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The development of the Assessment of Intimacy in Marriage (AIM) instrument

Shackleford, Robert S., Jr., Ph.D.
The University of North Carolina at Greensboro, 1993

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THE DEVELOPMENT OF THE ASSESSMENT OF INTIMACY IN MARRIAGE (AIM) INSTRUMENT

by

Robert S. Shackleford, Jr.

A Dissertation Submitted to the Faculty of the Graduate School at The University of North Carolina at Greensboro in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

Greensboro 1993

Approved by

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Date of Dissertation Meeting: March 25, 1993
The purpose of this research was to develop an instrument to measure several dimensions of intimacy in marital relationships, and to test the psychometric properties of the instrument. Based on a review of the literature, a study of existing instruments, and consultation with experts, the researcher developed The Assessment of Intimacy in Marriage (AIM). The instrument measures 10 categories of intimacy: Commitment, Crisis (affective), Crisis (instrumental), Emotional, Intellectual, Physical (non-sexual), Physical (sexual), Shared Activity, Social, and Spiritual.

The 60 items (6 items for each of the 10 intimacy categories) are given four assessments by each respondent (current levels of intimacy in self, current levels of intimacy in spouse, desired levels of intimacy in self, desired levels of intimacy in spouse).

Data from 100 couples were used to test the validity and reliability of the instrument. Based on the literature and the opinion of experts, the content validity was very good. The construct validity from a Q-sort gave confirmation of AIM’s good discriminant validity. Testing AIM with five established instruments measuring similar concepts yielded mixed results in convergent validity.
Criterion validity with an established marital adjustment instrument gave good results for concurrent validity. A review of literature and a questionnaire given to experts indicated very good predictive validity.

A Cronbach's coefficient alpha indicated a moderate to good internal consistency overall, though this varied from category to category. A test-retest procedure showed only moderate stability over time.
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CHAPTER I
INTRODUCTION

Intimacy is a fundamental requirement for our well-being (Lauer & Lauer, 1991; Reis, 1984). Psychiatrist William Glasser (1984) even went so far as to say that the need for intimacy is a part of our genetic make-up. Psychologists McAdams and Bryant (1987) found that both women and men tend to have better mental health when they have close, meaningful, intimate relationships.

Marital intimacy is seen by many people as one of the most beneficial elements in a healthy, fulfilled life. Clinebell and Clinebell (1970) have called marriage "the place where most adults have the opportunity to lessen their loneliness, satisfy their heart-hungers, and participate in the wonderfully creative process of self-other fulfillment" (pp. 17-18). According to Lauer and Lauer (1986), marriage can offer "an intimacy that can be our emotional salvation in an impersonal world" (p. 22).

The lack or absence of intimacy has been linked with problems in relationships and individuals. Problems with intimacy were described by Winter (1958) as "the focus of marital difficulty" (pp. 69-70). Researchers have indicated that there is a correlation between a lack of intimacy and
some forms of emotional illness (Waring et al., 1983; Waring & Chelune, 1983). Waring et al. (1983) asserted that it might be beneficial to evaluate the level of intimacy in the marriages of spouses with abnormal mood states. They specifically recommended that therapists "concentrate some of their efforts on marital intimacy rather than exclusively on psychopathology" (Waring et al., 1983, p. 272). Beyond implying that the lack of marital intimacy has a negative effect and may be related to abnormal mood states, they further suggested the positive effect that "enhancing marital intimacy through facilitating self-disclosure reduces symptoms of nonpsychotic emotional illness" (Waring et al., 1983, p. 272).

Within this context, we can better understand why Erikson (1952) said that the quest for greater intimacy is the central life-task of young adults. It is not that intimacy is needed more in that period of the life-cycle than in other periods; rather, it is in that period of the life-cycle that we tend to seek and form adult intimate relationships that we will need throughout the remainder of life.

While studies show that some degree of intimacy is necessary for normal human development, it is not clear what maximum and minimum amounts of intimacy are required. It seems that different people need not only different amounts
of intimacy, but also different kinds of intimacy (Clinebell & Clinebell, 1970; Schaefer & Olson, 1981).

Purpose of the Study

The purpose of this research was to develop an instrument to measure the levels of various types of intimacy shared between husbands and wives. It was recognized that intimacy occurs in numerous other types of relationships as well, and that marriage certainly has no exclusive claim on the concept or experience of intimacy. For the sake of focus and clarity in this study, it was necessary to specify exactly which types of intimacy were being measured in which kind of relationships. Therefore, the relationship type was confined to marriage, with the understanding that many parallels with other relationship types would be evident and that many applications to those other relationship types could be easily made. The purpose of this study was to conceptualize and design an instrument for measuring the levels and kinds of marital intimacy. Specifically, the instrument is called Assessment of Intimacy in Marriage [AIM]. An assessment of the instrument’s validity and reliability was determined.

Need for the Study

There are other instruments that measure intimacy in marriage; however, these instruments generally focus almost exclusively on the affective modes of expressing intimacy. There is considerable evidence that, while there are some
similarities in the ways men and women view intimacy, there are also some differences. Specifically, women tend to express intimacy more in affective terms while men tend to express intimacy more in instrumental terms. Since marital relationships involve both men and women, there was a need for an instrument that would measure both the affective and instrumental modes of expressing intimacy.

Conceptualization of Intimacy

The concept of intimacy varies greatly among different people. To some, intimacy is personal closeness, as between two friends who tell each other all that is happening in their lives. Schaefer and Olson (1981) have correctly pointed out that intimacy is too often linked too closely with self-disclosure. There is a link, but self-disclosure and intimacy are not synonymous. Just prior to a divorce, for example, there is frequently a significant increase in negative self-disclosure, but that does not mean there is a corresponding increase in intimacy. To others, intimacy has sexual connotations, implying that two people who have sex together are being "intimate" even if they had never previously met, do not even know each other's names, and will never see each other again. To still others, intimacy is knowing someone so well that you know his or her thoughts and moods without even having to ask. These examples are representative of the innumerable concepts people have of
intimacy. Obviously, intimacy is many different things to different people.

Clearly conceptualizing intimacy was necessary before developing an instrument to measure it. The accuracy with which an instrument measures a particular construct depends heavily on how clearly that construct has been conceptualized and operationalized. Therefore, clearly defining intimacy was one of the major issues in this study.

There were some boundaries around the definition of intimacy in this study that are more narrow than the total concept of intimacy. Intimacy in its fuller sense could include intimacy between parents and their children, intimacy between grandparents and their grandchildren, intimacy between siblings, intimacy between same-sex friends, intimacy between opposite-sex friends, intimacy between homosexual partners, intimacy between strangers who share a common crisis (e.g., they survived a plane crash together, they were in a foxhole together during a war, they are in a "Compassionate Friends" support group together because they share the experience of having lost a child to death, etc.), and numerous other aspects. Since one study obviously cannot adequately cover all these areas, this study focused on intimacy between married, heterosexual partners.

Several theoretical perspectives are taken by those who study intimacy. Some of the leading theories about intimacy
include intimacy motive theory, life-span developmental theory, equilibrium theory, equity theory, and feminist theory.

Intimacy motive theory posits that people have individual levels of need for intimacy, known as intimacy motivation (McAdams, 1982). The life-span developmental theory conceptualizes intimacy as an individual developmental process related to particular stages of human personality maturation (Sullivan, 1953; Erikson, 1963). According to the equilibrium theory, each person has an optimum level of intimacy they desire; consequently, they balance their desire to achieve intimacy and their desire to avoid intimacy, maintaining the right equilibrium in each relationship. Equity theory emphasizes the effort of individuals to seek fairness in the balance of costs and rewards of intimacy in their interpersonal relationships (Walster, Walster & Berscheid, 1978). Weingarten (1991) explained intimacy from a feminist perspective combined with a social constructionist perspective, noting that intimacy occurs when "people share meaning or co-create meaning and are able to coordinate their actions to reflect their mutual meaning-making" (Weingarten, 1991, p. 294). Social constructionism is associated with feminist theory because of the relationship between meaning-making and the issues of power and control.
Organization of the Dissertation

In the review of the literature, a discussion of the concept of intimacy was followed by a review of the theoretical approaches to the topic. Since intimacy in marriage necessarily involves gender issues, the literature on the role of gender in intimacy was examined. A detailed study of the descriptions, basic assumptions, and psychometric properties of instruments that measure intimacy follows. Based on these findings, a more detailed need for the Assessment of Intimacy in Marriage [AIM] instrument was established.

Since the development of an instrument was the purpose of this research, Chapter III is very inclusive on the methodology used. Following a brief introduction about the methodology of instrument development, theories of measurement were discussed. Next, the specific methodology for developing and testing the AIM instrument was set forth. After the steps used in developing the instrument were described, the procedures used to establish AIM’s validity and reliability were detailed. The methodology chapter included a discussion of the limitations of the study.

Chapter IV gave the results of the findings about the instrument’s validity and reliability. Each of these findings were discussed.

Chapter V summarized the purpose of the study, the research design, the subjects, and the findings.
Conclusions about these findings were discussed and recommendations for future research were given.
CHAPTER II
REVIEW OF RELATED LITERATURE

The Concept of Intimacy

Spanier and Cole (1974) pointed out that the conceptualization of a relationship concept should meet the following criteria: (1) It should be conceptually distinguishable from other related or similar concepts; (2) it should be operationalized, meaning that the concept should be defined in such a way that it can be measured; (3) it should account for all the aspects of the concept thought to be important; (4) it should be neither too abstract (preventing clear conceptualization) nor too specific (preventing applicability to all relationships). Spanier (1976) later added a fifth criterion: (5) It should allow for investigation of any primary dyadic relationship, not just marriage. These criteria were considered as the concept of intimacy was analyzed and developed in this study.

"Intimacy" is derived from "intimus" (the Latin word for "inner, innermost, within"), and also related to "intimare" (Latin for "to make known"). Oden (1974) wrote, "Influenced by this nuance of innermost, our English word intimate points to a...knowledge of the core of something,
an understanding of the inmost parts, that which is indicative of one's deepest nature and marked by close physical, mental and social association" (p. 3).

Weingarten (1991) saw the root meaning, "inner, innermost, within," as related to the conceptualization of intimacy as personal capacity. Further, she noted that the conceptualization of intimacy as the quality of relatedness was derived from the root meaning "to make known."

Waring et al. (1980), studying the concepts of intimacy in the general population, asked 50 adults living in a university community, "What does intimacy mean to you?" Four themes emerged: sharing private thoughts, dreams, and beliefs; sexuality; the absence of anger, resentment, and criticism; and a stable, healthy self-identity and self-esteem.

Rubenstein and Shaver (1982) identified intimacy's defining features according to psychologists: openness, honesty, mutual self-disclosure, caring, warmth, protecting, helping, being devoted to each other, mutually attentive, mutually committed, surrendering control, dropping defenses, becoming emotionally attached, feeling distressed when separation occurs.

These varying conceptualizations of intimacy have made the whole topic more difficult to study because of conceptual blurring. The result has been unclear measurement and overlap into other concepts. So diverse are
these conceptualizations that Acitelli and Duck (1987) likened intimacy to the proverbial elephant, described differently by each blind man who explored it, depending upon which small portion of the elephant he examined.

The following sections will discuss some of the more common ways that intimacy is conceptualized. The categories of conceptualization that will be discussed are intimacy as a personal capacity, intimacy as the quality of relatedness in a relationship, intimacy as behaviors in a relationship, intimacy as an attitude or a cognitive appraisal of a relationship, intimacy as a process, and intimacy as a multi-dimensional construct.

**Intimacy as Personal Capacity**

From this perspective, intimacy is a capacity that rests within the individual, and differs from person to person. Self-disclosure is the most frequently cited means of expressing this personal capacity. The conceptualization of intimacy as personal capacity is set forth in popular books (e.g., Pogrebin, 1987; Rubin, 1983), by several feminist psychoanalytic and developmental theorists (e.g., Chodorow, 1978; Gilligan, 1982; Surrey, 1985), and within the family therapy literature (Bowen, 1978; Lerner, 1989).

Erikson (1963) saw intimacy in personal relationships as dependent upon the personal capacities of the individuals in those relationships. He indicated that establishing intimacy involves "the capacity to commit himself to
concrete affiliations and partnerships and to develop the ethical strength to abide by such commitments, even though they may call for significant sacrifices and compromises" (Erikson, 1963, p. 255).

Intimacy was explained by McAdams (1985) as a preference or readiness for warm, close, and communicative exchange with others. According to this perspective, different people have different levels of readiness or willingness to engage in close, intimate relationships. This concept is consistent with Erikson's (1963) idea that intimacy is intricately linked with individual capacity for close relationships.

Orlofsky (1988), too, saw intimacy as individual capacity for close relationships. He grouped people into four categories based on their capacity for intimacy: (1) isolates--little or no capacity for close interpersonal relationships; (2) pseudo-intimates--capable of only stereotyped relationships; (3) pre-intimates--yet undeveloped potential for intimate relationships; and (4) intimates--a developed capacity for intimacy.

**Intimacy as Relatedness in a Relationship**

Whereas the perspective discussed above viewed intimacy as an individual capacity for close interpersonal relationships, another perspective is that intimacy is not individual at all (as in "individual" capacity), but rather, is interpersonal. To those who view intimacy this way, the
idea of a person saying, "I am intimate" is entirely irrelevant since intimacy occurs, by definition, between two or more people. The interpersonal nature of intimacy necessitates a condition in the relationship (e.g., "We are intimate") rather than a personal capacity (e.g., "I am intimate").

White et al. (1986) viewed intimacy as having five major components, all pertaining to the quality of relatedness in a relationship: (1) each partner having an orientation to the other person and to the relationship, so that there is a strong couple identity rather than merely two individual identities; (2) a care and concern for the other person in the relationship; (3) sexuality with a genuine concern for mutual fulfillment; (4) a strong, positive commitment to the other person; and (5) mutual communication.

Similarly, Brehm (1985) also assessed intimacy in terms of certain qualities found in relationships. In Brehm's (1985) research, intimacy was viewed as the quality of a relationship characterized by behavioral interdependence, need fulfillment, and emotional attachment.

One of the recurring themes in the body of literature that regards intimacy as the quality of a relationship is that intimacy occurs in a relationship when two people know and experience the innermost parts of each other's lives. Macioris (1978) wrote that intimacy occurs wherever there is
freedom between two people to share their innermost thoughts and feelings with one another. Hendrick and Hendrick (1983) conceptualized intimacy as the degree of closeness two people achieve. Intimacy was viewed by Walster, Walster and Berscheid (1978) as the quality of relatedness between loving persons whose lives are intertwined. According to Wong (1981), such intimate exclusiveness and spontaneity are not necessarily the result of intentionally loving relationships, but can also be produced by a common situation or experience two people share.

**Intimacy as Behaviors in a Relationship**

Another perspective conceptualizes intimacy as a type of interpersonal behavior. Lewis (1978) viewed intimacy as such behaviors as mutual self-disclosure, verbal sharing, declarations of liking or loving another person, and demonstrations of affection. Self-disclosure is one of the behaviors most frequently associated with the concept of intimacy (Hinde, 1979). Cozby (1973) viewed intimacy as self-disclosure, and hypothesized that the amount of self-disclosure shared in a relationship is determined by how one assesses the rewards and costs of past, present, and future exchanges with a person. While sexual behavior is another behavior also commonly associated with intimacy, Morris (1971) claimed that "intimacy occurs whenever two individuals come into bodily contact" (p. 9).
Intimacy as Attitude or Cognitive Appraisal

While it may seem logical that intimacy be defined as caring behaviors, that conceptualization alone, apart from the couple's cognitive appraisal of the relationship, can sometimes be inadequate or misleading. For example, one couple may have sex without experiencing real intimacy, while another couple may sit in a room silently, each tending to his or her own activity without sharing a touch or a word, yet have the mutual perception that they are close and are sharing a deep, abiding intimacy. This scenario illustrates another conceptualization, that intimacy is sometimes a cognitive appraisal that transcends any visible behaviors in the relationship.

The idea of intimacy as a cognitive appraisal can be seen in the work of Oden (1974) and Chelune et al. (1984). Oden (1974) described intimacy as the knowledge and understanding of the innermost parts of someone. Intimacy was conceptualized by Chelune et al. (1984) as a subjective appraisal that emerges from the rational process of two individuals coming to know the innermost aspects of each other.

Intimacy as Process

This conceptualization of intimacy is similar to the idea of intimacy as the state of relatedness in a relationship. The difference, however, is that this perspective insists that relationships are not static, but
are always in the process of change. Therefore, relationships cannot have a "state" of intimacy, but rather, at a given moment in time, are at some point on the ever-changing continuum of intimacy. Measuring the "state of intimacy" at any particular point in time cannot adequately represent what is happening in the process of the couple expressing and experiencing intimacy in that relationship over time.

Hatfield (1984) viewed intimacy as the process of attempting to get close to a person, to explore similarities and differences in the ways we think, feel, and behave. Weingarten (1991) said, "Repeated intimate interaction may produce an experience of intimacy, while repeated non-intimate interactions usually interfere with or inhibit relational patterns that lead to the sharing or co-creation of meaning" (p. 287). Intimacy was defined by Wynne (1984) as an "inconstant stage" involving "the processes of long-term relational renewal and reengagement" (p. 308).

The concept of intimacy as an ongoing process in a relationship was echoed by Reis and Shaver (1988), who wrote that intimacy is...

an interpersonal process within which two interaction partners experience and express feelings, communicate verbally and nonverbally, satisfy social motives, augment or reduce social fears, talk and learn about themselves and their unique characteristics, and become 'close' (psychologically and often physically: touching, using intimate names and tones of voice, perhaps
having sex). Under certain conditions, repeated interactions characterized by this process develop into intimate relationships. (Reis & Shaver, 1988, pp. 397-398)

The process of intimate behavior, as described by Reis and Shaver (1988), occurs between Person 'A' and Person 'B' as:

(1) Person 'A' offers to Person 'B' a disclosure or emotional expression;

(2) Person 'B' accepts the disclosure as an intimate expression and gives a response of understanding, validation, and care;

(3) Person 'A' interprets the response of Person 'B' as a positive and affirming response, thereby contributing to an atmosphere of trust, where more intimate disclosures are likely to be expressed.

Intimacy as a Multi-dimensional Construct

Another common perspective views intimacy as a multi-faceted construct, explained by several descriptive categories. Monsour (1992) considered the major contribution of his study to be the evidence that "intimacy is, for laypersons in cross- and same-sex friendships, multidimensional" (p. 293). Different researchers have used different categories to describe the various aspects of the concept of intimacy.

Monsour (1992), using open-ended inquiry, found that respondents described intimacy in terms of (1) self-
disclosure, (2) emotional expressiveness, (3) unconditional support, (4) physical contact, (5) trust, (6) sharing activities, and (7) sexual contact. Self-disclosure was the most commonly mentioned description of intimacy. While trust was specifically mentioned by a relatively small percentage of respondents, it was thought to be an underlying factor in several of the other areas specifically mentioned (e.g., people self-disclose more to people whom they trust).

Olson (1975) described seven types of intimacy:
(1) Emotional intimacy is a closeness of feelings.
(2) Social intimacy is having common friends and similarities in social networks. (3) Intellectual intimacy is the sharing of ideas. (4) Sexual intimacy is the sharing of general affection or specific sexual activity.
(5) Sharing mutual interests in such things as hobbies, spending leisure time together, and participating together in recreation or sports are examples of recreational intimacy. (6) Spiritual intimacy is the sharing of religious values or having either similar or compatible concepts of the meaning in life. (7) Aesthetic intimacy is the closeness that results from the experience of sharing beauty.

Clinebell and Clinebell (1970) discussed ten separate categories of intimacy. (1) "Sexual intimacy is for many couples the axis around which the other forms of intimacy
cluster....[It] is more than the bringing together of sexual organs, more than the reciprocal sensual arousal of both partners, more even than mutual fulfillment in orgasm. It is the experience of sharing and self-abandon in the merging of two persons" (Clinebell & Clinebell, 1970, p. 29).

(2) *Emotional intimacy* is set forth as the foundation of all the other forms of intimacy. It is defined as "...the depth awareness and sharing of significant meanings and feelings -- the touching of the inmost selves of two human beings" (Clinebell & Clinebell, 1970, p. 29). (3) *Intellectual intimacy* is "the closeness resulting from sharing the world of ideas" (Clinebell & Clinebell, 1970, p. 29).

(4) *Aesthetic intimacy* is "the depth sharing of experiences of beauty" (Clinebell & Clinebell, 1970, p. 29).

(5) *Creative intimacy* is seen as shared creativity. An example of creative intimacy is conceiving and parenting children, which involves many forms of creativity—e.g., biological, emotional, social, spiritual. (6) *Recreational intimacy*, the closeness of doing non-work things together as a couple, is deemed to be "essential to the mental health of the partners" (Clinebell & Clinebell, 1970, p. 30).

(7) *Work intimacy* is "the closeness which comes from sharing in a broad range of common tasks involved in maintaining a house, raising a family, earning a living, and participating in community projects...Work intimacy needs to be balanced with other forms, particularly recreational intimacy"
Clinebell & Clinebell, 1970, pp. 30-31). (8) Crisis intimacy is described as "standing together in the major and minor tragedies which are persistent threads in the cloth from which family life is woven" (Clinebell & Clinebell, 1970, p. 31). (9) Commitment intimacy is the "ongoing mutuality which develops in a marriage in which there is shared dedication to some value or cause that is bigger than the family, something that both partners regard as worthy of self-investment" (Clinebell & Clinebell, 1970, p. 31). (10) Spiritual intimacy is the "nearness that develops through sharing in the area of ultimate concerns, the meanings of life (to both partners), their relationship to the universe and to God...the sense of a transcendent relatedness" (Clinebell & Clinebell, 1970, p. 31).

Waring (1984) conceptualized intimacy as the "expression of affection, compatibility, cohesion, identity, and the ability to resolve conflicts" (p. 186). Based on this conceptualization, he developed the Waring Intimacy Questionnaire, measuring eight aspects of intimacy: (1) conflict resolution, (2) affection, (3) cohesion, (4) sexuality, (5) identity, (6) compatibility, (7) expressiveness, and (8) autonomy.

Dahms (1976) described three categories of intimacy—intellectual intimacy, physical intimacy, and emotional intimacy. These three categories are ranked in an intimacy hierarchy:
(1) Intellectual intimacy is the lowest order of intimacy, that is, the least intimate. This type of intimacy involves words, ideas, roles, games, and defenses. It is expressing opinions, participating in conversations, discussing ideas. Verbal interaction is a central characteristic of intellectual intimacy.

(2) Physical intimacy is the middle order of intimacy. Physical intimacy includes such activities as touching, hugging, caressing, and sexual expression. Physical intimacy is more frightening to people than intellectual intimacy because it is marketed as the highest order of intimacy. "Popular magazines, advertising, literature, and films all portray physical intimacy as the god at whose altar all should worship" (Dahms, 1976, p. 79). In spite of this portrayal of physical intimacy in the popular media, Dahms noted that "...physical intimacy is not the highest form of intimacy and does not guarantee full human sharing" (Dahms, 1976, p. 80). Further, Dahms said that until men and women stop using physical intimacy as a weapon against each other, no real emotional intimacy can be experienced. While insisting that physical intimacy is not the highest order of intimacy, he did insist that physical intimacy is extremely important to human well-being. He indicated that full intimacy cannot occur without physical contact, and pointed out that people will turn to culturally acceptable substitutes for (e.g., doctor's offices, beauty
parlors, barber shops, cigarettes, pets, etc.) when physical intimacy is unavailable.

(3) Emotional intimacy includes mutual accessibility, naturalness, non-possessiveness, and process. Mutual accessibility is each person feeling that he or she has complete access to the other without criticism. Naturalness is the degree to which the interaction is between their real selves, not roles they are playing to win each other's approval or have been assigned by each other. Process means that attaining and maintaining an emotionally intimate relationship requires constant attention. Emotional intimacy is never fully attained. If time and attention are not continuously given to the relationship, the relationship will deteriorate. From this perspective, a marriage ceremony is basically a public vow to invest the time, effort, and energy needed to develop and maintain the highest order of intimacy over an extended period of time, and divorce is basically the failure to maintain that emotional intimacy.

In summary, Acitelli and Duck (1987), acknowledging these diverse perspectives in conceptualizing intimacy, reduced the debate to one question: Is intimacy a quality of persons or is it a quality of interactions? Or, worded another way, is it more correct to say, "I am intimate" or "We are intimate?" They insisted that intimacy cannot be
properly understood from any perspective that does not include both conceptualizations.

This study proposes that Acitelli and Duck (1987) are correct, and that the best way to ascertain both the individual capacity for intimacy and the state of intimacy in the relationship is through the measurement of intimate behaviors. Since intimate behaviors are expressed by individuals, they are specific indicators of the personal capacity those individuals have for intimacy. Because those intimate behaviors are expressed within the context of a relationship, they are the facilitators of the state of intimacy in the relationship. This view is consistent with Weingarten's (1991) perception that "repeated intimate interaction may produce an experience of intimacy" (p. 287). Because intimate behaviors flow out of one's personal capacity for intimacy and facilitate an intimate state in the relationship, they become a bridge which connects personal capacity and the quality of relatedness in a relationship. In that sense, intimate behaviors are the most clearly definable and measurable indicators of the nature and extent of intimacy in the relationship.

How do we justify that this concept can be measured at a point in time instead of as an ongoing process? In a similar debate concerning the concept of marital adjustment, Spanier (1976) dealt with the issue of whether marital adjustment is the state of a relationship or a process. He
pointed out that a process could best be studied over time in a longitudinal study. He resolved this by clarifying that the study of marital adjustment as a current state of a relationship acknowledges that there is a process of marital adjustment, but that it can be studied at a specific point in time. This was what he called "a 'snapshot' of the continuum...taken at one point in time" (Spanier, 1976, p. 16). This approach described marital adjustment as existing on a continuum from "well-adjusted" to "maladjusted," and measured the current position of marital adjustment on that continuum in a particular relationship at a given specific time. Thus, he concluded: "We have accepted the idea that dyadic adjustment is a process rather than an unchanging state, but that the most heuristic definition would allow for a measure which would meaningfully evaluate the relationship at a given point in time" (Spanier, 1976, p. 17).

Since the AIM instrument gathered data by the self-report of the respondents rather than through the researcher's observation, field study, or interpretation of interviews, the instrument also captured the concept of intimacy as cognitive appraisal. Responses were not objective, based on the researcher's detached observation, but were subjective, based on the respondents' own cognitive appraisal of intimacy in their relationship.
This research acknowledged, affirmed and utilized the various conceptualizations of intimacy. Therefore, the AIM instrument measured intimate behaviors [intimacy as behavior] in ten categories of intimacy [intimacy as a multi-dimensional construct] as reported by the respondents themselves [intimacy as cognitive appraisal]. It determined the level of intimacy in each marriage partner [intimacy as a personal trait or capacity], but graphed the results together to illustrate the state of intimacy in the relationship [intimacy as the state of relatedness in a relationship]. Results were interpreted in full awareness of the fluid nature of relationships, and acknowledged that the graph of the questionnaire results was merely a representative 'snapshot' of the state of intimacy in the relationship at a particular point in time, and not an invariable state that endures over time [intimacy as process].

Theories of Intimacy

There are several theoretical perspectives taken by researchers who study intimacy. In this section, the following theories of intimacy will be discussed: intimacy motive theory, life-span developmental theory, equilibrium theory, equity theory, and feminist theory.

Intimacy Motive Theory

The intimacy motive theory views intimacy as an enduring motive which reflects the "individual's preference
or readiness for experiences of closeness, warmth, and communication" (McAdams, 1982, p. 134). According to this perspective, people have individual levels of need for intimacy. These levels of need are evident in the degree of their willingness to engage in warm, loving relationships characterized by high levels of communication and positive affect.

McAdams (1982) used a projective test to measure a person's intimacy motive (e.g., readiness for intimate relationships). Subjects were shown a series of pictures and asked to write stories based on the pictures. The quality of interpersonal relationships manifested by characters in the stories were then analyzed to determine the subjects' level of intimacy motivation.

Life-span Developmental Theory

The life-span developmental perspective of intimacy emphasizes the capacity to engage in intimate relationships as a developmental task related to particular stages of human personality maturation. This theoretical perspective conceptualizes intimacy as an individual developmental process which enables a person to have a particular capacity for involvement in intimate relationships.

Sullivan (1953) linked the need for interpersonal intimacy with the pre-adolescent stage of development, evidenced by the emergence of close same-sex relationships, an awareness that the lack of intimacy produces loneliness,
and a genuine concern for the well-being of a person other than self. Erikson (1963) associated the development of intimacy with the intimacy vs. isolation stage of development in early adulthood. He did admit, however, that the foundation of intimacy development began much earlier, with the identity vs. diffusion stage of development in adolescence. When the adolescent successfully establishes a sense of personal identity, he or she is then able and willing to fuse that identity with that of other people in intimate relationships. Erikson (1959) noted that "only after a reasonable sense of identity has been established that real intimacy with the other sex (or, for that matter, with any other person, even with oneself) is possible" (p. 95).

