Family cohesion and personal space in families with adolescents
by James Wendell Lowe

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Home Economics
Montana State University

Abstract:
An empirical study of the relationship between family cohesion and personal space within families was conducted in a sample of 40 intact nuclear, non-clinical families. Using the cohesion scale of FACES II as developed by Olson, Portner, and Bell (1982), each family was categorized on family cohesion ranging from enmeshed to balanced to disengaged. Three measurements of personal space within the family were taken: the Family Approach-stop measure, the Dyadic Approach-stop measure and the Felt Board measure to determine if enmeshed families stood closer together than balanced or disengaged families. Families with old and young adolescents were used to determine if young adolescent families stood closer together than old adolescent families.

Also, the correlation between the three types of personal space measures was determined. There was a tendency for enmeshed families to stand closer than balanced families but the difference was not significant. The opposite was true for disengaged families. They tended to stand closer than balanced families. Again, the difference was not significant. The third hypothesis that the personal space between a parent and an old adolescent would be greater than the personal space between a parent and a young adolescent was supported using the Family Approach-Stop measure only. Using Pearson product moment correlations it was found that there was a significant positive relationship between the three measurements of personal space. The highest correlations were between the two direct measures of personal space, the Family Approach-Stop measure and the Dyadic Approach-Stop measure. Due to the small sample size the results of this study should be interpreted with caution.

FAMILY COHESION AND PERSONAL SPACE IN FAMILIES WITH ADOLESCENTS

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5/21/87
Date

Chairperson, Graduate Committee

Approved for the Major Department

May 21, 1987
Date

Margaret Briggs
Head, Major Department

Approved for the College of Graduate Studies

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ABSTRACT

An empirical study of the relationship between family cohesion and personal space within families was conducted in a sample of 40 intact nuclear, non-clinical families. Using the cohesion scale of FACES II as developed by Olson, Portner, and Bell (1982), each family was categorized on family cohesion ranging from enmeshed to balanced to disengaged. Three measurements of personal space within the family were taken: the Family Approach-stop measure, the Dyadic Approach-stop measure and the Felt Board measure to determine if enmeshed families stood closer together than balanced or disengaged families. Families with old and young adolescents were used to determine if young adolescent families stood closer together than old adolescent families. Also, the correlation between the three types of personal space measures was determined. There was a tendency for enmeshed families to stand closer than balanced families but the difference was not significant. The opposite was true for disengaged families. They tended to stand closer than balanced families. Again, the difference was not significant. The third hypothesis that the personal space between a parent and an old adolescent would be greater than the personal space between a parent and a young adolescent was supported using the Family Approach-Stop measure only. Using Pearson product moment correlations it was found that there was a significant positive relationship between the three measurements of personal space. The highest correlations were between the two direct measures of personal space, the Family Approach-Stop measure and the Dyadic Approach-Stop measure. Due to the small sample size the results of this study should be interpreted with caution.

INTRODUCTION

The emotional separateness or connectedness of family members is a significant dimension of family functioning (Hess & Handel, 1967). This dimension is referred to as "cohesion" by Olson, Sprenkle, and Russell (1979). Depending on the amount of cohesion, each family displays a complex pattern of feelings and attitudes that reflect this cohesion. It has been demonstrated that this pattern of feelings and attitudes may be measured by the way family members physically distance themselves from one another, or in other words, how family members regulate personal space (Gerber, 1973; Gerber & Kaswan, 1971).

Personal space is defined as an aura, a bubble, or an invisible boundary which surrounds a person's body into which another person may not intrude without one feeling some discomfort (Sommer, 1969). Several studies (Higgins, Peterson, & Dolby, 1969; Tolar, 1970; Weinstein, 1965) indicate that there is a negative relationship between positive affect and social adjustment in the family (both components of cohesion) and the physical spacing of family members (DeCarlo, Sandler, & Tittler, 1981). That is, the greater the social adjustment and positive affect in the family, the less physical distance between family members in many social situations. The relationship between psychological distance in the family and physical space has also been substantiated in studies of schematic behavior in families (DeCarlo et al., 1981). In general, these findings suggest that the higher the level of cohesion in the family, the more the

family will utilize personal space so that physical distance between family members is minimal.

Family cohesion has been most recently studied by Olson and his colleagues (Olson, Russell, & Sprenkle, 1979). They developed the Circumplex Model with cohesion as one of two major dimensions of family functioning. It provides a framework for describing types of couples and families (see Figure 1). The two central dimensions in the model are family cohesion and family adaptability. Family cohesion is defined as the emotional bonding family members have with each other (Olson et al., 1983). There are four levels of cohesion: disengaged (very low cohesion), separated (low to moderate cohesion), connected (moderate to high cohesion), and enmeshed (very high cohesion). Enmeshment results in limited individual autonomy and intense bonding to the family. Disengagement results in low bonding in the family with each family member "doing his own thing" (Olson et al., 1983). Research has shown that families at either of these extremes of the cohesion dimension (i. e. enmeshed or disengaged) function less effectively and have more problems than families at a balanced level (i.e. separated or connected) (See Figure 2). This curvilinear relationship contrasts with earlier assumptions that the greater the cohesion in the family, the better the family functions. Olson's studies have shown that too much emotional closeness may be as dysfunctional as too little emotional closeness. Bowen (1978) calls too much closeness, "fusion"; Minuchin (1974) calls it "enmeshment."

