The Relationship Between a Mother's Knowledge of Human Sexual Reproduction and Her Child Rearing Attitudes Toward Her Preschool Child's Emerging Sexuality

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THE RELATIONSHIP BETWEEN A MOTHER'S KNOWLEDGE OF HUMAN SEXUAL REPRODUCTION AND HER CHILD REARING ATTITUDES TOWARD HER PRESCHOOL CHILD'S EMERGING SEXUALITY

BY

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ABSTRACT

Two hundred mothers were contacted through the child care center in which they placed their preschool child. They were tested on the Parent Attitude Research Instrument, which measures maternal attitudes toward child rearing, and the 24 Item Miller Fisk Sexual Knowledge Questionnaire, which measures knowledge of human sexual reproduction. A correlational analysis of the scores on these instruments revealed that mothers with high authoritarian and controlling attitudes toward children and children's emerging sexuality have a low level of sexual knowledge ($r = -.65, p < .0001$). It was also determined that single parent mothers are significantly more authoritarian and controlling in their child rearing attitudes ($p = .05$) than mothers in other family structures, i.e., original family intact, step/blended family, or divorced/separated family. Mothers of children in Head Start, as compared with mothers of children in university-based child care, corporate/private child care, or church-affiliated child care, demonstrated the lowest level of sexual knowledge ($p = .05$). These findings are important in the development of a comprehensive, systematic sex education program for parents.
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To the two Toms at the Computer Center, Tom Ticknor and Tom Peeples, I say thank you for your assistance and your persistence.

And, saving the best for last, I wish to say to my husband, a super parent, and two daughters that their support, encouragement, and love has made all of this worthwhile.
PREFACE

My work in the field of child care and early childhood education for the past 10 years has taught me a great deal about parents and children. I truly realize the importance of the parent/child relationship and the impact it will have on the developing child.

Over the years, parents have asked me many questions about child rearing and disciplining. I have especially come to appreciate the concern and confusion parents express over how to handle their young child's sexual questions, curiosities, and explorations.

I hope that this research will contribute to the forging of a comprehensive and systematic program to educate parents about their child's sexuality. I hope that parents can come to feel comfortable with the topic of sexuality and come to easily handle the many sexually related incidences that will arise during their child's growing years, coming to think of their child's sexuality as developmental and natural. Healthy sexual attitudes are "born" in infancy, nurtured through childhood, tested in adolescence, and enjoyed throughout adulthood.
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I. INTRODUCTION AND RELEVANT RESEARCH

Changing Sexual Attitudes

In the past century there has been a noticeable change in the attitudes of Americans toward sex mores. The turning point in sexual attitudes and sexual behavior away from the restrictive and toward the more liberal seems to have been in 1900. It was then that the barriers that protected women crumbled (Hoyman, 1970). Continually since that time, the trend has been toward more and more liberal attitudes about sex roles and sex mores than in the past (Davids & Engen, 1975). By the post-World War II period, a more biologic and scientific approach to sex education was being advocated, as compared with the moralistic approach of previous years (Hoyman, 1970). By the late 1950s, sexual intercourse was becoming more accepted as an expression of tenderness and affection and less as a means of procreation. And, by the 1970s even greater changes were evident. Women were less expected to retain their virginity before marriage and love making between two persons who were not married was considered less shocking (Strong, Wilson, Clarke, & Johns, 1978).

Interestingly, those groups that were among the most restrictive in the 19th Century experienced a more rapid change in moral attitudes than those who were only moderately restrictive. This period of rapid attitude change is often called the sexual revolution,
referring to the vast changes in attitudes toward sex education, masturbation, homosexuality, premarital intercourse, cohabitation, extramarital intercourse, abortion, and geriatric sexuality (Mace, 1971). These changes have most profoundly affected the white middle class, particularly women, adolescents, and young adults (Strong et al., 1978).

The sexual behavior of a society reflects its morality. Restrictive dictates regarding the moral acceptability of a particular sexual behavior are based to a great extent on the social consequences of sexual behavior. Previously, the act of sexual intercourse outside of marriage had been morally condemned, with the rationale that it caused venereal disease and unwanted pregnancy. Now, with antibiotic treatment for venereal disease and effective contraceptive methods to prevent unwanted pregnancy, the moral rationale for restricting premarital intercourse has become invalid/obsolete (Luckey, 1967). Because of the accessibility to antibiotics, contraceptive methods, and legalized abortion, individual decisions about sexual behavior are based less on moral dictates and more on individual decisions (Sex Information and Education Council of the United States, 1970). Therefore, sexual behavior is afforded greater freedom.

Sex roles are rapidly changing. In 1920, the typical working female was unmarried and from the lower socioeconomic stratum. Since 1950, maternal employment outside the home has increased three-fold (Seegmiller, 1980). Now most working women are married; 37% have children under six; they represent all socioeconomic groups; and over
two-thirds have child rearing obligations (Strom & Slaughter, 1978). Women are striving for equality through the feminist movement and the Equal Rights Amendment. They are demanding the choice of whether or not to bear children. Those who do choose to have children want the option of working and raising a family at the same time.

The changes in the female sex role have affected the male sex role. Male and female sex roles interact when there is cohabitation or marriage. As one role experiences change, so does the other. Males today are being asked to accept females as equals. They are being asked to take on greater child rearing responsibilities. They are being asked to become more actively involved in family life. These changes are modifying the traditional conceptualization of the male as sole breadwinner and sole heir to the success ethic (Beigel, 1976; Strong et al., 1978).

Changes in the male and female roles have had an effect on family relationships in America as well. There is an increasing tendency for the mother to assume more of a directive or co-directive role in the family. There is a decreasing differentiation between that which is seen as strictly feminine and that which is seen as strictly masculine within the family (Beigel, 1976; Oremland & Oremland, 1977; Zuckerman & Oltean, 1959).

The increased permissiveness of sexual behavior is evidenced in the facts and figures that follow. Three million cases of venereal disease were reported in 1976; two-thirds involved young adults under the age of 24, with the greatest incidence increase among adolescents 11 to 15; approximately half of all adolescents have sexual
intercourse before they finish high school; and three out of every ten female adolescents who have intercourse before high school is completed become pregnant (Gordon & Dickman, 1977).

In 1976, there were a million teenage pregnancies, with 300,000 of the young females marrying and bearing their babies, 260,000 bearing their child out of wedlock, and 440,000 ending the pregnancy in abortion or miscarriage. Of the 205 live births at one Eastern hospital in 1976, 94 (46%) were to females between the ages of sixteen and nineteen, and 10 (5%) were to females between the ages of ten and fifteen. In 1977, it was reported that pregnancies among females aged nine to fifteen were up at a record rate. Among white adolescent females, the rate rose 50% above the rate for the previous five year period (Gordon & Dickman, 1977).

Among American adolescents there is an earlier physiological sexual maturity and a marked change in the values expressed. Both male and female children are reaching puberty about two years earlier than did their grandparents (Hoyman, 1970). And, the ten year old female of today is similar in terms of values to the fifteen year old of the late 1930s (Medinnus & Johnson, 1969).

As has been commented on, moral attitudes are changing, overall sexual behavior is changing, and the moral values of adolescents are changing. Contributing to, and/or reflecting, many of these changes is the powerful influence of the mass media of communication (Davids & Engen, 1975; Luckey, 1967).
Luckey writes:

Perhaps the most consistent informers about adult attitudes and builders of young people's ideals today are not the traditional institutions (school, home, church) that purposefully outline and pursue programs or policies of education but rather the mass media. (p. 134)

She goes on:

The television that the child watches from the time he is too small to respond to much more than the movement and the sound, to the time he is able to sit for several hours absorbed in its entertainment, programs, and its advertisements that use sexual appeal to sell products: the magazine illustrations, the comic strips, the paper back book covers, the films that make the sparsely clad body a common sight and the seductive female or male an appealing personality. The child exists so constantly in the midst of these stimuli that as his own understanding grows they become increasingly meaningful to him. This is sex education in the context of commercialism, of entertainment, and the message it conveys, while often indirect, is powerful. (p. 344)

Bandura and Walters (1963) agree that television may be the main source from which a child learns about sexual behavior. From 1950 to 1970, the number of references to sex and the degree of liberalism expressed in sexual references increased with each decade. In the mass media, references to abortion, birth control, pregnancy, and illegitimacy increased more than any other sexual topics (Scott & Franklin, 1973). This bombardment of sexual topics by the mass media has caused concern among mental health professionals that in the United States sexuality is in danger of being dehumanized by overt frankness in the mass media (Reenshaw, 1978).

Sex Education: Education for Sexuality

While the media delivers to each child the message of sexual frankness and exploitation, by strong contrast, the parent delivers to the same child a message of sexual suppression. In America, there
predominates a strong tendency to inhibit early sexual learning (Bandura & Walters, 1963). In fact, the restrictions most American parents impose on the sex behavior of their young children are more severe than those found in many so-called primitive societies (Sears, Maccoby, & Levin, 1957).

Usually, curiosity is regarded as an indication of an alert and inquiring mind. However, when young children are curious about sex differences, reproductive behavior, and their own bodies, many parents give the minimal amount of information, exhibit considerable anxiety, tend to give non-human examples, and attempt to postpone presenting facts generally on the grounds that the child is too young to understand (Bandura & Walters, 1963; Bell, 1966). From earliest childhood, children are taught in various ways not to talk about sex. Parents frown, do not answer, distract the child, or reprimand the child for asking questions about sex (Gagnon, 1965; Strong et al., 1978).

The indirect message to the child is that sex is secret, dirty, or bad. The indirect learning that results is possibly more important in the area of sexuality than in any other aspect of the child's learning (Wilbur & Aug, 1973). The result of this suppression and secrecy is that the early sexual experiences of the average child will, of necessity, be furtive, accidental, guilt ridden, and isolated (Martinson, 1976).

The attitudes that the parent holds about sexuality will directly influence the formation of sexual attitudes in the child. The parents' own attitudes should be healthy and positive. The parents should have accurate information about sexual anatomy and sexual
functioning, an awareness and acceptance of their own sexuality, and an openness and ability to communicate about sexual matters to their children (Woody, 1973). If influenced by healthy, positive attitudes of their parents and other significant adults, children will pass naturally and comfortably through developmental stages of sexual maturation (Reenshaw, 1971).

Many behaviors of young children that concern parents are manifestations of their developing sexuality (Stolz, 1967). As early as 23 months of age, children discover their genital anatomy and explore with their hands. Gender identity, i.e., the sense of being male or female, involving genetic, environmental and experiential influences, is firmly fixed by the age of three (Oremland & Oremland, 1977; Reenshaw, 1971). Toilet training, generally begun around the age of two years, is also critical to the sexual development of the child (Nelson, 1978). Since it involves nudity, cleanliness training of the genital area, and the parent's attitude toward both, it is very important for the parent to avoid expressing doubt in the child's ability and to avoid using shame (Arnstein, 1967; Nelson, 1978). When parents teach the skills required, encouraging the child's attempts and praising the successes, the child can develop a healthy attitude toward his body and its functions.

Masturbation, too, is developmental. It is commonly observed in male and female children around the age of one and one half years and again at the age of five, as well as later in puberty. The masturbatory behavior of the young child is quite different than that of an adolescent or adult. While there is a sensual pleasure in the child
of five years, there is not the ability to fantasize sexually nor concentrate on sexual matters (Nelson, 1978). Obscene language is commonly experimented with between the ages of two to five. In children aged four to twelve, sexual exploration and play is common with peers, although it is furtive and generally done in secrecy from the parent (Reenshaw, 1971).

In summary, between the ages of one and one-half to three, children achieve genital awareness and sex role awareness (Rubin & Kirkendall, 1970). By age five, children have developed bladder and bowel control, have discovered their capacity for sensual pleasure, have learned importance of genital cleanliness, have developed their attitudes toward nudity, and have engaged in sex role play with peers (Maier, 1978). These stages, followed developmentally by sexual exploration when four to twelve, will have an effect on their emerging sexuality as well as their developing personalities. Each one of these developmental stages is an ongoing opportunity for parents to educate children about their sexuality.

American adults are aware of the need to teach children about sex as substantiated in a study done by Gravitz (1970). Each subject (6,686 males and 4,717 females) had at one time made application for employment and had taken the Minnesota Multiphasic Personality Inventory (MMPI) as part of a pre-employment test battery. Socio-economic, educational, demographic, and other characteristics were such that this sample was considered to be broadly representative of the general population of the United States. The percentage of subjects responding true or false to each MMPI item was analyzed. Of
interest to this discussion is the response rate to item #199, i.e., "Children should be taught all the main facts of sex." In the male sample, 76% replied true and 21.8% replied false. In the female sample, 71.6% replied true and 26.5% replied false. Nearly three-quarters of the adults in American society believe that children should be taught about sex.