Erikson's (1959) link between the establishment of identity in adolescence and the establishment of intimacy in young adulthood has been confirmed by some research (Marcia, 1976) and challenged by other research. Ochse and Plug (1986) later concluded that women were less dependent than men on identity development as a prerequisite to the capacity for intimacy.

**Equilibrium Theory**

The equilibrium theory conceptualizes intimacy as a product of interpersonal interactions. It is a state of relatedness in relationships, facilitated by such nonverbal behaviors as eye contact, smiling, and physical proximity
(Argyle & Dean, 1965). The central concept of equilibrium theory is that there are certain levels of intimacy people desire to have and with which they are comfortable. People balance their desire to achieve intimacy and their desire to avoid intimacy in order to maintain the right equilibrium in each relationship. If more intimacy is desired in a relationship, a person will use nonverbal behaviors to move toward the other person; if less intimacy is desired in a relationship, a person will use nonverbal behaviors to move away from the other person.

Patterson (1976), who further developed and extended equilibrium theory, distinguished between individual intimate interactions and the level of intimacy in the overall relationship. He attested that the closer the overall relationship, the more likely the partners are to engage in intimate behaviors.

**Equity Theory**

Equity theory is closely linked with social exchange theory. The central concept is the effort of individuals to maintain a fairness in input-outcome ratios. In this theoretical perspective, intimacy is conceptualized as the property of a relationship, based on equity calculations made by the individuals in the relationship.

According to Walster, Walster, and Berscheid (1978), individuals seek fairness in the costs and rewards of their interpersonal relationships. This does not only involve a
fair balance between the costs and rewards of a particular partner, but also a fair balance between the costs and rewards of one partner relative to those of the other partner. When inequity occurs, partners seek to restore equity by altering their input, trying to change their outcomes, using psychological strategies to mentally cope with the inequity, or leaving the relationship (Perlman & Fehr, 1987).

Hatfield et al. (1985) gave five propositions regarding intimate relationships and equity: (1) equitable relationships are more likely than inequitable ones to progress to higher levels of intimacy, (2) partners will be more satisfied and less distressed in equitable relationships, (3) intimate partners will try to restore equity whenever inequity occurs, (4) following crises, intimate partners will either seek to restore equity or end the relationship, and (5) equitable relationships are more likely than inequitable ones to be stable and lasting. The stability of equitable relationships relative to inequitable ones was further confirmed by Walster, Walster, and Traupmann (1978).

Mills and Clark (1982) hypothesized that relationships based on equity concerns (e.g., exchange relationships) are only one kind of intimate relationship, the other being relationships where the partners have selfless concern for each other and do not "keep score" of their inputs and
outputs (e.g., communal relationships). Perlman and Fehr (1987) concede that intimate partners may not keep specific records of their input-outcome balances, but rightly note that a general sense of equity seems important to partners in most intimate relationships.

**Feminist Theory**

Weingarten (1991) explained intimacy from a feminist perspective concurrently with a social constructionist perspective. Central to her approach was the idea of "meaning" (Weingarten, 1991, p. 295). People give meaning to their experiences, including their personal interactions. Weingarten (1991) noted that "intimate interaction occurs when people share meaning or co-create meaning and are able to coordinate their actions to reflect their mutual meaning-making" (p. 294).

Particular behaviors in relationships are not designated as intimate or non-intimate apart from understanding the interpretations or meanings placed upon these behaviors by the partners themselves. From this theoretical perspective, a single interaction could be given an intimate meaning by one partner and a non-intimate meaning by the other partner.

This approach conceptualizes intimacy as a process. When couples repeatedly interact in meaning-making or meaning-sharing activities, intimacy occurs in the
relationship; when they do not, intimacy is inhibited in the relationship (Weingarten, 1991).

Weingarten (1991) associates this social constructionism with feminist theory because of the relationship between meaning-making and the issues of power and control. For example, is the disproportionate amount of housework a woman does an expression of her love and devotion to her husband (meaning: housework is an intimate behavior), or is it a symbol of her submission to a husband who has the power and, therefore, need not stoop to do such menial work (meaning: housework is a non-intimate behavior)?

By making distinctions between intimate and non-intimate interaction, it is possible to analyze the ways in which meaning is used to connect or dominate. It allows us to consider the political dimensions of meaning-making that are nestled in the heart of intimacy. The assessment of an interaction as intimate or non-intimate, whether as participant or observer, is an intersubjective not an objective activity. (Weingarten, 1991, p. 302)

**Summary of Intimacy Theories**

In summary, while acknowledging that each of the theoretical perspectives discussed above makes a significant contribution to the understanding of intimacy as an important aspect of close interpersonal relationships, this research was most closely aligned with equity theory. This researcher agrees with Perlman and Fehr (1987) that while "score-keeping" is unnecessary and unhealthy in a
relationship, an overall sense of equity is important in the close interpersonal relationships of most people. When there is an equitable balance of input and output in relationships, people tend to be more satisfied with those relationships and fulfilled in them.

Therapists have long been telling battered and abused marriage partners that one person cannot carry both sides of a relationship. The same principle is true in relationships where battering and abuse do not occur, but where significant inequity leaves one partner with most of the work and responsibility in maintaining the relationship.

The Assessment of Intimacy in Marriage [AIM] instrument not only assessed each respondent's perception of intimacy in his or her marriage, but gave that respondent's assessment of his or her own contribution to the relationship in each category of intimacy relative to the contribution of his or her partner. Any significant inequities were evident in the scores and could be addressed by the couple or with the assistance of a counselor. The goal is a compatible and harmonious relationship, facilitated by mutuality of input and output in the various categories of intimacy.

Marital Intimacy and Gender

Since this research was confined to the concept of intimacy in marriage, a central issue was the role of gender in the expression of intimacy. Do men and women define
intimacy differently, or do they define it in the same ways but are socialized to communicate it differently? Do men and women want, expect, and need different things in intimate relationships, or are their intimacy needs very similar? Is there a "male intimacy" and a "female intimacy," or is there only a single general concept of intimacy to be shared by both partners in marriage?

There appears to be an intense ongoing debate about gender similarities and differences in interpersonal relationships. Feminist scholars have been somewhat divided on this issue, some suggesting that the differences are indicative of the special nature of women (Hare-Mustin & Marecek, 1988; Weingarten, 1991; Chodorow, 1978; Eichenaum & Orbach, 1983; Gilligan, 1982; and Miller, 1976), while others insist that any perceived gender differences in interpersonal relationships are merely illusions perpetuated by stereotypes designed to keep the sexes separate and unequal (Huston, 1985; Sapiro, 1990; Lips, 1988). Some scholars acknowledge some gender differences in the ways men and women approach relationships, but believe those differences are minimal and have been largely exaggerated in our culture (Tesch, 1985; Deaux, 1984). There are other scholars and researchers who posit that there are significant sex differences in the ways men and women have been socialized to express their care for each other in close personal relationships (Trent, 1991; Gilligan, 1982;

In the following sections, these various basic positions on the issue of gender differences in interpersonal relationships will be discussed.

**Feminist Perspectives on Gender and Intimacy**

Feminist theorists do not hold one unified concept of gender differences. Instead, there are varying opinions about the existence of gender differences and how these differences should be interpreted.

The issue of gender differences has been a divisive one for feminist scholars. Some believe that differences affirm women's value and special nature; others are concerned that focusing on differences reinforces the status quo and supports inequality, given that the power to define remains with men. (Hare-Mustin & Marecek, 1988, p. 462)

The difficulty of resolving these contrasted views lies in the paradox that the very qualities which are heralded as special virtues of women (e.g., care, nurture, emphasis on relationships, expressiveness, etc.) are also the qualities that are said to arise from the subordination of women (Miller, 1976). Thus, feminists are divided over whether to celebrate the very differences that are ultimately associated with their subordination to men, or to propose that perceived gender differences are mere illusions,
stereotypes designed to perpetuate male dominance. These perspectives—differences as gender politics, and differences as stereotypes—are discussed below:

Differences as gender politics. One feminist perspective portrays the gender differences between men and women according to whom the differences benefit. Maintaining that traditional patriarchy emphasizes only the gender differences that highlight the strengths of men, this feminist perspective focuses on the gender differences which highlight the laudable qualities of women. Stated differences that focus on the unique qualities of men are interpreted as power structures which have a negative effect on gender roles in particular and on society in general. Differences that focus on the unique qualities of women are interpreted as special strengths of women, which are utilized to offset their suppression in society.

Hare-Mustin and Marecek (1988) observed, "Conventional meanings of gender typically focus on difference. They emphasize how women differ from men and use these differences to support the norm of male superiority" (p. 455). The emphasis on gender differences is attributed to men's interest in preserving the dichotomy of the sex roles for the sake of maintaining male dominance. However, Hare-Mustin and Marecek (1988) warned that "arguing for no differences between women and men...draws attention away from women's special needs and from differences in power and
resources between women and men" (p. 460). Consequently, they maintained that decisions around such issues as divorce settlements, employment policies and marital therapy should not be "sex-fair," "gender-neutral," "nonpreferential," or "nondifferential," but rather, should "accommodate women's special needs" (Hare-Mustin & Marecek, 1988, p. 460).

The adaptability which enables women to develop a high capacity for intimacy in inequitable relationships with men is cited as an example of women's special qualities. Weingarten (1991) said that women resort to intimate connection in order to protect themselves from the aggression of men. In fact, "a strategy that women are taught and develop includes forming an emotional connection to a man in the hopes that, if intimacy develops, aggressive attack will be less likely" (Weingarten, 1991, pp. 301-302). This development of the art of intimacy as a defense mechanism is offered as evidence of the adaptability of women to the threat of suppression. Such adaptability is interpreted as a unique and special quality of women.

Cultural feminists (Chodorow, 1978; Eichenbaum & Orbach, 1983; Gilligan, 1982; and Miller, 1976) acknowledge the differences in men and women, and focus on the richness of the inner experiences of women. "Cultural feminism is a movement within feminism that encourages women's culture, celebrates the special qualities of women, and values
relations among women as way to escape the sexism of the larger society" (Hare-Mustin & Marecek, 1988, p. 358).

Differences as stereotypes. Some researchers have concluded that personality traits do not appear to differ systematically by sex (Huston, 1985). After reviewing the literature on the often cited differences between the genders in a number of key areas, Sapiro (1990) wrote that the research regarding the stereotypically masculine and feminine personality characteristics shows very little evidence of sex differences when females and males are given similar opportunities to display these characteristics. The only exception noted was men’s tendency to be more aggressive than women.

In her book on sex and gender, Lips (1988) wrote that the labeling of an individual as female or male has a powerful impact on others’ perceptions of and reactions to that individual. Stereotypically, we expect different behaviors, personal qualities, and physical appearances from women and men. When we categorize people by sex (their biological femaleness or maleness), we tend to assume that we have also categorized them by gender (the set of cultural expectations for femininity and masculinity), although on many dimensions there is no necessary relationship between biological sex and cultural expectations for women and men...In recent years, psychologists have emphasized new concepts--androgyny and gender schema--in an effort to deal with issues of masculinity and femininity without invoking the stereotypic notion of the "opposite sexes." (Lips, 1988, pp. 25-26)
The Common Overstatement of Gender Differences in Intimacy

Tesch (1985) concluded that there may be only minimal sex differences in the intimacy levels of college students. The women (X = 285, SD = 40) scored higher than the men (X = 279, SD = 36) in her study, but the differences were not significant.

In a decade review of gender studies, Deaux (1984) conceded that there are some actual male-female differences in some areas of personality and cognition. It was concluded, however, that these differences are not as universal, pronounced, or enduring as some have previously asserted.

Davidson (1981) contended that the stereotypical gender differences are over-emphasized and misleading. He noted that the socially prescribed stereotypical male role demands coolness, emotional control, and objectivity that preclude personal sentiment. The single exception to the dictum of male inexpressiveness is anger and annoyance, which they are not only allowed to express, but expected to express. In his study, Davidson (1981) found that an almost equal proportion of men and women (65% of men, 63% of women) reported pressures to express emotions. However, 90% of women and 75% of men felt pressures to inhibit their genuine feelings. Twice as many men (60%) as women (29%) admitted they often express more affection than they actually feel. Twice as many women (45%) as men (22%) reported they often
express less affection than they actually feel. These findings contradict the stereotype that women are more expressive of feelings than men are.

The dramatic paradox, however, is that men think women demand that men be active; women think men demand that women be passive. Both claim an internal desire to change and yet they feel reciprocal pressures to behave in traditional ways. The unfortunate irony is that men and women force each other into pressures and pretense, thus perpetuating stereotypical roles and the "myths" of gender differences. (Davidson, 1981, p. 346).

Gender Differences in Intimacy as Basic Socialized Realities

In this section, the gender differences in intimacy described by researchers will be set forth. Next, the explanations cited for those differences will be discussed.

Gender differences in intimacy. Gilligan (1982) viewed women's capacity for intimacy as being quite different from men's. She noted the differences between the subjective connectedness of women and the objective separateness of men. Relating this to intimacy, Gilligan (1982) said, "As women imagine the activities through which relationships are woven and connection sustained, the world of intimacy—which appears so mysterious and dangerous to men—comes instead to appear increasingly coherent and safe" (p. 43). Chodorow (1978) similarly acknowledged differences between connected women and disconnected men.

In conducting his research, Trent (1991) met with a group of men to discuss the topic of intimacy. At that
meeting, he observed: "Without exception, the first thing each man thought of in connection to the word 'intimacy' was the sexual act. In fact,...one of the more reflective men in the group summed up the comments: 'I think when the average man thinks about intimacy, what he's really thinking about is frequency!'" (Trent, 1991, p. 66). Women, though, were not seen as having the same sexual perceptions of intimacy. Even the men knew that their wives saw intimacy differently.

One man said, 'I could sum up Janet's definition in one word: communication.' Several agreed that this is on or near the top of the list of intimate activities for women. Discussion revealed that initiating meaningful communication was as difficult for the husbands as initiating sexual activity was for the wives. (Trent, 1991, p. 66)

While the husbands were not inclined to view intimacy in the same way as the wives, they felt they had a good understanding of the way their wives viewed intimacy. They described their wives' perception of intimacy as security in the relationship (e.g., feeling confident of their husbands' love), communication, and romantic expressions (e.g., cards, notes, flowers, hugs).

Worell (1985) reported that research reveals consistent gender differences at all ages in the way males and females interact in close relationships. Females tend to engage in more intimate and personal interactions, while males "interact with friends through competitive and dominant
behaviors, thus foreclosing interpersonal intimacy" (Worell, 1985, p. 156). Specifically, in Worell's (1985) study, females tended to use a more communal style of nurturance (marked by nondominance, interest focused on the friend, and an empathic, feeling approach to the relationship). While males did increase the amount of communal nurturance they used when interacting with their closest female friends, they tended to use a more agentic, instrumental style of nurturance (marked by dominance, self-interest, and a cognitive, problem-solving approach to the relationship) in their interactions with other males and with their more casual female friends.

Tannen (1990) observed that in her own experience in research and lecturing on the communication styles of men and women, "some people become agitated as soon as they hear a reference to gender. A few become angry at the mere suggestion that women and men are different" (p. 14). Nevertheless, she insisted that pretending there are no significant gender differences hurts both women and men. She concluded that the desire to affirm that women are equal has made some scholars reluctant to show they are different, because differences can be used to justify unequal treatment and opportunity. Much as I understand and am in sympathy with those who wish there were no differences between men and women--only reparable social injustice--my research, others' research, and my own and others' experience tell me it simply isn't so. There are gender differences in ways of speaking, and we
need to identify and understand them. (Tannen, 1990, p. 17)

Intimacy, Tannen (1990) attested, is the "key in a world of connection where individuals negotiate complex networks of friendship, minimize differences, try to reach consensus, and avoid the appearance of superiority, which would highlight differences" (p. 26). She then pointed out that women tend to focus on intimacy while men tend to focus on independence.

Others also have seen communication styles as central to gender differences in intimacy. Maltz and Borker (1983) reported in their literature review that males tend to use communication styles designed to establish and protect their individual turf, while females tend to use communication as a tool for establishing social binding.

One of the places where different perceptions of intimacy have been strongly linked with gender is in the area of sexual intimacy. Clinebell and Clinebell (1970) observed: "It is probably true that the arousal of passion is more closely linked with emotional factors in many women than in many men" (p. 145). Kogan (1973) agreed that sex for women is more closely linked with emotional satisfaction than for men, who gain more pleasure from the physical aspect. While most researchers acknowledge that women can enjoy the full range of sexuality as fully as men, they also asserted that many women experience sexual arousal more
slowly than their husbands (Delora & Warren, 1977; Clinebell & Clinebell, 1970).

Blumstein and Schwartz (1984), referring to sexual intimacy, said: "Women are less likely than men to view their sexual acts as a revelation of their 'true sexual self,' and female sexual choice seems to be based as much on situational constraints as on categorical desire. Desire seems to be aroused frequently by emotional intimacy rather than by abstract erotic taste" (p. 122).

Wells (1991) concluded the following, based on the literature about sex and intimacy: (1) Sex does not have the same meaning for husbands and wives; (2) Sex is not equally important to husbands and wives; (3) Husbands and wives do not ordinarily desire the same frequency of intercourse; (4) Husbands often report that their wives are less passionate than the husbands report themselves to be; (5) There are differences in the physical patterns of sexual response in husbands and wives; and (6) Women have more difficulty than men in achieving orgasm.

Expressing care in relationships through shared activity is another key area where gender differences have been cited (Rubin, 1985). Kraft and Vraa (1975) reported that girls do not tend to focus on shared activity in their relationships with close female friends, but rather they tend to form intimate relationships characterized by self-disclosure. The relationships of boys were found by Erwin
(1985) to focus on shared activities. These reports are consistent with the research of Caldwell and Peplau (1982), who found that females focus on intimacy more than males do, while males emphasize shared activity more than females do. These findings have been most directly substantiated in studies using the Rochester Interaction Record [RIR] (Nezlek, Wheeler & Reis, 1983; Wheeler & Nezlek, 1977; Wheeler, Reis & Nezlek, 1983). Wheeler et al. (1983) found that interactions between male friends were significantly less intimate than were interactions between female friends and all opposite-sex interactions.

One of the main purposes of Monsour's (1992) research was to further test the assertion that men express intimacy primarily through shared activity while women express intimacy primarily through communication. He found that while neither men nor women tend to utilize shared activity as a means of expressing care toward female friends, both men and women use shared activity to express care toward male friends (Monsour, 1992). Further, men use shared activity as an expression of care in relationships with their male friends more than women use this form of expressing care toward their male friends. Apparently, doing things together is a mode of expressing care with which men are both familiar and comfortable.

Eagly (1987) found that males have a strong tendency to engage in instrumental, task-oriented behavior (e.g., making
suggestions, giving information, expressing opinions). Females have a strong tendency to engage in affective, socioemotional-oriented behaviors (e.g., offering support, maintaining relationships).

While men may fail to measure up in modes of intimate expression that are commonly used by women, there are other ways of expressing care that men generally use and think are legitimate. Swain (1987) identified some of the modes of expressing intimacy which men utilize with their male friends and consider legitimate expressions of care:

(1) "Backstage behavior." This is men's relaxed, informal interactions with other men when women are not present. It includes joking, mock teasing, mock boasting, mock self-degradation, and other forms of unguarded, casual communication that are not commonly found in more formal work settings or in the presence of women. The point is not that these behaviors themselves are necessarily intimate, but that they would not occur where there was not trust, uninhibited communication, and feelings of closeness. Therefore, "backstage behavior" occurs only where a form of intimacy exists.

(2) Sharing interests and activities. Whereas women tend to emphasize verbal interaction, men seem to believe that "actions speak louder than words and carry greater interpersonal value" (Swain, 1987, p. 77). For men, the intimacy is not in the activity itself, but in the shared
nature of participating in it. "Men feel liked by other men as a result of being asked to spend time in activities of common interest. Within such active contexts, reciprocated assistance, physical gestures [handshakes, bear hugs, slaps on the back, an arm on the shoulder], language patterns, and joking behaviors [personal because it depends on personal awareness of a friend's history and nuances] all had distinctive meaning that indicated intimacy between male friends" (Swain, 1987, p. 80).

(3) Sports. The giving and receiving of help in a challenge context, accomplishing shared goals, a common experience of closeness without directly verbalizing the relationship, physical contact in a socially approved context, and sharing the mutual emotional excitement of victory are all viewed by men as elements of shared intimacy. These are central elements in sports, and explain, at least in part, men's seeming addiction to competitive sports and play. Sports is the only place in our society where men can share with each other, without societal disapproval, some of the most crucial aspects of intimacy (e.g., shared activity, physical contact, and uninhibited emotional expression) that they share with women in sex.

Swain (1987) concluded that there are gender differences in expressions of intimacy. He indicated that women are more comfortable with verbal and emotional forms
of intimacy while men are more likely to engage in the more physical and active styles of expressing intimacy. When men try to express intimacy in the more affective ways, they tend to do so within certain boundaries of emotional security. "Men's styles of intimacy attempt to minimize the risks taken when overtly expressing affection" (Swain, 1987, p. 83).

Gordon and Pasick (1991), studying intimacy in men, observed that men need personal closeness with each other as much as women do, but that they have learned to substitute socially acceptable forms of male intimacy for the more personal types of intimacy they actually desire and need. "What has replaced that blood-brother image is a fragmented male existence, one in which men relate only as sports or business competitors, co-workers, drinking buddies or tennis partners. But with the deadly cost of social isolation from our fellow man, we've begun to realize that we crave the benefits to be derived from deeper friendships with other men" (Gordon & Pasick, 1991, p. 49).

Explanations for gender differences. Those who concur with the idea that there are significant gender differences in intimacy are in almost universal agreement that these differences are culturally rather than biologically produced. Blumstein and Schwartz (1984) noted, "What differences we observed are primarily the result of the
different social organization of women's and men's lives in various cultural contexts" (p. 120).

Swain (1987) viewed gender differences in intimacy as a result of the social segregation of the sexes. He asserted the following:

Sex segregation begins at an early age....The separate contexts of men and women continue throughout the life cycle to shape the ways they express intimacy....The segregated contexts of men and women continue into adulthood, and shape the opportunities for expressing intimacy and the expectations of how that intimacy is to be expressed. (Swain, 1987, pp. 73-74)

Maccoby (1990) concluded that females form more intimate relationships because they are more prone to use enabling interactive styles--e.g., expressing agreement, offering support, maintaining the interaction (Hauser et al., 1987). Conversely, males form less intimate relationships because they are more prone to use restrictive interactive styles--e.g., interrupting, contradicting, boasting, self-display (Hauser et al., 1987). Maccoby (1990) offered a developmental explanation, suggesting that males and females are socialized into these separate interactive styles by their early participation in same-sex peer groups.

Chodorow (1978) attributed gender differences in intimacy to preoedipal influences on their orientation toward relationships. From the perspectives of object
relations theory and Marxism, she described gender differences in preoedipal (e.g., during the first three years of life) influences on orientations toward relationships:

From the retention of preoedipal attachments to their mother, growing girls come to define themselves as continuous with others; their experience of self contains more flexible or permeable ego boundaries. Boys come to define themselves as more separate and distinct, with a greater sense of rigid ego boundaries and differentiation. The basic feminine sense of self is connected to the world, the basic masculine sense of self is separate. This points to boys' preparation for participation in nonrelational spheres and to girls' greater potential for participation in relational spheres. It points also to different relational needs and fears in men and women. (Chodorow, 1978, p. 169)

In effect, object relations theory explains that women have higher capacities for intimacy than men because of gendered social arrangements in early childhood (Chodorow, 1978).

Rosenblum (1986) explained that American men have been socialized to display autonomy just as women have been urged to express care. Similarly, Balswick and Peek (1971) saw male inexpressiveness as a culturally produced temperament trait. They described two basic styles of male inexpressiveness: (1) the 'cowboy - John Wayne' style of almost total inarticulateness; (2) the cool, detached style of the 'playboy' who communicates only to exploit women. Further, they said that the inability of males to unlearn
inexpressiveness and properly relate to females was a major
dysfunction in marriages (Balswick & Peek, 1971).

Sattel (1976) maintained that Balswick and Peek's
(1971) idea of socialized male inexpressiveness was too
simplistic and absolute. He insisted, "While the norms of
our society may well call for all little boys to grow up to
be inexpressive, the inexpressiveness of the adult male
should never be regarded as complete or total as Balswick
and Peek would have it" (Sattel, 1976, p. 470). Further,
Sattel (1976) contended that Balswick and Peek's (1971)
suggestion that men simply unlearn inexpressiveness through
contact with women is unsatisfactory because it would make
the job of 'rescuing men' the responsibility of women. It
would be the wife’s responsibility to restore in her husband
the expressive ability that was taken from him in
socialization. Instead, Sattel (1976) acknowledged the
possibility that men might help themselves through enhanced
self-knowledge and contact with other men.

According to Gordon and Pasick (1991), the key factor
in men's difficulty in learning intimacy is the example of
their fathers. "Most men learned the aloneness habit from a
father who came home late from work and showed by his
example that emotional displays—from disappointment at not
getting picked for a ball team to sadness at being dumped by
that first girlfriend—were unacceptable. Fathers taught
sons to maintain emotional distance if they wanted to gain
their approval" (Gordon & Pasick, 1991, p. 49). The results of such socialization can be utterly devastating for boys as they grow into men.

We men are conditioned to think that our worth and financial success depend on our solitary performance and in keeping a lid on our emotions. The classic pattern is for men to increasingly lose themselves in their work as they get older and their emotional isolation from male friends and male family members grows more complete. This emotional coldness and withdrawal can also spread to the man/woman relationship as she tires of the one-sidedness of the support system. Superficial companionship is satisfying during the good times; it's when you go through one of life's built-in crises (such as the end of a relationship, loss of a job or death of a loved one) that you suffer from your lack of intimacy training. When there's no woman in the picture to provide emotional support, men often feel a terrible sense of loneliness, frequently accompanied by the obsessive and addictive behavior and workaholism. And the pattern repeats itself when each new crisis arises. Men who feel isolated grow older with an increasing dread of living with a loneliness that they feel powerless to heal. It is a sense of loss....The first thing you should do is examine your relationship with your father; that's the single most common source of male problems with intimacy. (Gordon & Pasick, 1991, pp. 50-52)

In explaining possible reasons why men sometimes have problems with intimacy, Myers (1989) especially emphasized two:

(1) Prior separation or divorce: Myers (1989) saw a possible link between intimacy and every aspect of a divorced man's relationship history--e.g., his previous
marriage, his divorce, his new relationship, and his anxiety about another relationship failure.

Many men who are in the midst of separation from their wives, or who have been divorced from their wives for a while, will come to therapists with a voiced concern about intimacy and their difficulties with it. Some men will say that it was their inability to be intimate in their marriages that crystallized their wife's decision to leave them. Other men, especially men who are leaving their wives, will mention diminished or lost intimacy in the marriage as one of the reasons why the marriage is no longer functioning. When a man has become involved with someone else before ending his marriage, he may also state that the intimacy with his wife had ended months or years earlier and that this emptiness has contributed to his meeting another person. Other men who have been on their own for some months or longer might complain to their therapists that they are having tremendous difficulty becoming intimate with women. (Myers, 1989, pp. 237-238)

(2) Family background: Myers (1989) also saw a link between men's difficulty with intimacy and the family environment in which he grew up.

In order to explore a man's problem with intimacy, it is necessary to have a full understanding of his personal and family background. Only by reviewing his parents' ability to be intimate with each other and their children is it possible to begin to construct a framework for the man's object relations with others as he grew up. The sociocultural milieu in which the man was raised is also important in shaping his ideas, feelings, and comfort with intimacy throughout his developmental years. (Myers, 1989, p. 238)

The study by Meyers (1989) confirmed earlier conclusions by Clinebell and Clinebell (1970) that family
background issues are extremely important in assessing intimacy in individuals. They indicated:

Those who in early life had to sacrifice their strivings toward independence in order to be loved and accepted by parents, tend to experience any closeness as a threat to their feelings of strength and adequacy. They are tortured by loneliness and a crying need for closeness, and at the same time by the fear of being hurt or crippled if they let another person near them. (Clinebell & Clinebell, 1970, p. 45)

Myers (1989) pointed out that the way these relationship history issues affect men’s capacity for intimacy is that previous experiences create in men some specific fears about intimacy. He lists them as follows:

1. Fear of merger. Men who have been deeply hurt in their marriages may fear merging in new relationships. They have built protective walls to insulate themselves from further hurt and to shield them so they can heal emotionally. Casual dating may be no problem, but they may fear serious relationships that carry the expectation of commitment. Sometimes this fear is conscious, and sometimes it is unconscious. In unconscious fears of merger, men often enter into a series of relationships which they carry to a certain level of involvement and then flee. Sometimes sexual dysfunctions are the surface manifestation of the fear of intimacy. Myers (1989) alleged that "the most common of these are impotence and retarded ejaculation. In the former, the erectile difficulty symbolizes their
ambivalence about the relationship and its seriousness; in the latter, the inability to have an orgasm, and to give up one’s semen represents the withholding of one’s self and the fear of surrender" (Myers, 1989, p. 239).