A study by DeCarlo, Sandler, and Tittler (1981) supports Olson's theory of cohesion. They suggest that goals in family therapy should

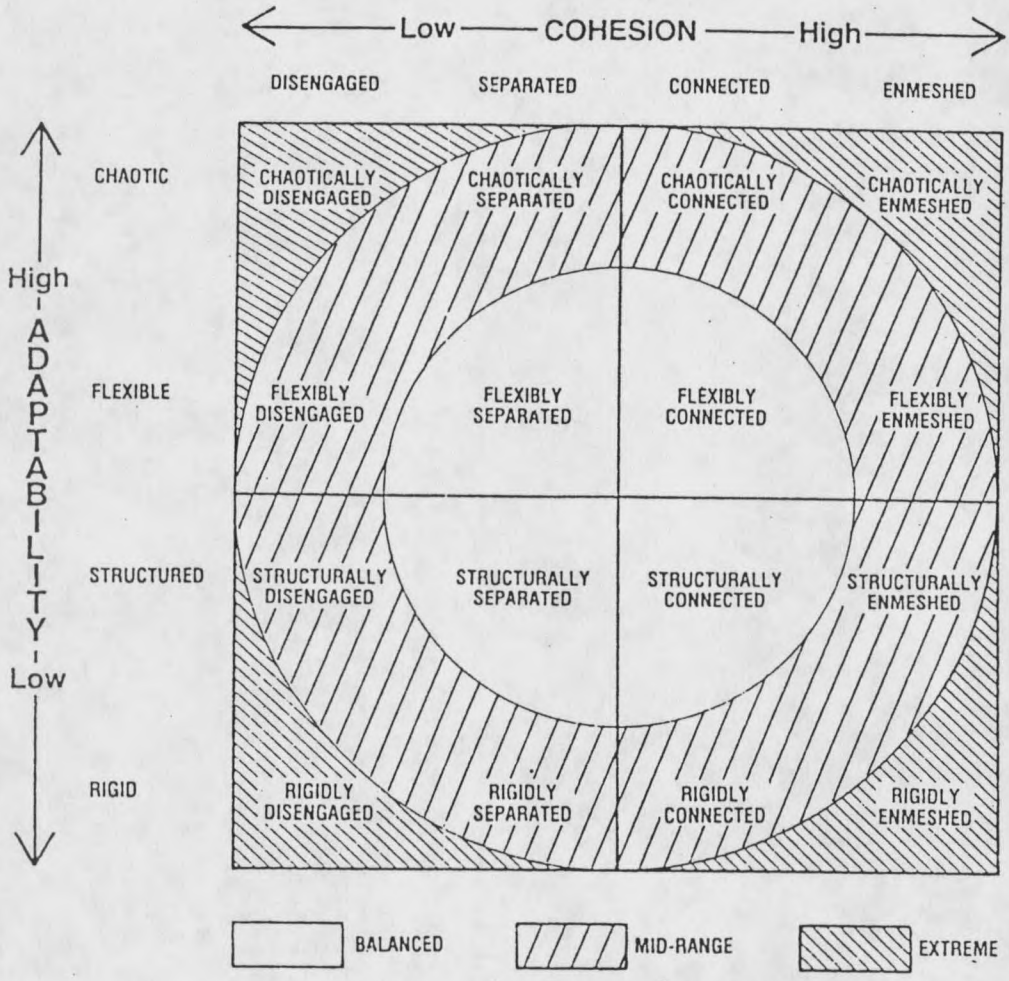

Figure 1. Circumplex Model: Sixteen Types of Marital and Family Systems.