Given this significant fact, the question becomes how best to teach about sex. Some professionals advocate offering education for sexuality in the schools (Dupras & Tremblay, 1976; Gagnon, 1965; Hoyman, 1970; Moehle, 1968). Others claim the place where sexual education should be taught is in the home (Baumrind, 1967; Oremland & Oremland, 1977; Schaefer & Bell, 1958; Sears et al., 1957; Shoben, 1949). Still others say the best approach is to educate the parent who in turn can educate the child (Ezell, 1978; Gagnon, 1965; Gordon & Dickman, 1977; Miller & King, 1974; Strom & Slaughter, 1978; Tollison, 1979). An integration of all teaching sources, i.e., the home, school, church, and community, is advocated by some as best meeting the goals of human psychosexual development (Hoyman, 1970).

It is unknown how the adult sample who responded false, that children should not be informed about sexual matters, would want their offspring educated. They might advocate a continuance of the present pattern, i.e., having children learn primarily from the mass media, from their peer group, or from the covert messages of suppression and restriction from their parents. They might assume that if sexual education is not planned it does not take place.
Most people assume that, in the absence of direct instruction, no sex education takes place. Actually, the parents' reaction to themselves and to each other as sexual beings, their feelings toward the child's exploration of his own body, their method of establishing the child's toilet habits, their response to his questions and his attempts to learn about himself and his environment, their ability to give and express their love for each other and for him, are among the many ways in which they profoundly influence the child's sexual conditioning. Avoidance, repression, rejection, suppression, embarrassment, and shock are negative forms of sex education. That fact cannot be escaped. Parents cannot choose whether or not they will give sex education, they can choose only whether they will do something positive or negative about it. (Sex Information and Education Council of the United States, 1970, p. 122)

Educating children about their own sexuality begins at the moment of their birth and is ongoing. Establishing a gender identity, allowing for sex role development, learning proper anatomical labels, and receiving factual answers to questions about human reproduction are all developmental needs of the child. The family, of major importance from birth to six, fosters the development of the child's sexuality and personality and acts as the primary socialization agent of the child (Farran & Haskins, 1980; Schaefer & Bell, 1958; Shoben, 1949). Children's sexual growth encompasses not only the physical, but intellectual, emotional, and social factors relevant to their sexuality (Luckey, 1967).

If education for sexuality is to be ongoing, meeting the needs of the child at each developmental stage, then it is logical that the school, a major socializing force in the child's development from the age of six to eighteen, will become involved. The controversy rages as to how sex education in the schools should best be handled. Groups opposed to sex education are well organized, visible and outspoken (Hoyman, 1970). The Anti-Sex Education Movement, spearheaded by such
right-wing conservative groups as the John Birch Society and the Christian Crusade, speak out against sex education in the schools (Libby, 1971). A claim made by those opposed to sex education in the schools is that more sexual knowledge will lead to greater sexual permissiveness in adolescent years. This claim was not substantiated in one study. No significant relationship between knowledge of sex and premarital sexual permissiveness of college freshmen living in residence halls was found (Chitwood, 1976).

Education for sexuality, if presented in the schools, would best be integrated into the regular curriculum (Moehle, 1968). Content would be less important than the attitudes conveyed (Solnit, 1977). A majority of parents are in favor of family life education, another term for sex education, at all grade levels (Conley & Haff, 1974).

**Attitudes and the Child's Development**

Three major factors influence the child's emotional development and all three involve the parent: the parent's personality; the parent's child rearing practices; and the parent's attitudes toward the child (Agrawal & Saksena, 1977; Zuckerman & Oltean, 1959). It is agreed by the majority of child specialists that the most influential force in the attitudes a young child forms is the child's parents.

From early infancy the mother's manner of touching the child, feeding him, holding him, verbalizing her approval or disapproval, and otherwise attending to his wants conveys to the child her attitudes toward (him). (Schonfeld, 1966, p. 16)

"The essence of parent-child relations, it must be (re) emphasized, lies more in how a parent feels (i.e., his attitudes) than in what a
parent does (i.e., his child rearing practices)" (Symonds, 1949, p. xiii).

The danger in the parent telling the child directly or indirectly to deny his sexual interest and feelings is that the formation of very crucial sexual attitudes begin in earliest childhood (McNabb, 1976). Psychologists recognize that training the child not to discuss sex-related subjects, not to name sex organs, not to touch genital areas, and to avoid sexual feelings, thoughts, and contacts has a profound effect on later adult sexual behavior. The child who has not been taught the proper labels for body parts or for behavior related to sex, or sexual feelings, may be somewhat handicapped in developing an understanding of sexual matters and an acceptance of his own sexual feelings without anxiety (Sears et al., 1957).

Parents' attitudes about, and their ways of handling, specific behaviors will influence the development of the child. For example, the parents' attitude toward nudity, how it is viewed, presented, and commented on, is more important than the number of minutes of body exposure or the number of inches exposed (Arnstein, 1967). Acceptance of nudity will result in a decrease of sexual inhibition and a decrease in sexual curiosity, unless nudity is paired with strong positive reinforcement such as affection or touching in a seductive manner (Bandura & Walters, 1963).

The manner in which a parent handles a child's questions about sexual matters is very important (Gordon & Dickman, 1977; Reenshaw, 1978). The approach of open communication must be conveyed to the child; the attitude conveyed is more important than the content of
their answer. The degree to which parents' attitudes will influence those of the child will vary with the parents' cognitive structure, their personal capabilities, the extent of their knowledge, their attitudes, as well as the feedback they get from the child. The feedback pattern is especially influential as the attitudes of parents and children interact, influence one another, in a cyclical pattern (Bell, 1979; Medinnus, 1963; Schaefer, 1961). Another factor in how parent-child attitudes interact, is how parents see their role of parent to the child, whether they see their role as restrictor and controller of the child or as guide and model to the child.

The authoritarian personality has been written about extensively (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950). How the authoritarian personality affects the role of parent has also received wide study. The authoritarian trend is believed to be part of the normal, developmental sequence from adolescence to young adulthood. Its expression is related to anxiety over self-concept and a tendency toward conventionality and conformity (Loevinger, 1962). Authoritarian-controlling attitudes have been found to be characteristic of the less educated and somewhat older respondents (Zuckerman & Oltean, 1959; Zuckerman, Ribback, Monashkin, & Norton, 1958). Parents who ranked high in authoritarianism were found to have low acceptance of the child (Baragora, 1964). Children who were found to be better adjusted had mothers who expressed less controlling attitudes (Colwell, 1961). The authoritarian-controlling approach to the child has been found to result, as the parent wishes, in the conformity of the child. However, the cost of such conformity is the
the restriction of such emotional expression in the child of excitement, affection, curiosity and originality. A child parented by an authoritarian and controlling adult lacks spontaneity (Baldwin, 1948). And, juvenile delinquency has been related to the authoritarian-controlling attitudes of the parents (Madoff, 1959).

Child behavior has also been shown to be related to parental attitudes. Children of parents who are authoritarian and controlling exhibit a greater display of temper, excessive interest in sex, and more masturbatory behavior (Rosenthal, Finkelstein, Ni, & Robertson, 1959). Authoritarian and controlling parents were described as punitive, restricting, and repressive toward sexual impulses (Zuckerman & Oltean, 1959; Zuckerman, Ribback, Monashkin, & Norton, 1958).

The affect of the authoritarian and controlling attitudes of mothers interacting with their daughters was found to be related to close imitation of the mother by the daughter, close role modeling, and dependency. The mother in such relationships had a tendency to suppress aggression and sexual expression (Becker & Krug, 1965).

Measuring Parent Attitudes

The value of having a means of measuring parental attitudes was realized by researchers. Consequently, many different means of assessing parental attitudes have been developed. One of the first methods of assessment used was the personal interview (Duncan, 1968; Sears et al., 1957). The case study method was also used (Rosenthal et al., 1959; Stolz, 1967). Direct observation of the parents' behavior from which parental attitudes were inferred has been used
Projective measures (Margolis, 1961; Medinnus & Mead, 1965) and rating scales (Baldwin, 1948; Gibson, 1968; Krieger, 1976; Loevinger, 1962; Marshall, 1961) were used as well.

Due to the subjectivity and time consuming nature of the interview, case study, observation, projective, and rating methods, the advantages of a pencil and paper attitude evaluator was soon realized. Questionnaires that were developed evolved into attitude inventories (Eysenck, 1971; Lief & Reed, 1972; Loevinger, 1962; Mark, 1953; Schaefer & Bell, 1958; Shoben, 1949).

Many applications for attitude inventory type instruments quickly became apparent. Measuring the attitudes of the father and mother of the same child could lead to assessing differences in child rearing attitudes and lead to the study of the effect this would have on the child (Sheldon, 1969). In another application, by assessing general parent child-rearing attitudes, it could be projected what a parent's attitude, and perhaps behavior, might be in a specific instance. Assessment of attitudes might possibly reveal attitudes more amenable to change; such information could then be used in designing parent education classes. Counseling approaches and mental health programs for parents could also be made more relevant and more effective based on this foundation of knowledge about parental attitudes. In addition, measuring demographic variables, socioeconomic status, level of education, race and ethnic influences, and the age and sex of the child, and correlating these measures with parental attitudes would yield data with important interactions (Shoben, 1949).
In order for the information gained from parent attitude assessment to be of value, the degree of stability of such attitudes must be assured. Parental attitudes are stable over time as shown in various studies (Kamali, 1968; Zuckerman & Oltean, 1959). In a pretest-posttest design, which measured parental attitudes before and after a psychology course entitled "The Maladjusted Child," attitudes of the students were stable in all groups and most stable in married women with children (Kamali, 1968).

The value of and application for measuring parental attitudes has been substantiated. It has been shown how knowledge gained from attitude assessment can be applied. The stability of attitudes over time has been attested to. It has been shown that the attitudes of Americans are changing. Sex mores, sex roles and sex behaviors are changing. There is both a need for, and an interest in, educating children about sexuality.

The questions now raised are: have the changes in sexual morality, mores and sex roles had an effect on the attitudes parents hold regarding child rearing; with the increased liberalism of the media, the greater exploitation of sex in advertisements and films, has the amount of knowledge adults have about human sexuality increased; and, as a result of this media liberalism, have parents become more permissive in their attitudes toward the child's emerging sexuality or have they become more controlling and authoritative?
II. INSTRUMENTS

Parent Attitude Research Instrument

Questionnaire approaches to the assessment of parent attitudes have offered the enticing prospect of finding more efficient and economical methods of data collection in developmental research (Becker & Krug, 1965). The most popular instrument being used in this area is the Parent Attitude Research Instrument (PARI) developed by Schaefer and Bell (Becker & Krug, 1965; Dingman, Eyman, & Windle, 1963; Kadushin, Rose, & Soebel, 1967; Sims & Paolucci, 1975).

Previous to the development of the PARI, the works of Shoben (1949) and Mark (1953) and Freeman and Grayson (1955) had substantiated the adequacy of easily administered attitudinal scales to differentiate qualities in maternal-child relationships (Madoff, 1959).

The PARI, Form IV (Schaefer & Bell, 1958) is a pencil and paper attitude measurement questionnaire designed to be used with mothers and female respondents (see Appendix A). It uses a Likert-type response scale which allows for one of four response alternatives, i.e., (A) strongly agree; (a) mildly agree; (d) mildly disagree; and (D) strongly disagree. The statements to which the parent is to respond with one of the above alternatives are generalized third person statements about childrearing.
Scoring is accomplished by assigning a numerical value of 4 to a strong agreement (A) and 1 to a strong disagreement (D). The total score for each scale is the sum of the weights. A scoring sheet for the 23 scales is provided by Schaefer and Bell (see Appendix B). The highest possible score on any scale is 20 and the lowest is 5. The higher the score the less constructive are the parent's childrearing attitudes.

There are a total of 115 questions, divided into 23 scales of five questions each. The 23 scales are labeled as follows:

- Encouraging Verbalization
- Fostering Dependency
- Seclusion of the Mother
- Breaking of the Will
- Martyrdom
- Fear of Harming the Baby
- Marital Conflict
- Strictness
- Irritability
- Excluding Outside Influences
- Deification
- Suppression of Aggression
- Rejection of the Homemaking Role
- Equalitarianism
- Approval of Activity
- Avoidance of Communication
- Inconsiderateness of the Husband
- Suppression of Sexuality
- Ascendency of the Mother
- Intrusiveness
- Comradeship and Sharing
- Acceleration of Development
- Dependency of the Mother

The PARI has undergone factor or cluster analysis by many researchers (Becker & Krug, 1965; de Boeck, 1976; Medinnus & Mead, 1965; Schaefer, 1961; Sims & Paolucci, 1975; Zuckerman, Ribback, Monashkin, & Norton, 1958). The first attempt at factor analyzing the PARI was done by Schaefer and Bell on Form III (1958). They found five factors which they labeled: Suppression and Interpersonal Distance; Hostile Rejection of the Homemaking Role; Excessive Demand for Striving; Overpossessiveness; and Harsh Punitive Control.
Schaefer and Bell (1958) also factored the PARI (IV) and found three factors which they termed: Approval of Maternal Expression of Hostility; Approval of Maternal Control of the Child; and Approval of Democratic Attitudes. Schaefer and Bell, attempting to explain why different factorings yielded a different number of factors, concluded that factorial structure was dependent on the role a female had assumed in the parent-child relationship. Females, they explained, who were already mothers showed a different pattern of response from those who had not yet become mothers, with the former having simpler patterns of attitudes toward child rearing.