(2) Fear of exposure. Men may be reluctant to disclose much about themselves because of embarrassment, the need for privacy, or because of the betrayal they felt in a former relationship (especially among divorced men). Their fear that the experience of betrayal in a former relationship may be repeated in the present relationship can cause men to refrain from self-disclosure, and thereby, restrict the potential of intimacy.

(3) Fear of attack. Men may fear that anything they disclose about themselves may be ridiculed, criticized, or used against them in some way (especially true of depressed divorced men). The previous history of having something they disclosed in an intimate relationship later used against them can lead men to regret ever letting down their guard and vowing to never put themselves in such a vulnerable position again.

(4) Fear of abandonment. Men may be afraid that they will be rejected in the present relationship, just as they may have been in past relationships. They may avoid intimacy in order to inhibit relationship expectations and commitment, thereby minimizing the possibility of later abandonment in the relationship.
(5) Fear of their own destructive impulses. Men sometimes fear that if they become intimately committed to someone, they may do something to ruin the relationship or hurt someone. Because of persistent messages from society that men have inadequate relationship skills, they may fear that they will be unable to sustain an intimate relationship. This is further exacerbated if he has had negative relationship experiences in the past.

It should be noted that with the possible exception of the cumulative effect of society’s negative messages about men’s relationship skills (#5 above), the above situations may apply to women as well as to men. They are presented here as related specifically to men’s fear of intimacy because that is the context in which Myers (1989) presented them.

Reis et al. (1985) tested five hypothesized alternatives to the socialization explanation. They found that males and females interpreted the themes of intimacy similarly in standardized videos, disconfirming the hypothesis that males and females have different concepts of and criteria for intimacy. They further disconfirmed the hypothesis that males were more selective than females in the number of people with whom they would interact intimately and the number of situations in which they would do so. Also rejected was their hypothesis that conversations would be stereotypically labeled as intimate
or nonintimate based on the gender of the conversants rather than on the content of the conversations. The hypothesis that males' and females' conversation narratives would be similar in levels of intimacy but that men would be less willing to label their interactions as intimate was not supported; instead, independent observers saw substantive differences in the intimacy levels of males' and females' conversations, thereby indicating that it was not a mere labeling discrepancy. The alternative hypothesis that males simply do not have the same capacity to interact as intimately as do females was rejected as well, with the authors concluding, "Our results indicate that males are capable of interacting as intimately as females when the situation makes it desirable to do so" (Reis et al., 1985).

Overall, the study by Reis et al. (1985) indicated that while males and females have equivalent capacities for intimacy, men generally interact, and especially with other men, less intimately than women do. Five hypotheses offered as alternatives to the socialization explanation of gender differences in intimacy were all disconfirmed. Seemingly, the case was strengthened for socialization as the cause of inhibition in male intimacy.

**Summary of the Role of Gender in Marital Intimacy**

In summary, it was concluded from this review that there are some basic differences in men's and women's socialized orientations toward relationships. The author of
this dissertation took the perspective of Tannen (1990), who concluded, "There are gender differences...and we need to identify and understand them" (p. 17). This dissertation research neither ignored those differences as mere illusions nor called for maintaining the differences in order to use differentiation as a justification for the agenda of gender politics. Rather, the purpose of this research was to develop an instrument designed to identify and measure ways that both sexes tend to express intimacy. The intended result is to enable both men and women to transcend socialized differences in intimate expression, expand their concept of intimacy to include both affective and instrumental modes of expression, and develop better relationships.

Measures of Marital Intimacy

There are several previously established questionnaires and survey instruments that measure various aspects of intimacy. In the first part of this section, nine previous measures of marital intimacy will be described. Following these descriptions will be a discussion about the basic assumptions underlying the categories of intimacy included in these instruments. An analysis of the limitations of these instruments leads into the section on the need for the proposed Assessment of Intimacy in Marriage [AIM] instrument. Finally, a description of AIM will conclude the chapter.
Conceptual Description of the Instruments

a. Personal Assessment of Intimacy in Relationships [PAIR] (Schaefer & Olson, 1981):

Schaefer and Olson (1981) developed the Personal Assessment of Intimacy in Relationships [PAIR] Inventory to measure five types of intimacy (e.g., emotional intimacy, social intimacy, sexual intimacy, intellectual intimacy, and recreational intimacy) in relationships. Fowers (1990) gave the following description of the PAIR Inventory:

The PAIR (Personal Assessment of Intimacy in Relationships) inventory was designed to operationalize intimacy distinct from self-disclosure, satisfaction and other related constructs (Schaefer and Olson, 1981). Intimacy is conceptualized as an ongoing process within a relationship that is never completed or fully accomplished. Schaefer and Olson (1981) stated that "an intimate relationship is generally one in which an individual shares intimate experiences in several areas, and there is the expectation that the experiences and relationship will persist over time." (Fowers, 1990, p. 50)

The PAIR Inventory (Schaefer & Olson, 1981) is a 60-item self-report questionnaire that uses a Likert-scale with a 5-point response format. There are 10 statements for each of the five categories of intimacy, plus 10 statements to measure conventionality. The conventionality score indicates the extent to which the respondent is giving socially desirable answers rather than honest answers. For each of the 60 statements, the respondent marks the response which best indicates the extent of agreement with the
statement. Total scores are figured for each of the six subscales and are translated into a percentile-type score, with a range of 0 to 96. Both perceived and ideal perspectives are given by the respondent.

Sample items include:

We have very few friends in common.

I sometimes feel lonely when we are together.

My partner seems disinterested in sex.

b. The Interpersonal Relationship Scale [IRS] (Guerney, 1977):

The Interpersonal Relationship Scale [IRS] (Guerney, 1977) is "a questionnaire to determine the attitudes and feelings you have in your relationship with your partner" (Guerney, 1977, p. 349). It measures the quality of interpersonal relationships, particularly trust and intimacy. The IRS is a 52-item self-report questionnaire which uses a 5-point Likert scale for assessing interpersonal trust and intimacy.

Sample items include:

I share and discuss my problems with my partner.

I listen carefully to my partner and help him/her solve problems.

I can express deep, strong feelings to my partner.

c. The Psychosocial Intimacy Questionnaire [PIQ] (Tesch, 1985):

The Psychosocial Intimacy Questionnaire [PIQ] (Tesch,
1985) is a 60-item self-report questionnaire with one-half positive items and one-half negative items. A 6-point Likert-style response scale is used. Intimacy is conceptualized as having the following general dimensions:

(1) Emotional, practical and physical involvement. These are represented by dependability, helpfulness, affection, commitment, and sexual satisfaction.

(2) Open and unrestricted communication. This dimension of intimacy is represented by honesty, confiding, listening, trust, and constructive conflict.

(3) Appreciation of the partner as a unique individual. This is represented by the acceptance of weakness and differences in the partner, respect, concern for the partner’s well-being, and lack of jealousy or possessiveness.

The study seemed to conclude that intimacy is comprised of romantic love, supportiveness, and communication ease. The only notable difference between same-sex and opposite-sex intimacy was the absence of romantic involvement in the same-sex relationships (unless it is a romantic homosexual relationship).

Sample items include:

I talk to ______ about anything and everything.

_______ doesn’t take our relationship very seriously.
I would change jobs or schools in order to be near ______.

d. Miller Social Intimacy Scale [MSIS] (Miller & Lefcourt, 1982):

The Miller Social Intimacy Scale [MSIS] (Miller & Lefcourt, 1982) is a 17-item self-report questionnaire which measures the maximum level of intimacy currently experienced in the respondent's closest relationship. A Likert-scale is used with a 10-point response format, with responses ranging from very rarely to almost always. Six items ask about frequency of interactions and the remaining 11 deal with the intensity of feelings. The conceptualization of intimacy is virtually unstated, although the idea of "closeness with others" is implied.

Sample items include:

- How often do you show him/her affection?
- How much do you like to spend time alone with him/her?
- How important is it to you that he/she understands your feelings?

e. The Waring Intimacy Questionnaire [WIQ] (Waring & Reddon, 1983):

The Waring Intimacy Questionnaire (Waring & Reddon, 1983) is a 90-item self-report questionnaire that measures both the quality and quantity of intimacy in marriage. A true-false response format is used. The questionnaire
measures eight facets of intimacy—conflict resolution, affection, cohesion, sexuality, identity, autonomy, compatibility, and expressiveness. A social desirability scale is included to determine the extent to which respondents give socially desirable answers regardless of the content of the questions.

Sample items have not been published in family study journals or in books that assess instruments used in the social sciences.

f. Thematic Apperception Test [TAT] (McAdams, 1982):

According to McAdams (1982), the two basic tendencies in human lives are the intimacy motive (the desire to feel close to others) and the power motive (the desire to have an impact on others). Intimacy, therefore, is conceptualized as an enduring motive, reflecting one’s preference and readiness for closeness, warmth and communication in interpersonal relationships.

The Thematic Apperception Test (McAdams, 1982) is a projection test that measures social motives concerning intimacy and power. The respondent is given a series of pictures about which to write imaginative stories. The characters in the story are analyzed for the quality of their interpersonal relations. The scorer codes the presence or absence of ten themes related to the quality of interpersonal interaction:
(1) Relationship produces positive affect, liking, loving, good feelings.
(2) Characters communicate with each other in a non-instrumental and reciprocal manner.
(3) Relationship promotes the psychological growth or coping of one of the characters.
(4) A character commits self to another or shows humanitarian concern for others.
(5) A relationship transcends limits of space or time, enduring in the face of considerable temporal or logistic limitations.
(6) Characters come together (physically or psychologically) after being apart.
(7) Characters experience harmony or smoothness in relationships.
(8) Characters surrender control in the process of relating to each other.
(9) Characters escape from a cold and non-communicative situation or state to a situation or state affording warmth and communication.
(10) Characters experience a 'relationship' with the environment. (McAdams, 1985).


The Intimacy Status Interview and Rating Manual (Levitz-Jones & Orlofsky, 1985) uses semi-structured interviews to assess intimacy maturity in young adulthood. The first half of the interview assesses intimacy in a close friendship, while the second half assesses intimacy in a romantic relationship. Intimacy is conceptualized as the propensity and capacity to develop and maintain mutually satisfying close friendships and love relationships. Intimacy status is determined by four criteria: involvement with friends, commitment to an enduring love or other primary relationship, depth of communication and caring in close relationships, and the degree of dependence or autonomy in close relationships.
These combine into seven intimacy statuses, which are grouped into four relationship styles: (1) intimate and preintimate, (2) pseudointimate and stereotyped (3) merger committed and uncommitted, and (4) isolated.

Sample items include:

How would you describe your feelings for her/him?
Can you describe some of the experiences in which you’ve felt closest to her/him?
What kinds of things do the two of you talk about?...Do you share your worries and problems with her/him? (Can you give me some examples?)

h. Intimacy Scale (Walker & Thompson, 1983):

The Intimacy Scale (Walker & Thompson, 1983) measures perceived intimacy, conceptualized as emotional closeness in interpersonal relationships. The instrument is administered either by interview or paper-and-pencil format. It is a 17-item questionnaire with a 7-point Likert-type response scale. Responses range from "not true" to "always true."

Sample items include:

We want to spend time together.
S/he is important to me.
I’m sure of this relationship.

i. The Dyadic Support Scale [DSS] (Worell, 1985):

The Dyadic Support Scale [DSS] (Worell, 1985) is a 30-item self-report questionnaire with a 7-point Likert-type
response scale. It assesses two styles of emotional support in close relationships—agentic support (characterized by dominant behavior, self-interest, and cognitive problem-solving) and communal support (characterized by non-dominance, focus on the other person, and empathy). Responses range from "not at all" to "almost always." The DSS was designed for use with persons from early adolescence through adulthood.

Sample items include:

I tell my friend/partner how to solve a problem.

When my friend/partner is upset, I try to distract him/her by suggesting that we do some activity together (go to a movie, have a drink).

I give encouragement and praise to my friend/partner when I know s/he is attempting something difficult.

Basic Assumptions about Intimacy in the Instruments that Measure Intimacy

Several assumptions about intimacy are apparent from the above review of established instruments that measure intimacy. This section of the research will highlight some of the more significant assumptions inherent in the development of the instruments named above.

It is evident that most of the developers of the instruments view intimacy as a multi-dimensional construct.

Key elements which the instruments' authors considered central to the concept of intimacy were:

Emotional closeness (Schaefer & Olson, 1981; Tesch, 1985; Miller & Lefcourt, 1982; McAdams, 1982; Levitz-Jones & Orlofsky, 1982; Walker & Thompson, 1983; Worell, 1985; implied in others);

Communication (Tesch, 1985; McAdams, 1982; Levitz-Jones & Orlofsky, 1985; implied in others);

Physical affection (Schaefer & Olson, 1981; Tesch, 1985; Waring & Reddon, 1983; implied in others).

It is apparent that the established instruments which measure intimacy focus almost exclusively on the affective expressions of intimacy. Intimacy is most closely associated with emotional closeness, verbal self-disclosure, commitment to the relationship, empathy for the partner, romantic love, and other similar affective concepts.
### Table 1
Content Analysis of Intimacy Measures

<table>
<thead>
<tr>
<th>Dimensions of Intimacy</th>
<th>Instruments</th>
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<tbody>
<tr>
<td></td>
<td>PAIR</td>
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<tr>
<td>Affective Support</td>
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<td>in Crisis</td>
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<tr>
<td>Appreciation</td>
<td></td>
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<tr>
<td>of Partner</td>
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<tr>
<td>Autonomy</td>
<td></td>
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<tr>
<td>Commitment</td>
<td></td>
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<tr>
<td>(cohesion)</td>
<td></td>
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<tr>
<td>Communication</td>
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<td>Compatibility</td>
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<td>Conflict Resolution</td>
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<td>Conventionality</td>
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<td>Emotional</td>
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<td></td>
<td></td>
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<tr>
<td>Identity</td>
<td></td>
</tr>
<tr>
<td>(couple’s esteem)</td>
<td></td>
</tr>
<tr>
<td>Instrumental Support in Crisis</td>
<td></td>
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<tr>
<td>Intellectual</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Intimacy Motive</td>
<td></td>
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<tr>
<td>Physical (nonsexual)</td>
<td></td>
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<tr>
<td>Physical (sexual)</td>
<td></td>
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<tr>
<td>Psychosocial</td>
<td></td>
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<tr>
<td>Shared Activity</td>
<td></td>
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<tr>
<td>Social</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- PAIR = Personal Assessment of Intimacy in Relationships (Schaefer & Olson, 1981)
- IRS = Interpersonal Relationship Scale (Schlein, Guerney & Stover, 1977)
- PIQ = Psychosocial Intimacy Questionnaire (Tesch, 1985)
- MSIS = Miller Social Intimacy Scale (Miller & Lefcourt, 1982)
- WIQ = Waring Intimacy Questionnaire (Waring & Reddon, 1983)
- TAT = Thematic Apperception Test (Murray, 1943; adapted by McAdams, 1982)
- ISI = Intimacy Status Interview (Orlofsky & Levitz-Jones, 1985)
- IS = Intimacy Scale (Walker & Thompson, 1983)
- DSS = Dyadic Support Scale (Worell, 1985)
Instrumental concepts are included in few instances: recreational intimacy (Schaefer & Olson, 1981), practical help (Tesch, 1982), problem-solving (Worell, 1985). Debatably, sex can also be considered an instrumental expression of intimacy; measures of sexual behavior are included by Schaefer and Olson (1981), Tesch (1985), Waring and Reddon (1983), and implied in others.

Eighteen dimensions of intimacy were included in the nine instruments reviewed (see Table 1). None of the instruments used all 18 dimensions. In fact, there was a range from one to eight dimensions in any one instrument. Emotional intimacy was used in four of the instruments. Physical (sexual) intimacy and commitment intimacy were each used in three instruments. Given the multidimensional characteristic of intimacy, it would seem that an adequate instrument would have to measure several dimensions. The WIQ and the PIQ each included eight dimensions. Even so, many important dimensions of intimacy were left out of these two instruments.

Validity and Reliability of the Instruments

These nine instruments were subjected to tests of reliability and validity. Table 2 shows the tests of reliability and validity for the previously established measures of intimacy. Most of the reliability coefficients are very good, some as high as .97; however, there were three in the 0.60s and 0.70s. Every instrument was
Table 2
Reliability and Validity of Established Measures of Marital Intimacy and Related Concepts

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Name of Scale</th>
<th>Year</th>
<th>Reliability</th>
<th>Validity</th>
<th>#O</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAdams</td>
<td>Thematic Apperception Test</td>
<td>1982</td>
<td>NR</td>
<td>Cnstr</td>
<td>NA</td>
<td>1428</td>
</tr>
<tr>
<td>Miller &amp; Lefcourt</td>
<td>Miller Social Intimacy Scale</td>
<td>1982</td>
<td>Cr(\alpha)=.91 Rtt=.96</td>
<td>Cnvr</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>Olson &amp; Schaefer</td>
<td>Personal Assessment of Intimacy in Relationships</td>
<td>1981</td>
<td>S-1/2: .73</td>
<td>Cnstr</td>
<td>60</td>
<td>384</td>
</tr>
<tr>
<td>Orlofsky &amp; Levitz-Jones</td>
<td>Intimacy Status Interview and Rating Manual</td>
<td>1985</td>
<td>IRR=.81</td>
<td>Crtrn</td>
<td>NA</td>
<td>60</td>
</tr>
<tr>
<td>Schlein, Guerney &amp; Stover</td>
<td>Interpersonal Relationship Scale</td>
<td>1977</td>
<td>Rtt=.92</td>
<td>Cnvr</td>
<td>52</td>
<td>40</td>
</tr>
<tr>
<td>Tesch</td>
<td>Psychosocial Intimacy Questionnaire</td>
<td>1985</td>
<td>ICA=.97 Rtt=.84</td>
<td>Cnvr</td>
<td>60</td>
<td>86</td>
</tr>
<tr>
<td>Walker &amp; Thompson</td>
<td>Intimacy Scale</td>
<td>1983</td>
<td>C(\alpha)=.91-.97</td>
<td>Cnstr</td>
<td>17</td>
<td>478</td>
</tr>
<tr>
<td>Waring &amp; Reddon</td>
<td>Waring Intimacy Questionnaire</td>
<td>1983</td>
<td>ICA=.65 Rtt=.83</td>
<td>Cnvr</td>
<td>90</td>
<td>248</td>
</tr>
<tr>
<td>Worell &amp; Lange</td>
<td>Dyadic Support Scale</td>
<td>1985</td>
<td>C(\alpha)=.87-.91</td>
<td>Cnvr</td>
<td>30</td>
<td>NR</td>
</tr>
</tbody>
</table>

Legend:
- **Reliability**:
  - Cr\(\alpha\) = Cronbach's Coefficient alpha
  - ICA = Internal consistency alpha coefficient
  - IRR = Inter-rater reliability
  - Rtt = Test-retest correlation
  - S-1/2 = Split-half test

- **Validity**:
  - Cnvr = Concurrent validity
  - Cnstr = Construct validity
  - Cntnt = Content validity
  - Ctrn = Criterion validity
  - Dscrm = Discriminant validity
  - Prdct = Predictive validity

- **Other**:
  - NR = not reported
  - NA = not applicable
  - #O = number of items
  - n = sample size
subjected to at least one type of validity testing and four of them reported as many as three types of validity. Even though each of the instruments is considered to be valid and reliable, the content is not inclusive enough.

The Need for a New Instrument for Marital Intimacy

Swain (1987) asserted that researchers, operating from the bias of the "feminization of love" (Cancian, 1985), have assumed that verbal self-disclosure is the definitive reference for intimacy, and have thus overlooked other forms of intimate behavior or misinterpreted them as less intimate or non-intimate. As a result, there is a male-deficit model in which women have been characterized as intimate (e.g., defined by the "feminization of love" as being expressive, communal, and empathic), while men have generally been characterized as non-intimate (e.g., defined by the "feminization of love" as being instrumental, agentive, and task-oriented).

Swain (1987) insisted that the overall differences in men's and women's level of intimacy in relationships have been exaggerated. The gender differences, he maintained, are not in the level of intimacy but in the modes of expression (Swain, 1987). He observed that "men and women may place the same value on intimacy in friendships, yet have different ways of assessing intimacy. Men are reported to express a wider range of intimate behaviors, including
self-disclosure, while participating in gender-validating activities" (Swain, 1987, p. 72).

Since intimacy is usually defined in the ways women typically express it, men’s ways of expressing intimacy are often either overlooked or interpreted as something other than intimacy. Swain (1987) correctly pointed out that "the deficit model of male expressiveness does not recognize men’s active style of intimacy, and stresses men’s need to be taught feminine-typed skills to foster intimacy in their relationships" (p. 85).

As discussed in the previous section, other instruments that measure marital intimacy tend to focus primarily on the affective modes of intimate expression typically thought to be expressed by women. For example, in scoring the Thematic Apperception Test, McAdams (1982) insisted that only non-instrumental communication could be coded as intimate behavior.

Hodgson and Fischer (1979) examined sex differences in the processes of identity and intimacy development among college youths by using an instrument that rejected male intimacy. They hypothesized that more women than men would score in the highest intimacy categories. The hypothesis assumed the accuracy of the male-deficit model. They found that 33 of the 50 women, but only 21 of the 50 men, scored in the two highest categories of intimacy, which supported their hypothesis. However, the instrument they used, the
Intimacy Status Interview (Orlofsky, Marcia, & Lesser, 1973), was structured to ask for only the "feminized" expressions of intimacy (e.g., "warm" emotional feelings, verbal communication, and self-disclosure). When a typically male mode of expressing intimacy (e.g., shared activity) was mentioned, it was used as a negative example of what intimacy is not.

Morgan (1976) found that males and females tend to disclose similarly on "low intimacy topics," but that females disclose more than males on "high intimacy topics." While this finding supports the male-deficit model, the results are again affected by the researcher’s "feminized" concept of which topics are "high intimacy" (e.g., love, loneliness, inferiority feelings) and "low intimacy" (e.g., hobbies, sports, food preferences).

Hacker (1981) expressed surprise in her finding that more than one-fifth of the respondents in her study did not demonstrate a strong correlation between self-disclosure and closeness in personal relationships. She admitted that "we see that high feelings of closeness do not always bring high self-disclosure in their wake" (Hacker, 1981, p. 399). Yet, even with that information, she continued to use self-disclosure as the major ingredient in her concept of intimacy. Further, even after reporting that "a higher percentage of men than of women report feeling comfortable in revealing both weaknesses and strengths in both same-sex
and cross-sex relationships" (Hacker, 1981, p. 393), she concluded that "women, apparently, have a greater capacity for intimacy and self-disclosure" (Hacker, 1981, p. 398).

Summary

Intimacy is conceptualized in several different ways. This research viewed these conceptualizations as complementary rather than competing. The instrument developed here measured intimate behaviors in marriage, not because behaviors are the only "correct" conceptualization of intimacy, but because behaviors are the best single indicator of the various aspects of intimacy.

While several theoretical perspectives are used to study intimacy, this research took the perspective of the equity theory. This theory posits that relationships are more fulfilling and stable when the partners perceive that they are making similar investments in the relationship, and that what they receive from those relationships is worth those investments.

While men tend to express their care in more instrumental ways and women in more affective ways, instruments that measure intimacy focus primarily on affective expressions of intimacy. Instruments that have previously measured intimacy in heterosexual relationships have generally either failed to acknowledge instrumental modes of expressing intimacy or have used instrumental expressions as examples of what intimacy is not. The need
is for an instrument to identify and measure ways that both sexes tend to express intimacy. Such an instrument could be used in the counseling setting to enable both men and women to transcend socialized differences in intimate expression, expand their concept of intimacy to include both affective and instrumental modes of expression, and develop better relationships. The Assessment of Intimacy in Marriage [AIM] instrument was developed for such an application.
CHAPTER III
METHODOLOGY

The purpose of this research was to design an instrument to assess intimacy in marriage. Since the Assessment of Intimacy in Marriage [AIM] instrument is new, a major part of the research was to assess the validity and reliability of the instrument. In this chapter, the theory of measurement is discussed with an emphasis on the validity and reliability of survey instruments. Historical measures of intimacy (discussed in Chapter II) are reviewed, with a summary of the validity and reliability of these measures. Procedures used to develop the AIM instrument are detailed. Also, specific procedures for assessing the validity and reliability of the AIM instrument are described.

Theories of Measurement

Definition of Measurement

Measurement is a central concept in the development of an instrument in the social sciences. Carmines and Zeller (1979) have defined measurement as "the process of linking abstract concepts to empirical indicants" (p. 10). Another definition frequently cited is the one given by Mason and Bramble (1989): "Measurement is the process of assigning numbers to objects according to a set of rules" (p. 149).
Before accurate measurement of abstract constructs can occur, they must be both conceptualized and operationalized. Conceptualization of a construct means to clearly explain what the construct means. One of the main foci of the review of the literature was to conceptualize intimacy, thereby answering the question, "What is intimacy?"

Operationalizing a concept means to present the concept in some measurable form. One of the main foci of this chapter on methodology is to operationalize intimacy, thereby answering the question, "How can the researcher accurately measure intimacy?"

**Measurement Postulates**

Kerlinger (1964) listed three postulates that are basic to measurement, defining postulates as assumptions about the relationship between objects. He stated that these postulates are prerequisites for carrying out an operation or developing a line of reasoning based on the relationship between objects (Kerlinger, 1964).

**Postulate 1:** Either \((a=b)\) or \((a\neq b)\), but not both. This postulate is important because classification requires that we be able to conclude, based on a stated criterion, that two objects are the same in a characteristic or they are not. If they are the same in the characteristic, we classify them together as members of the same set. If they are not, we classify them in different sets.
Postulate 2: If \((a=b)\) and \((b=c)\), then \((a=c)\). This postulate is important because it allows objects not easily observed to be categorized by their relationship to more easily observable objects.

Postulate 3: If \((a>b)\) and \((b>c)\), then \((a>c)\). This is sometimes called the transitivity postulate. The symbols ">" ("is greater than") and "<" ("is less than") can be replaced by "is more likely to," "has more of," "precedes," and similar concepts. This postulate is very important in research that requires ordinal or rank-order statements.

Scales of Measurement

There are four kinds of measurement scales. The scales —nominal, ordinal, interval, and ratio—allow for an ascending level of complexity in statistical analysis.

Nominal scales name objects, using numbers to identify them. The numbers are merely labels or names without numerical meaning. They cannot be added, ordered, or ranked. For example, a marital status scale might use the following numbers to identify the marital statuses: Single = 1, Engaged = 2, Cohabitating = 3, Married = 4, Separated = 5, Divorced = 6, Remarried = 7, Widowed = 8; but these numbers do not imply rank. This type of measurement allows for the lowest level of statistical analysis—frequency or percentages, possibly used in a Chi-square analysis or shown in central tendencies. The only rules required for nominal measurement are that all members of the same set must be
assigned the same number and no two sets will be assigned the same number. Nominal measurement must satisfy Postulate 1 and Postulate 2. Illustrating Postulate 1, a person is either married \((a = b)\) or not married \((a \neq b)\), but not both. To illustrate Postulate 2, a married couple who converses with each other \((a)\) is a couple who is interested in the relationship \((b)\) \([\text{therefore, } a = b]\); and a couple who is interested in the relationship \((b)\) works toward keeping the relationship together \((c)\) \([\text{therefore, } b = c]\); consequently, a couple who converses with each other \((a)\) works toward keeping the relationship together \((c)\) \([\text{that is, } a = c]\).

*Ordinal scales* measure the relative amounts of a trait or characteristic. Ordinal measurement ranks the objects of a set by listing them in order relative to one another based on the degree a trait or characteristic is present or absent in each object. For example, the measure of academic performance in high school is often described in terms of rank order \((\text{e.g., } "\text{She graduated 43rd in a senior class of 281.}"\) Ordinal numbers represent rank order only. They do not indicate absolute quantities or values, and they cannot be assumed to represent intervals. Referring to the example used above, the number "43" assigned to the graduating senior does not represent any real value such as a grade or intelligence quotient; nor does it imply that her grades were twice as high as those of the student who ranked 86th. It is merely an indication of the where this student's grade
point average would be placed in a ranking of the grade point averages of all the graduating seniors in her school. In marital intimacy, an ordinal scale would measure the importance of an ordered characteristic such as affection (e.g., neither partner affectionate, one partner affectionate toward the other, both partners affectionate toward each other). Postulate 3 must be satisfied before ordinal measurement can occur. Postulate 3 would be satisfied in the given example because neither partner affectionate (a) is lesser intimacy than one partner affectionate toward the other (b) [therefore, a < b], and one partner affectionate toward the other (b) is lesser intimacy than both partners affectionate toward each other (c) [therefore, b < c]; consequently, neither partner affectionate (a) is lesser intimacy than both partners affectionate toward each other (c) [that is, a < c].