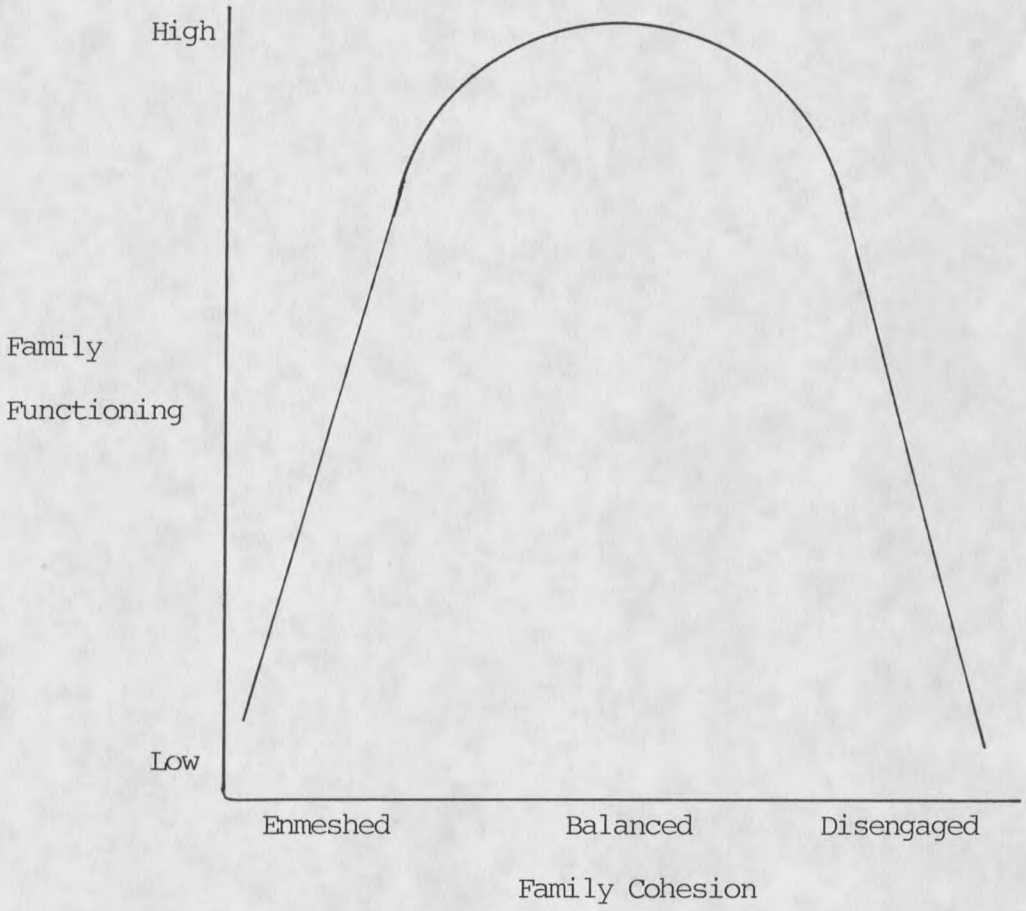

Figure 2. The Relationship Between Family Cohesion and Family Functioning.

not be based upon an assumption that family functioning and cohesion are related in a linear way since being too close or "enmeshed" may be as maladaptive as being emotionally withdrawn. They found that, compared to pretest measures, mothers of children in therapy placed the mother doll farther from the doll representing the enrolled child in the posttest measurements of personal space. They suggested that this placement of the dolls further from the child represents adaptation as a result of therapy in light of the fusion or enmeshment between the mother and the symptomatic child before the child's treatment.

Olson et al. (1983) have also shown that family cohesion varies with the stages of the family life cycle. In the early marriage stage family cohesion is the highest and remains fairly high while children are very young. As the children develop into adolescents many families experience lower family cohesion. During the launching stage when children leave the home, family cohesion is usually at its lowest ebb. Olson et al. (1983) suggest that this lower level of cohesion is due to the adolescent trying to carve out a life for him/herself differentiating the self from the family. Simultaneously, the parents are also differentiating from the adolescent as can be seen in their increasing need for privacy (Leigh, 1986; Smith, 1986; Montemayor, 1986). The result is a lower sense of togetherness or closeness at this stage in the family life cycle.

Need for the Study

The purpose of this study was to build upon the findings of previous studies of family cohesion and personal space in the family.

While DeCarlo et al. (1981) used a clinical sample, the present study focused on how non-clinical families regulate personal space as a function of family cohesion. DeCarlo and his colleagues admitted that they did not use an acceptable instrument for measuring the degree of enmeshment between the mother and the child being treated. They measured enmeshment by schematic placement of felt figures on a felt board as arranged by the mother. This study utilized a more valid and reliable measure of family cohesion: the cohesion subscale of the Family Adaptibility and Cohesion Evaluation Scales II (FACES II) (Olson, Portner, & Bell, 1982).

As described above, Olson et al. (1979) found cohesion exists on a continuum from enmeshed to balanced to disengaged. This study determined the relationship between these levels of cohesion and personal space in the family. A negative relationship between cohesion and personal space in the family may provide more validity for Olson's cohesion construct.

In previous studies utilizing personal space to determine family cohesion, no direct measure of personal space has been used. Instead, indirect projective measures utilizing felt figures to represent family members have commonly been used (e.g. DeCarlo et al, 1981). In this study, both direct measures of personal space (two versions of the approach/stop measure) and an indirect measure of personal space (the felt figure task) were utilized and the methods compared for equivalency.