Zuckerman, Ribback, Monashkin, and Norton (1958), using mothers of nursery school children, also factored the PARI (IV) and found three factors which they termed: factor A: Authoritarian-Control; factor B: Hostility-Rejection; and factor C: Democratic Attitudes. These three factors, determined by Zuckerman, Ribback, Monashkin, and Norton (1958), similar to those found by Schaefer and Bell (1958), are commonly cited in research done in the past two decades with the PARI.

Marshall (1961), using a form of the PARI called the Iowa Parent Practices Research Scales (with separate forms for mother and father), found ten factors. In addition to the five found by Schaefer and Bell (Suppression and Distance; Unhappiness at Home; Demand for Striving; Overpossessiveness; and Harsh Punitive Control), Marshall found Equalitarianism; Deceit of the Child; Expression of Love and Affection; Consideration of the Spouse; and Dependence of the Mother in the mother's version, with Disapproval of Ascendancy of the Mother in the father's version.
Bruni (1968) factored the PARI and found the same three factors that Zuckerman, Ribback, Monashkin and Norton (1958) had found. He labeled these: Hyperprotective and Authoritarian-type Discipline; Rejection of the Domestic Role by Females; and Possessive Authority. De Boeck (1976) factored the PARI and also found three factors: Acquiescence Response Set; Autonomy versus Control; and Love versus Hostility.

In summary, factor analysis of the PARI has had a detailed history. Most often three factors of the PARI, Form IV, are found. The Zuckerman, Ribback, Monashkin, and Norton factor A (scales 2-6, 10-12, 15-20, 22, and 23), factor B (scales 7, 8, 9, 13) and factor C (scales 1, 14, and 21) are selected as the most representative.

Face validity of the PARI, i.e., the extent to which the PARI appears to tap parent attitudes, is substantiated given the lengthy history of its use for that purpose and the many studies and ways in which it has been used to measure parent attitudes. The question of validity of the PARI addresses to what extent parent attitudes are reflected in the score obtained following test performance. Content validity, i.e., the degree to which the questions on the PARI in fact measure parent attitudes, is attested to by Bruni (1968). Bruni states as evidence for content validity the fact that he found three factors similar to those found by Schaefer and Bell (1958) and Zuckerman, Ribback, Monashkin, and Norton (1958) and by the fact that Belgian parents evidenced similar attitudes to those expressed by American parents. In addition, Belgian parents demonstrated similar social class correlates to those found in the American sample.
Construct validity has been evidenced in many studies (Becker, Peterson, Luria, Shoemaker, & Hellmer, 1962; Gibson, 1968; Marshall, 1961; Sims & Paolucci, 1975; Zuckerman & Oltean, 1959). In Zuckerman & Oltean's study, the most thorough in addressing construct validity of the PARI, it was found that parent personality variables and parent attitudes toward child rearing have a common relationship. This correlation is offered as evidence for construct validity of the PARI.

The personality variables of their parent-subjects were measured on the California F Scale, which measures authoritarian social attitudes; the Edwards Personal Preference Schedule (EPPS), which is a measure of manifest personality needs; the Minnesota Multiphasic Personality Inventory (MMPI), which is a test of psychopathological tendencies; and a test of Self-Acceptance, as developed by Zuckerman, which measured self-acceptance on the basis of social desirability ratings, scoring once in terms of self-as-perceived and once in terms of self-as-ideal.

The findings of this study are summarized as follows: the Authoritarian Control factor (A) of the PARI was significantly and positively correlated with the Authoritarianism scale of the California F Scale ($r = .51, p < .01$). Factors B and C were not related to the California F Scale. The affiliation scale of the EPPS correlated significantly ($r = -.43, p < .05$) with factor A scales of the PARI in the mother group, while the deference scale of the EPPS correlated significantly ($r = .36, p < .01$) with the factor A scales of the PARI in the student (non-mother) group. The measure of Self-Acceptance correlated negatively and significantly ($r = -.37, p < .01$).
with the Hostility-Rejection factor (B) of the PARI and not with factors A and C. Regarding the MMPI, there was a significant positive correlation between the Authoritarian-Control scales of the PARI and masculine response tendencies as measured on the Mf scale of the MMPI ($r = .44, p < .01$). Low positive and significant correlations were found between factor A and the MMPI scales of schizophrenia ($r = .25, p < .05$) and hypomania ($r = .31, p < .05$). These findings imply that authoritarian-controlling attitudes are only minimally associated with psychopathological tendencies as measured on the MMPI.

Medinnus (1961) compared parent attitudes as assessed by the PARI and the findings on a Q-sort technique. He cited as proof of PARI validity the following: scores on factors A and B of the PARI correlated with one another at the .45 level (.05 level of significance). He concluded that the correlation of factor A with factor B was proof of construct validity.

The third factor, factor C: Democratic Attitudes, of the PARI, offers no validity at all. It is most influenced by acquiescence and was not intended to be a valid measure of parent attitudes. In developing the PARI, subjects complained about the statements being negatively worded. Positively worded items were included by Schaefer and Bell for this reason. They were aware that positively worded items would not discriminate parent attitudes. Their predecessors, Mark and Shoben, had previously determined items stating healthy attitudes toward child rearing did not differentiate between parents of normal children and parents of maladjusted children. Schaefer and Bell used the positively worded items, comprising the three scales
that make up factor C, to make the test more tolerable to parent-subjects. In subsequent studies (Marshall, 1961; Zuckerman & Oltean, 1959), complaints from the subjects about the scarcity of items with which they could agree have continued.

The reliability of the PARI is attested to by the fact that the PARI has been factor analyzed repeatedly and found to have similar factors in each analysis (Becker & Krug, 1965; Bruni, 1968; de Boeck, 1976; Gibson, 1968; Medinnus & Mead, 1965; Schaefer & Bell, 1958; Schludermann & Schludermann, 1977; Zuckerman, Ribback, Monashkin, & Norton, 1958). Becker and Krug (1965) state that internal consistency reliability for the PARI was proven by the fact that all scales, but one part of the rapport or democratic scales of factor C, had reliability coefficients exceeding .50 for multiparae and primiparae mothers. Internal consistency reliability coefficients (using the Kuder-Richardson Formula 20) ranged from .34 to .77 for primiparae (mean, .66) and from .40 to .77 (mean, .65) for multiparae.

Test-retest reliability has been substantiated in several studies. On the Form IV of the PARI, Schaefer and Bell found test-retest reliability (determined by the Pearson product moment correlation coefficient) to be from .18 to .79 (mean, .67). Schludermann and Schludermann (1977) found reliability coefficients to range from .52 to .81; with two of the scales ranging from .52 to .59; ten of the scales from .60 to .69; eight of the scales from .70 to .79; and three of the scales from .80 to .81.

Since its publication in 1959, Schaefer and Bell's PARI has received much attention. It has been used in many research designs
and been found to yield valid and reliable information. In Becker and Krug's research review article of the PARI (1965), a detailed reporting of the major studies involved with its use are reported. The broad areas of investigation using the PARI are: the direct and simple measurement of parent attitudes; the comparison of different parent groups; the relating of parent attitudes to the behavior of the child; and the relating of parent attitudes to the behavior of the mother.

Various studies using the PARI have directly measured the attitudes of parents. Medinnus and Mead (1965) compared the measuring of parent attitudes via the PARI with findings via projective techniques. The attitudes of mothers of homebound children were measured with the PARI by Best (1969). The PARI was used in three separate time frames in a longitudinal study done by de Borggraef-Raus, Sand, Smets, and Robaye (1975) to determine changing patterns in parent attitudes over time.

The majority of research done with the PARI has been for the purpose of comparing attitudes of different groups of parents. The comparison of parents with schizophrenic children with parents of non-schizophrenic children has had a particularly lengthy and detailed history (Becker & Krug, 1965; Klebanoff, 1959; Nielsen & Nava, 1975). Also, the PARI has been used to compare parent attitudes of children identified through child clinics from those of non-clinic parents (Kadushin et al., 1967; Zuckerman, Barrett, & Braigel, 1960).

Differences between parents of juvenile delinquents and parents of non-juvenile delinquents (Gibson, 1968; Madoff, 1959) have been
studied. Other group comparisons have been made as follows: differences between parents of cerebral palsyed children and healthy children (Schaefer & Bell, 1958); differences between parents of autistic children and non-autistic children (Parrish, 1969); differences between parents of asthmatic children and non-asthmatic children (Margolis, 1961; Purcell, 1962); differences between parents of children who are mentally retarded and parents of children who are non-mentally retarded (Dingman et al., 1963; Garfield & Helper, 1962; Klebanoff, 1959). Also, parents of congenitally handicapped children: children with Down's syndrome; congenitally blind children; and children with congenital heart disease were assessed (Becker & Krug, 1965) and were compared with parents of healthy children. This area of the research, i.e., parents of congenitally handicapped children, has clearly shown that the child's condition and level of functioning has a definite influence on the attitudes expressed by the mother (Becker & Krug, 1965).

Studies using the PARI have been done to demonstrate how parent attitudes relate to actual behavior observed in the child (Balagtas, 1969; Baragora, 1964; Colwell, 1961; Gibson, 1968; Marshall, 1961; Zurich, 1962a). The degree to which a child imitates the attitudes expressed by his parents has been measured (Hartup, 1962; McDavid, 1959). The relationship between parental attitudes and the behavior of deviant achievers has been assessed (Mulliken, 1966). Also, assessed have been: the relationship between maternal attitudes and the sex role and psychological differences of preschool children (Domash & Bailer, 1976); the relationship between parent's attitudes
and the child's adjustment in school (Zuckerman, Note 1); the relationship between parent attitudes and the behavior of adolescent children (Mannino, Kisielewski, Kimbro, & Morgenstern, 1968; Zunich, 1962a); and the relationship between parent attitudes and achievement motivation in children (Shaw & Dutton, 1962).

Studies comparing maternal attitudes with actual maternal behavior have been very few. Becker and Krug (1965) find this surprising. Two studies in this area had been done up until 1965 with none found since that date. Becker and Krug (1965) compared assessment of parent attitudes via the PARI with findings in an interview-type assessment of maternal behavior. Assessment of maternal attitudes via the PARI was compared with direct observation of maternal behavior in a laboratory nursery school (Zunich, 1962b).

Other Measurement Devices of Parent Attitudes

The development of instruments to assess parent attitudes has had a lengthy history. Stogdill (1933) developed an attitude questionnaire of 70 items related to child behavior, each to be rated according to the degree of seriousness or undesirability. Child behaviors rated (1) were considered to be of little or no consequence and those rated (10) were considered to be very serious or undesirable. Stogdill compared the attitudes of three groups, i.e., mental health authorities, parents, and advanced-psychology college students. He offered no validity nor reliability measures for his instrument. For the reason that his early attempt has been improved upon and validity and reliability figures are available on instruments
published since Stogdill's, this attitude questionnaire was not chosen for this study.

As mentioned earlier, Schaefer and Bell drew from the work of Shoben and Mark. Shoben's assessment device (1949), the major fore-runner of Schaefer and Bell's PARI, was called the University of Southern California Parent Attitude Survey (USCPAS). Its use in this study was ruled out due to the fact that it was improved on by the PARI.

Mark (1953) developed an attitude survey of the "disguised structure type" as recommended by Campbell (1950). The disguised structure type of survey utilizes stereotypic terminology to overcome self-description believed to be undesirable in the measurement of true attitudes. Mark's survey, unnamed, consisted of 139 items pertaining to child rearing. As with Shoben's instrument, its use in this study was ruled out due to the fact that it was improved on by the PARI.

Harris, Gough, and Martin (1950) developed an attitude scale based on the work of Radke, Shoben, and unpublished material on file then at the Institute of Child Welfare at the University of Minnesota. Harris et al. wrote a three-part questionnaire to assess parents' attitudes toward their children. Part I of the questionnaire contained 36 items concerned with attitudes toward children and child handling, to be answered true or false. Part II consisted of 35 statements describing child handling practices to which the parent was to respond on a three point scale. Part III described 10 common child behavior problems at length, gave five to six techniques parents might use to handle such a problem, and asked the parent to select one
technique. The information resulting from this instrument was found to be limited. The only attitude tapped regarding the parent's feeling about the child's emerging sexuality was one about masturbation. For this reason, Harris' attitude scale was not chosen for this study.

Schaefer and Bell (1958) brought together the work of Stogdill (1933), Mark (1953), Shoben (1949), and Harris et al. (1950) in the development of the PARI.