Ordinal scales allow for a more difficult level of statistical analysis, such as Spearman-Brown correlation and Wilcox's Rank Order test.

Interval scales possess the qualities of nominal and ordinal scales. In ordinal scales, rank order can be determined, but the distance between the ranks is not necessarily equal. For example, how do we know the distance between "one partner affectionate toward the other" and "both partners affectionate toward each other?" In interval scales, there are equal intervals between
consecutive points on the scale. This means that equal distances on the scale represent equal differences in the property being measured. Kerlinger (1964) observed that "in the social sciences, ordinal scales often have assumed equality of interval. The argument is evidential. If we have...two or three measures of the same variable, and these measures are all substantially and linearly related, then equal intervals can be assumed" (p. 440). For example, Likert’s (1929) classic article showed that the response scales "strongly agree... agree...disagree... strongly disagree" are of equal intervals. Interval scales allow for a higher level of statistical analysis such as Kendall’s tau correlation, t-tests, ANOVA, and regression.

*Ratio scales* are considered the highest level of measurement (Kerlinger, 1964). Ratio scales possess the qualities of nominal, ordinal, and interval scales, but also have the added dimension of a 0 (zero) for the absence of the trait being measured. The presence of zero (the absence of the quality being measured) makes it possible to also multiply and divide scores, whereas they could only be added and subtracted in interval scales. Age is an example of an ratio scale. As with an ordinal scale, we can rank the ages of four people aged 20, 48, 15, and 54. As with an interval scale, we can deduce that the distance in years between a 12-year-old and a 14-year-old is the same as the difference between a 65-year-old and a 67-year-old. Additionally,
since zero has empirical meaning (e.g., no years of age), it can also be stated that a 20-year-old is twice as old as a 10-year-old. In subtracting numbers in interval scales, it is intervals (e.g., distances), not quantities (e.g., amounts) that are being calculated. With ratio scales, it is the actual amount of the property that is being measured. Using the age example, ratio means the actual amount of age (e.g., Subject A is actually 24 years of age) is being measured rather than merely the intervals between the ages of the subjects (e.g., Subject A is 4 years older than Subject B). In marital intimacy scales, this would mean that a ratio measure would indicate the actual amount of intimacy a marriage partner expresses (e.g., Subject A expresses Intellectual Intimacy at a level of 23 on a scale of 0 to 30) rather than merely indicating that one partner expresses more intimacy than does the other partner (e.g., By a score of 23 to 19, Subject A’s Intellectual Intimacy score is higher than Subject B’s Intellectual Intimacy score). The assumptions of all parametric statistics require ratio scales.

The Auxiliary Theory of Validity

In the social sciences, we do not usually measure constructs directly; rather, we measure behaviors and characteristics that we think represent those constructs. The measurement is the link between the empirical indicator (the observable response) and the theoretical construct (the
underlying concept that the response represents). In the
case of intimacy, we do not measure the construct directly.
Instead, we empirically measure behaviors or appraisals that
are believed to be theoretically sound representative
indicators of intimacy. The stronger the relationship is
between the empirical indicators and the underlying theory,
the more accurate and useful are the inferences that can be
made about the underlying concepts. If the link between the
concept of intimacy and the empirical indicators is
theoretically solid, the results of the measurement given by
the instrument can be interpreted as relevant to the concept
of intimacy. This relationship between indicators and
concepts is called the auxiliary theory (Carmines & Zeller,
1979).

The relationship between the empirical measure and the
underlying concept is determined by assessing the validity
and reliability of the instrument. Both validity and
reliability are qualities which are somewhat present and
somewhat absent rather than qualities which are totally
present or totally absent. Both validity and reliability
are matters of degree. The assessment of these two
important qualities was crucial to the development of an
instrument to measure marital intimacy.

Validity

Validity is the degree to which a test measures what it
claims to measure. There are three main types of validity
which are usually evaluated—content validity, construct validity, and criterion validity. Convergent validity and discriminant validity are subsets of construct validity. Concurrent validity and predictive validity are subsets of criterion validity.

**Content validity** is the degree to which the items in the instrument represent the domain or universe of the trait or property being measured. If, for example, a test claimed to measure knowledge in the field of science, but asked questions only on the subject of biology, the test would not have content validity because it would have omitted several other key subjects in the field of science (e.g., chemistry, physics, astronomy).

Determining what constitutes the domain of the trait being measured is somewhat subjective in that experts decide after much experience what is known in a field. It is best determined by a comprehensive review of the related literature and by consultation with established professionals who have demonstrated expertise in the subject matter. Both of these were used in this research. While there is no precisely determined degree of content validity that an instrument should have, the author should be able to substantiate that an instrument has a high degree of content validity when it is evaluated on the basis of logic and the related literature. Only then can the author claim that the instrument represents the domain being studied.
Construct validity is the degree to which the instrument performs according to theoretical expectations. If an instrument has construct validity, it is based on logical relationships among the variables (Babbie, 1992). Suppose, for example, that an instrument measures marital satisfaction. Further, suppose that there is a theorized link between marital satisfaction and level of communication. If those who obtain high scores on the marital satisfaction instrument also score high on a separate communication instrument, that is some evidence of the instrument's construct validity.

According to Carmines and Zeller (1979), if construct validity results are negative, there are several possible interpretations: (1) the instrument lacks construct validity; (2) the theoretical framework used to generate the empirical predictions is incorrect; (3) the methodology used to test the hypotheses is faulty; or (4) there is a lack of reliability in some other variable in the analysis.

There are two important considerations in evaluating an instrument's construct validity: (1) the theory underlying the construct, and (2) the adequacy of the test in measuring the construct. The consideration of the theory depends on subjective analysis of the literature pertaining to the theory and the concept. Testing an instrument's adequacy to measure the construct is done through examining the
instrument for convergent validity and discriminant validity.

To examine *convergent validity*, data are gathered using an established method that is different from the one used by the instrument under consideration, then compared with data gathered from the instrument being assessed. There should be a high correlation between the two instruments for convergent validity to be indicated.

In establishing *discriminant validity*, it must be demonstrated that the construct being measured may be discriminated from other constructs that may be similar or related. For example, marital satisfaction and marital adjustment are theorized to be closely linked but different concepts. If respondents were given a marital satisfaction test and a marital adjustment test, the correlation should be high enough to support the theoretical link between the two concepts (convergent validity), but not so high that the two concepts cannot be distinguished (discriminant validity). A good (thereby indicating convergent validity), but not absolute (thereby indicating discriminant validity), correlation is evidence of construct validity. Greater construct validity is thus established through convergent and discriminant validity.

*Criterion validity* is the ability of a test to predict or estimate a criterion. This can best be understood by
examining the two types of criterion-related validity: concurrent validity and predictive validity.

**Concurrent validity** is the ability of the measure to accurately reflect the present status of the criterion. For example, do the results of a test which measures integrity in financial dealings correlate positively and strongly with the results of audits of the actual financial dealings of the respondents? If so, this is an indication that the test has concurrent validity.

**Predictive validity** is the ability of the instrument to predict the presence or absence of the characteristic in the future. How accurately, for example, does the Scholastic Aptitude Test [SAT] predict academic success in college? To the extent that it does, predictive validity is indicated.

Criterion validity is usually derived by computing a correlation between performance on the instrument and performance on the criterion. This correlation is known as the validity coefficient (Carmines & Zeller, 1979). A different validity coefficient is computed for every criterion. This type of validity often poses a problem in the social sciences. "It is important to recognize that criterion validation procedures cannot be applied to all measurement situations in the social sciences. The most important limitation is that, for many if not most measures in the social sciences, there simply do not exist any
relevant criterion variables" (Carmines & Zeller, 1979, p. 19).

**Reliability**

Reliability is the consistency of the test score. It can also be viewed as the dependability or stability of the measure. Technically, the reliability of a measure is the ratio of the variance in true scores to the variance in observed scores:

\[ r_{xx} = \frac{v^2_t}{v^2_o} = \frac{v^2_t}{v^2_t + v^2_e} \]

where

- \( r_{xx} \) = reliability
- \( v^2_t \) = variance in true scores
- \( v^2_o \) = variance in observed scores
- \( v^2_e \) = variance of error

If, for example, \( r_{xx} = .80 \), that means that 80% of the variance in the observed scores is attributable to true score variance.

There are three basic approaches to estimate reliability for stability, equivalence, and internal consistency (Mason & Bramble, 1989):

1. Test the **stability** of the instrument. This is done by administering the test at a given point in time and then administering the test to the same group of people again at a later point in time. Computing the correlation coefficient between the scores on the test and the scores on the retest yields a "stability coefficient." This means that a higher stability coefficient indicates a higher likelihood that the instrument is consistent over time;
thereby, its scores are less likely to reflect relatively insignificant and unrepresentative incidents that have occurred in the relationship recently.

There are at least three problems and limitations of the test-retest procedure. First, there is the possibility that changes in the test scores across too much time may indicate real changes in the subject’s perception of the concept itself (e.g., the subject feels differently about the concept than during the first testing) rather than a low reliability of the test. Second is the problem of reactivity, which is the possibility that taking the test may influence the subject to view the concept differently after the test. Third, there is a likelihood that the subject’s memory of his or her responses on the first test will affect the responses he or she gives on the retest.

(2) Determine equivalence by administering two equivalent forms of the test to the same subjects, and then correlating scores on the two forms of the test. The limitations of using this form of reliability testing include the following—the difficulty of constructing a parallel alternative form of the test; and, as with the test-retest method, the inability to distinguish real change in the subject’s perception of the concept from low reliability in the test.

Both stability and equivalence can be evaluated by combining #1 and #2. Two equivalent forms of the test can
be administered in the same time period, and this procedure can be repeated again with the same group of people at a later point in time.

(3) Testing the instrument’s **internal consistency** assesses the consistency or stability of performance among test items. The question addressed by this assessment is, "Does each item in the questionnaire give an equally accurate measure of the construct?"

The internal consistency of an instrument can be tested by several methods. These methods are briefly described below with accompanying formulas:

The *Spearman-Brown Formula* splits the test into halves to assess whether the halves give consistent measures. Essentially, each item is correlated with one other item. The equation for the Spearman-Brown Formula is:

$$ r_{xx} = \frac{2r_{oe}}{1 + r_{oe}} $$

where $r_{xx}$ = reliability  
$r_{oe}$ = correlation of odd/even items

This procedure is not appropriate when time limits are used on the test because a total score is necessary to compute the coefficient.

*Cronbach’s coefficient alpha* is used when a test has no "correct" answers. For example, a test of the capital cities of the 50 states has "correct" answers (e.g., Raleigh is the capital city of North Carolina), but a personality test has no "correct" answers (e.g., A person whose
responses indicate a personality preference for introversion is just as "correct" as a person whose responses indicate a personality preference for extroversion). The Cronbach coefficient alpha gives an estimate of the mean of the alpha coefficients obtained for all possible combinations of test items. The Cronbach coefficient alpha is especially appealing to the researcher because it requires only one administration of the test. As a general rule, when the average correlation among items increases and the number of items increases, the Cronbach coefficient alpha also increases. Carmines and Zeller (1979) suggest that a Cronbach coefficient alpha of at least 0.80 should be obtained to give evidence of a test's internal reliability.

The foregoing discussion about validity and reliability assumed that the data came from instruments that could be mathematically scored. Correlation coefficients for either reliability or validity are between 0.00 and 1.00, with higher coefficients indicating higher levels of reliability. As a general rule, Carmines and Zeller (1976) indicate that reliabilities should not fall below 0.80 for widely used scales. Some statisticians suggest that a reliability coefficient should be 0.90. For the purposes of this research, a Cronbach coefficient alpha of 0.80 was considered evidence of internal consistency in each intimacy category. A stability coefficient of 0.80 from Pearson's correlation statistic was considered evidence of the AIM
instrument's stability over time in each intimacy category. Coefficient alphas and stability coefficients of at least 0.90 were desired, with levels below 0.80 considered unacceptable. Validity coefficients were also measured by Pearson's correlation statistic. A validity coefficient of 0.80 was considered as acceptable.

**Procedure for Developing the AIM Instrument**

Spanier (1976) suggested the following order of developing a new instrument: (1) Produce a pool of all items used in similar instruments measuring intimacy, (2) eliminate duplicate items, (3) consult with a group of experts to examine the remaining items for content validity, (4) add new items (and/or use alternative wording) for areas of the concept believed to have been ignored or under-represented, and finally, (5) test the psychometric properties of the instrument.

Essentially, this order was followed for developing the AIM instrument. The purpose of this research was to assess the psychometric properties of the instrument.

**Organization and Scaling of the AIM Instrument**

The Assessment of Intimacy in Marriage [AIM] instrument measures 10 categories of marital intimacy, with six items in each category. Each statement is responded to on a five-point Likert-type scale. These 60 items form the basis for the instrument. They are used to measure intimacy status in four ways from each respondent: perception of current status
for self, perception of current status for spouse, perception of desired status for self, and perception of desired status for spouse.

The first half of the instrument is entitled "Current Levels of Intimacy" and has two sections: "About Me..." and "About My Partner..." The last half of the instrument is entitled "Desired Levels of Intimacy" and has two sections: "About Me..." and "About My Partner..."

Each of these four sections of the instrument has the same ten intimacy categories: Social Intimacy, Emotional Intimacy, Intellectual Intimacy, Physical (non-sexual) Intimacy, Physical (Sexual) Intimacy, Spiritual Intimacy, Shared Activity Intimacy, Crisis (affective) Intimacy, Crisis (instrumental) Intimacy, and Commitment Intimacy. Within each category, there are six items, making a total of 60 items in each of the four sections. These 60 items are responded to four times (as described below) for a total of 240 answers. The four sections of the instrument are further described as follows:

(1) The first 60 statements comprise the "About Me..." section of the "Current Levels of Intimacy" part of the instrument. The responses to these 60 statements indicate the respondent's assessment of his or her own levels of intimacy in the marriage at the present time. The following response scale is used:
Symbol | Meaning       | Score
-------|---------------|------
SA     | Strongly agree| 5    
A      | Agree         | 4    
N      | Neutral/Undecided | 3    
D      | Disagree      | 2    
SD     | Strongly Disagree | 1    

(2) The next 60 statements comprise the "About My Partner..." section of the "Current Levels of Intimacy" part of the instrument. These 60 items utilize the same statements as the first 60 items, but with the pronouns changed so the respondent is assessing his or her partner’s levels of intimacy in the marriage at the present time. For example, "Even if I was unhappy in my marriage, I would continue to be devoted to my partner" (indicating the respondent’s assessment of his or her own level of Commitment Intimacy) in the first section of the AIM instrument becomes "Even if my partner was unhappy in our marriage, he or she would continue to be devoted to me" (indicating the respondent’s assessment of his or her partner’s level of Commitment Intimacy) in the second section.

The following response scale is used:

Symbol | Meaning       | Score
-------|---------------|------
SA     | Strongly agree| 5    
A      | Agree         | 4    
N      | Neutral/Undecided | 3    
D      | Disagree      | 2    
SD     | Strongly Disagree | 1    

(3) The next 60 statements comprise the "About Me..." section of the "Desired Levels of Intimacy" part of the
instrument. The responses to these 60 statements indicate the respondent’s desired levels of intimacy for himself or herself.

The following response scale is used:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD</td>
<td>Highly desirable (I very much want to be like this)</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>Desirable (I think I want to be like this)</td>
<td>4</td>
</tr>
<tr>
<td>N</td>
<td>Neutral (I’m unsure how much I want to be like this)</td>
<td>3</td>
</tr>
<tr>
<td>U</td>
<td>Undesirable (I don’t think I want to be like this)</td>
<td>2</td>
</tr>
<tr>
<td>HU</td>
<td>Highly undesirable (I definitely don’t want to be like this)</td>
<td>1</td>
</tr>
</tbody>
</table>

(4) The next 60 statements comprise the "About My Partner..." section of the "Desired Levels of Intimacy" part of the instrument. The responses to these 60 statements indicate the respondent’s desired levels of intimacy for his or her partner.

The following response scale is used:

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<tr>
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<td>Desirable (I think I want my partner to be like this)</td>
<td>4</td>
</tr>
<tr>
<td>N</td>
<td>Neutral (I’m unsure how much I want my partner to be like this)</td>
<td>3</td>
</tr>
</tbody>
</table>
The scores for the six statements within each intimacy category are summed to give ten subscale scores in each of the four sections of the instrument. For example, each respondent has scores representing his or her assessment of (1) his or her own current level of Emotional Intimacy, (2) his or her partner's current level of Emotional Intimacy, (3) the level of Emotional Intimacy he or she desires in himself or herself, and (4) the level of Emotional Intimacy he or she desires in his or her partner.

These same types of scores are computed for each of the ten categories of intimacy.

Each respondent's scores for the ten categories of intimacy are summed for each section of the instrument. The results are (1) a total score representing his or her assessment of the current level of intimacy in himself or herself, (2) a total score representing his or her assessment of the current level of intimacy in his or her partner, (3) a total score representing his or her assessment of the desired level of intimacy in himself or herself, (4) a total score representing his or her assessment of the desired level of intimacy in his or her partner.
Although the scores on the desired level of intimacy for self or spouse were not used in the assessment of validity and reliability for the basic 60 items, there are two reasons Part 2 (Desired Levels of Intimacy) is included in the AIM instrument. Both reasons are related to the need to further clarify the interpretation of scores derived from Part 1 (Current Levels of Intimacy). Specifically, those reasons are:

(1) It is unlikely that a low score in the current level of a particular category of intimacy indicates a problem in the relationship unless that category of intimacy is a quality the couple highly desires. For example, Couple A and Couple B may both have low scores on Intellectual Intimacy. The likelihood of this indicating a problem in the relationship is not apparent until the scores from Part 2 (Desired Levels of Intimacy) are examined. Suppose one member of Couple A indicates a high desire for Intellectual Intimacy, while both members indicate low levels of Intellectual Intimacy currently existing in the relationship. In Couple B, both members indicate low levels of Intellectual Intimacy currently existing in the relationship, but both partners also indicate a low desire for Intellectual Intimacy. The overall interpretation is that the low level of Intellectual Intimacy is more likely to be a problem in Couple A's relationship than in the relationship of Couple B.
(2) While intimate behaviors facilitate the state of intimacy in a relationship, it is also true that the state of a relationship exerts an influence on the type of intimate behaviors that are expressed in that relationship. It may be, for example, that a person marks "SD" (strongly disagree) as the response to the following item: "I am affectionate toward my partner." That information alone is not enough to allow a certain interpretation of the response. Does this mean that the respondent is not an affectionate person (thereby reflecting his or her own willingness or capacity for Physical [non-sexual] Intimacy), or does this mean that he or she would like to be an affectionate person but is not allowed to be affectionate in this particular relationship (thereby reflecting his or her partner's willingness or capacity for Physical [nonsexual] Intimacy)?

This uncertainty can be resolved by examining the scores in Part 2 (Desired Levels of Intimacy). If the respondent marked "HD" (highly desired) in response to "I am intimate toward my partner," then the "SD" (strongly disagree) response to this item in Part 1 (Current Levels of Intimacy) probably indicates that he or she has a high willingness or capacity for Physical (non-sexual) Intimacy, but that this particular relationship has inhibited or disallowed his or her opportunity to express that affection. If, though, the respondent marked "HU" (highly undesired) in
response to "I am intimate toward my partner," then the "SD" (strongly disagree) response to this item in Part 1 (Current Levels of Intimacy) probably indicates the respondent's own lack of capacity for affection.

Further information can be gained by cross-referencing this respondent's questionnaire with that of his or her spouse. If the results are still difficult to interpret, this ambiguity could be addressed with the couple, either in a meeting where the results of the questionnaire are discussed or with a counselor who is working with the couple to enrich their relationship.

The Contents of the AIM Instrument

The following 60 items are the basic statements thought to be representative of the ten categories of intimacy included in the AIM instrument. These statements were subjected to an item analysis in the form of a Q-sort, in which established professionals in the field analyzed the discriminant validity of the instrument.

In the questionnaire, each of the 60 items is listed four times, totaling 240 statements for each subject to respond to as follows: (1) once to ascertain the respondent's assessment of his or her own current levels of intimacy in each of the ten intimacy categories, (2) once to ascertain the respondent's assessment of his or her partner's current levels of intimacy in each of the ten intimacy categories, (3) once to ascertain the respondent's
assessment of his or her own desired levels of intimacy in each of the ten intimacy categories, (4) once to ascertain the respondent's assessment of his or her partner's desired levels of intimacy in each of the ten intimacy categories.

The names of the intimacy categories are not included in the questionnaire, and the items for each intimacy category are dispersed throughout each of the four lists of 60 items in the instrument.

**BASIC INTIMACY STATEMENTS FOR AIM**

**Social Intimacy** (sharing common friends and social networks):

1. I consider my friends to be my partner's friends as well.
2. I include my partner in activities I share with my friends.
3. I enjoy the time my partner and I spend with other people.
4. I do not enjoy being with my partner's friends and I wish he/she spent less time with them. [reverse score]
5. I do not feel close to my partner when we are with other people. [reverse score]
6. My friends are not my partner's friends. [reverse score]

**Emotional Intimacy** (sharing your feelings with your partner and being sensitive to your partner's feelings):
1. I keep my feelings to myself. [reverse score]
2. I understand how my partner feels about things.
3. I am sensitive to my partner’s moods and feelings.
4. I am open and honest with my partner about my feelings.
5. My partner may find me hard to get close to emotionally. [reverse score]
6. I seem to misunderstand how my partner feels about things. [reverse score]

**Intellectual Intimacy** (sharing ideas, thoughts, and opinions)

1. When I read, hear, or see something interesting, I tell my partner all about it.
2. I discuss world events and social issues with my partner.
3. When I have a decision to make, I like to discuss it with my partner because I value his/her opinion.
4. I do not find talking with my partner to be intellectually stimulating. [reverse score]
5. I do not like to discuss with my partner things that we disagree on. [reverse score]
6. There are issues and ideas important to me that I do not talk with my partner about. [reverse score]

**Physical (non-sexual) Intimacy** (sharing expressions of care through affection and non-sexual forms of touch):
1. I reach out and hold my partner's hand when we are walking together in public.
2. I am not openly affectionate toward my partner when we are in public. [reverse score]
3. I often hug, touch or kiss my partner for no special reason.
4. I am affectionate toward my partner.
5. I am less affectionate than my partner. [reverse score]
6. I am not affectionate toward my partner. [reverse score]

**Physical (sexual) Intimacy** (sharing expressions of care through sexual behavior):

1. I know my partner's sexual needs and desires, and I try to respond to them.
2. I am comfortable and expressive in my sexual relations with my partner.
3. Having sex with my partner is one of the ways I show I care.
4. When it comes to having sex with my partner, I do not make the first move. [reverse score]
5. I am not as interested in our sexual relations as my partner is. [reverse score]
6. I am uncomfortable and inexpressive in my sexual relations with my partner. [reverse score]
Spiritual Intimacy (sharing a common purpose of life and a mutual spiritual bond):

1. I try to maintain a spiritual relationship with my partner.
2. An essential part of my relationship with my partner is our mutual spiritual commitment.
3. It is not important to me to try to build a strong spiritual bond with my partner. [reverse score]
4. I do not try to maintain a spiritual relationship with my partner. [reverse score]
5. I do not consider a mutual spiritual commitment with my partner to be an essential part of our relationship. [reverse score]
6. It is important to me to try to build a strong spiritual bond with my partner.

Shared Activity Intimacy (sharing common interests and doing things together):

1. I express my love and care for my partner by doing things with him/her.
2. Doing things with my partner does not make me feel closer to him/her. [reverse score]
3. I would rather not do things with my partner unless it is something I am personally interested in. [reverse score]
4. Things I enjoy doing are more meaningful to me when my partner participates with me.
5. I feel close to my partner when we do things together.

6. I do not consider doing things with my partner to be a way I express my love and care for him/her. [reverse score]

**Crisis (affective) Intimacy** (sharing expressions of care in times of difficulty through support, empathy and encouragement):

1. When there is a problem or crisis in our family, I make a special effort to be supportive of my partner.

2. My partner cannot count on me being sympathetic and caring when times are tough. [reverse score]

3. In troubled times, my partner can lean on me.

4. I do not think I am able to offer much support for my partner in times of crisis. [reverse score]

5. I am a source of strength for my partner in difficult times.

6. When there is a problem or crisis in our family, I do not make a special effort to be supportive of my partner. [reverse score]

**Crisis (instrumental) Intimacy** (sharing expressions of care in times of difficulty through offering practical help and assistance):

1. When my partner has a problem or crisis, I make every effort to help him/her solve the problem.
2. I try to suggest options or solutions for solving difficulties my partner experiences.

3. In times of stress or trouble, my partner can count on me to help with what needs to be done.

4. I feel helpless to do anything useful for my partner when he/she is going through a crisis. [reverse score]

5. When my partner is having a crisis or problem, I am not very helpful. [reverse score]

6. When my partner experiences difficulty, I avoid becoming involved in helping him/her solve it. [reverse score]

Commitment Intimacy (sharing personal dedication to the partner and to the relationship):

1. I would seriously consider ending the marriage if I was unhappy in the relationship.

2. Even if I was unhappy in my marriage, I would continue to be devoted to my partner.

3. Even if my partner and I had serious problems, I would not seriously consider leaving the marriage.

4. If my marriage began to take more from me than it was giving to me, I would seriously consider leaving. [reverse score]

5. When I have serious disagreements with my partner, I wonder how much I really want to be in this marriage. [reverse score]
6. Even if my marriage began to take more from me than it was giving to me, I would not seriously consider leaving.

Procedures for Validating the AIM Instrument

Validation of the AIM instrument was assessed for the basic 60 items designed to measure the respondents’ perception of their own current intimacy. In addition, validity was assessed for the 60 items used in measuring the respondents’ perception of their spouses’ current intimacy. Measurements of desired intimacy will not be subjected to psychometric evaluation until the validity and reliability of the 60 basic items can be established.

Content Validity

For the purposes of this study, content validity was understood as the degree to which the items in the Assessment of Intimacy in Marriage [AIM] instrument represent the domain or full scope of intimacy. Two primary methods were utilized to confirm content validity: (1) the domain of intimacy as measured in the AIM instrument was compared with the domain of intimacy as described in the research and literature, and (2) feedback from experts in the field of marital interaction was evaluated.

Construct Validity

Whether specified categories of intimacy cover the scope of intimacy was a concern of content validity. However, whether the specific items in the AIM instrument
really measured these categories of intimacy was a concern of construct validity. Evidence of construct validity was given by establishing convergent validity and discriminant validity.

**Discriminant validity** was established by the use of a Q-sort, a method of identifying sets of variables that correlate highly among themselves but not with other variables (Kerlinger, 1964). In a Q-sort, people are asked to sort a set of objects, ideas, or statements into a set of categories according to some stated criterion. While unstructured Q sorts test the ability of individuals to correctly put items in the right category, structured Q sorts test a theoretical proposition about how the items which will be grouped by the individuals relate to one another. "If the theory is 'valid,' and if the Q sort adequately expresses the theory, two rather big 'if's,' the statistical analyses of the sorts should show the theory's validity" (Kerlinger, 1964, p. 589). Because of the nature of the AIM instrument, a structured Q-sort was utilized. The pool of items for the AIM instrument was developed from a theoretical base to represent specific categories of intimacy. The Q-sort tested whether the theoretically based groupings of the items were valid.

**Convergent validity** was established by comparing the data gathered from the AIM instrument with data gathered
from established instruments which measure similar concepts of intimacy.

**Criterion Validity**

Criterion validity is the ability of an instrument to predict or estimate a criterion (e.g., the activity or concept against which the instrument is judged). Evidence of the instrument's criterion validity is given by establishing the concurrent validity and predictive validity of the instrument. Concurrent validity is the capacity of an instrument to accurately reflect the present status of a given criterion. Predictive validity is the capacity of an instrument to accurately predict the status of a given criterion in the future.

In this study, dyadic adjustment was the criterion against which **concurrent validity** was evaluated. The relationship between marital intimacy and dyadic adjustment was assessed by administering Spanier's (1976) Dyadic Adjustment Scale to 23 of the couples who completed the AIM questionnaire. A Pearson correlation coefficient was computed on the AIM and DAS scores.

Marital stability was the criterion against which **predictive validity** was evaluated. The most effective and accurate way to establish the predictive validity of the AIM instrument would be to do a longitudinal study, following up years later to determine how many couples in the sample remained married and how many divorced, and ascertaining the
relationship between the AIM scores in the present study and the subsequent stability of the marriages over a period of years. Because of time constraints and logistical considerations, the instrument's predictive validity was evaluated in two ways: (1) the literature on the relationship between intimacy and divorce was reviewed, and (2) the Q-sort participants were asked to give, based on their training and experience in counseling, their professional estimation of the relationship between the level of intimacy in marriages and the long-term stability of those relationships. In the Q-sort packet, the participants were given instructions for this analysis (see Appendix A). Answering the questions about the relationship between intimacy and marital stability was voluntary and was not required in order to participate in the Q-sort.