Since Olson et al. (1983) found lower levels of cohesion in families with adolescents, this study also examined if this lower

level of cohesion manifests itself in variations in personal space in the family.

Definition of Terms

1. Family Cohesion--Family cohesion is defined as the emotional bonding that exists between family members (Olson, Russell, & Sprenkle, 1983). It suggests a sense of closeness or togetherness in the family. Cohesion is a major dimension on Olson's Circumplex Model of family functioning (Olson et al., 1979).

2. Family Adaptability--Family adaptability is defined as the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress (Olson et al., 1983). It focuses on the extent to which family systems are flexible and able to change. Adaptability is the other major dimension on Olson's Circumplex Model.

3. Personal Space--Kantor and Lehr (1976) define personal space as that territory or distance which one member of a family imposes between him/her self and others. According to them distance regulation between family members as well as others outside the family is a key function of families.

4. Enmeshed Family--An enmeshed family has very high family cohesion scoring 73.1 and above on Olson et al's. FACES II cohesion scale.

5. Balanced Family--A balanced family has neither too much nor too little family cohesion scoring 57 to 73 on FACES II.

6. Disengaged Family--A disengaged family has very low family cohesion scoring 56.9 or below on FACES II.

7. Young Adolescent--An adolescent who is 10-13 years of age is called a "young adolescent" in this study.

8. Old Adolescent--An adolescent who is 16-18 years of age is called an "old adolescent" in this study.

Purpose of the Study

The purposes of this study were to: (1) determine the relationship between personal space regulation between parents and their adolescent and family cohesion in a non-clinical sample; (2) determine the differences in personal space for families with young adolescents and families with old adolescents; and (3) compare direct and indirect measures of personal space regulation.

REVIEW OF THE LITERATURE

Family Cohesion

In reviewing the literature, Olson, Portner, and Bell (1979), found that a number of different social science disciplines frequently use the terms "cohesion" and "adaptability" when describing marital and family interaction. Simply defining the dimensions, although useful, was not integrative. Therefore, Olson et al. (1979) developed a circumplex model of family cohesion and adaptability. The Circumplex Model (Olson et al., 1979) is a theoretical model consisting of the family cohesion and family adaptability dimensions. The model consists of a four-by-four matrix which forms sixteen cells, each of which identifies a type of marital or family system (See figure 2). The four levels of cohesion from low to high are disengaged, separated, connected, and enmeshed. The four dimensions of adaptability from low to high are rigid, structured, flexible and chaotic.

The four types of families in the central region of the model (balanced) reflect balanced levels of both cohesion and adaptability and are seen as most functional. The four extreme types reflect very high or very low levels of cohesion and adaptability and are generally seen as more dysfunctional. The relationship of family functioning to the two dimensions of cohesion and adaptability is curvilinear in that a balanced level rather than too little or too much cohesion and adaptability are not optimal for healthy family functioning. The

interest of this study was focused on comparing families with extreme levels of cohesion (enmeshed or disengaged) with those who reflect a balanced level of cohesion (separated or connected) on measures of personal space.

When reviewing the family literature, Olsen et al. (1983) found at least forty concepts relate to the dimension of family cohesion indicating the significance of cohesion as a unifying dimension of family functioning. The definition of family cohesion used in the Circumplex Model has two components, both relating to the emotional bonding between members. Enmeshment refers to an extremely high level of family cohesion. It is indicative of over identification with the family that results in extreme bonding and limited individuation or autonomy. Disengagement refers to an extremely low level of family cohesion. It is characterized by low bonding in the family. It has been shown that a balanced level of family cohesion is most conducive to optimal family functioning and individual development (Olson et al., 1983).

The Circumplex Model has been empirically validated in two separate studies by Russell (1979) and Sprenkle and Olson (1978). Russell's study (1979) hypothesized that moderate family cohesion and moderate adaptability were more functional than either extreme. A sample of thirty-one families was divided into those who had difficulties with their adolescents and those who did not. It was found that better family functioning was associated with moderate levels of family cohesion and adaptability while worse family functioning was related to extreme scores on these dimensions.

More Recent studies further validate Olson's Circumplex Model of family functioning (Olson, 1986). To test the hypothesis that balanced family types are more functional than extreme types (enmeshed and disengaged), several studies have been done focusing on a range of emotional problems and symptoms in couples and families (Olson, 1986). Olson cites a study by Clarke (1984) which compared families with schizophrenics, neurotics, families who had been in therapy at some-time in their past, and a no-therapy control group. Clarke (1984) found a very high number of extreme families (enmeshed and disengaged) in the neurotic and schizophrenic groups compared to the no-therapy control group. Compared to other groups, he found a significantly higher number of families in the balanced range in the no-therapy group. The percentage of extreme family types decreased dramatically from the symptomatic to no-therapy groups (neurotic, 64%; schizophrenic, 56%; in therapy, 38%; no-therapy, 7%) (Olson, 1986).