Leyton (1958) revised the Minnesota Teacher Attitude Inventory for Parents, which he renamed the Parent Attitude Inventory (PAI). To assess the validity of the PAI, Leyton compared it with Shoben's USCPAS and found no correlations, thus disputing its validity. Additional weaknesses of his study are serious. He compared parent attitudes as measured on the PAI with teacher ratings of the child's behavior without checking the accuracy nor the reliability of the teacher ratings. This weakened the study considerably. Aware of this weakness, Leyton used only the extreme teacher ratings. This correction is questionable. Taking only extreme teacher ratings would cause a regression toward the mean making Leyton's findings even less conclusive. Leyton failed to report reliability and validity figures for the PAI. Due to the questionable statistical correction procedure and no report on the validity and reliability, the PAI was not found to have sufficient strength for this study.

Medinnus (1961) used Q-sort trait cards to assess parent attitudes toward both negative and positive aspects of child behavior. The Q-sort technique, termed the Parent's Acceptance of the Child
Test, involved using two sets of items, one containing only positive traits or characteristics, worded such as "Has a good imagination" and "Is obedient, usually does what he is told to do," and the other only negative aspects of behavior, such as "Gets mad easily" and "Takes his hurts seriously: becomes worried about the slightest bruise." Each pool consisted of 42 items typed on separate cards. The parents were asked to sort the cards into seven piles ranging from "most characteristic of my child" to "least characteristic of my child," with six cards in each pile. Two sortings were requested. The first sorting was to assess the actual behavior of their own five year old child (real sort) and the second sorting was to assess the parent's value system with regard to the "ideal five year old child" (ideal sort). A high discrepancy between the ideal and the real sort was defined as non-acceptance of the child. Validity was not addressed. Test-retest reliability was .55, but is to be interpreted cautiously in that only 10 sets of parents, i.e., n = 20, were used. Medinnus' assessment technique is inappropriate for use in this study as it addressed only social behaviors of children and child-to-parent compliance and does not address the area of the child's sexuality, which is the focus of this study.

An extensive study undertaken by Loevinger (1962) sought to improve on the PARI by eliminating acquiescence and extreme response set. Loevinger's goal was to study the dynamic interaction of maternal behavior with the child and not assume the direct or simple correlation between problem mothers and problem children as she believed her predecessors had done. While her original intent was to
assess female attitudes toward parenthood, the nature of her results led her away from an exclusive concern with parenting and more toward a general personality theory. Her study became an attempt to describe personality variables of females, measuring female personality traits and constructs, rather than assessing maternal attitudes per se. For this reason, Loevinger's instrument was not the instrument of choice for this study.

In an attempt to control for response sets of social desirability and to develop an instrument on which both the attitudes of mothers and fathers could be measured, Pumroy (1966) authored the Maryland Parent Attitude Survey (MPAS). Controlling for acquiescence, 90 items, i.e., reversed pairs of 45 items, were used in a forced choice format. Five buffer items were added, making a total of 95 items. Response was made on a four-point Likert scale. Reliability was reported to range from .62 to .84. Adequacy of control for social desirability was checked by relating the MPAS to the Marlowe Crowne Social Desirability Scale and the Edwards Social Desirability Scale. Both comparisons showed a low to zero correlation, concluding that social desirability was satisfactorily controlled for. Face validity was offered by the nature in which each item had been selected for use, i.e., chosen by six out of nine psychologists as an item to be retained. While the MPAS offers an attractive alternative to the PARI, in that it controls for acquiescence and can be used by both parents, its use for this study was ruled out because of its inadequate history as an acceptable measure of parent attitudes, as compared with the PARI.
Thornburg's Sex Attitude Inventory (1968) was developed to measure attitudes expressed by ministerial students toward sexuality and sex education. Its specific application to ministerial students and its narrowly defined area of assessment made it inappropriate for use in this study.

Libby authored two scales to assess parent attitudes (1970, 1971). The Sex Education Liberation Scale (SELS) (1970) is a nine item, five point Likert response scale, containing items considered to be favorable in terms of liberal attitudes toward high school sex education. It is administered in an interview format and scored so that a high score is awarded when the subject expresses a liberal idea. Libby's Sex Education Content Scale (SECS) (1971) was designed to measure parent attitudes toward various topics of discussion in high school sex education classes. Both scales are subjectively scored and administered via interview format. They are not used in this study because they are subjective; the attitudes measured are too topic specific; and the items are applicable to parents of pre-adolescents, i.e., items are directed at concerns of parents in the area of emerging heterosocial and heterosexual activities.

A final instrument considered for use in this study is the Parent as a Teacher Inventory (PAAT) (Strom & Slaughter, 1978). It is a composite attitude scale assessing feelings about parent-child interactions, judgments for assessing child behavior, value preferences, and frustrations concerning child behavior. It uses the first person statement format as recommended by critics of the PARI. It has been primarily used in programs of parent education. The PAAT consists of
50 items, 10 questions in five subsets. The subsets are related to five areas in the parent education curriculum: a creativity subset; frustration subset; control subset; play subset; and teaching-learning subset. The PAAT was not found suitable for this study because of the small range of parent attitudes assessed and their specificity to the cognitive development of the child. The inventory does not address attitudes toward the child's sexual development as does the PARI.

The above discussion of instruments available for the purpose of assessing parent attitudes substantiates use of Schaefer and Bell's PARI for this study. The PARI offers suitable reliability and validity, and a lengthy and impressive history. In summation, the PARI was chosen for this study because of the appropriateness of its subtests to the research variables and its strength as an assessment device for measuring maternal attitudes toward child rearing.

In spite of the strength of the PARI as an instrument to be used in measuring parent attitudes, it is well to be aware of the limitations that the PARI brings with it. Becker and Krug (1965) caution, as did Schaefer and Bell (1958), that the PARI is to be used only as a first approach method in unresearched areas. It is not to be used in making decisions concerning clinical populations.

Bell (1958) also cautioned that researchers should not generalize findings from one group of children with a common age to children of all ages. He states that parents may change their interaction patterns with, and attitudes toward, children in different stages of childhood. Also, he found that parents' attitudes differ toward different children in the same family.
Mueller (1969) criticized the linear configuration of the Likert response scale of the PARI, stating that it can lead to a positional preference response pattern. He found this positional preference response pattern particularly true of male adults, young adults, and low socioeconomic respondents.

Margolis (1961) cautioned that in using attitude assessments like the PARI, groups should be matched with regard to race because of black versus white differences in the role of the mother in the family. In addition, he noted that black groups are more acquiescent than are white groups.

Becker and Krug (1965) noted that high scores on factors A and B cannot, in and of themselves, be taken as evidence of pathogenic child rearing practices.

Bell, Hartup, and Crowell (1962) stated that two differing methods of administration of the PARI may influence the results. For example, in their study, a mailed administration produced total scores that as a whole were lower than the total scores on an in-person administration. While no evidence was found that the mailed versus the in-person administrations were associated with differential patterns of response, the results did confirm that the two methods of administration would result in different levels of agreement.

Many studies using the PARI have had results contaminated when the education level of the respondents was not considered or controlled. Shoben (1949), in developing the PAS found this to be a factor, also. Consistently it has been found that mothers with a higher level of education more usually demonstrate approved attitudes
toward child rearing (Dingman et al., 1963; Friedheim & Reichberg-Hackett, 1959; Mannino et al., 1968; Schaefer & Bell, 1958; Zuckerman, Barrett, & Braigel, 1960). The correlation of education level with attitudes for scales which state disapproved attitudes toward child rearing range from -.03 to -.38 for primiparae (mean -.24) and from -.03 to -.52 for multiparae (mean -.27), many significant beyond the .05 level (Zuckerman, Barrett, & Braigel, 1960).

Eighteen of the 23 PARI scales are found to correlate significantly with education level, with a loading of -.58 on factor A scales. Factor B scales have not been found to be significantly related to education level (Zuckerman, Ribback, Monashkin, & Norton, 1958). It is estimated that 30% of the variance in factor A is due to the mother's education, with 15% of the variance accounted for by the father's occupation/income level. Becker and Krug's research review (1965) of the PARI offers criticisms of and cautions about its use. They point out that the obvious explanations for the relationship between education level and positive child rearing attitudes, that the child rearing ideal is taught in the normal progressive educational process and that higher educated mothers experience greater exposure to the media, do not account for the parallel relationship found with the occupation/income level of the father.

In a study to address this particular relationship, Becker and Krug (Note 2) found that the negative correlation between strict child rearing attitudes and education level is, in part, specific to the questionnaire format. They found that the relationship between education and strict attitudes does not have as marked a negative
correlation when the interview format of assessment of parent attitudes is used. Looking for possible explanations for this finding, they analyzed whether the first person versus the third person phraseology of the questions made a difference and found that it did not. Then they looked at the content of the items and found that the education of the parent most highly correlated in the negative direction with scales measuring control of sex, control of aggression, and control of lying. Also, scales that measured martyrdom and intrusiveness showed the highest correlation with education level. They concluded that item content was related to education, having a negative correlation; that mothers of lower education level endorsed strong moralistic ideas; and that mothers of a higher education level rejected items phrased in a strong, absolute way.

This would appear to be a serious and valid criticism of the PARI from all evidence cited. However, Becker and Krug (1965) weigh the evidence and assure the user of the PARI that when education level of the mother and occupation/income level of the father are controlled for, the findings should be uncontaminated and valid.

Another area of criticism is the presence of response sets in the PARI. Response sets are defined as the subject's tendency to respond consistently to test items in terms of variables other than content. Such responses may be due to a tendency to agree, thus called acquiescence response set (ARS); a tendency to disagree, thus called an opposition response set (ORS); or a tendency to give extreme answers, thus called an extreme response set (ERS) (Schludermann & Schludermann, 1977). While the PARI was designed by Schaefer and Bell
to minimize the effects of response sets, it has still come under considerable criticism in this regard (Kadushin et al., 1967; Parrish, 1969; Schludermann & Schludermann, 1970, 1977).

Becker and Krug (1965) discuss the effects of response sets in detail. For a detailed discussion of this criticism, the reader is directed to their report as well as the following studies (Chapman & Block, 1958; Margolis, 1961; Schludermann & Schludermann, 1977; Zuckerman, 1959; Zuckerman & Norton, 1958).

Considering all the previous cautions and criticisms of the PARI, a researcher wishing to use the PARI would be wise to make a studied decision about its appropriateness and suitability to their own design. Others who have used the PARI or analyzed it in depth have come to the following conclusions about its use: the PARI is a suitable measure of how mothers feel about family life and their role as parents; it continues to "be a useful and viable instrument for tapping parent attitudes" (Sims & Paolucci, 1975, p. 731); and it presents "no problems for those primarily interested in attitudes (of parents) themselves" (Becker & Krug, 1965, p. 343).

As discussed above, the PARI is a suitable instrument for the assessment of parent attitudes about family life and the mother's role as parent, especially when the researcher is interested precisely in the attitudes measured, as opposed to using the PARI to make clinical decisions, predict child behavior, predict maternal behavior, or explain group differences.

To control for social desirability, Bell (1958) suggests that researchers use the PARI with parents who have not been identified as
as having children with special needs, i.e., not clinically identified, not schizophrenic, not mentally retarded. He states that parents of such identified child populations feel guilt and practice self-aggrandizement. Instead, Bell recommends using "parents whose children have not been socially identified as having adjustment problems. Studies in the nursery school setting seem to meet this requirement" (Bell, 1958, p. 329).

Numerous studies have been done using the PARI with parents of pre-school, nursery school, or kindergarten children (Balagtas, 1969; Baragona, 1964; Becker & Krug, 1965; de Boeck, 1976; Domash & Baiter, 1976; Hartup, 1962; Marshall, 1961; McDavid, 1959; Sims & Paolucci, 1975; Zuckerman, Barrett, & Bragiel, 1960; Zuckerman, Ribback, Monashkin, & Norton, 1958; Zurich, 1962a). Several groups for study have been drawn from the child development centers of universities (Balagtas, 1969; McDavid, 1959; Zurich, 1962a).

Recent studies indicate that research designed to investigate the relation of parent behavior or attitudes to child behavior should include both maternal and paternal measures (Bandura & Walters, 1963; Block, 1955; Schaefer, 1961). Fathers were not included in the present design because there is a lack of validity data on the father's form of the PARI. For research that has been done with the father's form of the PARI, the reader is directed to the following studies: Block (1955); Cline, Richards, and Needham (1963); Nichols (1962); and Schludermann and Schludermann (1970).

McDavid (1959) refers to the use of a slightly reworded modification of the PARI which substituted the word "parent" for the words
"mother" and "father." This version was used as part of an experimental testing battery devised by Chantiny, Lovell, and McCandless (1956). While this would seem like an attractive solution to the assessment of both maternal and paternal attitudes simultaneously, this reworded version of the PARI has never been tested for reliability nor validity.