**Procedures for Assessing the Reliability of the AIM Instrument**

Two kinds of reliability were tested in the AIM instrument--internal consistency and stability over time. Internal consistency assesses the consistency or stability of performance among test items. This assessment addresses the question, "Does each item in the questionnaire give an equally accurate measure of the construct?" Assessing stability over time addressed the question, "Would the same results be yielded if the test was given at different points in time?"
**Internal Consistency**

Since, by the nature of the AIM instrument, there were no "correct" or "incorrect" answers, the *internal consistency of the instrument* was assessed by computing the Cronbach coefficient alpha. This alpha is equivalent to the mean of all the correlations derived if every possible pair of combinations of test items was correlated. The formula for computing Cronbach’s coefficient alpha is:

\[
a = \frac{k}{k-1} \left[ 1 - \left( \frac{\sum S_i^2}{S_o^2} \right) \right]
\]

where:
- \(a\) = Cronbach’s coefficient alpha
- \(k\) = number of items on the test
- \(\sum S_i^2\) = the sum of item variances (that is, how the subjects varied in their responses to each item)
- \(S_o^2\) = variance of all scores on the total test

**Stability over Time**

Assessing the *stability of the instrument over time* was done by administering the test at a given point in time and then administering the test to the same group of people again approximately three weeks later. The correlation between the mean scores on the original test and the mean scores on the retest was computed to yield a stability coefficient. For each of the ten categories of intimacy, the mean score of the original test was correlated with the mean score of the retest.
Procedures for Collecting the Data

Sample

A purposeful sample was used. A probability sample would be required to generalize the findings to a larger population, but this study was designed to do an item analysis and scale assessment of the AIM instrument. Therefore, a probability sample was not required.

One hundred students in undergraduate Family Studies classes recruited married couples to complete the AIM questionnaire. The sample included only married couples who were both willing to participate. The couples completed the questionnaire independently and returned them in sealed envelopes to the researcher. The present marriage was not required to be their first marriage. The respondents must have been married for at least two years. This amount of time was deemed necessary for the marriage to settle down from its "honeymoon phase" and for realistic assessment of intimacy to be given. This was especially important for the test-retest procedure, where newly married couples might have given significantly discrepant answers over a three-week period, not because the instrument gathered unreliable data, but because the relationships themselves were still in a volatile state.

Table 3 shows the demographic characteristics of the sample which consisted of 100 married couples. Ninety-three
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<th>Characteristic</th>
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<th>Female</th>
<th>Total</th>
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<td>100 (50.0)</td>
</tr>
<tr>
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<td>100 (50.0)</td>
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<td>100 (100.0)</td>
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<td>1 (1.0)</td>
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<td>100 (100.0)</td>
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<td>99 (100.0)</td>
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<td>1 (0.5)</td>
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<td>2 (1.0)</td>
</tr>
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<td>40,000-49,999</td>
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<td>NA</td>
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</tr>
<tr>
<td>50,000+</td>
<td>NA</td>
<td>NA</td>
<td>106 (55.2)</td>
</tr>
<tr>
<td></td>
<td>192* (100.0)</td>
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</table>

* Missing data
of the men and 90 of the women were married for the first time, while six of the men and 10 of the women were remarried; one man did not report his marital status. The race was representative of the population in that most couples were Caucasian (85), 10 couples were African-American, four couples were Native American or Caucasian men married to Native American women, and one couple was Asian-American.

Over one-third of the couples were in their 40's. Those in their 20's and 30's comprised more than one-third of the sample. Only three people were in their teens. Five people were in their 70's. Cumulatively, 38.5% of the respondents were less than forty years old, 55.0% were in their forties or fifties, and 6.5% were age 60 or older.

Nearly half of the respondents had college degrees or above. Five respondents (four men and one woman) had less than a high school education. Cumulatively, 22.6% of the respondents had never attended college, while 77.4% had some college education, with 50.3% graduating from college. A graduate degree had been earned by 14.9% of the respondents.

Over half of these couples had family incomes over $50,000. Another third had incomes between $30,000 and $50,000. Cumulatively, 13.0% of the respondents reported a family income of less than $30,000; 31.8% reported a family income of $30,000-49,999; 55.2% reported a family income of $50,000 or more.
Administering the AIM Instrument

Each student was provided with two 9 1/2" X 12 1/2" manila envelopes, one packet to be given to the participating husband and the other to the participating wife. Each packet contained the following items: an Informed Consent sheet (see Appendix B), a cover/title page (see Appendix C), a letter of instructions (see Appendix D), a Background Information section (see Appendix E), and the 240-item AIM questionnaire with appropriate instructions throughout (see Appendix F for a copy of the AIM questionnaire as revised based on analysis of the Q-sort).

In addition to receiving the AIM instrument, most of the couples also received other instruments in their packets (see Appendix G). For the purpose of assessing convergent validity, the Personal Assessment of Intimacy in Relationships [PAIR] (Olson, 1981) and Commitment Index [CI] (Stanley & Markman, 1992) instruments were included in the AIM packets of 21 couples; and the Waring Intimacy Questionnaire [WIQ] (Waring, 1983), Dyadic Support Scale [DSS] (Worell & Lange, 1985), and Spiritual Dimension of Marriage [SDM] (adapted from Clinebell & Clinebell, 1970) instruments were included in the AIM packets of 23 couples. For the purpose of assessing concurrent validity, the Dyadic Adjustment Scale [DAS] (Spanier, 1976) was included in the AIM packets of 25 couples. No other instruments were included in the AIM packets of 27 couples because they were
tested a second time to assess AIM’s stability over time. It was thought that exposure to other instruments measuring similar concepts may have altered the respondents’ perception of the constructs being measured, and therefore, might have produced different scores on the AIM retest.

**Summary of instrument distribution:**

- 21 couples—AIM, PAIR, CI
- 23 couples—AIM, WIQ, DSS, SDM
- 25 couples—AIM, DAS
- 31 couples—AIM (pre-test)
  AIM (post-test returned by 27 of the 31 couples)

Instructions for administering the instrument were given to the students. Key parts of the instructions included: (1) The students were to emphasize to the respondents the careful measures taken by the researcher to ensure confidentiality [see the information regarding confidentiality included on the Informed Consent sheet found in Appendix B]; (2) the husband and wife were to complete their questionnaires separately without discussing or reading each other’s answers; (3) the husband and wife were to put their completed questionnaires in separate envelopes, seal them, and sign them across the seal; (4) the student was to return the envelopes unopened to the researcher; (5) the Informed Consent sheet (the only part of the AIM instrument containing the respondent’s name) would be removed from all the returned AIM instruments before any
were read and analyzed; (6) no names would ever be included in the research findings, summaries or presentations; (7) the returned AIM instruments would be kept in a locked file and would be destroyed after the research is completed.

The data from the first administration of the instrument (January, 1993) were used in several ways:

(1) to compute a Cronbach coefficient alpha for the purpose of testing the instrument’s internal consistency;

(2) to assess the AIM instrument’s convergent validity by comparing scores from the AIM instrument with scores from simultaneously administered established instruments which measure similar concepts of intimacy;

(3) the initial step in a test-retest procedure.

The second administration (February, 1993), three weeks after the first administration, was the retest step in the test-retest procedure, used to assess the instrument’s stability over time.
CHAPTER IV
RESULTS AND DISCUSSION

The development of the Assessment of Intimacy in Marriage (AIM) instrument used the standard procedures in the following manner. First, assessment of content validity involved studying the literature, discussion with a small group of experts, and a Q-sort by a larger number of experts. The content of the AIM instrument included 10 intimacy categories of six items each for a total of 60 items with a 5-point response scale. Using these 60 items, validity and reliability were assessed only for current intimacy for self and spouse. Although data for desired level of intimacy for self and spouse were collected, they were not used for assessing validity and reliability of the 60 basic items. The mean scores and standard deviations of the ten intimacy categories by sex of respondent for self and spouse are in Appendix H. The total scores for each sex were very similar, but scores were different among the categories. Because the purpose of this dissertation was to assess validity and reliability, no statistical comparison of these scores was calculated. These scores were then used in the assessment of construct and criterion validity, and
were also used to assess two types of reliability: internal consistency and stability over time.

**Introduction to Results**

Overall, the AIM instrument showed satisfactory levels of validity and reliability. Content, construct, and criterion validity were included. Content validity was strong for the entire AIM instrument. Construct validity was moderate to strong for men and women. One sub-type of construct validity, discriminant validity, was considered to be strong and the other sub-type, convergent validity, was moderate to strong in most of the intimacy categories for both men and women. This was particularly so for Physical (sexual), Intellectual, and Physical (non-sexual) Intimacy. In addition, convergent validity was strong for Social and Emotional Intimacy for women. Both sub-types of criterion validity—concurrent validity and predictive validity—were strong for both men and women. Emotional, Commitment, Spiritual and Physical (sexual) Intimacy were especially high in predictive validity for both sexes.

Reliability was tested by determining the internal consistency and stability of the AIM instrument. Internal consistency was moderate to high for most of AIM’s intimacy categories. Stability across time was high for both men’s and women’s self-assessment scores and moderately high for both men’s and women’s partner-assessment scores.
Validity

Content Validity

Two primary methods were utilized to assess content validity: (1) the domain of intimacy as measured in the AIM instrument was compared with the domain of intimacy as described in the research and literature, and (2) feedback from experts in the field of marital interaction was evaluated.

Literature review. A careful review of the related literature gave confirmation that the domain of intimacy described in this study was consistent with the domain of intimacy described in the literature. A systematic analysis of this relationship enabled the author to further ascertain the content validity of the instrument. Many researchers (Monsour, 1992; Olson, 1975; Clinebell & Clinebell, 1970; Waring, 1984; Dahms, 1976) agree that intimacy is a multi-dimensional construct. Further, the categories of intimacy measured by the AIM instrument are consistent with categories of intimacy measured in previously established instruments, though not in the same combination as found in the AIM instrument.

Content experts. An important resource for this content analysis was feedback from content experts. This feedback came from three main sources: (1) The researcher consulted with professional family researchers and educators who had a strong understanding of the concept of intimacy
and the dynamics of expressing it. (2) Feedback was gathered from discussions at professional meetings where the researcher presented the ideas included in this research. (3) The researcher made numerous presentations at weekly meetings of a research team consisting of four other persons—specifically, two Family Studies professors and two Family Studies doctoral candidates. Individual items were retained only if professionals considered them to be relevant measures of intimacy in marriage, valid expressions of the categories of intimacy they represent, and clearly worded so that respondents would understand the statement and be able to respond appropriately.

One example of how this feedback was used took place at a five-state family studies conference. At that time, the researcher included only nine categories of intimacy. The meaning given to Crisis Intimacy by the conference participants showed that there were at least two distinctly different kinds of Crisis Intimacy: (1) Crisis [affective] Intimacy, which is emotional support in times of crisis, and (2) Crisis [instrumental] Intimacy, which is practical help and problem solving in times of crisis. As a result, the original category of "Crisis Intimacy" became two categories, "Crisis (affective) Intimacy" and "Crisis (instrumental) Intimacy." Consequently, the AIM instrument which formerly had nine categories of intimacy now had ten categories.
Based on a comparison of the domain of intimacy in the AIM instrument with the domain of intimacy from research, literature, and feedback from experts in the field, content validity was confirmed. While intimacy is an intangible and inexhaustible construct, the AIM instrument covers the domain to a reasonable and acceptable extent.

**Construct Validity**

When discriminant validity and convergent validity are confirmed, they serve as evidence of construct validity. Discriminant validity shows that the categories do not overlap. Convergent validity show that the instrument is measuring intimacy consistently with other instruments.

**Discriminant validity.** Discriminant validity was assessed by the use of a Q-sort, a method of identifying sets of variables that correlate highly among themselves but not with other variables (Kerlinger, 1964). The researcher asked 60 content experts in the field of marital interaction, each independently, to place the 60 items of the AIM instrument into the categories of a two-way structured Q-sort. There were 36 experts who participated in the Q-sort. Of these, 20 were men and 16 were women. Their occupations were as follows: one minister, four therapists, five social workers, and 27 family life educators. Of the 24 who did not participate, two did not receive the request because of an incorrect address, two responded after the results had been tabulated, 16 did not
respond to the request to participate, and five were sent the Q-sort packets but did not return them.

Each participant received a packet containing two large envelopes, one green and the other white, both labeled "Items for the Assessment of Intimacy in Marriage [AIM] Instrument." Each envelope contained two identical sets of the 60 items of the AIM instrument with each item printed on an individual card. The 60 items came from the six items in each of the 10 categories of intimacy. The cards had been randomly placed in each set.

The larger green envelope contained 10 small empty green envelopes, each labeled with the name and definition of one of the 10 intimacy categories: Social Intimacy, Emotional Intimacy, Intellectual Intimacy, Shared Activity Intimacy, Spiritual Intimacy, Crisis Intimacy I (emotional support), Crisis Intimacy II (practical help), Physical (non-sexual) Intimacy, Physical (sexual) Intimacy, or Commitment Intimacy. The Q-sort participants were asked to sort this set of 60 items of the AIM instrument found in the large green envelope labeled "Items for the Assessment of Intimacy in Marriage [AIM] Instrument" into the ten smaller green envelopes.

A second identical set of 60 items of the AIM instrument was found in the large white envelope labeled "Items for the Assessment of Intimacy in Marriage [AIM] Instrument." In this large white envelope were three small
white envelopes, each labeled with the name and definition of one of the modes of intimate expression: Affective Expression, Instrumental Expression, or Other. The participants sorted these 60 items into the three small white envelopes labeled with the modes of intimate expression. The specific instructions to the participants are given in Appendix A.

The AIM instrument items, placed into these categories of intimacy and modes of intimate expression, were then analyzed to determine the level of agreement among the participants about the placement of the items. Any item that was consistently placed by the Q-sort participants into a category of intimacy and/or a mode of intimate expression different from those projected by the researcher were re-evaluated by the researcher to clarify conceptual issues before the item was included in the AIM instrument. Any item that was placed inconsistently into various categories by the Q-sort participants was deemed ambiguous and was studied and revised before inclusion in the final version of the AIM instrument.

Discriminant validity was indicated for items which were placed consistently into each of the 10 categories of intimacy and three modes of intimate expression by the participants in the Q-sort. In order for an item to be considered as representative of a particular category of intimacy, at least 80% of the Q-sort participants must sort
that item into that particular category of intimacy. Most (54) of the 60 items met that criterion. The other six items were revised, after discussion with a group of experts, to correct the problem indicated by the Q-sort results (see Appendix I).

The three categories of intimacy most consistently agreed upon to be affective expressions and the three categories of intimacy most consistently agreed upon to be instrumental expressions were used as representative examples of those modes of expression. Of the 10 categories of intimacy, the three most consistently considered to be affective expressions were Emotional Intimacy, Crisis (affective) Intimacy, and Spiritual Intimacy. The three most consistently considered to be instrumental expressions were Crisis (instrumental) Intimacy, Shared Activity Intimacy, and Physical (sexual) Intimacy.

Convergent validity. Convergent validity was assessed by comparing the data gathered from the AIM instrument with data gathered from established instruments which measure similar concepts of intimacy. In addition to the AIM instrument, 10 scales from five other instruments were administered to use in computing a validity coefficient.

A set of 21 couples completed the AIM, PAIR, and CI instruments. From those data, the following validity coefficients were computed:
Personal Assessment of Intimacy in Relationships (PAIR)

Olson's (1981) Personal Assessment of Intimacy in Relationships (PAIR) inventory contained subscales similar to five in the AIM instrument. All five of these scales were administered to 21 of the 100 couples who had also completed the AIM instrument. The subscales in the PAIR inventory (see Appendix G) are similar in concept to these five categories in the AIM instrument: Emotional Intimacy, Social Intimacy, Sexual Intimacy, Intellectual Intimacy, and Recreational Intimacy. Recreational Intimacy in the PAIR inventory is comparable to Shared Activity Intimacy in the AIM instrument.

Since the data from both instruments are interval, a Pearson correlation statistic was used to correlate the PAIR subscale scores with the scores from comparable sections of the AIM instrument. Since the husbands' and wives' scores could not be considered independent observations, correlations were computed separately for the husbands' scores and the wives' scores. Table 4 shows the correlations of the scores for the five categories of intimacy found in both the AIM and PAIR instruments. Because PAIR assesses the level of intimacy in the overall relationship rather than the level of intimacy contributed only by the person completing the questionnaire, the most comparable measure on the AIM instrument with which to compare the PAIR scores was the sum of the respondents'
Table 4
Correlation of AIM Scores by Intimacy Type With Scores of Similar Concepts On the PAIR Instrument

<table>
<thead>
<tr>
<th>Intimacy Type and Instrument</th>
<th>Possible Range</th>
<th>Men's Scores</th>
<th>Women's Scores</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Sexual (AIM)</td>
<td>12-60*</td>
<td>45.90 6.58</td>
<td>45.00 7.42</td>
<td>21</td>
</tr>
<tr>
<td>Sexual (PAIR)</td>
<td>0-24</td>
<td>15.48 5.63</td>
<td>17.00 4.22</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r = 0.81</td>
<td>r = 0.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = 0.0001</td>
<td>p = 0.0001</td>
<td></td>
</tr>
<tr>
<td>Social (AIM)</td>
<td>12-60*</td>
<td>44.00 5.89</td>
<td>43.00 6.74</td>
<td>21</td>
</tr>
<tr>
<td>Social (PAIR)</td>
<td>0-24</td>
<td>16.52 3.94</td>
<td>16.43 5.19</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r = 0.67</td>
<td>r = 0.90</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = 0.0010</td>
<td>p = 0.0001</td>
<td></td>
</tr>
<tr>
<td>Emotional (AIM)</td>
<td>12-60*</td>
<td>44.95 6.17</td>
<td>44.24 8.25</td>
<td>21</td>
</tr>
<tr>
<td>Emotional (PAIR)</td>
<td>0-24</td>
<td>16.57 4.57</td>
<td>15.14 5.99</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r = 0.67</td>
<td>r = 0.90</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = 0.0008</td>
<td>p = 0.0001</td>
<td></td>
</tr>
<tr>
<td>Intellectual (AIM)</td>
<td>12-60*</td>
<td>46.38 5.45</td>
<td>45.71 7.74</td>
<td>21</td>
</tr>
<tr>
<td>Intellectual (PAIR)</td>
<td>0-24</td>
<td>15.86 4.02</td>
<td>15.57 4.50</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r = 0.52</td>
<td>r = 0.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = 0.0164</td>
<td>p = 0.0002</td>
<td></td>
</tr>
<tr>
<td>Shared Activity (AIM)</td>
<td>12-60*</td>
<td>47.90 5.96</td>
<td>48.24 6.79</td>
<td>21</td>
</tr>
<tr>
<td>Recreational (PAIR)</td>
<td>0-24</td>
<td>15.19 3.56</td>
<td>15.38 5.26</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r = 0.31</td>
<td>r = 0.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = 0.1786</td>
<td>p = 0.0121</td>
<td></td>
</tr>
</tbody>
</table>

* Sum of respondent's self scores and partner scores to obtain a relationship score.
assessment of their own intimacy and the respondents' assessment of their partner's intimacy in each of the applicable categories. The Pearson's correlations coefficient was higher for women than for men in all five categories. All coefficients were significant. They ranged from 0.90 to 0.54 for the women and from 0.81 to 0.31 for the men. Shared activity was the lowest for both men and women.

a. **Physical (sexual) Intimacy.** Scores on AIM's Physical (sexual) Intimacy items were correlated with scores on PAIR's Sexual Intimacy items. Table 4 shows that the correlation coefficient for Physical (sexual) Intimacy was 0.81 \( (p = 0.0001) \) for women and 0.82 \( (p = 0.0001) \) for men.

b. **Social Intimacy.** Scores on AIM's Social Intimacy items were correlated with scores on PAIR's Social Intimacy items. Table 4 shows that the correlation coefficient for Social Intimacy was 0.90 \( (p = 0.0001) \) for women and 0.67 \( (p = 0.0010) \) for men.

c. **Emotional Intimacy.** Scores on AIM's Emotional Intimacy items were correlated with scores on PAIR's Emotional Intimacy items. Table 4 shows that the correlation coefficient for Emotional Intimacy was 0.90 \( (p = 0.0001) \) for women and 0.67 \( (p = 0.0008) \) for men.

d. **Intellectual Intimacy.** Scores on AIM's Intellectual Intimacy items were correlated with scores on PAIR's Intellectual Intimacy items. Table 4 shows that the
correlation coefficient for Intellectual Intimacy was 0.73
\( (p = 0.0002) \) for women and 0.52 \( (p = 0.0164) \) for men.

e. **Shared Activity Intimacy.** Scores on AIM's Shared
Activity Intimacy items were correlated with scores on
PAIR's Recreational Intimacy items. Table 4 shows that the
correlation coefficient for Shared Activity Intimacy was
0.54 \( (p = 0.0121) \) for women and 0.31 \( (p = 0.1786) \) for men.

(2) **Commitment Index (CI)**

The Dedication Commitment portion of the Commitment
Index (CI) (Stanley & Markman, 1992) [see Appendix G] is
similar in concept to one of the AIM categories: Commitment
Intimacy. Since the data from both instruments are
interval, a Pearson correlation statistic was used to
compare the CI scores with the Commitment Intimacy scores of
the AIM instrument. Table 5 shows the correlation of the
Commitment Intimacy scores on the AIM instrument and the
scores from the Dedication Commitment portion of the CI
questionnaire. Because the CI assesses the level of
commitment offered only by the person completing the
questionnaire rather than the level of commitment in the
overall relationship, the most comparable measure on the AIM
instrument with which to compare the CI scores was the
respondents' assessment of only their own Commitment
Intimacy. Although the coefficients for men and women were
significant, they were only moderate.
Commitment intimacy. Scores on AIM's Commitment Intimacy items were correlated with scores on the Dedication Commitment portion of the CI. Table 5 shows that the correlation coefficient for Commitment Intimacy was 0.48 ($p = 0.0273$) for women and 0.42 ($p = 0.0593$) for men.

A second set of couples ($n = 23$) completed the AIM, DSS, WIQ, and SDM instruments. From those data, the following validity coefficients were computed:

(3) Dyadic Support Scale (DSS)

Agentic Support and Communal Support as measured in Worell and Lange's (1985) Dyadic Support Scale [DSS] (see Appendix G) are similar in concept to two of the AIM categories: Crisis (instrumental) Intimacy and Crisis (affective) Intimacy. Since the data from both instruments are interval, a Pearson correlation statistic was used to compare the DSS scores with the scores the comparable sections of the AIM instrument. Because the DSS assesses the level of dyadic support offered only by the person completing the questionnaire rather than the level of dyadic support in the overall relationship, the most comparable measure on the AIM instrument with which to compare the DSS scores was the respondents' assessment of only their own intimacy in the appropriate categories (Crisis [affective] Intimacy and Crisis [instrumental] Intimacy). The correlation coefficients for AIM and DSS on Crisis
(affective) Intimacy and Crisis (instrumental) Intimacy for both men and women were low and nonsignificant.

a. Crisis (affective) Intimacy. Scores on AIM's Crisis (affective) Intimacy items were correlated with scores on DSS's Communal Support items. Table 5 shows that the correlation coefficient for Crisis (affective) Intimacy was 0.20 ($p = 0.3535$) for women and 0.35 ($p = 0.1018$) for men.

b. Crisis (instrumental) Intimacy. Scores on AIM's Crisis (instrumental) Intimacy items were correlated with scores on DSS's Agentic Support items. Table 5 shows that the correlation coefficient for Crisis (instrumental) Intimacy was 0.09 ($p = 0.6883$) for women and -0.14 ($p = 0.5155$) for men.

(4) Waring Intimacy Questionnaire (WIQ)

The affection section of the Waring Intimacy Questionnaire [WIQ] (Waring, 1983) [see Appendix G] is similar in concept to one category in the AIM instrument: Physical (non-sexual) Intimacy. Since the data from both instruments are interval, a Pearson correlation statistic was used to compare the Affection scores of the WIQ instrument with the Physical (non-sexual) Intimacy scores of the AIM instrument. Table 5 shows the correlation of the Physical (non-sexual) Intimacy scores on the AIM instrument and the scores from the Affection subscale of the WIQ. Because the WIQ assesses the level of Affection expressed only by the person completing the questionnaire rather than
the level of Affection in the overall relationship, the most comparable measure on the AIM instrument with which to compare the WIQ affection scores was the respondents' assessment of only their own Physical (non-sexual) Intimacy. The coefficients for men and women were significant but only moderate.

Physical (non-sexual) Intimacy. Scores on AIM's Physical (non-sexual) Intimacy items were correlated with scores on the Affection portion of the WIQ. Table 5 shows that the correlation coefficient for Physical (non-sexual) Intimacy was 0.69 ($p = 0.0003$) for women and 0.56 ($p = 0.0054$) for men.

(5) Spiritual Dimension of Marriage (SDM)

The author was unable to locate a comparable established measure of Spiritual Intimacy based on the same concept used in the AIM instrument. Hatch et al. (1986) developed a Spiritual Intimacy inventory patterned after the Schaefer and Olson (1981) PAIR inventory, but that inventory was too specifically religious in nature to be considered comparable with Spiritual Intimacy as measured in the AIM instrument. The same is true of Allport's (1966) Religious Orientation Scale. Therefore, the author adapted an exercise used by Clinebell and Clinebell (1970) in their chapter entitled "The Spiritual Dimension of Marriage." The adaptation was to change the word "religious" to "spiritual" wherever it occurred, and to ask respondents to assess how
much they agreed with their partner on spiritual matters rather than asking them to actually describe their spiritual perspective. This adapted questionnaire, The Spiritual Dimension of Marriage [SDM] (see Appendix G) is similar in concept to Spiritual Intimacy in the AIM instrument. Since the data from both instruments are interval, a Pearson correlation statistic was used to compare the scores from the SDM questionnaire with the Spiritual Intimacy scores of the AIM instrument. Table 5 shows the correlation of the Spiritual Intimacy scores on the AIM instrument and the scores from the adaptation of the Clinebell and Clinebell (1970) exercise. Because the SDM assesses the level of Spiritual Intimacy in the overall relationship rather than the level of Spiritual Intimacy contributed only by the person completing the questionnaire, the most comparable measure on the AIM instrument with which to compare the SDM scores was the sum of the respondents' assessment of their own Spiritual Intimacy and the assessment of their partners' Spiritual Intimacy. The correlation coefficients were low and nonsignificant for men and women.

Spiritual intimacy. One husband had missing values on the AIM instrument, and his scores were removed from the data set. For the 22 men and 23 women who completed both the AIM and SDM instruments, their scores on the Spiritual Intimacy items on the AIM instrument were correlated with their scores on the SDM. Table 5 shows that the correlation
### Table 5
**Correlation of AIM Scores by Intimacy Type With Scores of Similar Concepts On DSS, CI, WIQ, and SDM**

<table>
<thead>
<tr>
<th>Intimacy Type and Instrument</th>
<th>Possible Range</th>
<th>Men's Scores</th>
<th>Women's Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X SD n</td>
<td>X SD n</td>
<td></td>
</tr>
<tr>
<td><strong>Crisis Affect. (AIM)</strong></td>
<td>6-30**</td>
<td>24.43 2.64 23</td>
<td>25.96 2.87 23</td>
</tr>
<tr>
<td>Communal (DSS)</td>
<td>15-105</td>
<td>60.57 29.72 23</td>
<td>73.43 23.33 23</td>
</tr>
<tr>
<td></td>
<td>r = 0.35</td>
<td>p = 0.1018</td>
<td>r = 0.20</td>
</tr>
<tr>
<td></td>
<td>p = 0.3535</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crisis Instrum. (AIM)</strong></td>
<td>6-30**</td>
<td>24.08 2.21 23</td>
<td>24.96 2.50 23</td>
</tr>
<tr>
<td>Agentic (DSS)</td>
<td>15-105</td>
<td>47.30 18.77 23</td>
<td>44.00 11.54 23</td>
</tr>
<tr>
<td></td>
<td>r = -0.14</td>
<td>p = 0.5155</td>
<td>r = 0.09</td>
</tr>
<tr>
<td></td>
<td>p = 0.6883</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment (AIM)</strong></td>
<td>6-30**</td>
<td>22.38 4.13 21</td>
<td>20.52 5.12 21</td>
</tr>
<tr>
<td>Dedication (CI)</td>
<td>36-252</td>
<td>204.86 34.94 21</td>
<td>213.81 25.54 21</td>
</tr>
<tr>
<td></td>
<td>r = 0.42</td>
<td>p = 0.0593</td>
<td>r = 0.48</td>
</tr>
<tr>
<td></td>
<td>p = 0.0273</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Non-Sex. (AIM)</strong></td>
<td>6-30**</td>
<td>21.17 4.88 23</td>
<td>24.22 4.45 23</td>
</tr>
<tr>
<td>Affection (WIQ)</td>
<td>11-22</td>
<td>18.30 2.22 23</td>
<td>18.78 2.30 23</td>
</tr>
<tr>
<td></td>
<td>r = 0.56</td>
<td>p = 0.0054</td>
<td>r = 0.69</td>
</tr>
<tr>
<td></td>
<td>p = 0.0003</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spiritual (AIM)</strong></td>
<td>12-60*</td>
<td>40.95 9.83 22</td>
<td>41.83 8.29 23</td>
</tr>
<tr>
<td>Spiritual (SDM)</td>
<td>5-35</td>
<td>22.09 5.85 22</td>
<td>20.35 7.06 23</td>
</tr>
<tr>
<td></td>
<td>r = 0.33</td>
<td>p = 0.1397</td>
<td>r = -0.05</td>
</tr>
<tr>
<td></td>
<td>p = 0.8283</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Sum of respondent's self scores and partner scores to obtain a relationship score.