In a study by Olson and Killorin (1984) focusing on alcoholic families in which the identified patient was the mother or father, it was found that alcoholic famlies had a significantly higher number of extreme family types compared to nondependent families. Twenty-one percent of the chemically dependent families were extreme types, while only four percent of the nondependent families were extreme types. Conversely, 65% of the nondependent families were balanced, while only 38% of the dependent families were in the balanced range.

A recent study by Carnes (1985) investigated the family systems of sex offenders. Again, he found high levels of extreme family types in both their family of origin and in their current families. It was

found that 49% of the families of sex offenders had extreme family types in their family of origin and 66% of their current families were extreme types while only 19% of the nonoffender families were extreme. While only 11% of their family of origin and 19% of their current families were balanced in the offender families, 57% of the nonoffender families were balanced.

Personal Space

Personal space has been described as an aura, a bubble, or an invisible boundary which surrounds a person's body into which another person may not intrude without the person feeling some discomfort (Sommer, 1969). The amount of discomfort a person feels when his/her personal space is invaded depends upon the relationship with a person. Little (1965) found that if a dyad is labeled as friends they will interact at a closer distance than if they are acquaintances, and acquaintants will interact at closer distances than strangers.

Hall (1966) classified personal space into four types: intimate distance, personal distance, social distance and public distance. Each of these distances has a close phase and a far phase. The close phase of intimate distance is bodily contact while the far phase is six to eighteen inches. The close phase of personal distance is eighteen to thirty inches while the far phase is two and a half to four feet. The close phase of social distance is four to seven feet with the far phase estimated at seven to twelve feet. Close public distance is twelve to twenty-five feet while the distance in the far phase is more than twenty-five feet.

A number of studies (Gerber, 1973; Higgens, Peterson, & Dolby, 1969; Tolar, 1970; Weinstein, 1965) have shown a relationship between social adjustment and the regulation of personal space. Both Tolar (1970) and Higgens et al. (1969) found that socially adjusted adults placed mother and child doll figures closer together on a projective personal space task than did poorly adjusted adults. A study by Weinstein (1965) showed that better adjusted elementary school boys placed child doll figures closer to adult female figures while disturbed boys placed child doll figures closer to adult male figures. In Gerber's study (1973) teachers observed normal and disturbed boys and found disturbed boys showed more interpersonal distance than normal boys. The above studies indicate that, compared to poorly adjusted persons, better adjusted persons may tend to interact with others by standing or sitting closer to them.

The regulation of personal space has also been studied using married partners and strangers (Crane & Griffin, 1983; Hill, Blackham, & Crane, 1982). Hill et al. (1982) hypothesized that the physical distance between partners is smallest for married persons, somewhat greater between a married subject and a same-sexed stranger, and greatest between a married person and an opposite-sexed stranger. The method of investigation included both a projective measure and a behavioral measure. The behavioral measure consisted of an approach/stop directive. This directive requires the members of a dyad to stand at opposite ends of the room, walk toward one another, and stop when they feel the closest possible distance has been attained before feeling discomfort. In the projective measure, each

subject was shown a sheet of white paper and asked to imagine it was a room. The person then took four green paper discs representing the self, his or her spouse, and another couple. The subject was told he/she would be spending a social evening with the other three people and was asked to place the paper discs on the sheet of white paper at distances that felt comfortable to him/her. The results of this study confirmed the hypothesis that marital dyads use less personal space than other dyads.

Crane and Griffin (1983) found that the personal space distance was less for happily married couples than for unhappily married couples. Couples with higher marital adjustment stood and sat closer than couples with lower marital adjustment. Further analyses revealed that the approach/stop measure was able to differentiate between distressed and non-distressed couples based on their scores on the Area of Change Questionnaire and the Locke-Wallace Marital Adjustment Test.

Personal space regulation has also been studied in the family (De Carlo et al., 1981; Gerber & Kaswan, 1971; Kantor & Lehr, 1976.) Kantor and Lehr (1976) were among the first family researchers to discuss space utilization in the family. They emphasized that the regulation of personal space within the family is of basic importance as members confront the difficult task of trying to develop and maintain optimal spatial relationships with one another. The physical design of a household may have a strong effect on personal space as family members make the moment to moment decisions as to how to regulate personal space. Regions within the interior of the house such as

the parents' bed, father's study, the nursery, the rug in front of the fireplace, the TV room, the dining room table, or the back porch take on special meaning as central regions of the family where the most intimate and meaningful activities in a family's life take place (Kantor & Lehr, 1976).

Kantor and Lehr use the term "linking" to describe the mechanism used to regulate personal space between family members. Linking is the regulating of distance, that is, the physical and conceptual associations and dissociations of all family members within the family's spatial interior. Linking operations directly affect interpersonal relations between family members as each family member reacts to either bring persons closer together or maneuver to move persons farther apart.