24-Item Miller Fisk Sexual Knowledge Questionnaire

The obvious value of a reliable measure of sexual knowledge to be used in studies of population management, family planning, and related issues was first commented on by Miller and Fisk in 1969 (cited in Gough, 1974). Working at the Stanford University School of Medicine, Miller and Fisk developed a 49-item sexual knowledge questionnaire to be used with lay subjects. They included questions on menstrual functioning, reproductive physiology, factors influencing sex drive and fertility, and effectiveness of different methods of contraception. Harrison G. Gough (1974) found that some items on the 49-item sexual knowledge questionnaire were too difficult in terms of content. He also noted that an abbreviated version would be of greater value for use in a battery of assessment instruments. Therefore, Gough sought to eliminate items too low in correlation with the total score; items too easy or too difficult as determined by the percentage of subjects answering correctly; and items with too great a sex difference in percentage correct or item score versus total score. By applying the criteria above, the 49-item sexual knowledge questionnaire was reduced to 24 questions, 12 written in the true-false
format and 12 written in the multiple choice format (Gough, 1974). The resultant instrument was named the 24-Item Miller Fisk Sexual Knowledge Questionnaire, hereafter referred to as the SKQ (see Appendix C).

Scoring of the SKQ is accomplished by awarding one point for each correct answer (see Appendix D for key). An omission is scored as incorrect. Scoring range is 0-24.

Content validity of the SKQ is substantiated by the fact that items are worded to assess the areas they are intended to measure, i.e., menstrual function (e.g., #6), reproductive physiology (e.g., #9), sex drive and fertility (e.g., #7), and effectiveness of different methods of contraception (e.g., #12).

Construct validity, that is, the degree to which knowledge is in fact reflected in the scores obtained is attested to by Gough (1974). He states that the mean scores for the normative sample (n = 355) were 19.94 (SD 3.69) overall, 15.51 (SD = 3.77) for males, and 16.55 (SD = 3.47) for females. The difference of 1.04 between male and female means was small, but significant (t = 2.68, p < .01) (Gough, 1974), implying that content measured is not a function of a specific gender's knowledge, but a function of general sexual knowledge.

Regarding the reliability of the SKQ, all items of the 24 item version were found to be statistically significant beyond the .01 level of probability, indicating that an acceptable level of internal consistency reliability had been achieved for the SKQ to be used with college and adult samples. Odd-even reliability coefficients for male, female and total sample, corrected, were .70, .62, and .67,
respectively. These coefficients were judged acceptable for an instrument intended for research purposes (Gough, 1974).

Gough's research interest, i.e., population research and personality variables related to reproductive practices, has led him to do numerous studies in this area. He frequently uses the SKQ as part of a testing battery.

Gough (1973) used the SKQ in a study of contraceptive preferences. He factored 10 common contraceptive methods, namely: the birth control pill; vasectomy; tubal ligation; use of the condom; intrauterine device; rhythm method; contraceptive foam; diaphragm; douche; withdrawal; and abstinence. These methods grouped according to four commonalities: coitus dependent methods; surgical methods; coitus inhibiting methods; and coitus independent methods. Factor 1: Coitus Dependent Methods included the use of the condom, douche, diaphragm, and jelly or foam. Factor 2: Surgical Methods included vasectomy and tubal ligation. Factor 3: Coitus Inhibiting Methods included withdrawal, abstinence, and the rhythm method. And, Factor 4: Coitus Independent Methods included the pill and the intrauterine device. Contraceptive preferences were correlated with findings on the Adjective Check List, the California F Scale for authoritarianism, the California Psychological Inventory, Rotter's Scale for Locus of Control, and the College Vocabulary Test (developed by Gough and Sampson in 1954), and the SKQ.

High SKQ male scorers were in favor (positive correlation, .05 level of significance) of contraceptive methods included under factors 1, 2, and 4; and they were not in favor of methods included in
factor 3. Females who demonstrated a greater knowledge of sexual information preferred the factor 2 methods of contraception and were opposed to the factor 3 methods. Here the SKQ was used to measure sexual knowledge of both sexes which was correlated with preferred methods of contraception.

Gough (1975) used the SKQ as one of six items to be compared with the Population Policy Questionnaire (PPQ). The PPQ was developed by Gough and is reported in the same article as the study under discussion. The PPQ assesses attitudes towards birth control, abortion, family planning, population management, and modernity, having eight statements in a five-step response format in each of the above areas. Population management refers to planned deployment of "governmental and institutional resources in pursuit of designated goals in population" (Gough, 1975, p. 124). Modernity refers to psychological modernity, conceptualized as a "norm setting nucleus around which attitudes toward specific issues in population growth and management will vary" (Gough, 1975, p. 123).

Besides the SKQ, the other five items measured for comparison with the PPQ were: age; number of children wanted; number of children expected; the 15-item California F Scale; and the Rotter Locus of Control Scale. Findings were that scores on the SKQ were significantly (.01 level) positively correlated with attitudes about abortion and attitudes about population management. Those subjects having a high level of knowledge about sexual functioning were in agreement with statements such as "abortion should be free of any and all legal restrictions" and in disagreement with "the decision to ask for an
abortion must be in part a moral decision." Regarding population management, respondents scoring high on the SKQ agreed with "families with more than three children should be required to pay higher taxes" and disagreed with "there is no reason to fear a continued increase in population; the human race will find some way to cope with this problem."

Gough (1979) used the SKQ in a study assessing a man's stated willingness to use a male contraceptive pill. He correlated five variables with the answer to the question: "If a contraceptive pill for men were available would you be willing to use it?" (Gough, 1979, p. 30). The five variables measured were: social demographics (age, education level, and social class); information and vocabulary (using the SKQ and Gough's College Vocabulary Test); attitudes (as measured by the 15-Item California F Scale and the PPQ); personality variables (as measured by the Rotter Locus of Control Test and the Personal Values Abstract, authored by Gough in 1972); and acceptability of contraceptive methods (as rated on a seven point scale of acceptability as developed by Gough in 1973). No correlation was found between the stated willingness to use a male contraceptive pill and the amount of sexual knowledge as measured on the SKQ.

Other Measures of Sexual Knowledge

The area of sexual knowledge has not received as much attention as has the area of parental attitudes. For this reason, there are not as many instruments from which the researcher may choose to assess sexual knowledge and sexual attitudes.
To assess sexual attitudes there are four instruments for consideration. They are mentioned briefly, although it is the area of sexual knowledge with which this study deals and to which the question of choice of instrument must be applied, since tests assessing sexual attitudes overlap in content with tests of sexual knowledge.

For the purpose of sexual attitude assessment, the Attitude Measure of Sexual Behavior (Fretz, 1975) is the definitive instrument. It uses bipolar responses to 12 concepts of sexual behavior of various individuals. As an example, "A child who writes obscene words on a wall" is responded to on a seven point continuum using the following bipolar adjectives: good/bad; kind/cruel; active/passive; fast/slow; understandable/mysterious; and familiar/strange.

Other instruments that might be used for attitude assessment are: Sexual Knowledge and Attitude Test (Lief & Reed, 1972), developed to be used with medical students; Sexual Attitude Inventory (Thornburg, 1968), devised to measure attitudes of ministerial students; and the Thorne Sex Inventory (Allen & Haupt, 1966; Throne, 1966), developed and normed on male sexual deviants.

For assessment of sexual knowledge, there are two instruments that may be used in addition to the SKQ. The Sexometer (Bardis, 1974), developed for use with third world populations, is a test of 50 questions: 20 about male and female anatomy and physiology; 10 about venereal disease; 10 about reproduction and birth control; and 10 about sex behavior. Responses are made in an essay format. The questions are difficult and contain technical terms, such as testosterone, Bartholin's glands, and Sapphism. Scoring is subjective and
time consuming. Validity cited is weak. Due to the inadequate validity, the technical terminology, and the subjective manner of scoring, the Sexometer was not considered to be appropriate for this study.

The Sexual Knowledge Inventory (McHugh, 1950) has two forms. Form X is used as a tool for marriage counseling and contains 80 questions with five answer choices. Some assessment of sexual attitudes as well as sexual knowledge is made in the areas of anatomy, sex dreams, causes of poor sexual adjustment, birth control, menstruation, pregnancy, masturbation, and venereal disease. The test supplies a glossary so that subjects can determine the meaning of words unfamiliar to them. Unspecified reliability is cited at .88 and validity is not addressed. Form Y of the test assesses knowledge of anatomy, and physiology vocabulary, via the ability to label sexual anatomy drawings. Unspecified reliability is .92 and validity is not addressed. The Sexual Knowledge Inventory was not the test of choice due to its length, difficult scoring method, and unsatisfactory validity.

The 24 Item Miller Fisk Sexual Knowledge Questionnaire offers reliability, validity, and a respectable history of use as an assessment device of sexual knowledge. It is deemed appropriate for use with lay adults and is the instrument of choice for this study.

Criticisms of the SKQ are few. Measurement of knowledge about a factual subject is clear-cut and less subject to confusion and misinterpretation than is the measurement of attitudes. This difference leaves a test such as the SKQ open to much less criticism than with
tests such as the PARI. Tests assessing specific areas of knowledge are not confounded by such factors as response set.

The SKQ has been used in studies done by its author and has been found to be free of major criticisms. It does, in fact, assess sexual knowledge as attested to by its stated reliability and validity.

Two possible areas of criticism, that of influence of age and influence of general vocabulary knowledge, are discussed below. Age, regardless of sex, has not been found to be related to scores on the SKQ. From age 19 up, sexual knowledge scores do not appear to be correlated with age (males: \( r = .02 \) and females: \( r = .14, p > .05 \)) (Gough, 1974).

When scores on the SKQ were compared with scores on the College Vocabulary Test, low, but significant (.05 level) correlations were found. Admittedly the test would be of little value if sexual knowledge were solely a function of vocabulary or word knowledge in general. Gough acknowledges this criticism and states "One would not expect to find information in one verbal sphere to be completely unrelated to that in another" (Gough, 1974, p. 190). Because correlations are low (.21 for males and .26 for females), although significant, Gough concludes that the SKQ is more than a test of word knowledge, but does in fact tap sexual knowledge concepts (Gough, 1974).

Another possible area for criticism of the SKQ is the need for cross cultural and transnational studies to be undertaken. Gough recognizes the need to prove such assessment devices as the SKQ applicable to different linguistic and cultural environments without
loss of validity. He suggests that this area of research should be pursued. Also, knowledge of sexual facts as related to age changes during the pre-college years and how different groups with widely divergent levels of sexual knowledge might score should also be studied.

As addressed earlier, the SKQ is a suitable instrument for the assessment of knowledge of human sexual reproduction with lay college students and lay adults. It is objective, using a multiple choice and true/false format, and is readily scored. It is a brief test, taking approximately 10 minutes to complete. Its brevity complements the length of the other instrument used, the PARI, which takes approximately 45 minutes to complete. It covers a broad range of knowledge of human sexual reproduction and uses terms which are relatively familiar to most lay adults.

In conclusion, the following sex education statement is offered:

Education consciously planned by the best minds of a society to support the process by which the infant, small child, pre-adolescent, and adolescent develops his sexual identity as male or female, to conform with his "given" anatomical sex, learns to understand himself and others as sexual beings and learns to live with and manage his genitality and his reproductivity.

(Calderone, 1971, p. 343)

The key words from this quotation related to the topic under study are "his reproductivity." The management of an individual's own sexual functioning is dependent, in part, on a knowledge of human sexual reproduction. Granted that such a knowledge is only a part of the individual's total sexual adjustment, but it is a most important part. Information about sexual reproduction will help individuals overcome
milder, simpler and more transient cases of sexual problems (Tollison, 1979).

The primary hypothesis of this study, then, is as follows: there is an inverse relationship between authoritarian attitudes and sex knowledge; i.e., the higher the authoritarian score, and thus attitude, the lower the sex knowledge score; or the lower the authoritarian score, the higher the sex knowledge score.

It is also predicted that there is a significant difference in the authoritarian-controlling child rearing attitudes mothers express which varies with their family structure.

Support for generating the hypothesis that family structure influences maternal attitudes is found in the study by Touliatos and Lindholm (1980). Children identified as having conduct problems, personality problems, inadequate or immature social skills, social delinquency, and/or psychotic signs were analyzed for intact, single parent or stepparent family structures, among other variables. Touliatos and Lindholm provide empirical evidence that stepparent and single parent families have a greater incidence of children with the above categories of behavior problems than intact families. It was also determined that socio-demographic variables such as sex of the child, age of the child, and social class of the parents had a greater impact on children in single parent and stepparent families than in intact families.

Although there has been no literature found to offer support, it is believed that there is a significant difference in the amount of sexual knowledge demonstrated by mothers that varies with the child
care setting in which they place their pre-school child. This belief is based on the assumption that the level of education of the mother, hence her sexual as well as general knowledge, will vary by child care center setting, with university-based mothers scoring higher in sexual knowledge than Head Start mothers.
III. METHOD

Attitudes of mothers of preschool children were measured on the Parent Attitude Research Instrument (PARI), Form IV (see Appendix A). Knowledge of human sexual reproduction was measured on the 24 Item Miller Fisk Sexual Knowledge Questionnaire (SKQ) (see Appendix C).

