•	•	•	•	•	•
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

32. Which of the following statments best describes how you feel about the future of your relationship?

5 I want desperately for my relationship to succeed and would go to almost any lengths to see that it does.

4 I want very much for my relationship to succeed and will do all that I can to see that it does.

3 I want very much for my relationship to succeed and will do my fair share to see that it does.

2 It would be nice if my relationship succeeded, and I can't do much more than I am doing now to help it succeed.

1 It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

0 My relationship can never succeed, and there is no more that I can do to keep the relationship going.

APPENDIX B

EXPERT JUDGES' RATING FORM

JUDGES RATING FORM

Definition of Marital Stability: "A relationship which is low in marital stability is moving toward dissolution. Conversely, a relationship which is high in marital stability will tend to cohere."

Based on this definition, would responses on this questionnaire provide an indication of the relative stability of a marital relationship?

1. Indicate how consistently you believe this scale measures marital stability according to the above definition.

Totally Inconsistent — Perfect Consistency

0 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

2. Apart from the above definition, on the basis of your professional experience indicate how much you could agree with the following statement; "This scale could be used as a means of determining whether a relationship tended to be higher or lower in marital stability."

Totally disagree — Totally Agree

0 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

3. Please comment on any items in terms of its usefulness as an indicator of marital stability.

Item
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

VITA 2

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Doctor of Philosophy

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Education: Graduated from Putnam City High School, Oklahoma City, Oklahoma, in May, 1969; received Bachelor of Arts degree in Psychology from Central State University, Edmond, Oklahoma, in 1974; received Masters of Education degree in Counseling Psychology from Central State University, Edmond, Oklahoma, in 1976; completed requirements for Doctor of Philosophy degree at Oklahoma State University in May, 1985.

Professional Experience: Administrative Assistant, Baptist Medical Center, Oklahoma City, Oklahoma, 1974-76; Program Coordinator, Youth and Family Services, El Reno, Oklahoma, 1977-79; Adjunct Instructor, Social Science Department, El Reno Junior College, El Reno, Oklahoma, 1977-79; Adjunct Graduate Counseling Instructor, Southwestern State University, Weatherford, Oklahoma, 1979; Marriage and Family Therapist, Family Life Center, Oklahoma City, Oklahoma, 1979-83; Counseling Psychology Intern, Chisholm Trail Community Mental Health Center, Yukon, Oklahoma; 1983-84; Marriage and Family Therapist, Family Life Center, Oklahoma City, Oklahoma, 1984 to present.