In the linking process family members learn to use a "bridging" mechanism for bringing members closer together. For example, a teenage girl calls to her two angry brothers upstairs asking them to come to the living room for a game of Scrabble. On the other hand, family members also learn how to set up "buffer" zones, that is, a maneuver in which persons voluntarily separate. An example may be a situation in which Mr. Jones enters a room where his wife is sitting; Mrs. Jones then picks up what she is doing and leaves the room to regain some privacy. Other kinds of linking include "blocking out," (the coercive or involuntary separating of persons), "channeling," (the involuntary or coercive bringing together of people), and "recognizing" (the referencing mechanism of linking). Recognizing establishes the relevance of all linking phenomena--of bridging, buffering, blocking out,

and channeling activities. If there is habitual non-recognition of other family members there can be no relationship. Recognition validates the other person and affirms the relevance of his/her actions.

Gerber and Kaswan (1971), using felt doll figures to represent family members, found a negative relationship between affect and personal space within the family. The research method consisted of having each family member place the dolls representing family members on a felt board according to specified affective story themes which were read to them---loving, happy, worried, sad, and angry. The orientation of the dolls, that is, how the dolls were placed to face toward or away from one another, was also studied. The family members represented themselves as more connected and interacting when positive emotion story themes were used compared to negative story themes.

DeCarlo et al. (1981) note that since there seems to be a negative correlation between personal adjustment and personal space, personal space may be used to assess the quality of parent-child relationships. They investigated the use of personal space of male children with behavior problems and their families using a felt doll figure placement measure. They made both dyadic and schematic measures. The dyadic measure refers to the distance placed between a doll representing self and a doll representing another family member. The schematic measure refers to the spacial placement of the dolls in reference to each other. For example, are the mother and father dolls placed next to each other or is there a child placed between them? One of the purposes of this study was to examine personal space in relationship to the concepts of enmeshment and disengagement. The

results of the study showed that mothers placed their self-referent figure farther from the enrolled child figure after the child graduated from the six-week treatment program than before the program began. The researchers noted that the significance of this result depends on whether one views the relationship between adjustment and personal space as linear or curvilinear. In this study the greater distancing between mother and child after treatment was defined as positive in that the mother and child were probably originally in a fused or enmeshed relationship.

Adolescence and Personal Space

Matteson (1975) notes that although the adolescent period is not generally one of open rebellion against parents, it is a period of finding one's own way and developing an individual identity. This process naturally involves a greater need for privacy and independence from parents. The adolescent may subsequently feel a greater need for physical distance from parents than he/she did as a child. However, this need for more physical distance has not yet been studied.

The family may either support and encourage the individuation of the adolescent or suppress it and foster dependence. Elder (1963) examined the relationship between autocratic, democratic, and permissive parental discipline practices and adolescent autonomy. The results showed that adolescent autonomy was most likely to develop in families in which the parents employed democratic and permissive patterns of discipline, provided those parents also frequently gave explanations for their decisions. Other results show that independence

and autonomy are fostered when parents are warm and involved but allow their children to explore and do things on their own (Matteson, 1975).

There is some evidence that adolescent girls have more difficulty in achieving individuation than adolescent boys (Cohler & Geyer, 1982). Boys are normally permitted more privacy in their personal affairs than girls. Parents tend to encourage independence in boys and dependence in girls (Cohler & Geyer, 1982).

In relationship to the family life cycle, no phase is more stressful to the family than the adolescent years (Olson et al., 1983). Some of that stress is due to the changing needs and preferences of adolescents as they increasingly seek independence from their families and seek identity within their peer group. Olson et al. (1983) emphasize that some of the stress is due to the discrepancies between adolescents and parents in viewing family interaction. In their study of 412 families with adolescents, they found that adolescents viewed their families more negatively than did their parents. Parents were more likely to view the family in the balanced area of the Circumplex Model, whereas adolescents viewed the family as more extreme. While parents felt that much of the stress in the family was due to finances, adolescents perceived the major family stressors as the day-to-day "hassles" with their parents.

During the adolescent stage and the launching stage (children leaving home), Olson et al. (1983) found families tend to have less cohesion in the family than at any other stage in the family life cycle. One explanation for this is that the adolescent is struggling with the issue of independence. Hence, it may be necessary for the

adolescent to emotionally and physically distance himself/herself from the family. In striving to move outside the family system, the adolescent may "objectify" the group and adapt what he/she assumes would be an outsider's view. Evidence for this idea is provided by Olson et al. (1983) finding that adolescents perceived lower levels of family cohesion than was perceived by either parent.