Types of family structure were defined as follows: original family of preschool child intact; step or blended family; single parent never married; and divorced or separated parent, not remarried. A fifth category of family structure, "other," was necessary. The setting of the child in a child care center included four types of institutions: university-based child care centers; corporately or privately owned child care centers; Head Start child care centers; and church-affiliated child care centers. For inclusion in this study, the center was required to offer a minimum five-hour program for children aged two to five years. In a few instances where the mother indicated that her child attended more than one child care center, the center used for data collection was utilized as the category of child care center setting; e.g., if the mother indicated university-based and church-affiliated child care centers and was contacted through the university-based center, the university-based center was used as the child care center setting for purposes of this study.
Procedure

Permission and cooperation of the child care center director was obtained at each of the 11 centers used for data collection. The researcher requested permission to distribute the survey materials to the mothers at the time the children were picked up from the center. At two Head Start centers this was not practical as the children were transported home by bus. In these two cases, the researcher was present at an evening program attended by the parents. In each instance, the materials were presented personally by the researcher to encourage a larger return rate of the data. The dissemination of the materials was accomplished over a four week period. Each mother who agreed to participate was supplied an envelope and asked to return the materials to the child care center within three days.

To enable the researcher to make follow-up requests for response, the mothers taking the materials were asked to (a) put their name, address and telephone number on a list and (b) write the same information on a detachable information card to be returned with the survey (see Appendix E). In this way, it was possible to determine who had responded by comparing the detachable information cards, returned with the surveys, with the list of names. Follow-up to non-respondents was made by telephone. Data analysis was conducted without reference to the identity of the subjects.

A cover letter explaining the purpose of the study, instructions for completing and returning the survey materials, and an offer to respond to future inquiries about outcome was included with the test materials (see Appendix F). In addition, a demographic sheet seeking
age, race, education level, age and sex of child(ren), child care center setting, family structure, income level, and religious affiliation was part of the packet (see Appendix G).

Three hundred ninety-four test packets were distributed, including twenty-six reissuances made when materials were lost or misplaced. Two hundred seventeen were returned. Eleven packets contained incomplete responses to the SKQ; two packets contained incomplete responses to the PARI; and four were returned with a notation of refusal to participate. Therefore, 200 responses were suitable for data analysis.

The PARI was scored according to the directions of Schaefer and Bell (see Appendix B). Only those scales comprising factor A, i.e., scales 2-6, 10-12, 15-20, 22, and 23, were used. Omissions were noted and prorated by the formula \( \frac{35}{35 - \text{omissions}} \) times the total score (Rotter & Rafferty, 1950). There were a maximum of 15 omissions, still considered scorable, with the majority of the subjects (71%) making 1-3 omissions.

Education level was coded as follows: 1, completed grade one, two, three, or four; 2, completed grade five, six, seven, or eight; 3, completed grade nine, ten, eleven, or twelve; 4, completed one or two years of college; 5, completed three or four years of college; and 6, completed one to six years of graduate school.
IV. RESULTS

Data analysis was done on the Harris-Vulcan 06A computer using the Statistical Package for the Social Sciences. The data were analyzed on four variables: measure of maternal attitudes; amount of sex knowledge; type of family structure; and setting of the child in a child care center. The primary hypothesis, that there is an inverse relationship between authoritarian-controlling attitudes and sexual knowledge was analyzed across all subjects by the Pearson correlation coefficient. The secondary hypotheses, concerning how sexual knowledge and maternal attitudes vary with family structure and child care setting, were subjected to analysis of variance (ANOVA) and analysis of covariance (ANCOVA) procedures.

The rate of return per child care center and per child care center category is given in Table 1. Also, the percentage of response by center and by child care center category is given. The rate of return for the distribution of 367 packets was 59.1%. Head Start centers, having a return rate of 32%, represent the smallest rate of return.

Data were returned by the mother to the child care center in 94% of the cases. In 6% of the cases, the mothers chose to mail the materials to the sponsoring university. This difference offers no contaminate, however, as all responses were made by the mothers.
Table 1
Rate of Return and Percentage of Response by Child Care Center Setting

<table>
<thead>
<tr>
<th>Child Care Center Setting</th>
<th>Center Number</th>
<th>Number Distributed</th>
<th>Number Returned</th>
<th>Rate of Return Percentage Returned by Center</th>
<th>% Returned by Category</th>
<th>% Response by Center</th>
<th>% Response by Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>University-based</td>
<td>1</td>
<td>35</td>
<td>28</td>
<td>82.3</td>
<td>63.2</td>
<td>12.0</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>22</td>
<td>8</td>
<td>36.4</td>
<td></td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Private-Corporate</td>
<td>3</td>
<td>34</td>
<td>24</td>
<td>70.6</td>
<td></td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>42</td>
<td>29</td>
<td>69.0</td>
<td>70.1</td>
<td>12.5</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>21</td>
<td>15</td>
<td>71.4</td>
<td></td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Church-Affiliated</td>
<td>6</td>
<td>46</td>
<td>34</td>
<td>73.9</td>
<td></td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>45</td>
<td>33</td>
<td>73.3</td>
<td>68.1</td>
<td>16.5</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>22</td>
<td>14</td>
<td>63.6</td>
<td></td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Head Start</td>
<td>8</td>
<td>16</td>
<td>6</td>
<td>37.5</td>
<td></td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>47</td>
<td>12</td>
<td>25.5</td>
<td>32.0</td>
<td>5.5</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>37</td>
<td>14</td>
<td>37.8</td>
<td></td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>All Centers</td>
<td>1-11</td>
<td>367a</td>
<td>217b</td>
<td>59.1</td>
<td></td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

\[a\] An additional 26 packets distributed due to lost/misplacement by Ss. Replace rate of 7.1%.

\[b\] 217 returned, 17 incomplete; i.e., 200 scoreable.
independently, whether returned by mail or to the center. There were no in-person test administrations. This complies with the caution of Bell et al. (1962), cited earlier, about the effect of different means of administration on the scores of the PARI.

Demographic information is summarized in Table 2. Sample selection procedures produced a sample which closely approximated the general population according to the 1979 Census Figures (United States Department of Commerce, 1980). Median age, distribution of race, and amount of income were very similar to the 1979 vital statistics for the United States in comparable categories. The only marked difference was in level of education. The mean level of education for the sample was 4.02 (SD = 1.02), indicating between one to two years of college completed. Analyzing by child care center setting, meal level of education ranged from 3.42 to 4.68, with standard deviations ranging from .75 to 1.05. The sample, therefore, had a higher percentage of respondents with a 9-12 grade education level than did the national population.

Distribution of the age and sex of the identified child were as follows: first preschool child: 54% male, 45.5% female (.5% no response), mean age 3.6 years (SD = 1.4); second preschool child: 55% male, 45% female, mean age 1.5 years (SD = .5). The percentage of respondents having one child was 55.5%; two children, 31.5%; three children, 6%; four children, 4.5%; five children, 1%; and six children, 1.5%. The mean number of children per family was 1.7 (SD = 1.0).
<table>
<thead>
<tr>
<th>Age</th>
<th>Sample (N = 200)</th>
<th>Income (Combined Annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 19</td>
<td>0.5</td>
<td>Up to 5,000</td>
</tr>
<tr>
<td>19-22</td>
<td>5.5</td>
<td>5K to 7.5K</td>
</tr>
<tr>
<td>23-24</td>
<td>9.0</td>
<td>7.6K to 10K</td>
</tr>
<tr>
<td>25-27</td>
<td>20.5</td>
<td>10.1K to 12.5K</td>
</tr>
<tr>
<td>28-30</td>
<td>25.5a</td>
<td>12.6K to 15K</td>
</tr>
<tr>
<td>31-33</td>
<td>21.0</td>
<td>15.1K to 17.5K</td>
</tr>
<tr>
<td>34-36</td>
<td>10.5</td>
<td>17.6K to 20K</td>
</tr>
<tr>
<td>Above 37</td>
<td>7.5</td>
<td>20.1K to 25K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.1K to 30K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30.1K and Above</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>80.0</td>
<td>Roman Catholic</td>
</tr>
<tr>
<td>Black</td>
<td>16.0</td>
<td>Protestant</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.5</td>
<td>Jewish</td>
</tr>
<tr>
<td>Asian</td>
<td>0.0</td>
<td>Other/None</td>
</tr>
<tr>
<td>No Response</td>
<td>2.5</td>
<td>No Response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mixed Religion</td>
</tr>
<tr>
<td>Education-Grade Completed</td>
<td></td>
<td>Frequency of Church Attendance</td>
</tr>
<tr>
<td>1-4</td>
<td>0.5</td>
<td>Weekly</td>
</tr>
<tr>
<td>5-8</td>
<td>0.5</td>
<td>Monthly</td>
</tr>
<tr>
<td>9-12</td>
<td>37.0</td>
<td>Less Once Month</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>Never/Rarely</td>
</tr>
<tr>
<td>1-2</td>
<td>30.0a</td>
<td>No Response</td>
</tr>
<tr>
<td>3-4</td>
<td>22.5</td>
<td></td>
</tr>
<tr>
<td>Graduate School 1 and More</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Mean.
The distribution of the sample was such that 56.5% of the respondents were part of an original family intact. For the purpose of the study, the family of the identified child was defined as the original family unit; e.g., if the mother indicated that she had been previously married but bore no children, and that the identified child was born to this second marriage, the family was defined as original family, in terms of the child identified for the study. Step or blended families made up 14% of the sample. Divorced or separated mothers, not remarried, made up 19% of the sample. And, single mothers, never married, made up 8.5% of the sample. The remaining 2% (four families) were of family structures described as "other" and included: two families where the grandparents were raising the preschool child in the absence of the parents; one mother who was raising her child in the absence of the father who had been incarcerated since the child's birth; and one couple who were the natural parents of the child and were living together but had not married.

The range of scores on the PARI was 96–287 (possible range: 90–360). The overall mean score on the PARI was 180.75 (SD = 33.96). The mean score by child care settings were as follows: university-based, 164.42 (SD = 26.26); Head Start, 224.39 (SD = 31.31); corporate-private, 171.45 (SD = 29.64); and church-affiliated, 176.79 (SD = 25.62).

PARI scores correlated significantly with SKQ scores in the direction predicted (−.65, p < .0001) (see Table 3). Except for the university-based child care setting, there was a significant negative correlation between the PARI and SKQ scores of the mothers in each
category of child care center. Correlation coefficients by child care center setting ranged from -.43 to -.57 ($p < .0001$). Significant negative correlations were determined when the PARI and SKQ scores were compared by family structure as well, range -.55 to -.78 ($p < .0001$). The only family structure not yielding a significant negative correlation was "other" family structure ($n = 4$).

Table 3
Correlation of Parent Attitude Research Instrument Scores with Sexual Knowledge Questionnaire Scores

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>PARI/SKQ $r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total N</td>
<td>200</td>
<td>-.65</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>By Child Care Center Setting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University-Based</td>
<td>31</td>
<td>-.24</td>
<td>&lt;.096</td>
</tr>
<tr>
<td>Head Start</td>
<td>31</td>
<td>-.57</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Private-Corporate</td>
<td>62</td>
<td>-.43</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Church-Affiliated</td>
<td>76</td>
<td>-.52</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>By Family Structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Original</td>
<td>113</td>
<td>-.55</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Step-Blended</td>
<td>28</td>
<td>-.69</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Single</td>
<td>17</td>
<td>-.78</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Divorced</td>
<td>38</td>
<td>-.63</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>-.76</td>
<td>.118</td>
</tr>
</tbody>
</table>

The subscale 18 (SS 18) of the PARI, i.e., suppression of sexuality, was available for 193 subjects. The SS 18 group mean of 7.85 ($SD = 2.54$) offered significant negative correlations with the SKQ across all subjects (see Table 4). Overall there was a correlation of -.57 ($p < .0001$). Except for university based child care
center respondents, correlations ranged from -.43 to -.58 (p < .001). By family structure, there were negative correlations between SS 18 and SKQ scores in all categories except "other" family structure. Pearson product moment correlation coefficients ranged from -.39 to -.79 (p < .01).