** Respondent's self scores only.
coefficient for Spiritual Intimacy was -0.05 ($p = 0.8283$) for women and 0.33 ($p = 0.1397$) for men.

**Summary of convergent validity.** Of the 10 categories tested for convergent validity, five had moderate to strong convergent validity for men and women: Physical (sexual), Social, Emotional, Intellectual, and Physical (non-sexual). These categories had significant coefficients ranging from 0.52 to 0.90. One other had low convergent validity for men and women—Commitment Intimacy, with a coefficient of 0.42 for men and 0.48 for women. Four others—Shared Activity, Crisis (instrumental), Crisis (affective), and Spiritual—did not have significant convergent validity correlation coefficients for either men or women.

**Criterion Validity**

Evidence of criterion validity was given by assessing the concurrent validity and predictive validity of the instrument.

**Concurrent validity.** In this study, dyadic adjustment was the criterion against which concurrent validity was evaluated. A separate set of twenty-five couples who completed the AIM instrument also completed Spanier's (1976) Dyadic Adjustment Scale [DAS] (see Appendix G). The scores from the AIM instrument were correlated with the scores from the DAS questionnaire. Since the husbands' and wives' scores could not be considered independent observations, two separate correlations were computed, one for the men and one
for the women. Because the DAS assesses the overall adjustment of both partners to the marriage rather than the adjustment of only the partner completing the questionnaire, the most comparable measure on the AIM instrument with which to compare the DAS scores was the sum of the respondents' assessment of their own intimacy and the assessment of their partner's intimacy.

One husband had missing values on the DAS instrument, and his scores were removed from the data set. For the remaining 24 men and 25 women who completed both the AIM and DAS instruments, their scores on AIM were correlated with their scores on DAS. The correlation coefficient was 0.78 \((p = 0.0001)\) for men and 0.82 \((p = 0.0001)\) for women. This coefficient indicated that for the men and women in the sample, higher scores in intimacy on the AIM instrument also reflected higher levels of marital adjustment, and vice versa. Therefore, both the men's and women's scores supported the concurrent validity of the AIM instrument.

**Predictive validity.** Marital stability was the criterion against which predictive validity was evaluated. The assumption was that couples who remain in their marriages would have at least a moderate amount of intimacy. Predictive validity was established in two ways: (1) reviewing the literature on the relationship between intimacy and divorce, and (2) asking the Q-sort participants to give, based on their training and experience in
counseling, their professional estimation of the
relationship between the level of intimacy in marriages and
the long-term stability of those relationships.

(1) Review of literature. In a review of the
literature, Waring (1988) indicated that the failure to
maintain satisfactory levels of intimacy is the reason most
frequently given by couples for their divorce. Robinson and
Blanton (1993) listed the following characteristics as key
elements in enduring marriages—intimacy, commitment,
communication, congruence, and religious faith. They
emphasized that intimacy seemed to be the most important of
these factors for the couples in their study. Dahms (1976)
viewed marriage as a vow to invest the time, energy, and
effort needed to develop and maintain intimacy over an
extended period of time; consequently, divorce is basically
the failure to maintain that intimacy. In her review of the
divorce literature from the 1980’s, White (1991) indicated
that there is a relationship between lower divorce rates and
several components of intimacy—e.g., shared time together,
emotional compatibility, sexual compatibility, and fidelity
(an aspect of commitment intimacy). Lamanna and Riedmann
(1991) point to the societal trend away from utilitarian
marriages and toward more personally fulfilling, intimate
marriages as a factor in the high divorce rates in our
country.
A few generations ago, men and women who could satisfactorily fulfill the expected roles of husbands and wives (e.g., men who had stable jobs; women who could keep house and raise children) were considered acceptable marital partners. Today, however, the expectations for intimacy are much higher. If a marriage does not maintain a high level of intimacy, it is considered personally unfulfilling and the couple is more likely than in the past to consider divorce. The literature denotes a positive relationship between intimacy and marital stability, thereby supporting the predictive validity of the AIM instrument.

(2) Q-sort. Inserted in the Q-sort was an optional questionnaire entitled *Intimacy and Marital Stability* (see Appendix A). This questionnaire asked professional experts in the field of family relations to give their assessment of the relationship between intimacy and marital stability. Twenty (12 men and 8 women) of the Q-sort respondents completed and returned the *Intimacy and Marital Stability* questionnaire. These responses were analyzed in two ways. Relationship between marital intimacy and marital stability was one; relationship between categories of intimacy and marital stability was the other.

Relationship between marital intimacy and marital stability. The responses to the open-ended questionnaires were first read to determine the answer to the following: "Please write on this page your estimation, based on your
professional training and experience, of the strength of the relationship between marital intimacy and marital stability." Based on their responses, their assessment of this relationship was put into one of the following categories: very weak, weak, moderately strong, strong, or very strong. The overall assessment of the relationship between marital intimacy and marital stability was determined by the following method: The number of respondents who regarded the overall relationship between marital intimacy and marital stability to be represented by a given "strength of prediction" was multiplied by the weighted value of that "strength of prediction," thereby giving a subtotal for that given "strength of prediction." For example, eight respondents (number of respondents = 8) considered marital intimacy to be a "strong" predictor of marital stability (weighted value of "strong" predictor = 4); therefore, the subtotal for the "strong" category of "strength of prediction" is 32 (e.g., 8 x 4 = 32). All five values of "strength of prediction" were then added together (e.g., [very strong = 8] + [strong = 32] + [moderately strong = 26] = 66) and divided by the number of respondents (n = 20) to calculate the mean score (66 / 20 = 3.35) for that intimacy category. Then the scores for the 10 categories were averaged for a single value. The average response to the inquiry about respondents' assessment of the overall relationship between marital intimacy and marital
stability was 3.55 on a 1-to-5 scale. This translates to mean that these respondents think that intimacy is a moderately strong to strong predictor of marital stability.

Relationship between categories of intimacy and marital stability. Next, their responses were read to determine which particular categories of intimacy the respondents associated with marital stability. The strength of the relationship between marital stability and each category of intimacy that was mentioned was placed on this scale: very weak, weak, moderately strong, strong, or very strong (see Table 6).

Weighted scores from the Intimacy and Marital Stability Questionnaires were calculated as follows. For each intimacy category, the weighted value of each "Strength of Prediction" response (Very Weak = 1; Weak = 2; Moderately Strong = 3; Strong = 4; Very Strong = 5) was multiplied by the number of respondents who considered that intimacy category to have that particular predictive value. If that intimacy category was regarded to have a particular predictive value for only one sex, the weighted value of the "Strength of Prediction" response carried only one-half of the value of that response. Based on this scoring technique, the ten intimacy types were arranged in the order of their strength of predictive value.

Four of the intimacy categories fell above the median of the range of weighted responses: Emotional (48),
Table 6
Content Analysis of Experts' Beliefs About the Strength of Intimacy as a Predictor of Marital Stability

<table>
<thead>
<tr>
<th>INTIMACY CATEGORY</th>
<th>Very Weak (Weighted scores): (1)</th>
<th>Very Weak (Weighted scores): (2)</th>
<th>Moderately Strong (Weighted scores): (3)</th>
<th>Strong (Weighted scores): (4)</th>
<th>Very Strong (Weighted scores): (5)</th>
<th>Sum of Weighted Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>48b</td>
</tr>
<tr>
<td>2. Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>3. Spiritual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>4. Physical Sexual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>5. Crisis Affective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>6. Intellectual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>7. Physical Non-sexual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>8. Shared Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>9. Crisis Instrumental</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>10. Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

a Numbers, except in the Sum of Weighted Scores column, show how many experts indicated that particular intimacy categories have certain strengths in predicting marital stability.

b When a number is followed by (m) or (f), it carries one-half value.

c Numbers in the Sum of Weighted Scores column show the experts' indication of the overall strength of each intimacy category in predicting marital stability, based on numerical compilation of their responses (see page 138 & 140 for discussion of specific procedure).

(m) = predictive for males only

(f) = predictive for females only
Commitment (47), Spiritual (38), and Physical (sexual) (32). Six categories fell below the median: Crisis (affective) (25), Intellectual (20), Physical (non-sexual) (16), Shared Activity (16), Crisis (instrumental) (13), and Social (10).

Three respondents (two women and one man) noted gender considerations. One female respondent regarded Physical (non-sexual) intimacy a "strong" predictor of marital stability for females; she regarded Intellectual Intimacy, Physical (sexual) Intimacy, and Social Intimacy to be "strong" predictors of marital stability for males. Another female respondent regarded the following to be "strong" predictors of marital stability for females: Crisis (affective) Intimacy, Emotional Intimacy, Physical (non-sexual) Intimacy, and Shared Activity Intimacy; she regarded the following to be "strong" predictors of marital stability for males: Crisis (instrumental) Intimacy, Physical (sexual) Intimacy, and Social Intimacy. A male respondent regarded Intellectual Intimacy to be a "strong" predictor of marital stability for males. It should be noted that these respondents considered other types of intimacy to be factors in the marital stability of both males and females, but the categories listed above were considered to be "strong" predictors of marital stability in one sex exclusively.
Reliability

Internal Consistency

The internal consistency of each category of the AIM instrument was tested by computing Cronbach coefficient alphas for each of four sets of scores: the male's self-assessment scores, the male's partner-assessment scores, the female's self-assessment scores, and the female's partner-assessment scores. The results of the four Cronbach alphas for the 10 categories of intimacy are shown in Table 7. Of the 40 (10 categories X 4 assessments) tests for internal consistency computed, 24 received coefficients above 0.80. Of the remainder, nine received coefficients that were between 0.71 and 0.79. None were below 0.56. There were eight intimacy categories in which all four coefficients were above 0.80. Only one category, Social intimacy, had no coefficient above 0.66.

In Table 7, the categories are in rank order by how well they reached the goal of 0.80. Two categories—Spiritual and Physical (non-sexual)—had all four sets of responses showing a coefficient alpha above 0.80. Five other categories—Commitment, Emotional, Physical (sexual), Intellectual, and Crisis (instrumental)—had no coefficient alphas below 0.70, and the majority were above 0.80. Shared Activity and Crisis (affective) gave mixed results, with coefficient alphas ranging from 0.69 to 0.81. Social Intimacy had no coefficient alpha above 0.66.
Table 7
Internal Consistency of AIM Items by Sex of Respondent for Self and Spouse

<table>
<thead>
<tr>
<th>Intimacy Category</th>
<th>Male Respondents</th>
<th>Female Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self</td>
<td>Spouse</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 0.80*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual</td>
<td>0.8914</td>
<td>0.9106</td>
</tr>
<tr>
<td>Physical (non-sexual)</td>
<td>0.8137</td>
<td>0.8409</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 0.70 &lt; 0.89*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>0.8134</td>
<td>0.8471</td>
</tr>
<tr>
<td>Emotional</td>
<td>0.7212</td>
<td>0.8189</td>
</tr>
<tr>
<td>Physical (sexual)</td>
<td>0.7070</td>
<td>0.8644</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.7625</td>
<td>0.7269</td>
</tr>
<tr>
<td>Crisis (instrumental)</td>
<td>0.7301</td>
<td>0.8426</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 0.58 &lt; 0.81*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared Activity</td>
<td>0.6942</td>
<td>0.8035</td>
</tr>
<tr>
<td>Crisis (affective)</td>
<td>0.8051</td>
<td>0.5895</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 0.70*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>0.5645</td>
<td>0.6465</td>
</tr>
</tbody>
</table>

* For all four assessments in each category
Males had lower coefficient alphas than females for self-assessment in Physical (sexual), Emotional, Crisis (instrumental), Intellectual, Shared Activity, and Social Intimacy. Males had lower coefficient alphas than females for assessment of intimacy in spouse on Intellectual, Physical (non-sexual), Emotional, and Crisis (affective). Lower coefficient alphas for men shows that their responses were not as consistent as women’s in these categories.

To understand these variations in coefficient alphas for each category, an item analysis showing the problem items for seven intimacy category is given below. A problem item is one with an item-to-category coefficient lower than 0.70 or one that is negative. See Table 8 for problem items. Of the 240 assessments (6 items X 10 categories of male assessment of self, 6 items X 10 categories or male assessment of spouse, 6 items X 10 categories of female assessment of self, and 6 items X 10 categories of female assessment of spouse), 45 were below 0.70 or negative. These 45 problematic assessments were in only 24 of the basic 60 items (see Appendix F for item statements). More of the items were problems for males than for females (m = 27, f = 18), and more items were problems for self-assessment than for spouse-assessment (self = 30, spouse = 15). The largest number, 18 of the 45 problem responses, were from the males’ self-assessments. There were 12 problem responses for the females’ self-assessments, nine
<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Male Respondents</th>
<th>Female Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Self</td>
<td>Spouse</td>
</tr>
<tr>
<td>Social</td>
<td>1</td>
<td>0.33</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>0.41</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>-0.11</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>0.19</td>
<td>0.40</td>
</tr>
<tr>
<td>Intellectual</td>
<td>3</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>0.33</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>0.38</td>
<td>0.42</td>
</tr>
<tr>
<td>Emotional</td>
<td>2</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>Physical (sexual)</td>
<td>27</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>47</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>57</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>Crisis (instrum.)</td>
<td>19</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>Shared Activity</td>
<td>28</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>Crisis (affective)</td>
<td>6</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>-0.52</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>0.68</td>
<td>0.50</td>
</tr>
</tbody>
</table>

* See Appendix F for item statements.
for males' assessments of spouses, and six for females' assessments of spouses.

There were only two items (#31 and #41) that were problems in all four assessments; they both came from the Social Intimacy category. In the Crisis (affective) Intimacy category, three items (#6, #16, and #46) were problematic in three of the four assessments. Of the 240 possible assessment responses, 45 (19%) need to be revised or deleted.

**Stability Over Time**

To test the AIM instrument's consistency across time, a test-retest procedure was used. Three weeks after the first administration, the AIM instrument was administered a second time to 27 couples in the sample.

Table 9 shows that the correlation coefficients for the current self-assessment on Time I and Time II was above 0.70 for seven of the categories of intimacy for men and for eight of the categories of intimacy for women. Just as for internal consistency, Social Intimacy did not reach 0.70 for either men or women. As a whole, the correlation coefficient for stability for the entire current self-assessment section of the AIM instrument was 0.81 \( (p = 0.0001) \) for both men and women.

Table 10 shows that the correlation coefficients for the current levels of intimacy assessed for their spouses on Time I and Time II was above 0.70 for only two of the
<table>
<thead>
<tr>
<th>Intimacy Category</th>
<th>Men's Scores</th>
<th></th>
<th>Women's Scores</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>p</td>
<td>r</td>
<td>p</td>
</tr>
<tr>
<td>Commitment</td>
<td>0.79</td>
<td>0.0001</td>
<td>0.69</td>
<td>0.0001</td>
</tr>
<tr>
<td>Crisis (affective)</td>
<td>0.77</td>
<td>0.0001</td>
<td>0.71</td>
<td>0.0001</td>
</tr>
<tr>
<td>Crisis (instrumental)</td>
<td>0.68</td>
<td>0.0001</td>
<td>0.75</td>
<td>0.0001</td>
</tr>
<tr>
<td>Emotional</td>
<td>0.66</td>
<td>0.0002</td>
<td>0.72</td>
<td>0.0001</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.84</td>
<td>0.0001</td>
<td>0.83</td>
<td>0.0001</td>
</tr>
<tr>
<td>Physical (non-sexual)</td>
<td>0.76</td>
<td>0.0001</td>
<td>0.71</td>
<td>0.0001</td>
</tr>
<tr>
<td>Physical (sexual)</td>
<td>0.75</td>
<td>0.0001</td>
<td>0.86</td>
<td>0.0001</td>
</tr>
<tr>
<td>Shared Activity</td>
<td>0.83</td>
<td>0.0001</td>
<td>0.72</td>
<td>0.0001</td>
</tr>
<tr>
<td>Social</td>
<td>0.56</td>
<td>0.0032</td>
<td>0.67</td>
<td>0.0002</td>
</tr>
<tr>
<td>Spiritual</td>
<td>0.83</td>
<td>0.0001</td>
<td>0.84</td>
<td>0.0001</td>
</tr>
<tr>
<td>Total Correlations</td>
<td>0.81</td>
<td>0.0001</td>
<td>0.81</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
Table 10

AIM's Stability Across Time: Correlations Between Time I and Time II (Partner-Assessment)

<table>
<thead>
<tr>
<th>Intimacy Category</th>
<th>Men's Scores</th>
<th></th>
<th>Women's Scores</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 27</td>
<td></td>
<td>n = 27</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>0.68</td>
<td>0.0001</td>
<td>0.54</td>
<td>0.0034</td>
</tr>
<tr>
<td>Crisis (affective)</td>
<td>0.23</td>
<td>0.2440</td>
<td>0.69</td>
<td>0.0001</td>
</tr>
<tr>
<td>Crisis (instrumental)</td>
<td>0.66</td>
<td>0.0002</td>
<td>0.64</td>
<td>0.0004</td>
</tr>
<tr>
<td>Emotional</td>
<td>0.58</td>
<td>0.0013</td>
<td>0.67</td>
<td>0.0001</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.61</td>
<td>0.0007</td>
<td>0.76</td>
<td>0.0001</td>
</tr>
<tr>
<td>Physical (non-sexual)</td>
<td>0.68</td>
<td>0.0001</td>
<td>0.63</td>
<td>0.0005</td>
</tr>
<tr>
<td>Physical (sexual)</td>
<td>0.85</td>
<td>0.0001</td>
<td>0.73</td>
<td>0.0001</td>
</tr>
<tr>
<td>Shared Activity</td>
<td>0.72</td>
<td>0.0001</td>
<td>0.60</td>
<td>0.0009</td>
</tr>
<tr>
<td>Social</td>
<td>0.51</td>
<td>0.0064</td>
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<td>0.0016</td>
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<tr>
<td>Spiritual</td>
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<td>0.0002</td>
<td>0.78</td>
<td>0.0001</td>
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<tr>
<td>Total Correlations</td>
<td>0.68</td>
<td>0.0001</td>
<td>0.66</td>
<td>0.0002</td>
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</table>
categories of intimacy for men and for only three of the categories of intimacy for women. The only category of intimacy that yielded reliability coefficients above 0.70 for both men and women was Physical (sexual) Intimacy. As a whole, the correlation coefficient for stability for the entire current partner-assessment section of the AIM instrument was 0.68 \( (p = 0.0001) \) for men and 0.66 \( (p = 0.0002) \) for women.

**Summary of Results**

After the first assessments of validity for current intimacy in self, the basic 60 items across 10 intimacy categories in the AIM instrument have good content validity as shown by the literature and a team of five experts, and good discriminant validity as shown by greater than 80% agreement among 36 experts. Convergent validity, measured by a correlation between AIM and established instruments claiming to measure intimacy was above 0.80 in three categories for women but only one for men.

Overall, internal consistency was 0.81 for the AIM instrument. Cronbach's coefficient alpha was above 0.80 in four categories for men and in five for women. When 0.70 was used as a standard, eight categories met the criterion for men and nine for women. There were only two categories in which the coefficients were below 0.70, and one of them was 0.69. The category of Social Intimacy showed coefficients of 0.56 to 0.66.
Stability coefficients were above 0.80 in three categories for men and three categories for women. However, they were above 0.70 in seven categories for men and eight categories for women. Social Intimacy was below 0.70 for men and women.

**Discussion of the Results**

The results of this first assessment of AIM for validity and reliability were mixed but relatively good. Table 11 gives a summary of these findings. From these results and a careful item analysis, specific revisions will be recommended before the next battery of tests for validity and reliability.

The mixed results are no surprise at this stage in the development of the AIM instrument. The review of literature showed that the varying conceptualizations of intimacy have made the whole topic more difficult to study because of conceptual blurring (McAdams, 1985; Rubenstein & Shaver, 1982; Waring et al., 1980; White et al., 1986). Intimacy may be a process rather than a behavior (Hatfield, 1984; Reis & Shaver, 1988) and, therefore, difficult to assess in an instrument that is administered at a single point in time. Further evidence of intimacy as a process may be shown by the fact that the stability coefficients were lower than the internal consistency coefficients.

One important assumption in developing the AIM instrument was the belief that intimacy is multi-dimensional
Table 11
Basic Evaluation: Summary of Findings for Self Assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Validity</th>
<th></th>
<th></th>
<th></th>
<th>Reliability</th>
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<tr>
<td></td>
<td>Content</td>
<td>Constr</td>
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<td>Constr</td>
<td>Criteria</td>
<td>Intrnl</td>
<td>Stbity</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimacy</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>a b .81</td>
<td>.82 c</td>
<td>c c 4</td>
<td>.70 .87</td>
<td>.75 .86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>a b .67</td>
<td>.90 c</td>
<td>c c 10</td>
<td>.56 .64</td>
<td>.56 .67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>a b .67</td>
<td>.90 c</td>
<td>c c 1</td>
<td>.72 .87</td>
<td>.66 .72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual</td>
<td>a b .52</td>
<td>.73 c</td>
<td>c c 6</td>
<td>.76 .83</td>
<td>.84 .83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared</td>
<td>a b .31</td>
<td>.54 c</td>
<td>c c 8</td>
<td>.69 .79</td>
<td>.83 .72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Crisis (affective)</td>
<td>a b .35</td>
<td>.20 c</td>
<td>c c 5</td>
<td>.80 .79</td>
<td>.77 .71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis (instrumental)</td>
<td>a b -.14</td>
<td>.09 c</td>
<td>c c 9</td>
<td>.73 .78</td>
<td>.68 .75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>a b .42</td>
<td>.48 c</td>
<td>c c 2</td>
<td>.81 .78</td>
<td>.79 .69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical (non-sexual)</td>
<td>a b .56</td>
<td>.69 c</td>
<td>c c 7</td>
<td>.81 .86</td>
<td>.76 .71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual</td>
<td>a b .33</td>
<td>-.05 c</td>
<td>c c 3</td>
<td>.89 .90</td>
<td>.83 .84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals:</td>
<td>a b d</td>
<td>d .78 .82</td>
<td>e d d .81</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Validity**

Concur = Concurrent......Total scores compared to scores on DAS
Constr = Construct......Tested discriminant/convergent validity
Cntnt = Content.......Literature review; opinion of experts
Discrm = Discriminant......Item analysis by Q-sort
Critrn = Criterion......Tested concurrent/predictive validity
Conv = Convergent......Compared scores with other instruments
Prdctv = Predictive......Literature review; survey of experts

**Reliability**

Intrnl = Internal consistency...Cronbach’s coefficient alpha
Stbity = Stability over time....Test-retest (3-week interval)

a = Confirmed by experts
b = Tested by item, not by category
c = Tested by total scores, not by category
d = Tested by category, not by total scores
e = Confirmed by experts for intimacy and intimacy categories as concepts, not per AIM scores
* = Ranked in order of strength in predicting marital stability, as determined by experts

m = male
f = female
and cannot be measured as one dimension (Dahms, 1976; Monsour, 1992; Olson, 1975). The fact that each category of intimacy was deemed to be separate from each other by the experts supports this multi-dimensional aspect of intimacy. Also, the fact that there was an internal consistency coefficient above 0.70 for at least one type of response (male assessment of self, male assessment of spouse, female assessment of self, or female assessment of spouse) in nine of the 10 categories adds psychometric support.

Another important assumption in developing the instrument was the belief that men and women probably view intimacy from different perspectives (Chodorow, 1978; Eagly, 1987; Tannen, 1990). The fact that men and women had internal consistency coefficients up to 17 points different from each other across categories lends support to this notion. These differences were also evident in the stability coefficients.

Content Validity

Content validity was good based on both the literature and the opinion of experts (see Table 11). The need for a new instrument to measure this multi-dimensional concept of intimacy as expressed by both men and women was suggested by Swain (1987), who said that intimacy has historically been defined as affective expressions (Cancian, 1985). Swain (1987) recommended that specific categories and not overall intimacy distinguishes men from women. He suggested that
instrumental behaviors may also show intimacy and that men may be classified as more intimate if their instrumental efforts begin to be recognized as intimate. Most researchers have called for an instrument that includes (1) many dimensions of intimacy, and (2) both affective and instrumental expressions of intimacy. The AIM instrument complies with these two expectations.

Construct Validity

Discriminant validity. The high discriminant validity is further evidence of the multi-dimensional quality of the AIM instrument. When 36 marital interaction experts were asked to place the AIM items into intimacy categories, they were in at least 80% agreement on 54 of the 60 items (see Table 11). The six items that were variously placed in different intimacy categories by the experts were analyzed and altered to make their categorization less ambiguous.

For example, the item, "I share my thoughts and feelings with my partner," was placed into the Emotional Intimacy category by 11 (30.56%) of the experts and into the Intellectual Intimacy category by 25 (69.44%) of the experts. Upon review, it was determined that the item did contain elements of both Emotional Intimacy ("feelings") and Intellectual Intimacy ("thoughts"). Therefore, since the item was written to be considered Emotional Intimacy, the element of Intellectual Intimacy was deleted and the item became "I share my feelings with my partner." Similar
adjustments were made for all six items that tested low in discriminant validity.

Convergent validity. Convergent validity, evaluated by comparing self-assessment scores for males and females on AIM with scores on similar concepts in other instruments, was moderate to strong (between 0.52 and 0.82) in five of the 10 intimacy categories—Physical (sexual), Physical (non-sexual), Emotional, Intellectual, and Social (see Table 11). This was not inexplicable, in that these are the very categories that have been traditionally regarded as defining the domain of intimacy (Cancian, 1985).

Moderate levels of convergent validity (between 0.42 and 0.48) were found in Commitment Intimacy. The complete Commitment Index (CI) measures two aspects of commitment—Dedication Commitment and Constraint Commitment. The AIM instrument was compared with only the Dedication Commitment items of the CI. It is possible that since some of AIM's Commitment Intimacy items were worded negatively (e.g., "If my marriage began taking more from me than it was giving to me, I would seriously consider leaving"), Commitment Intimacy in AIM may have had a higher correlation with CI if tested against both the Dedication Commitment items and the Constraint Commitment items.

The lowest levels of convergent validity (between -0.05 and 0.54) were found in four intimacy categories—Shared Activity, Crisis (instrumental), Crisis (affective), and
Spiritual. This was not unanticipated, because these are areas that have not been traditionally considered categories of intimacy (Cancian, 1985). Therefore, within the context of intimacy, there is more ambiguity about these non-traditional concepts. Also, in these newer intimacy categories, there is little in the existing literature and instruments with which to compare these categories of intimacy. Consequently, the convergent validity scores would have been expected to be lower in these intimacy categories.

Convergent validity was generally higher for women than for men. Researchers (Gilligan, 1982; Worell, 1985; Chodorow, 1978) have found that women have been socialized to think and operate at higher levels of intimacy than men have. Since intimacy has been regarded as women's domain, they would have been expected to have higher correlations than men in comparative intimacy scores across tests.

The areas of strongest convergent validity were Physical (sexual) Intimacy (for both the men and women) and Social Intimacy (for the women especially). Since there is very little ambiguity about the definition or conceptualization of Physical (sexual) Intimacy, it was expected that this category would have high levels of convergent validity. Women's high levels of convergent validity in Social Intimacy is consistent with the literature, which stresses that while men's personhood
revolves around work and accomplishments, women's personhood revolves around relationships (Gilligan, 1982; Chodorow, 1978).

The weakest levels of convergent validity were found in Crisis (instrumental) Intimacy (for both men and women) and Spiritual Intimacy (especially for women). The Agentic Support items of the Dyadic Support Scale (DSS), with which the Crisis (instrumental) Intimacy subscale of the AIM instrument was compared, included not one, but several, concepts. The concept of problem solving (e.g., "I tell my friend how to solve a problem") in the DSS instrument was similar to the idea of Crisis (instrumental) Intimacy in the AIM instrument, but the DSS also included other concepts which are not similar to Crisis (instrumental) Intimacy in AIM—focus on the self (e.g., "When my friend comes to me with a problem, I expect that s/he will follow my advice"), bartering services (e.g., "I help my friend when his/her problems don't take up a lot of my time"), and distraction (e.g., "When my friend is upset, I try to distract him/her by suggesting we do some activity together"). Therefore, it was not unusual that the single concept of Crisis (instrumental) Intimacy in AIM would have low correlations with the multi-faceted Agentic Support portion of DSS.