In summary, it seems that adolescents need increased opportunities for individuation and separation from their families in order to develop independence and autonomy. Too much cohesion, leading to enmeshment may foster dependency and, hence, minimize autonomy. Too little cohesion or disengagement may lead to alienation rather than autonomy. In healthy functioning families, adolescents gradually gain autonomy. In the process, they may regulate personal space between self and parent so as to gradually increase interpersonal distance as they get older and hence, gain feelings of privacy and autonomy.

Summary and Rationale

Personal space is an important component of family interaction and may reflect the amount of cohesion between family members. Olson et al. (1983) have shown that cohesion exists on a continuum and has two extremes: enmeshment (too much cohesion) and disengagement (too little cohesion). Most of the past studies suggest a negative relationship between family functioning and personal space. These studies have assumed that the greater the family cohesion, the better the family functioning and the less the personal space between family members. These studies fail to realize that an enmeshed relationship, wherein family members tend to stand or sit very close together, may be as

dysfunctional as a disengaged relationship, wherein people stand far apart. This study examined the relationship between personal space regulation and Olson, Russell, and Sprenkle's (1983) model of cohesion. This model suggests that enmeshed families will stand closer together than balanced families who will stand closer together than disengaged families.

Adolescence is a time when the issue of family cohesion may be especially important. Adolescents' need for independence and privacy may be reflected in their regulation of personal space in the family. In this study, the relationship between age of adolescent and personal space was studied.

Finally, past studies comparing direct (i.e. approach/stop) measures of personal space with indirect (i.e. felt board) measures have utilized college student samples only. This study compared direct and indirect methods using nonclinical family members as subjects.

Hypotheses

Based on the review of the literature the following hypotheses were tested:

1. The personal space between a parent and an adolescent in an enmeshed family will be less than the personal space between a parent and an adolescent in a balanced family.

2. The personal space between a parent and an adolescent in a disengaged family will be greater than the personal space between a parent and an adolescent in a balanced family.

3. The personal space between a parent and an old adolescent will be greater than the personal space between a parent and a young adolescent.

4. There will be a positive relationship between personal space as measured by two approach/stop (direct) methods and personal space as measured by the felt figure (indirect) method.

METHOD

Sample

The sample for this study was a nonprobability sample consisting of 40 intact nuclear families. A family was defined as a biological mother and father and at least one adolescent living together. The sample consisted of eighteen families (N=18) with young adolescents and twenty-two families (N=22) with old adolescents. There were nineteen male adolescents and twenty-one female adolescents in the study.

The demographic characteristics of the sample show the mean age of the husbands (N=40) was $\bar{X}$=41.3 years, (S.D.=6.65) (see Table 1); the mean age of the wives (N=40) was $\bar{X}$=38.7 years (S.D.=5.53). The families had a mean annual family income of $26,400 (S.D.=$4,500). The couples (N=40) had been married an average of 18.5 years (S.D.=4.73). The education levels of the parents (N=80) ranged from the 8th grade to post graduate school with 6 not finishing high school, 17 high school graduates, 29 with some college or trade school, 23 college graduates, and 5 post graduates. Protestant families far out-numbered any other religion with a total of 22. There were also 4 Catholic families, 2 Jewish families, 2 Mormon families, 9 other families, and 1 family that listed no preference.

There were two groups of adolescents in this study. The young group N=18 ranged in age from 10 to 12 with a mean age of 11.11 years (S.D.=.83). The older adolescents N=22 ranged in age from 13 to 18 with a mean age of 16.4 years (S.D.=1.36). The young group consisted

of 7 males and 11 females; the old group consisted of 12 males and 10 females (total of 21 females and 19 males).

Table 1. Demographic Characteristics of the Sample

Demographic Variables	Mean	SD	N	Frequency	Percentage
Ages					
Husbands	41.3	6.65	40		
Wives	38.7	5.53	40		
Adolescents:					
Young	11.1	.83	18		
Old	16.4	1.36	22		
Family Income	$26,400	$4,500	40		
Number of Years Married	18.5	4.73	40		
Number of Children	2.6	1.43	40		
Education of Parents:					
8th Grade				1	1%
9th Grade				1	1%
10th Grade				4	5%
11th Grade				0	
High School Graduate				17	22%
Some College				29	36%
College Graduate				23	29%
Post Graduate				5	6%
Religion					
Catholic				4	10%
Protestant				22	55%
Jewish				2	5%
Mormon				2	5%
Other				9	23%
No Preference				1	2%

There were some limitations in this study. Due to the nature of the study the sample could not be randomly selected, but rather consisted of volunteers referred to the researcher by college instructors and church leaders.

Instruments

Demographic data (ages, income, and education,) was collected in a one-page questionnaire (see Appendix). Each family member filled out his/her own form. The fathers and mothers also completed the cohesion measure from FACES II (Olson et al., 1983) (see Appendix).