Table 4

Correlation of Subscale 18 Scores with Sexual Knowledge Questionnaire Scores

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>SS 18/SKQ r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total N</td>
<td>200</td>
<td>-.57</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>By Child Care Center Setting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University-Based</td>
<td>30</td>
<td>-.09</td>
<td>.319</td>
</tr>
<tr>
<td>Head Start</td>
<td>28</td>
<td>-.58</td>
<td>.001</td>
</tr>
<tr>
<td>Private-Corporate</td>
<td>60</td>
<td>-.43</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Church Affiliated</td>
<td>75</td>
<td>-.54</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>By Family Structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Original</td>
<td>110</td>
<td>-.39</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Step-Blended</td>
<td>28</td>
<td>-.71</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Single</td>
<td>14</td>
<td>-.61</td>
<td>.011</td>
</tr>
<tr>
<td>Divorced</td>
<td>38</td>
<td>-.79</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>-.67</td>
<td>.163</td>
</tr>
</tbody>
</table>

In order to account for the possible effect of education level on the PARI scores across child care center settings and family structure, an analysis of covariance (ANCOVA) procedure was utilized with education level as the covariate (see Table 5). For the purpose of this procedure, the education levels were combined. Levels 1, 2, and 3 were combined to include education completed through the 12th
grade. The covariate analysis revealed a significant main effect for child care center setting \([F(1, 3) = 28.19, p < .0001]\). An additional finding by the Student-Newman-Keuls procedure was that maternal attitudes for the Head Start mothers were significantly higher on the PARI \((p = .05)\) than mothers in other child care center settings.

Table 5

Analysis of Covariance: Parent Attitude Research Instrument, Child Care Center Setting and Education Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>PARI Mean</th>
<th>df</th>
<th>F-ratio</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariate Education Level</td>
<td>200</td>
<td>180.75</td>
<td>(1, 3)</td>
<td>16.35</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Main Effect Child Care Center Setting</td>
<td>200</td>
<td>180.75</td>
<td>(1, 3)</td>
<td>28.19</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

A one-way analysis of covariance was computed on the mean PARI scores for four family structures with education level as the covariate (Table 6). This analysis revealed a significant main effect for family structure \([F(1, 3) = 6.83, p = .0001]\). By family structure the mean PARI scores were as follows: original intact, 176.86; step-blended, 176.07; single parent, never married, 213.82; and divorced-separated, 178.34. Further analysis by the Student-Newman-Keuls procedure demonstrated that single parent mothers scored significantly higher on the PARI \((p = .05)\) than mothers in any other family structure.
Table 6
Analysis of Covariance: Parent Attitude Research Instrument, Family Structure, and Education Level

<table>
<thead>
<tr>
<th>Covariate</th>
<th>N</th>
<th>PARI Mean</th>
<th>df</th>
<th>F ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
<td>196</td>
<td>180.24</td>
<td>(1, 3)</td>
<td>12.18</td>
<td>.001</td>
</tr>
<tr>
<td>Main Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Structure</td>
<td>196</td>
<td>180.24</td>
<td>(1, 3)</td>
<td>6.83</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

The third hypothesis, that there is a significant difference in the amount of sexual knowledge demonstrated by mothers that varies with the child care center in which they place their preschool child, was also supported. The overall mean score on the SKQ was 17.38 (SD = 3.95). In the normative study for the SKQ (Gough, 1974), the mean score for female respondents was 16.55 (SD = 3.47). (The mean scores by child care center settings were as follows: university-based, 19.58; Head Start, 11.90; corporate-private, 17.90; and church-affiliated, 18.29.) Scores on the SKQ varied significantly by child care center setting [F(3, 196) = 38.872, p < .0001]. Mothers with children in Head Start scored significantly lower on the SKQ (Student-Newman-Keuls procedure, p = .05) than corporate-private, church-affiliated, or university-based mothers. Furthermore, there was a significant difference between the scores of the corporate-private mothers and the university-based mothers, with the corporate-private mothers scoring significantly lower on the SKQ.

Family structure was also a significant factor in sexual knowledge scores [F(4, 195) = 5.547, p = .0003]. Mean SKQ scores by family
structure were as follows: original family, 17.93; step-blended family, 17.89; single parent, 13.88; divorced-separated, 17.37; and "other," 13.25. Again, it was the single parent mother group that was significantly different, scoring lower on the SKQ (LSD procedure, $p = .05$) than mothers in original, step-blended, or divorced-separated family structures.
V. DISCUSSION

The return rate of 59.1% was comparable to return rates of other studies (Harris, Gough, & Martin, 1950; Schaefer & Bell, 1958). Other researchers have noted that the reliability of return is indicative itself of parent attitudes. In one study (Gibson, 1968), it was found that the absence of response was related to behavior problems of the child in school, the child's social handicap, and the education and occupational status of the parents to the same degree as would be the scaled scores. It has been noted that the PARI is most threatening to parents whose children are markedly disturbed, accounting for the non-response from parents in this situation (Zuckerman, Barrett, & Braigel, 1960). However, low rate of return by Head Start mothers can also be accounted for, in part, by the manner in which the materials were distributed at two of the three Head Start Centers. It was necessary to distribute the materials to parents during an evening program presented by the children, as compared with the less distracting distribution at the time the mothers came to pick up their child(ren) at the other centers.

The Head Start group of mothers scored significantly higher on the PARI; i.e., they expressed significantly stronger authoritarian and controlling attitudes toward child rearing. The higher scores of Head Start mothers appear to be related, at least in part, to racial
differences in the role of the mother within the black family. The black mother is often the dominant member of the parent team. Also, black respondents have been found to be more acquiescent in their responding (Margolis, 1961). The university-based, corporate-private, and church-affiliated mothers expressed child rearing attitudes that were mainly comparable in regards to authoritarian and controlling attitudes of child rearing.

Regarding family structure and PARI scores, the single-parent mother scored significantly higher, expressing more authoritarian and controlling attitudes toward child rearing. This is possibly due to the single-parent mother's belief that she must act as both mother and father to the child. This belief might result in the single mother being more controlling or stricter with the child. It is also probable that she is aware of possible criticism of her status as single mother and for that reason controls her child more strictly.

The university-based mothers expressed a significantly higher degree of knowledge of human sexual reproduction than any other child care center setting group. Since knowledge of human sexual reproduction is in part a function of the level of education, it is not remarkable that the university-based mothers scored highest on the SKQ. The corporate-private mothers scored significantly higher on the SKQ than the Head Start mothers. The church-affiliated mothers were not significantly different from the other groups, with the exception of Head Start mothers.

Although not addressed in a hypothesis, the SKQ scores were analyzed by family structure. The single parent mother and "other"
family structure scored significantly lower on the SKQ than the original, step-blended, or divorced-separated families. This in part explainable by the fact that a deficit of sexual knowledge might have been the reason for the single parent, never married status of the family. Had the mother known more about human sexual reproduction and contraception, it is possible that she would not have borne a child. She might have utilized such knowledge to conform more to the societal expectation of marrying in order to provide a family unit of mother and father to raise a child.

The PARI scores were significantly and negatively correlated with SKQ scores. Thus, mothers who expressed more authoritarian and controlling child rearing attitudes expressed a lower level of knowledge of human sexual reproduction. Conversely, mothers who were less authoritarian and controlling in their child rearing attitudes were more knowledgeable about human sexual reproduction.

In an effort to further substantiate this inverse relationship the subscale 18 of the PARI was scored separately for each subject and correlated with the SKQ scores. Subscale 18, suppression of sexuality, includes items 18, 41, 64, 87, and 110 (see Appendix A). The inverse relationship ($r = -.57$) found in this analysis supports further that authoritarian and controlling attitudes, expressed in suppression of sexuality of the child, are related to a low level of knowledge of human sexual reproduction. These findings are similar to those in other studies. Zuckerman and Oltean (1959) found that parents scoring high on factor A scales were less liberal in their sexual attitudes. Colwell (1961) found that the subscale 18 on the
PARI had a negative correlation with the well-adjusted child rating. Children rated as well adjusted were parented by adults who scored less authoritarian and controlling in the area of sexuality of the child. And, Sears et al. (1958) found that mothers who were authoritarian with respect to sexual issues tended to toilet train their child severely, check frequently on the location and activities of the child, use physical punishment fairly often, and emphasize sex role stereotypes. In this study, the inverse relationship between authoritarian and controlling attitudes of child rearing as well as the suppression of sexuality in the child, and the level of knowledge of human sexual reproduction, is significant in the Head Start, private-corporate, and church-affiliated groups of mothers. It is not significant in the university-based mothers. It is possible that the level of education of the mothers who were university-based moderated the attitudes they expressed about child rearing.

There was a negative correlation between authoritarian-controlling attitudes and sexual knowledge across all family structures as well. Original, step-blended, single, and divorced-separated mothers all demonstrated that those who were more authoritarian and controlling and more suppressive of their child's emerging sexuality had a lower level of knowledge of human sexual reproduction.

These findings are very important. There is currently strong support being given to the method of sex education where parents are educated in the facts of human reproduction and sexuality so that they may in turn educate their child (Blakeslee, Note 3). The present study has added credence to that approach by demonstrating that
mothers with low sexual knowledge will be more authoritarian and controlling in their attitudes and hence in their behavior toward the child.

Historically, authoritarian-controlling attitudes of parents have been associated with negative effects on the child; i.e., low acceptance of the child (Baragora, 1964); poor school adjustment (Colwell, 1961); conformity at the cost of creativity (Baldwin, 1948); juvenile delinquency (Madoff, 1959); greater temper, excessive interest in sex, and more masturbatory behavior (Rosenthal et al., 1959); greater dependency in female children (Becker & Krug, 1965); and stricter toilet training, greater use of physical punishment, and emphasis on sex role stereotypes (Sears et al., 1958). The present study has contributed to the mounting evidence which supports the fact that authoritarian-controlling attitudes of parents have negative effects on children. High authoritarian-controlling attitudes and low sexual knowledge leads to suppression of the child's genital exploration, controlling the child's sex play, and handling the child's questions about reproduction in an authoritarian and rebuking manner.

Findings also showed a significant difference in the amount of sexual knowledge demonstrated by mothers that varied with the child care setting in which they placed their preschool child. Mothers with children in Head Start scored significantly lower on the SKQ than corporate-private, church-affiliated, or university-based mothers. Corporate-private mothers scored significantly lower than did university-based mothers. In part this can be explained as a function of level of education, although the homogeneity of the level of
education of the sample has been noted. It may also be attributable in part to the liberality of attitudes expressed. Socioeconomic status has been associated with the liberalism of attitudes (Libby, 1971). It is possible that the Head Start mothers, traditionally lower in socioeconomic status than other child care center setting groups, are less liberal in their sexual attitudes. Conservatism of sexual attitudes would limit the amount of sexual interest and hence sexual knowledge gained.

A one-way analysis of covariance procedure allowed for controlling the affect of education on the PARI scores. Significant main effects for child care setting and family structure remained. Homogeneity of education level is a possible explanation for education not having a significant effect on the PARI scores.

Future Research

As in previous studies utilizing the PARI, the respondents in this study complained about the wording of the PARI. Some mothers found the statements too general. They expressed the feeling that their response would "depend" on too many circumstances on which they were not permitted to comment. Many described the items as "frustrating." Several stated that they found the items demeaning to their spouse.

Since the PARI was written 23 years ago, it is possible that the time has come for a parent attitude instrument to be written that more closely reflects the feelings of mothers today. An instrument which would reflect mothers' changing roles, their increased autonomy and
financial responsibility, and the much written about liberality of sexual expression is needed.

Another recommendation for future research would be along the lines of Snyder and Spreitzer (1976) who correlated favorability toward sex education in the public schools with social demographics. In this instance, the correlation of favorability toward sex education in the public schools with scores on the PARI could be analyzed. High factor A and SS 18 scores might well correlate negatively with approval of sex education. Those respondents who were more authoritarian and controlling and more suppressive of the child's sexuality would most probably be less in favor of sex education in the schools.

A final direction to be researched is whether increasing sexual knowledge of the parent does in fact alter attitudes toward the child's emerging sexuality. In the newest approach to sex education, i.e., teaching the parents about sexuality so that they may teach the child, it would prove interesting to learn if the authoritarian and controlling attitudes and suppression of sexuality parents express decrease as their knowledge of human sexual reproduction and human sexuality increases.
VI. CONCLUSION

It is generally accepted by mental health practitioners that healthy sexual functioning is critical to adequate adjustment in the adult (Reenshaw, 1971; Rubin & Kirkendall, 1970). It is also accepted that attitudes concerning one's own sexuality are formed very early in life (Oremland & Oremland, 1977; Sears et al., 1957) and are significant to later sexual adjustment (Tollison, 1979). This study has contributed to an understanding of the relationship between a mother's knowledge of human sexual reproduction and her attitudes toward a child's emerging sexuality.

The attitudes that children develop toward their own sexuality are formed at a very early age and are influenced by the manner in which significant adults handle children's exploratory sex play, toilet training experiences, and questions about sexual matters (Arnstein, 1967; Nelson, 1978). The implications of this study for the field of early childhood education are that preschool teachers, as much as the mother of the child, need to be aware of the impact their attitudes will have on the child's early sexual development.