The low correlations of Spiritual Intimacy on AIM with the Spiritual Dimension of Marriage (SDM) questionnaire could be explained by the nature of the SDM questionnaire.
The researcher could not find an established instrument that measured a form of intimacy comparable with Spiritual Intimacy in AIM. Therefore, a discussion exercise from a chapter entitled "The Spiritual Dimension of Marriage" (Clinebell & Clinebell, 1970) was adapted by the researcher to formulate a Spiritual Intimacy instrument (Spiritual Dimension of Marriage [SDM]) with which to compare the Spiritual Intimacy subscale of AIM. Consequently, the SDM questionnaire was not an established instrument and has not been tested for validity and reliability. The untested nature of the SDM instrument contributed to the low correlations across tests. The fact that Spiritual Intimacy had the largest standard deviation of any of the other nine intimacy categories in the AIM instrument indicates the ambiguity the respondents had about Spiritual Intimacy. Those two factors likely account for the low convergent validity of the Spiritual Intimacy portion of AIM.

**Criterion Validity**

**Concurrent validity.** The current criterion against which intimacy was tested was marital adjustment. Higher scores in intimacy on AIM corresponded with higher scores on marital adjustment on the Dyadic Adjustment Scale (DAS) [see Table 11]. This finding is consistent with the literature which indicates that intimacy is a key factor in marital satisfaction and adjustment (Clinebell & Clinebell, 1970; Lauer & Lauer, 1986; Winter, 1958). As Erikson (1952)
indicated, once young people develop and understand their own individual identities, they seek intimate relationships in which they can share those identities with other significant people. Therefore, it seems that intimacy is a primary expectation of marriage. Consequently, it is logical that couples with higher levels of intimacy would also have higher levels of marital adjustment.

**Predictive validity.** The future criterion against which intimacy was tested was marital stability. The 20 experts who gave their assessment of the relationship between intimacy and marital stability indicated a moderately strong to very strong influence of all ten intimacy categories on marital stability (see Table 11). In general, the affective categories of intimacy (e.g., Emotional, Commitment, Spiritual, Crisis [affective]) were considered more predictive of marital stability than were the instrumental categories of intimacy (e.g., Crisis [instrumental], Shared Activity, and Physical [non-sexual]). Since the affective modes of expression have been more consistently recognized as legitimate categories of intimacy, it is understandable that experts would consider those categories of intimacy most predictive of marital stability. Instrumental expressions of care have not been given the same regard or credence as affective expressions (Cancian, 1985; Swain, 1987); therefore, affective
expressions of care are generally considered more predictive of marital stability.

Internal Consistency

Overall, internal consistency was 0.81, with a range for categories between 0.56 and 0.90 (see Table 11). Since Cronbach's coefficient alpha is a correlation of scores of all possible combinations of the items, low internal consistency coefficients generally indicate that one or more items are inconsistent with the other items in that particular intimacy category. Therefore, the intimacy categories with low internal consistency coefficients reflect the presence of items which may be ambiguous in meaning or confusing because of double negatives.

For example, the intimacy category with the lowest internal consistency coefficients was Social Intimacy. Item 31 ("I do not enjoy being with my partner's friends and I wish he/she spent less time with them") had a very low correlation with the total Social Intimacy scores for both women and men. Upon review, Item 16 is ambiguous because it actually contains two separate ideas: (1) I do not enjoy being with my partner's friends, and (2) I wish he/she spent less time with them. That this item would yield results inconsistent with the other Social Intimacy items is not unusual.

Item 16 also showed unusually low correlations with the total scores in its category, Crisis (affective) intimacy.
Upon review, it was discovered that respondents gave very positive responses to that concept when worded positively (e.g., Item 26: "In troubled times, I can lean on my partner," and Item 46: "My partner is a source of strength for me in difficult times"). From the inconsistency of Item 16 in relation to Items 26 and 46, it appears that the negative wording of the item ("I cannot count on my partner..."), coupled with negatives in the response scale ("Strongly Disagree"/"Disagree"), created confusion in the respondents, who consequently gave inconsistent answers.

In summary, internal consistency was moderate to high in 33 of the 40 (10 intimacy categories X 4 assessments) possible assessment outcomes. While the coefficients are less than the 0.80 recommended by Carmines and Zeller (1979), it should be noted that they acknowledged the acceptability of lower coefficients depending on the nature and use of the scale. Cronbach's alpha is a conservative estimate of reliability, and it is difficult to obtain high alphas when there are few items in the subscale being measured (Carmines & Zeller, 1979). Considering the nature of Cronbach's alpha and the small number of items in each AIM subscale, a Cronbach's alpha greater than 0.70 in 33 of the 40 was considered acceptable. In the areas with a Cronbach's alpha less than 0.70, problem items were identified and can be either revised or deleted.
Stability Over Time

Stability coefficients were moderate to high for both men and women in their assessment of current levels of intimacy in themselves (see Table 11). Stability coefficients were moderate for both men and women in their assessment of current levels of intimacy in their partners. In self-assessment of current levels of intimacy, stability coefficients were above 0.70 in seven of the 10 intimacy categories for men, and in eight of the 10 categories for women. For the same reasons discussed in the Internal Consistency section above, these coefficients were considered acceptable.

Some possible explanations for the less-than-optimal stability-over-time reliability coefficients include:

(1) People are more consistent in assessing themselves than in assessing others. Therefore, the stability coefficients were lower for partner-assessment scores than for self-assessment scores. Perhaps both the men and women assessed themselves more consistently than they assessed their spouses, because their assessment of themselves is less dependent upon recent behavior and more dependent upon long-term self-knowledge than is the case in their assessment of their spouses.

(2) The researcher did not have direct access to the respondents. Second-hand instructions were given through the students who recruited the participants. Therefore,
specific instructions, particularly for the post-test, may have been replaced in some instances with rather vague comments (e.g., "Try to do this again...Do better this time....Try to get the same scores...See if you can remember what you put last time...etc.").

(3) All students who recruited the participants may not have used the same couples for the pre-tests and the post-tests. In some instances, they may have used couples for the post-tests who were more readily available than the pre-test participants.

(4) Exposure to the concept of intimacy as measured in this instrument may have altered the respondents’ perception of intimacy, which then led to different scores on the retest.

(5) The couples who took the pre-tests may have discussed the results afterwards, and, therefore, the discussion altered how they might answer the same questions at a later time.

(6) A larger sample might have been beneficial, especially if the sample had been truly random rather than a convenience sample.

(7) While the lower-than-desired stability coefficients yielded in this research may have reflected research methodology, it is also possible that they may have reflected the nature of intimacy as a "process" rather than a "state."
(8) There is the possibility that the instrument is not stable across time.

In summary, the discriminant validity of AIM was strong in most of the categories of intimacy. Convergent validity was moderate to high for the five categories compared with the PAIR instrument, but it was moderate to low for the categories validated against instruments with questionable comparability to AIM. Also, convergent validity was moderate to high for the intimacy categories that have been traditionally understood as elements of the domain of intimacy, but low for the intimacy categories that have not been traditionally understood as elements of the domain of intimacy. Content, concurrent, and predictive validity were all good. For self-assessment of current levels of intimacy, the stability coefficients were high for both men and women in most of the 10 intimacy categories. For assessment of intimacy in their partners, the stability coefficients were moderate to high for both men and women in most of the 10 intimacy categories.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The Assessment of Intimacy in Marriage (AIM) instrument was developed and tested for validity and reliability with 100 married couples. The concept of intimacy was thoroughly reviewed before developing the AIM instrument. Recognizing that intimacy is multi-dimensional, the researcher constructed the AIM instrument with 10 different intimacy categories of six items in each. These 60 items were restated two ways to assess current intimacy for self and current intimacy for spouse. This resulted in four sets of responses (male assessment of self, male assessment of spouse, female assessment of self, and female assessment of spouse).

These 60 items were determined to have good content validity by five experts in the field. Then 36 different experts used a Q-sort method to place the 60 items into the 10 designated categories, with greater than 80% discriminant validity confirmed for 54 of the 60 items. The six items with less than 80% discriminant validity were re-written.

With content and discriminant validity established, the AIM instrument was assessed for convergent validity. The
fact that there was an established instrument for measuring only five of the 10 intimacy categories shows a gap in the field for a multi-dimensional instrument for measuring intimacy. These five categories—Physical (sexual), Social, Intellectual, Emotional, and Shared Activity—were compared with similar subscales on the PAIR (Olson, 1981) instrument. The resulting convergent validity on these five categories was between 0.31 and 0.81 for men and between 0.54 and 0.90 for women. Specifically, convergent validity was very good for Physical (sexual) Intimacy for men and women. Only for women was convergent validity moderate to good for Social, Emotional, and Intellectual Intimacy.

Established instruments for the other five categories—Crisis (affective), Crisis (instrumental), Commitment, Physical (non-sexual), and Spiritual—were almost nonexistent. For the most part, the established instruments that measured these concepts either measured them outside the context of intimacy or crossed over into other constructs. However, these five intimacy categories were compared to five instruments determined to be somewhat similar. The results were moderate to low, as expected. Of these five categories, only Physical (non-sexual) Intimacy had correlations above 0.50 (0.56 for men, 0.69 for women).

Next, predictive and concurrent validity were established. Predictive validity was assessed by comparing AIM with Spanier’s (1976) Dyadic Adjustment Scale (DAS).
The validity coefficient was good (0.78 for men, 0.82 for women. For concurrent validity, 20 experts assessed the strength of marital intimacy as a predictor of marital stability. The outcome was a very good concurrent validity (weighted score of 3.55 on a 5-point scale, indicating a predictive strength of "moderately strong" to "strong").

Reliability was assessed for internal consistency and stability over time. Internal consistency was calculated for each of the 10 categories, computing a Cronbach’s coefficient alpha for the six items within each category. Of the 40 (10 categories X 4 assessments) tests computed for internal consistency, 33 received coefficients above 0.70. None were below 0.56. Social Intimacy had no coefficient above 0.66.

To understand the internal consistency better, an item analysis showed that only certain items were the probable cause of the lower alphas. There were 240 item-to-category totals (6 items X 10 categories for male assessment of self, 6 items X 10 categories for male assessment of spouse, 6 items X 10 categories for female assessment of self, 6 items X 10 categories for female assessment of spouse). Only 45 of the 240 were below 0.70. Thirty of these 45 coefficients were in self-assessments. Overall, AIM had moderate to good internal consistency even though 24 items had problematic coefficients in one or more of the four assessments.
From test-retest scores, the stability coefficient ranged from 0.56 to 0.84 for men's self-assessment scores and from 0.67 to 0.86 for women's self-assessment scores. Overall, in the self-assessment scores, the stability coefficient for all ten categories combined was 0.81 for both men and women. For the assessment of spouses, the stability coefficients were lower (0.68 for men, 0.66 for women).

Conclusions

The major conclusion after the first assessment of validity and reliability is that the AIM instrument has reasonably good validity and reliability. However, the AIM instrument should be re-designed and re-evaluated before depending on its scores to assess all types of intimacy.

Content, discriminant, concurrent, and predictive validity are very good and probably do not need reassessment. Convergent validity was also adequate for the five subscales that were tested with instruments that measured intimacy from the same conceptual position as the AIM instrument. Since AIM used 10 categories to follow the multi-dimensional nature of intimacy, it may be that convergent validity cannot be established for those categories that are not yet recognized in other established instruments. Since these other five subscales may be new to the area of intimacy—and are certainly under-represented in
instruments measuring intimacy—their validity will have to be tested on their own.

It was concluded that reliability was moderate to high for all categories except Social Intimacy; however, individual items across several categories showed problematic alphas. The AIM instrument could remain valid even when these problem items are deleted or rewritten. AIM is relatively stable over time, but may never have a high stability coefficient since intimacy is probably a process.

A final conclusion with regard to gender is that for most of the categories in the AIM instrument, women were more internally consistent than were men in measuring both self-assessment and spouse-assessment of intimacy. In stability across time, men and women were very similar in their reliability coefficients, both in self-assessment and spouse assessment.

**Recommendations**

Increasing internal consistency to > 0.85 in each intimacy category is the first step recommended for continuing the assessment. To begin with, the AIM instrument should be reduced to four items per category through revision and omission. Recommended criteria for omitting items are: (1) Items assessing current levels of intimacy in self that have a negative correlation with the total score for their category; (2) items assessing current levels of intimacy in self that have a large difference
(greater than 0.20) between men's and women's internal consistency scores; (3) items that have internal consistency scores that differ more than 0.20 between self-assessment and spouse-assessment; and (4) items assessing current levels of intimacy in self that have an internal consistency coefficient lower than 0.60. These criteria would result in the elimination or revision of the items that were problematic in the first assessment of internal consistency.

The second step recommended is to obtain at least a 0.80 stability-over-time coefficient for each intimacy category. Only after these levels of reliability are established can AIM be accurately assessed for convergent validity.

While the experts were in agreement that intimacy is a predictor of marital stability, longitudinal studies would give better information about this. A more detailed analysis of which categories of intimacy are most closely associated with marital stability would give useful findings.

The whole area of Social Intimacy should be reconsidered. In practically every area of analysis, Social Intimacy results were among the poorest. Has Social Intimacy been clearly conceptualized? Is what was measured as Social Intimacy really an aspect of intimacy or is it a different construct altogether? An explanation should be
sought about why Social Intimacy gave such different results from those of the other categories.

It is recommended that a larger sample be obtained for further testing of the AIM instrument, and that the researcher have more direct access to the sample to insure more uniformity in instructions and procedures. Also, the sample contained no Hispanic couples, which should be included to make the sample more representative.

The gender differences indicated in the results of this study should be more fully explored. As discussed in Chapter I, gender is an important and controversial aspect of the study of intimacy. Using only the items with good item-to-total coefficients, the results of this research show that there are some areas where gender roles in intimacy are in transition from the traditional norms—e.g., men scored higher than women in Crisis (affective) Intimacy and Commitment Intimacy, while women scored higher than men in Shared Activity Intimacy and Intellectual Intimacy. Also, gender differences continue to be seen in some of the expected areas—e.g., men scored lower than women in Emotional Intimacy, while women scored lower than men in Physical (sexual) Intimacy. Surprisingly, men assessed their own Crisis (affective) Intimacy much higher than their wives assessed them; women assessed their own Physical (sexual) Intimacy much higher than their husbands assessed them. Both men and women assessed their partners'
Intellectual Intimacy higher than their partners assessed themselves. These and other related gender issues should be more carefully analyzed.

Marital intimacy items should be examined in relation to demographic and background variables. How do factors such as divorce of parents, nature of parents' relationship, the presence of family dysfunctions (e.g., alcoholism, abuse, etc.), the length of marriage, whether the current marriage is the first marriage, and the number of children affect scores in various categories of intimacy?

Cross-cultural applications could be made with the use of appropriate cross-cultural samples. Do men and women express intimacy in similar ways in other cultures? Is intimacy as central to marriage in other cultures as it appears to be in our culture? Is intimacy as strong a predictor of marital stability in other cultures as it is in our culture?

Finally, intimacy should be further explored in relationships other than marriage. How could the categories of intimacy measured on the AIM instrument be applied to parent-child relationships, sibling relationships, same-sex relationships, and other relationships of an intimate nature?
BIBLIOGRAPHY


APPENDIX A.

Q-SORT PACKET
INSTRUCTIONS FOR Q-SORT

1. Open the green envelope labeled "Items for the Assessment of Intimacy in Marriage [AIM] Instrument." Inside you will find 60 slips of paper, each containing a written statement representing some form of intimacy.

2. Lay out before you the 10 empty green envelopes labeled with the names and definitions of the ten intimacy categories [Social Intimacy, Emotional Intimacy, Intellectual Intimacy, Shared Activity Intimacy, Spiritual Intimacy, Crisis Intimacy I (emotional support), Crisis Intimacy II (practical help), Non-sexual Physical Intimacy, Sexual Physical Intimacy, and Commitment Intimacy].

3. Read the statement on each slip of paper and decide which category of intimacy that statement best represents. Place the slip of paper in the green envelope labeled with the appropriate category of intimacy, based on your educated judgment. Repeat this process for all 60 slips of paper.

4. Base your decisions on the following definitions of the categories of intimacy, which are written on the envelopes:

   Social Intimacy (sharing common friends and social networks)

   Emotional Intimacy (sharing your feelings with your partner; being sensitive to your partner’s feelings)

   Intellectual Intimacy (sharing ideas, thoughts, and opinions)

   Non-sexual Physical Intimacy (sharing expressions of care through affection and non-sexual forms of touch)

   Sexual Physical Intimacy (sharing expressions of care through sexual behavior)

   Spiritual Intimacy (sharing a common purpose of life and a mutual spiritual bond)

   Shared Activity Intimacy (sharing common interests and doing things together)

   Crisis Intimacy I (sharing expressions of care in times of difficulty through support, empathy, and encouragement)

   Crisis Intimacy II (sharing expressions of care in times of difficulty through offering practical help and assistance)
Commitment Intimacy (sharing personal dedication to the partner and to the relationship, even when that dedication demands some personal sacrifice)

5. Open the white envelope labeled "Items for the Assessment of Intimacy in Marriage [AIM] Instrument." Inside you will find 60 slips of paper, each containing a written statement representing some form of intimacy (the same statements that were found in the first envelope used in step #1).

6. Lay out before you the three empty white envelopes labeled with the names of the modes of intimate expression [Affective Expression, Instrumental Expression, Other].

7. Read the statement on each slip of paper and decide which mode of intimate expression that the statement best represents. Place the slip of paper in the envelope labeled with the mode of intimate expression, based on your educated judgment. Repeat this process for all 60 slips of paper.

8. Base your decisions on the following definitions of the modes of intimate expression, which are written on the envelopes:

Affective Expression (sharing intimacy through internal, emotional, or affectionate expressions - e.g. verbal self-disclosure, empathic support, emotional attachment, shared feelings, non-sexual physical touch, deep personal commitment to the partner and/or the relationship)

Instrumental Expression (sharing intimacy through external, observable expressions - e.g. offering practical help, problem-solving, doing things together, sexual physical touch)

Other (any item which does not fit satisfactorily into either the Affective Expression or the Instrumental Expression category)

9. Seal all 13 envelopes containing the sorted intimacy statements - the ten green envelopes labeled with the names and definitions of the ten intimacy categories (Social Intimacy, Emotional Intimacy, Intellectual Intimacy, Shared Activity Intimacy, Spiritual Intimacy, Crisis Intimacy I (emotional support), Crisis Intimacy II (practical help), Non-sexual Physical Intimacy, Sexual Physical Intimacy, and Commitment Intimacy); and the three white envelopes labeled with the names of the modes of intimate expression (Affective Expression, Instrumental Expression, Other).

10. Put the 13 sealed envelopes in the larger self-addressed, stamped envelope and mail them to the researcher.

Thank you.
Intimacy and Marital Stability

[Note: While your answer to this question is requested, it should be understood that this question is optional. Answering it is not required for participation in the Q-sort.]

Please write on this page your estimation, based on your professional training and experience, of the strength of the relationship between marital intimacy and marital stability. Do you believe there is a relationship between the two? If not, why do you think that is so? If so, what is the strength of that relationship? Are there particular categories of intimacy as described in the AIM instrument that you find to be stronger or weaker predictors of divorce [e.g. Social Intimacy, Emotional Intimacy, Intellectual Intimacy, Shared Activity Intimacy, Spiritual Intimacy, Crisis Intimacy I (emotional support), Crisis Intimacy II (practical help), Non-sexual Physical Intimacy, Sexual Physical Intimacy, and Commitment Intimacy]?

Please return this form with your Q-sort.
Thank you.
APPENDIX B.

INFORMED CONSENT (AIM)
INFORMED CONSENT (AIM)

The topic of this research is "The Assessment of Intimacy in Marriage." You and your marriage partner are asked to complete these questionnaires separately, without discussing your answers or viewing each other's papers.

The questionnaire should not take longer than forty minutes to complete. Your participation in this research project is strictly voluntary. You may refuse to answer any question and may withdraw from the research at any time.

The risks to the participants are minimal. They include the possibility of mild discomfort due to the personal nature of the questions (necessitated by the topic of the research) and the possibility that the topics raised in the research could stimulate further discussion and/or confrontation between the partners after the questionnaires have been completed. To minimize these risks, the questions have been stated in a sensitive and responsible manner.

The other risk to the participants is anxiety about confidentiality. The researcher takes seriously the responsibility to keep all names and responses absolutely confidential. Upon completing the questionnaires, the participants are to seal them in the envelopes they were delivered in. These will be opened only by the researcher, R. S. Shackleford, Jr. Since the survey deals with personal information, your individual responses will be held in the strictest confidence. Your name will not appear anywhere on the survey or anywhere in the research. Each participant will be assigned a research number, and this information will be kept in a locked file. This Informed Consent Sheet with your signature is not stapled to the rest of the survey and will be removed before the responses are analyzed. No one other than the primary researcher will ever read these questionnaires, and the information will be used only in a statistical manner to contribute data to the research project. All questionnaires will be destroyed immediately after the data are compiled on statistical tables and charts.

Possible benefits to those who participate in the research include the opportunity to assess the levels of intimacy in several areas of your marital relationship, a broadened perspective of the many aspects of marital intimacy, and the satisfaction of participating in research that will enhance and increase the body of knowledge about marital interaction and intimacy.

Your permission to participate is requested. Thank you for your help in this research.

I have been satisfactorily informed about the procedures, risks, and rights to withdraw from the research. I will voluntarily participate.

Signature

Date
APPENDIX C.

COVER PAGE (AIM)
Aim

Assessment of Intimacy in Marriage

Robert S. Shackleford, Jr.

Department of Human Development & Family Studies, UNCG, Greensboro, NC 27412
Copyright, 1993, by Robert S. Shackleford, Jr.
APPENDIX D.

INSTRUCTIONS (AIM)
INSTRUCTIONS (AIM)

The purpose of this questionnaire is to assess the level of intimacy in your marriage. You and your marriage partner are asked to complete these questionnaires separately, without discussing your answers or viewing each other's papers. The questionnaire may take approximately forty minutes to complete.

Since the questionnaire deals with personal information, your responses will be held in the strictest confidence. Your name will not appear anywhere on the questionnaire or in the research. When you complete the questionnaire, put it in the envelope provided, seal the envelope, and sign your name across the seal of the envelope. Each marriage partner should use a separate envelope. The envelopes will be opened only by the researcher, R.S. Shackleford, Jr. Your privacy will be protected. The results of your questionnaire will be recorded by a research number and not by your name. It is hoped that this commitment to your privacy will ensure the most honest answers you can possibly give.

Specific instructions are given at the beginning of each section of the questionnaire. Please read these instructions carefully and complete the questionnaire.

Thank you for participating in this research.

R. S. Shackleford, Jr.
APPENDIX E.

BACKGROUND INFORMATION (AIM)
BACKGROUND INFORMATION
for AIM Instrument

1. Age:______

2. Sex:
   Male ( )
   Female ( )

3. Race:
   Asian ( )
   Black ( )
   Hispanic ( )
   Native American ( )
   White ( )
   Other:__________ ( )

4. Marital Status:
   Married ( )
   Remarried ( )

5. Number of children:
   Boys _____
   Girls _____

6. Ages of children:__________

7. Occupation:__________
   # of hours per week:_______

8. Religious Commitment:
   Strong ( )
   Moderate ( )
   Slight ( )
   None ( )

9. Church attendance:
   Very regularly ( )
   Somewhat regularly ( )
   Irregularly ( )
   Seldom ( )
   Never ( )

10. The most true statement is:
   Neither my partner nor
   I attend church ( )
   My partner and I attend
   church together ( )
   My partner and I attend
   separate churches ( )
   I attend church, but
   my partner does not ( )
   My partner attends
   church, but I do not ( )

11. Religious Affiliation:
    (Leave blank)
    Catholic ( )
    Jewish ( )
    Protestant ( )
    Denomination:_______
    Other:________________
    None:________________

12. Length of marriage:
    Newlywed - 1 yr. ( )
    2 yrs. - 7 yrs. ( )
    8 yrs. - 12 yrs. ( )
    13 yrs. - 19 yrs. ( )
    20 yrs. or more ( )

13. Length of engagement
    before marriage:_______

14. How much premarital
    counseling did you and
    your spouse receive?
    None ( )
    One session ( )
    Two sessions ( )
    Three sessions ( )
    Four sessions or more ( )

15. Have any of your
    relatives been divorced?
    (Check any who divorce)
    Grandparents ( )
    Parents ( )
    Siblings ( )

16. If your parents
    divorced, what was your
    age at the time of the
    divorce? _________

17. If your parents
    divorced, who gained
    custody of you?
    Mother ( )
    Father ( )
    Joint custody ( )
    Relatives ( )
    Foster Parents ( )
    Other (Specify:______)
18. Education:
- Less than high school ( )
- High school graduate ( )
- Some college ( )
- College graduate ( )
- Some graduate courses ( )
- Graduate degree ( )

19. Spouse’s Education:
- Less than high school ( )
- High school graduate ( )
- Some college ( )
- College graduate ( )
- Some graduate courses ( )
- Graduate degree ( )

20. Spouse’s Occupation:______________ # hours per week:_____

21. Family Income (per year):
- Under $10,000 ( )
- 10,000 - 19,999 ( )
- 20,000 - 29,999 ( )
- 30,000 - 39,999 ( )
- 40,000 - 49,999 ( )
- 50,000 or more ( )

22. If your parents divorced and you had siblings, did the custody arrangements keep you and your siblings together?_______

23. If your parents divorced, how would you describe the nature of the divorce?
- Bitter ( )
- Unfriendly ( )
- Mutually agreeable ( )
- Amicable (friendly) ( )
- Other (Specify): __________________________

24. How would you characterize your parents’ marital relationship most of the time?
- Very Happy ( )
- Happy ( )
- Unhappy ( )
- Very Unhappy ( )
- About Average ( )
- Other (Specify): __________________________

25. How would you characterize the level of conflict between your parents most of the time?
- Highly Conflictual ( )
- Conflictual ( )
- About Average ( )
- Other (Specify): __________________________

26. Was your father openly caring, affectionate, or expressive with your mother? Yes No Do Not Know
- ( )  ( )  ( )

27. Was your father openly caring, affectionate, or expressive with you? ( )  ( )  ( )

28. Was your mother openly caring, affectionate, or expressive with your father? ( )  ( )  ( )

29. Was your mother openly caring, affectionate, or expressive with you? ( )  ( )  ( )
30. Have any of these relatives of yours ever had an alcohol problem?

(Check any who have ever had an alcohol problem)

- One grandparent ( )
- More than one grandparent ( )
- One parent ( )
- Both parents ( )
- Step-parent ( )
- Custodian or guardian ( )
- One or more siblings ( )
- Spouse ( )
- Self ( )

31. Were you ever the victim of any of the following forms of child abuse?

<table>
<thead>
<tr>
<th>Abuse Type</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological/Emotional abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual abuse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If Yes, was the abuser...
- R = relative
- F = friend
- A = acquaintance
- S = stranger

If Yes, at what ages?
- R__ F__ A__ S__
APPENDIX F.

ASSESSMENT OF INTIMACY IN MARRIAGE (AIM)
Part 1: Current Level of Intimacy

Part 1 of this questionnaire deals with the levels of intimacy that exist in your marriage at the present time. Do not answer according to how other people think your marriage is or how you wish your marriage was. Do not answer according to how your marriage was in the past or may be in the future. Answer according to the way things actually are in your marriage at the present time.

A. About me...

Below are 60 statements which describe some aspects of behaviors between marriage partners. For each statement, please circle the response which best describes the behaviors in your relationship with your partner at this point in time.