Family Cohesion

Family cohesion was measured by using the cohesion subscale of FACES II (Olson et al., 1983) instrument (see Appendix). This subscale contains 16 statements about family behaviors and utilizes a 5-point Likert scale from "almost never" to "almost always." FACES II has high levels of reliability and validity (Olson et al., 1983). Internal consistency reliability for the cohesion subscale is .83 (Cronbach's Alpha). Content and construct validity have been established. The cohesion subscale is independent of the adaptability subscale as determined by factor analysis of the 30 FACES II items.

This study utilized FACES II rather than FACES III to measure family cohesion. This is because the data was gathered before the publication of FACES III (Olson, 1986).

Each family member has his/her own perception of the level of cohesion in a family. Hence, there is always some disagreement among family members. Olson et al. (1983) found that the husband and wife

are more likely to share similar perceptions of family cohesion than is either parent and the adolescent. They found a correlation of r=.46 between husband and wife cohesion scores, a correlation of r=.46 between husband and adolescent scores, and a correlation of r=.39 between wife and adolescent cohesion scores. For this study, family cohesion scores were defined as the mean cohesion score of the combined husband's and wife's cohesion scores. The cut-off scores for the parents' mean scores for the various levels of family cohesion as determined by Olson et al. (1982) are as follows: Disengaged: 56.9 or below; separated: 57.0 to 65.0; connected: 65.1 to 73.0; enmeshed: 73.1 and above. The separated and connected categories together are considered in the balanced range of family cohesion while the disengaged and the enmeshed categories are in the extreme ranges.

Personal Space

Personal space was measured by two direct methods and one indirect method. The indirect method consisted of a modified version of the felt board technique developed by Kuethe (1962). Kuethe's technique involves asking a person to place a felt figure representing the self on a felt board already containing a figure representing some other identifiable person such as a best friend, sibling, mother, father, or teacher.

In this study, the family was shown a blank felt board measuring 8 1/2 inches by 11 inches. Each member of the family was given a round felt disk 1 inch in diameter representing himself/herself marked with an arrow to show the direction he/she is facing. Each one was asked to think of the felt board as a room and to place his/her felt disk on

the board representing a comfortable conversation distance. This required each family member to work simultaneously with the other two family members in developing a satisfactory arrangement of the figures. After the figures were placed, the distances between them were measured to the nearest tenth of an inch.

The two direct methods of measurement of personal space were modified versions of the Couples Stop-Distance Space Measure (CSDSM) (Hill, Blackham, & Crane, 1982), a widely used measure of personal space. In the CSDSM a couple is asked to stand some distance apart and then approach each other and stop at "a comfortable conversation distance." For this study, two variations were used. In one, the three family members were asked to stand equal distances apart (approximately 10 feet) in a triangular formation. Then they were told to approach each other and stop at a comfortable conversation distance. The distances between family members were measured in inches from toe to toe. This was called the "Family Approach-Stop" measure. Dyadic measurements of husband/wife, mother/child, and father/child personal space were also taken using the same technique as the CSDSM. This was called the "Dyadic Approach-Stop" measure.

The CSDSM technique yields high test-retest reliability (r=.93) (Pedersen, 1973). Rawls et al. (1972) reported correlations from r=.77 to r=.94 for a series of approaches which varied from having the subject or the experimenter stationary to changing the approach direction. According to Hayduk (1978), the CSDSM technique appears to be an adequate direct measure of personal space.

Other efforts have been made to assess the reliability and validity of the CSDSM and felt board techniques. Rawls et al. (1972) worked with college students to determine the validity of several measures of personal space. Both studies used the approach-stop technique as a criterion measure since it actually placed the subject in relation to another person in a real situation. The correlation between approach/stop distances and felt board distances was $\underline{r}$=.56. The correlation between the approach/stop distance technique and several paper and pencil tests was r=.45 or less. Until this study, there have been no studies comparing the CSDSM technique with the felt board technique using family members as subjects.

The three personal space measurements were analyzed in several ways. A total personal space score was figured for each family by summing the number of inches between all family members as a function of each measurement technique. These family personal space sum scores using each technique were compared as a function of family cohesion types (enmeshed, balanced and disengaged). The personal space between each dyad in the family (i.e. husband-wife, husband-adolescent, wife-adolescent) was also compared using each measurement technique as a function of family cohesion type.

Procedure

A list of volunteer families was gathered through contacting various churches and church schools. Other families were also recruited from a list gathered from marriage and family classes at Montana State University. The experimenter telephoned each family and explained the study and asked if they were willing to participate.

After a family consultation the family called the experimenter to let him know when he could come to their home to gather the data.

Each volunteer family was visited at home by an experimenter who asked the family to: (1) complete the demographic questionnaire and the family cohesion scale; (2) do the felt board task; and (3) do the two approach-stop measurement tasks. The confidentiality of the study was explained to each family. Each family was offered a copy of an abstract of the findings of the study as an expression of gratitude for participating in the study.