Select from the following responses:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

1. I consider my friends to be my partner’s friends as well.  

2. I keep my feelings to myself.  

3. When I read, hear, or see something interesting, I tell my partner all about it.  

4. I reach out and hold my partner’s hand when we are walking together in public.  

5. I try to maintain a spiritual relationship with my partner.  

6. When there is a problem or crisis in our family, I make a special effort to be supportive of my partner.  

7. I know my partner’s sexual needs and desires, and I try to respond to them.
### Scoring scale:

- **SA** = Strongly agree
- **A** = Agree
- **N** = Neutral/Undecided
- **D** = Disagree
- **SD** = Strongly Disagree

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>I express my love and care for my partner by doing things with him/her.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>9</td>
<td>When my partner has a problem or crisis, I make every effort to help him/her solve the problem.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>10</td>
<td>I would seriously consider ending the marriage if I was unhappy in the relationship.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>11</td>
<td>I include my partner in activities I share with my friends.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>12</td>
<td>I understand how my partner feels about things.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>13</td>
<td>I discuss world events and social issues with my partner.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>14</td>
<td>I am not openly affectionate toward my partner when we are in public.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>15</td>
<td>An essential part of my relationship with my partner is our mutual spiritual commitment.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>16</td>
<td>My partner cannot count on me being sympathetic and caring when times are tough.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>17</td>
<td>I am comfortable and expressive in my sexual relations with my partner.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>18</td>
<td>Doing things with my partner does not make me feel closer to him/her.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>19</td>
<td>I try to suggest options or solutions for solving difficulties my partner experiences.</td>
<td>SA A N D SD</td>
</tr>
<tr>
<td>20</td>
<td>Even if I was unhappy in my marriage, I would continue to be devoted to my partner.</td>
<td>SA A N D SD</td>
</tr>
</tbody>
</table>
Scoring scale:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

21. I enjoy the time my partner and I spend with other people. SA A N D SD
22. I am sensitive to my partner’s moods and feelings. SA A N D SD
23. When I have a decision to make, I like to discuss it with my partner because I value his/her opinion. SA A N D SD
24. I often hug, touch, or kiss my partner for no special reason. SA A N D SD
25. It is not important to me to try to build a strong spiritual bond with my partner. SA A N D SD
26. In troubled times, my partner can lean on me. SA A N D SD
27. Having sex with my partner is one of the ways I show I care. SA A N D SD
28. I would rather not do things with my partner unless it is something I am personally interested in. SA A N D SD
29. In times of stress or trouble, my partner can count on me to help with what needs to be done. SA A N D SD
30. Even if my partner and I had serious problems, I would not seriously consider leaving the marriage. SA A N D SD
31. I do not enjoy being with my partner’s friends and I wish he/she spent less time with them. SA A N D SD
32. I am open and honest with my partner about my feelings. SA A N D SD
33. I do not find talking with my partner to be intellectually stimulating. SA A N D SD
Scoring scale:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

34. I am affectionate toward my partner. SA A N D SD
35. I do not try to maintain a spiritual relationship with my partner. SA A N D SD
36. I do not think I am able to offer much support for my partner in times of crises. SA A N D SD
37. When it comes to having sex with my partner, I do not make the first move. SA A N D SD
38. Things I enjoy doing are more meaningful to me when my partner participates with me. SA A N D SD
39. I feel helpless to do anything useful for my partner when he/she is going through a crisis. SA A N D SD
40. If my marriage began to take more from me than it was giving to me, I would seriously consider leaving. SA A N D SD
41. I do not feel close to my partner when we are with other people. SA A N D SD
42. My partner may find me hard to get close to emotionally. SA A N D SD
43. I do not like to discuss with my partner things that we disagree on. SA A N D SD
44. I am less affectionate than my partner. SA A N D SD
45. I do not consider a mutual spiritual commitment with my partner to be an essential part of our relationship. SA A N D SD
46. I am a source of strength for my partner in difficult times. SA A N D SD
47. I am not as interested in our sexual relations as my partner is. SA A N D SD
Scoring scale:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

48. I feel close to my partner when we do things together.

49. When my partner is having a crisis or problem, I am not very helpful.

50. When I have serious disagreements with my partner, I wonder how much I really want to be in this marriage.

51. My friends are not my partner’s friends.

52. I seem to misunderstand how my partner feels about things.

53. There are issues and ideas important to me that I do not talk with my partner about.

54. I am not affectionate toward my partner.

55. It is important to me to try to build a strong spiritual bond with my partner.

56. When there is a problem or crisis in our family, I do not make a special effort to be supportive of my partner.

57. I am uncomfortable and inexpressive in my sex relations with my partner.

58. I do not consider doing things with my partner to be a way I express my love care for him/her.

59. When my partner experiences difficulty, I avoid becoming involved in helping him/her solve it.

60. Even if my marriage began to take more from me than it was giving to me, I would not seriously consider leaving.
B. About my partner...

Below are 60 statements which describe some aspects of behaviors between marriage partners. For each statement, please circle the response which best describes your partner's behaviors toward you at this point in time.

Scoring scale:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

61. My partner considers his/her friends to be my friends as well.  
   SA A N D SD

62. My partner keeps his/her feelings to himself/herself.  
   SA A N D SD

63. When my partner reads, hears, or sees something interesting, he/she tells me all about it.  
   SA A N D SD

64. My partner reaches out and holds my hand when we are walking together in public.  
   SA A N D SD

65. My partner tries to maintain a spiritual relationship with me.  
   SA A N D SD

66. When there is a problem or crisis in our family, my partner makes a special effort to be supportive of me.  
   SA A N D SD

67. My partner knows my sexual needs and desires, and tries to respond to them.  
   SA A N D SD

68. My partner expresses his/her love and care for me by doing things with me.  
   SA A N D SD

69. When I have a problem or crisis, my partner makes every effort to help me solve the problem.  
   SA A N D SD

70. My partner would seriously consider ending the marriage if he/she was unhappy in the relationship.  
   SA A N D SD

71. My partner includes me in activities he/she shares with his/her friends.  
   SA A N D SD
<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>My partner understands how I feel about things.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>73</td>
<td>My partner discusses world events and social issues with me.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>74</td>
<td>My partner is not openly affectionate toward me when we are in public.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>75</td>
<td>My partner considers our mutual spiritual commitment to be an essential part of our relationship.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>76</td>
<td>I cannot count on my partner being sympathetic and caring when times are tough.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>77</td>
<td>My partner is comfortable and expressive in his/her sexual relations with me.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>78</td>
<td>Doing things with me does not make my partner feel closer to me.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>79</td>
<td>My partner tries to suggest options or solutions for solving difficulties I experience.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>80</td>
<td>Even if my partner was unhappy in our marriage, he/she would continue to be devoted to me.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>81</td>
<td>My partner enjoys the time we spend with other people.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>82</td>
<td>My partner is sensitive to my moods and feelings.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>83</td>
<td>When my partner has a decision to make, he/she likes to discuss it with me because he/she values my opinion.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>84</td>
<td>My partner often hugs, touches, or kisses me for no special reason.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>
Scoring scale:

SA = Strongly agree
A = Agree
N = Neutral/Undecided
D = Disagree
SD = Strongly Disagree

85. It is not important to my partner to try to build a strong spiritual bond with me. SA A N D SD

86. In troubled times, I can lean on my partner. SA A N D SD

87. Having sex with me is one of the ways my partner shows he/she cares. SA A N D SD

88. My partner would rather not do things with me unless it is something he/she is personally interested in. SA A N D SD

89. In times of stress or trouble, I can count on my partner to help with whatever needs to be done. SA A N D SD

90. Even if my partner and I had serious problems, he/she would not seriously consider leaving the marriage. SA A N D SD

91. My partner does not enjoy being with my friends and he/she wishes I spent less time with them. SA A N D SD

92. My partner is open and honest with me about his/her feelings. SA A N D SD

93. My partner does not find talking with me to be intellectually stimulating. SA A N D SD

94. My partner is affectionate toward me. SA A N D SD

95. My partner does not try to maintain a spiritual relationship with me. SA A N D SD

96. My partner does not seem to be able to offer me much support in times of crises. SA A N D SD

97. When it comes to having sex with me, my partner does not make the first move. SA A N D SD
98. Things my partner enjoys doing are more meaningful to him/her when I participate with him/her. **SA A N D SD**

99. My partner feels helpless to do anything useful for me when I am going through a crisis. **SA A N D SD**

100. If our marriage began to take more from my partner than it was giving to him/her, he/she would seriously consider leaving. **SA A N D SD**

101. My partner does not feel close to me when we are with other people. **SA A N D SD**

102. My partner is not an easy person for me to get close to emotionally. **SA A N D SD**

103. My partner does not like to discuss with me things that we disagree on. **SA A N D SD**

104. My partner is less affectionate than I am. **SA A N D SD**

105. My partner does not consider a mutual spiritual commitment with me to be an essential part of our relationship. **SA A N D SD**

106. My partner is a source of strength for me in difficult times. **SA A N D SD**

107. My partner is not as interested in our sexual relations as I am. **SA A N D SD**

108. My partner feels close to me when we do things together. **SA A N D SD**

109. When I am having a crisis or problem, my partner is not very helpful. **SA A N D SD**

110. When my partner has serious disagreements with me, he/she wonders how much he/she really wants to be in this marriage. **SA A N D SD**
Scoring scale:

- SA = Strongly agree
- A = Agree
- N = Neutral/Undecided
- D = Disagree
- SD = Strongly Disagree

111. My partner does not consider his/her friends to be my friends as well.  
SA A N D SD

112. My partner seems to misunderstand how I feel about things.  
SA A N D SD

113. There are issues and ideas important to my partner that he/she does not talk with me about.  
SA A N D SD

114. My partner is not affectionate with me.  
SA A N D SD

115. It is important to my partner to try to build a strong spiritual bond with me.  
SA A N D SD

116. When there is a problem or crisis in our family, my partner does not make a special effort to be supportive of me.  
SA A N D SD

117. My partner is uncomfortable and inexpessive in his/her sex relations with me.  
SA A N D SD

118. My partner does not consider doing things with me to be a way of expressing his/her care for me.  
SA A N D SD

119. When I experience difficulty, my partner avoids becoming involved in helping me solve it.  
SA A N D SD

120. Even if our marriage began to take more from my partner than it was giving to him/her, he/she would not seriously consider leaving.  
SA A N D SD
Part 2: Desired Level of Intimacy

Part 2 of this questionnaire deals with the levels of intimacy that you desire to have in your marriage. Do not answer according to how likely, possible, or realistic your desires may be, but answer according to the way you wish things were in your marriage.

A. About me...

Below are 60 statements which describe some aspects of behaviors between marriage partners. For each statement, please circle the response which best describes the way you would wish to behave toward your partner.

Select from the following responses:

HD = Highly desirable (I very much want to be like this.)
D = Desirable (I think I want to be like this.)
N = Neutral (I’m unsure how much I want to be like this.)
U = Undesirable (I don’t think I want to be like this.)
HU = Highly undesirable (I definitely don’t want to be like this.)

1. I consider my friends to be my partner’s friends as well.
   HD D N U HU

2. I keep my feelings to myself.
   HD D N U HU

3. When I read, hear, or see something interesting, I tell my partner all about it.
   HD D N U HU

4. I reach out and hold my partner’s hand when we are walking together in public.
   HD D N U HU

5. I try to maintain a spiritual relationship with my partner.
   HD D N U HU

6. When there is a problem or crisis in our family, I make a special effort to be supportive of my partner.
   HD D N U HU

7. I know my partner’s sexual needs and desires, and I try to respond to them.
   HD D N U HU

8. I express my love and care for my partner by doing things with him/her.
   HD D N U HU
Scoring scale:

HD = Highly desirable (I very much want to be like this.)
D = Desirable (I think I want to be like this.)
N = Neutral (I’m unsure how much I want to be like this.)
U = Undesirable (I don’t think I want to be like this.)
HU = Highly undesirable (I definitely don’t want to be like this.)

9. When my partner has a problem or crisis, I make every effort to help him/her solve the problem. HD D N U HU

10. I would seriously consider ending the marriage if I was unhappy in the relationship. HD D N U HU

11. I include my partner in activities I share with my friends. HD D N U HU

12. I understand how my partner feels about things. HD D N U HU

13. I discuss world events and social issues with my partner. HD D N U HU

14. I am not openly affectionate toward my partner when we are in public. HD D N U HU

15. An essential part of my relationship with my partner is our mutual spiritual commitment. HD D N U HU

16. My partner cannot count on me being sympathetic and caring when times are tough. HD D N U HU

17. I am comfortable and expressive in my sexual relations with my partner. HD D N U HU

18. Doing things with my partner does not make me feel closer to him/her. HD D N U HU

19. I try to suggest options or solutions for solving difficulties my partner experiences. HD D N U HU

20. Even if I was unhappy in my marriage, I would continue to be devoted to my partner. HD D N U HU

21. I enjoy the time my partner and I spend with other people. HD D N U HU
Scoring scale:
HD = Highly desirable (I very much want to be like this.)
D = Desirable (I think I want to be like this.)
N = Neutral (I’m unsure how much I want to be like this.)
U = Undesirable (I don’t think I want to be like this.)
HU = Highly undesirable (I definitely don’t want to be like this.)

22. I am sensitive to my partner’s moods and feelings. HD, D N U HU
23. When I have a decision to make, I like to discuss it with my partner because I value his/her opinion. HD D N U HU
24. I often hug, touch, or kiss my partner for no special reason. HD D N U HU
25. It is not important to me to try to build a strong spiritual bond with my partner. HD D N U HU
26. In troubled times, my partner can lean on me. HD D N U HU
27. Having sex with my partner is one of the ways I show I care. HD D N U HU
28. I would rather not do things with my partner unless it is something I am personally interested in. HD D N U HU
29. In times of stress or trouble, my partner can count on me to help with what needs to be done. HD D N U HU
30. Even if my partner and I had serious problems, I would not seriously consider leaving the marriage. HD D N U HU
31. I do not enjoy being with my partner’s friends and I wish he/she spent less time with them. HD D N U HU
32. I am open and honest with my partner about my feelings. HD D N U HU
33. I do not find talking with my partner to be intellectually stimulating. HD D N U HU
34. I am affectionate with my partner. HD D N U HU
Scoring scale:

HD = Highly desirable (I very much want to be like this.)
D = Desirable (I think I want to be like this.)
N = Neutral (I'm unsure how much I want to be like this.)
U = Undesirable (I don't think I want to be like this.)
HU = Highly undesirable (I definitely don't want to be like this.)

35. I do not try to maintain a spiritual relationship with my partner.

36. I do not think I am able to offer much support for my partner in times of crises.

37. When it comes to having sex with my partner, I do not make the first move.

38. Things I enjoy doing are more meaningful to me when my partner participates with me.

39. I feel helpless to do anything useful for my partner when he/she is going through a crisis.

40. If my marriage began to take more from me than it was giving to me, I would seriously consider leaving.

41. I do not feel close to my partner when we are with other people.

42. My partner may find me hard to get close to emotionally.

43. I do not like to discuss with my partner things that we disagree on.

44. I am less affectionate than my partner.

45. I do not consider a mutual spiritual commitment with my partner to be an essential part of our relationship.

46. I am a source of strength for my partner in difficult times.

47. I am not as interested in our sexual relations as my partner is.

48. I feel close to my partner when we do things together.
Scoring scale:

HD = Highly desirable (I very much want to be like this.)
D = Desirable (I think I want to be like this.)
N = Neutral (I'm unsure how much I want to be like this.)
U = Undesirable (I don’t think I want to be like this.)
HU = Highly undesirable (I definitely don’t want to be like this.)

49. When my partner is having a crisis or problem, I am not very helpful. HD D N U HU
50. When I have serious disagreements with my partner, I wonder how much I really want to be in this marriage. HD D N U HU
51. My friends are not my partner’s friends. HD D N U HU
52. I seem to misunderstand how my partner feels about things. HD D N U HU
53. There are issues and ideas important to me that I do not talk with my partner about. HD D N U HU
54. I am not affectionate toward my partner. HD D N U HU
55. It is important to me to try to build a strong spiritual bond with my partner. HD D N U HU
56. When there is a problem or crisis in our family, I do not make a special effort to be supportive of my partner. HD D N U HU
57. I am uncomfortable and inexpressive in my sex relations with my partner. HD D N U HU
58. I do not consider doing things with my partner to be a way I express my love care for him/her. HD D N U HU
59. When my partner experiences difficulty, I avoid becoming involved in helping him/her solve it. HD D N U HU
60. Even if my marriage began to take more from me than it was giving to me, I would not seriously consider leaving. HD D N U HU
B. About my partner...

Below are 60 statements which describe some aspects of behaviors between marriage partners. For each statement, please circle the response which best describes the way you would wish your partner behaved toward you.

**Scoring scale:**

HD = Highly desirable (I very much want my partner to be like this.)
D = Desirable (I think I want my partner to be like this.)
N = Neutral (I'm unsure how much I want my partner to be like this.)
U = Undesirable (I don't think I want my partner to be like this.)
HU = Highly undesirable (I definitely don't want my partner to be like this.)

<table>
<thead>
<tr>
<th>Statement</th>
<th>HD</th>
<th>D</th>
<th>N</th>
<th>U</th>
<th>HU</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. My partner considers his/her friends to be my friends as well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. My partner keeps his/her feelings to himself/herself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. When my partner reads, hears, or sees something interesting, he/she tells me all about it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. My partner reaches out and holds my hand when we are walking together in public.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. My partner tries to maintain a spiritual relationship with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66. When there is a problem or crisis in our family, my partner makes a special effort to be supportive of me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67. My partner knows my sexual needs and desires, and tries to respond to them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68. My partner expresses his/her love and care for me by doing things with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69. When I have a problem or crisis, my partner makes every effort to help me solve the problem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70. My partner would seriously consider ending the marriage if he/she was unhappy in the relationship.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scoring scale:

HD = Highly desirable (I very much want my partner to be like this.)
D = Desirable (I think I want my partner to be like this.)
N = Neutral (I'm unsure how much I want my partner to be like this.)
U = Undesirable (I don't think I want my partner to be like this.)
HU = Highly undesirable (I definitely don't want my partner to be like this.)

71. My partner includes me in activities he/she shares with his/her friends.  HD  D  N  U  HU
72. My partner understands how I feel about things.  HD  D  N  U  HU
73. My partner discusses world events and social issues with me.  HD  D  N  U  HU
74. My partner is not openly affectionate toward me when we are in public.  HD  D  N  U  HU
75. My partner considers our mutual spiritual commitment to be an essential part of our relationship.  HD  D  N  U  HU
76. I cannot count on my partner being sympathetic and caring when times are tough.  HD  D  N  U  HU
77. My partner is comfortable and expressive in his/her sexual relations with me.  HD  D  N  U  HU
78. Doing things with me does not make my partner feel closer to me.  HD  D  N  U  HU
79. My partner tries to suggest options or solutions for solving difficulties I experience.  HD  D  N  U  HU
80. Even if my partner was unhappy in our marriage, he/she would continue to be devoted to me.  HD  D  N  U  HU
81. My partner enjoys the time we spend with other people.  HD  D  N  U  HU
82. My partner is sensitive to my moods and feelings.  HD  D  N  U  HU
Scoring scale:

**HD** = Highly desirable (I very much want my partner to be like this.)

**D** = Desirable (I think I want my partner to be like this.)

**N** = Neutral (I’m unsure how much I want my partner to be like this.)

**U** = Undesirable (I don’t think I want my partner to be like this.)

**HU** = Highly undesirable (I definitely don’t want my partner to be like this.)

83. When my partner has a decision to make, he/she likes to discuss it with me because he/she values my opinion.

84. My partner often hugs, touches, or kisses me for no special reason.

85. It is not important to my partner to try to build a strong spiritual bond with me.

86. In troubled times, I can lean on my partner.

87. Having sex with me is one of the ways my partner shows he/she cares.

88. My partner would rather not do things with me unless it is something he/she is personally interested in.

89. In times of stress or trouble, I can count on my partner to help with whatever needs to be done.

90. Even if my partner and I had serious problems, he/she would not seriously consider leaving the marriage.

91. My partner does not enjoy being with my friends and he/she wishes I spent less time with them.

92. My partner is open and honest with me about his/her feelings.

93. My partner does not find talking with me to be intellectually stimulating.

94. My partner is affectionate toward me.
Scoring scale:

HD = Highly desirable (I very much want my partner to be like this.)
D = Desirable (I think I want my partner to be like this.)
N = Neutral (I'm unsure how much I want my partner to be like this.)
U = Undesirable (I don't think I want my partner to be like this.)
HU = Highly undesirable (I definitely don't want my partner to be like this.)

95. My partner does not try to maintain a spiritual relationship with me. HD D N U HU
96. My partner does not seem to be able to offer me much support in times of crises. HD D N U HU
97. When it comes to having sex with me, my partner does not make the first move. HD D N U HU
98. Things my partner enjoys doing are more meaningful to him/her when I participate with him/her. HD D N U HU
99. My partner feels helpless to do anything useful for me when I am going through a crisis. HD D N U HU
100. If our marriage began to take more from my partner than it was giving to him/her, he/she would seriously consider leaving. HD D N U HU
101. My partner does not feel close to me when we are with other people. HD D N U HU
102. My partner is not an easy person for me to get close to emotionally. HD D N U HU
103. My partner does not like to discuss things with me that we disagree on. HD D N U HU
104. My partner is less affectionate than I am. HD D N U HU
105. My partner does not consider a mutual spiritual commitment with me to be an essential part of our relationship. HD D N U HU
106. My partner is a source of strength for me in difficult times. HD D N U HU
Scoring scale:

HD = Highly desirable (I very much want my partner to be like this.)
D = Desirable (I think I want my partner to be like this.)
N = Neutral (I'm unsure how much I want my partner to be like this.)
U = Undesirable (I don't think I want my partner to be like this.)
HU = Highly undesirable (I definitely don't want my partner to be like this.)

107. My partner is not as interested in our sexual relations as I am. HD D N U HU
108. My partner feels close to me when we do things together. HD D N U HU
109. When I am having a crisis or problem, my partner is not very helpful. HD D N U HU
110. When my partner has serious disagreements with me, he/she wonders how much he/she really wants to be in this marriage. HD D N U HU
111. My partner does not consider his/her friends to be my friends as well. HD D N U HU
112. My partner seems to misunderstand how I feel about things. HD D N U HU
113. There are issues and ideas important to my partner that he/she does not talk with me about. HD D N U HU
114. My partner is not affectionate with me. HD D N U HU
115. It is important to my partner to try to build a strong spiritual bond with me. HD D N U HU
116. When there is a problem or crisis in our family, my partner does not make a special effort to be supportive of me. HD D N U HU
117. My partner is uncomfortable and inexpressive in his/her sex relations with me. HD D N U HU
118. My partner does not consider doing things with me to be a way of expressing his/her care for me. HD D N U HU
Scoring scale:

HD = Highly desirable (I very much want my partner to be like this.)
D = Desirable (I think I want my partner to be like this.)
N = Neutral (I'm unsure how much I want my partner to be like this.)
U = Undesirable (I don't think I want my partner to be like this.)
HU = Highly undesirable (I definitely don't want my partner to be like this.)

119. When I experience difficulty, my partner avoids becoming involved in helping me solve it.

120. Even if our marriage began to take more from my partner than it was giving to him/her, he/she would not seriously consider leaving.
APPENDIX G.

INSTRUMENTS FOR CONVERGENT VALIDITY
AND CONCURRENT VALIDITY
Note from Author

Due to copyright restrictions, the author cannot make other authors' instruments available upon demand through the UMI Dissertation Services. Therefore, information about obtaining these instruments is offered here in lieu of the instruments themselves. Pages 216-233, the pages on which the instruments were printed, are omitted.

Instruments can be obtained from the following addresses...

The Commitment Index (Stanley & Markman, 1992)

Scott M. Stanley, Ph.D.
Center for Marital and Family Studies
Department of Psychology
University of Denver
Denver, CO 80208

Dyadic Adjustment Scale (Spanier, 1976)

Multi-Health Systems, Inc.
908 Niagra Falls Boulevard
North Tonawanda, NY 14120-2060

Dyadic Support Scale (Worell & Lange, 1985)

Judith P. Worell, Ph.D.
Department of Education and Counseling Psychology
235 Dickey Hall
University of Kentucky
Lexington, KY 40506-0002

Personal Assessment of Intimacy in Relationships (Olson & Schaefer, 1981)

David H. Olson, Ph.D.
Family Social Science
290 McNeal Hall
St. Paul, MN 55108

Waring Intimacy Questionnaire (Waring & Reddon, 1983)

Edward M. Waring, M.D.
Kingston General Hospital/Hotel Dieu
166 Brock Street
Kingston, ON K7L 5G2 Canada
APPENDIX H.

RANK ORDER OF MEAN SCORES
Rank Order of Mean Scores of Current Intimacy for Males, Assessed by Self and Partner

<table>
<thead>
<tr>
<th>Males (current intimacy by self)</th>
<th>n</th>
<th>X</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>1. Crisis (affective)</td>
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<td>26.09</td>
<td>2.91</td>
</tr>
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<td>2. Crisis (instrumental)</td>
<td>100</td>
<td>25.14</td>
<td>2.90</td>
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<tr>
<td>3. Shared Activity</td>
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<td>24.46</td>
<td>2.84</td>
</tr>
<tr>
<td>4. Physical (sexual)</td>
<td>99</td>
<td>24.13</td>
<td>3.22</td>
</tr>
<tr>
<td>5. Intellectual</td>
<td>100</td>
<td>23.29</td>
<td>3.65</td>
</tr>
<tr>
<td>6. Physical (non-sexual)</td>
<td>100</td>
<td>23.11</td>
<td>4.07</td>
</tr>
<tr>
<td>7. Commitment</td>
<td>100</td>
<td>22.32</td>
<td>4.44</td>
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<td>8. Spiritual</td>
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<td>22.19</td>
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<td>9. Social</td>
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<td>10. Emotional</td>
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<th>Males (current intimacy by spouse)</th>
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<td>24.26</td>
<td>4.03</td>
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<td>2. Physical (sexual)</td>
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<tr>
<td>3. Intellectual</td>
<td>100</td>
<td>22.79</td>
<td>4.69</td>
</tr>
<tr>
<td>4. Shared Activity</td>
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<td>22.63</td>
<td>4.26</td>
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<tr>
<td>5. Crisis (affective)</td>
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<td>22.53</td>
<td>3.31</td>
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<tr>
<td>6. Physical (non-sexual)</td>
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<td>5.95</td>
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<td>7. Commitment</td>
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<td>21.65</td>
<td>4.96</td>
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<tr>
<td>8. Emotional</td>
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<td>21.58</td>
<td>5.48</td>
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<td>9. Social</td>
<td>100</td>
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<tr>
<td>10. Spiritual</td>
<td>100</td>
<td>21.10</td>
<td>6.09</td>
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<tr>
<td>Total:</td>
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<td>224.13</td>
<td>36.52</td>
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**Rank Order of Mean Scores of Current Intimacy for Females, Assessed by Self and Spouse**

<table>
<thead>
<tr>
<th>Females (current intimacy by self)</th>
<th>n</th>
<th>X</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>1. Crisis (affective)</td>
<td>100</td>
<td>25.89</td>
<td>3.46</td>
</tr>
<tr>
<td>2. Crisis (instrumental)</td>
<td>100</td>
<td>25.08</td>
<td>3.29</td>
</tr>
<tr>
<td>3. Shared Activity</td>
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<td>3.71</td>
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<tr>
<td>4. Intellectual</td>
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<td>4.12</td>
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<td>5. Physical (non-sexual)</td>
<td>100</td>
<td>23.52</td>
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<tr>
<td>6. Emotional</td>
<td>100</td>
<td>22.93</td>
<td>4.55</td>
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<tr>
<td>7. Spiritual</td>
<td>100</td>
<td>22.52</td>
<td>5.63</td>
</tr>
<tr>
<td>8. Physical (sexual)</td>
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<td>22.16</td>
<td>5.19</td>
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<tr>
<td>9. Social</td>
<td>100</td>
<td>21.98</td>
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<tr>
<td>10. Commitment</td>
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<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
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<td>1. Crisis (instrumental)</td>
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<td>24.21</td>
<td>3.56</td>
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<tr>
<td>2. Intellectual</td>
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<td>3. Shared Activity</td>
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<td>3.54</td>
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<td>4. Crisis (affective)</td>
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<td>22.96</td>
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<td>5. Emotional</td>
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<td>6. Physical (non-sexual)</td>
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<td>7. Spiritual</td>
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<td>8. Commitment</td>
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<td><strong>Total:</strong></td>
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APPENDIX I.

SUMMARY OF Q-SORT RESULTS
Summary of O-sort Results

Items with >90% discriminant validity:

1, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 24, 25, 27, 30, 32, 33, 34, 35, 37, 38, 40, 41, 42, 45, 46, 47, 48, 51, 52, 55, 56, 57, 58, 60

Items with 80-90% discriminant validity:

12, 19, 26, 28, 29, 36, 39, 43, 50, 54, 56, 59

Items with <80% discriminant validity:

2, 23, 31, 44, 49, 53

Items revised due to O-sort results:

Item 2 (lack of discrimination between Intellectual and Emotional Intimacy)

Original: I keep my thoughts and feelings to myself.

Revised: I keep my feelings to myself.

Item 23 (lack of discrimination between Intellectual and Emotional Intimacy)

Original: When I have things on my mind or decisions I need to make, I like to discuss them with my partner.

Revised: When I have a decision to make, I like to discuss it with my partner because I value his/her opinion.

Item 31 (lack of discrimination between Social and Shared Activity Intimacy)

Original: I prefer that my partner and I spend our time together rather than with other people.

Revised: I do not enjoy being with my partner’s friends and wish he or she spent less time with them.
**Item 44** (lack of discrimination between Physical [sexual] and Sexual [non-sexual] Intimacy)

Original: I am not comfortable being affectionate with my partner unless we are going to have sex.

Revised: I am less affectionate than my partner.

**Item 49** (lack of discrimination between Emotional and Crisis [affective] Intimacy)

Original: I try to stay out of my partner's personal problems.

Revised: When my partner is having a crisis or problem, I am not very helpful.

**Item 53** (lack of discrimination between Intellectual and Emotional Intimacy)

Original: I do not talk with my partner about my experiences.

Revised: There are issues and ideas important to me that I do not talk with my partner about.