Many parents express concern about the proper time, proper amount of information to share, and the proper manner in which their child's early sexual experiences should be handled (Sears et al., 1957). Some researchers have suggested that information about sexuality be primarily given in the home (Schaefer & Bell, 1958; Shoben, 1949).
Parents would feel comfortable about the sexual education of their children if they were informed about the early sexual-developmental stages, such as the child's genital awareness, sexual play, and masturbatory behavior (Nelson, 1978; Sears et al., 1957). Educating the parent and the child to accept the child's sexuality begins from the moment of the child's birth (Sex Information and Education Council of the United States, 1970). It is important that mothers be made aware of the vital role they play in the attitudes children develop about their own sexuality (Bandura & Walters, 1963; Strong et al., 1978). The results of this study can be instrumental in the creation of a systematic sex education program, utilizing the findings of the variability that child care setting and family structure bring to maternal attitudes and level of knowledge of human sexual reproduction.
APPENDICES
APPENDIX A

PARENT ATTITUDE RESEARCH INSTRUMENT
INVENTORY OF ATTITUDES ON FAMILY LIFE AND CHILDREN

Read each of the statements below and then rate them as follows:

A = strongly agree
D = strongly disagree
M = mildly agree
E = mildly disagree

Indicate your opinion by drawing a circle around the “A” if you strongly agree, around the “M” if you mildly agree, around the “E” if you mildly disagree, and around the “D” if you strongly disagree.

There are no right or wrong answers, so answer according to your own opinion. It is very important to the study that all questions be answered. Many of the statements will seem alike but all are necessary to show slight differences of opinion.

1. Children should be allowed to disagree with their parents if they feel their own ideas are better. A a d D
2. A good mother should shelter her child from life’s little difficulties. A a d D
3. The home is the only thing that matters to a good mother. A a d D
4. Some children are just so bad they must be taught to fear adults for their own good. A a d D
5. Children should realize how much parents have to give up for them. A a d D
6. You must always keep tight hold of baby during bath for in a careless moment he might slip. A a d D
7. People who think they can get along in marriage without arguments just don’t know the facts. A a d D
8. A child will be grateful later on for strict training. A a d D
9. Children will get on any woman’s nerves if she has to be with them all day. A a d D
10. It’s best for the child if he never gets started wondering whether his mother’s views are right. A a d D
11. More parents should teach their children to have unquestioning loyalty to them. A a d D
12. A child should be taught to avoid fighting no matter what happens. A a d D
13. One of the worst things about taking care of a home is a woman feels that she can’t get out. A a d D

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14. Parents should adjust to the children some rather than always expecting the children to adjust to the parents. A a d D
15. There are so many things a child has to learn in life there is no excuse for him sitting around with time on his hands. A a d D
16. If you let children talk about their troubles they end up complaining even more. A a d D
17. Mothers would do their job better with their children if fathers were more kind. A a d D
18. A child should be protected from hearing about sex. A a d D
19. If a mother doesn’t go ahead and make rules for the home the children and husband will get into trouble they don’t need to. A a d D
20. A mother should make it her business to know everything her children are thinking. A a d D
21. Children would be happier and better behaved if parents would show more interest in their affairs. A a d D
22. Mothers are too toilet trained by 15 months of age. A a d D
23. There is nothing worse for a young mother than being alone while going through her first experience with a baby. A a d D
24. Children should be encouraged to tell their parents about it whenever they feel family rules are unreasonable. A a d D
25. A mother should do her best to avoid any disappointment for her child. A a d D
26. The women who want lots of parties seldom make good mothers. A a d D
27. It is frequently necessary to drive the mischief out of a child before he will behave. A a d D
28. A mother must expect to give up her own happiness for that of her child. A a d D
29. All young mothers are afraid of their awkwardness in handling and holding the baby. A a d D
30. Sometimes it’s necessary for a wife to tell off her husband in order to get her rights. A a d D
31. Strict discipline develops a fine strong character. A a d D
32. Mothers very often feel that they can’t stand their children a moment longer. A a d D
33. A parent should never be made to look wrong in a child’s eyes. A a d D
34. The child should be taught to revere his parents above all other grown-ups. A a d D
35. A child should be taught to always come to his parents or teachers rather than fight when he is in trouble. A a d D
36. Having to be with the children all the time gives a woman the feeling her wings have been clipped. A a d D
37. Parents must earn the respect of their children by the way they act. A a d D
38. Children who don’t try hard for success will feel they have missed out on things later on.
39. Parents who start a child talking about his worries don't realize that sometimes it's better to just leave well enough alone.

40. Husbands could do their part if they were less selfish.

41. It is very important that young boys and girls not be allowed to see each other completely undressed.

42. Children and husbands do better when the mother is strong enough to settle most of the problems.

43. A child should never keep a secret from his parents.

44. Laughing at children's jokes and telling children jokes makes things go more smoothly.

45. The sooner a child learns to walk the better he's trained.

46. It isn't fair that a woman has to bear just about all the burden of raising children by herself.

47. A child has a right to his own point of view and ought to be allowed to express it.

48. A child should be protected from jobs which might be too tiring or hard for him.

49. A woman has to choose between having a well run home and hobnobbing around with neighbors and friends.

50. A wise parent will teach a child early just who is boss.

51. Few women get the gratitude they deserve for all they have done for their children.

52. Mothers never stop blaming themselves if their babies are injured in accidents.

53. No matter how well a married couple love one another, there are always differences which cause irritation and lead to arguments.

54. Children who are held to firm rules grow up to be the best adults.

55. It's a rare mother who can be sweet and even tempered with her children all day.

56. Children should never learn things outside the home which make them doubt their parents' ideas.

57. A child soon learns that there is no greater wisdom than that of his pac.

58. There is no good excuse for a child hitting another child.

59. Most young mothers are bothered more by the feeling of being shut up in the home than by anything else.

60. Children are too often asked to do all the compromising and adjustment and that is not fair.

61. Parents should teach their children that the way to get ahead is to keep busy and not waste time.

62. Children need to be taught all their little upsets if they aren't careful from the first.

63. When a mother doesn't do a good job with children it's probably because the father doesn't do his part around the home.

64. Children who take part in sex play become sex criminals when they grow up.

65. A mother has to do the planning because she is the one who knows what's going on in the home.

66. An alert parent should try to learn all her child's thoughts.

67. Parents who are interested in hearing about their children's parties, dates and fun help them grow up right.

68. The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems.

69. A wise woman will do anything to avoid being by herself before and after a new baby.

70. A child's ideas should be seriously considered in making family decisions.

71. Parents should know better than to allow their children to be exposed to difficult situations.

72. Too many women forget that a mother's place is in the home.

73. Children need some of the natural naughtiness taken out of them.

74. Children should be more considerate of their mothers since their mothers suffer so much for them.

75. Most mothers are fearful that they may hurt their babies in handling them.

76. There are some things which just can't be settled by a mild discussion.

77. Most children should have more discipline than they get.

78. Raising children is a nerve-wracking job.

79. The child should not question the thinking of his parents.

80. Parents deserve the highest esteem and regard of their children.

81. Children should not be encouraged to box or wrestle because it often leads to trouble or injury.

82. One of the bad things about raising children is that you aren't free enough of the time to do just as you like.

83. As much as is reasonable a parent should try to treat a child as an equal.

84. A child who is "on the go" all the time will most likely be happy.

85. If a child has upset feelings it is best to leave him alone and not make it look serious.

86. If youngsters could get their wishes they would most often ask that their husband be more understanding.

87. Sex is one of the greatest problems to be confronted with in children.

88. The whole family does fine if the mother puts her shoulders to the wheel and takes charge of things.

89. A mother has a right to know everything going on in her child's life because her child is part of her.
90. If parents would have fun with their children, the children would be more apt to take their advice.
91. A mother should make an effort to get her child toilet trained at the earliest possible time.
92. Most women need more time than they are given to rest up in the home after going through childbirth.
93. When a child is in trouble he ought to know he won’t be punished for talking about it with his parents.
94. Children should be kept away from all hard jobs which might be discouraging.
95. A good mother will find enough social life within the family.
96. It is sometimes necessary for the parents to break the child’s will.
97. Mothers sacrifice almost all their own fun for their children.
98. A mother’s greatest fear is that in a forgetful moment she might let something bad happen to the baby.
99. It’s natural to have quarrels when two people who both have minds of their own get married.
100. Children are actually happier under strict training.
101. It’s natural for a mother to “blow her top” when children are selfish and demanding.
102. There is nothing worse than letting a child hear criticisms of his mother.
103. Loyalty to parents comes before anything else.
104. Most parents prefer a quiet child to a “crappy” one.
105. A young mother feels “held down” because there are lots of things she wants to do while she is young.
106. There is no reason parents should have their own way all the time, any more than that children should have their own way all the time.
107. The sooner a child learns that a wasted minute is lost forever the better off he will be.
108. The trouble with giving attention to children’s problems is they usually just make up a lot of stories to keep you interested.
109. Few men realize that a mother needs some fun in life too.
110. There is usually something wrong with a child who asks a lot of questions about sex.
111. A married woman knows that she will have to take the lead in family matters.
112. It is a mother’s duty to make sure she knows her child’s innermost thoughts.
113. When you do things together, children feel close to you and can talk easier.
114. A child should be weaned away from the bottle or breast as soon as possible.
115. Taking care of a small baby is something that no woman should be expected to do all by herself.
APPENDIX B

PARENT ATTITUDE RESEARCH INSTRUMENT SCORING SHEET
## Parental Attitude Research Instrument (PART)

### Score Sheet

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>Sub-Test Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encouraging Verbalization</td>
</tr>
<tr>
<td></td>
<td>Fostering Dependency</td>
</tr>
<tr>
<td></td>
<td>Seclusion of the Mother</td>
</tr>
<tr>
<td></td>
<td>Breaking the Will</td>
</tr>
<tr>
<td></td>
<td>Martyrdom</td>
</tr>
<tr>
<td></td>
<td>Fear of Hurting the Baby</td>
</tr>
<tr>
<td></td>
<td>Marital Conflict</td>
</tr>
<tr>
<td></td>
<td>Strictness</td>
</tr>
<tr>
<td></td>
<td>Irritability</td>
</tr>
<tr>
<td></td>
<td>Excluding Outside Influences</td>
</tr>
<tr>
<td></td>
<td>Deification of the Parent</td>
</tr>
<tr>
<td></td>
<td>Suppression of Aggression</td>
</tr>
<tr>
<td></td>
<td>Rejection of the Homemaking Role</td>
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<tr>
<td></td>
<td>Equalitarianism</td>
</tr>
<tr>
<td></td>
<td>Approval of Activity</td>
</tr>
<tr>
<td></td>
<td>Avoidance of Communication</td>
</tr>
<tr>
<td></td>
<td>Inconsiderateness of the Husband</td>
</tr>
<tr>
<td></td>
<td>Suppression of Sexuality</td>
</tr>
<tr>
<td></td>
<td>Ascendancy of the Mother</td>
</tr>
<tr>
<td></td>
<td>Intrusiveness</td>
</tr>
<tr>
<td></td>
<td>Comradeship and Sharing</td>
</tr>
<tr>
<td></td>
<td>Acceleration of Development</td>
</tr>
<tr>
<td></td>
<td>Dependency of the Mother</td>
</tr>
</tbody>
</table>

### Instructions

Enter the number 4, 3 (2), or 1 in each square according to whether the response was Strong Agreement, Mild Agreement, Mild Disagreement, or Strong Disagreement, respectively. Thus, if the subject responded with Mild Disagreement to item #23, a 2 would be entered in the second cell of the second row. Total score is merely the sum of entries across rows. Since items are arranged in a cyclical order by scales all items in a given row belong to the same scale. Hence, summing across gives the score for that scale.

### Critical Items

18, 21, 22, 27, 110, 22, 91

### Critical Scale

18, 20, 22 (8)
APPENDIX C

24 ITEM MILLER FISK SEXUAL KNOWLEDGE QUESTIONNAIRE
SEXUAL KNOWLEDGE QUESTIONNAIRE

Name: .................................................. Date: ..................................................

Age: ............................. Sex: ............................ Marital Status: ...............................

Number of children: ............................. Years of schooling completed: ............................

Place of testing: ..................................................

Instructions: For each item, select the answer you think is correct and then place an X in the box in front of that option.

1. The single most important factor in achieving pregnancy is:
   - a. time of exposure in the cycle
   - b. female's desire or wish to become pregnant
   - c. frequency of intercourse
   - d. female's overall state of health

2. Which of the following is the most dependable (effective) method of contraception or birth control:
   - a. condom (male prophylactic)
   - b. diaphragm plus jelly or cream
   - c. rhythm
   - d. pill

3. Following release from the ovary the human ovum (egg) is capable of being fertilized for:
   - a. 6 to 12 hours
   - b. 24 hours
   - c. 48 hours
   - d. 4 to 6 days

4. A good index of a female's relative fertility (ability to achieve pregnancy) is:
   - a. her overall health
   - b. the regularity of her periods
   - c. the level of intensity of her sex drive
   - d. her ability to achieve orgasm

5. Which of the following methods of contraception is most effective:
   - a. condom (male prophylactic)
   - b. rhythm
   - c. diaphragm plus jelly or cream
   - d. intrauterine device (loop or bow)

6. The normal female most often ovulates (gives off egg):
   - a. 2 weeks before the onset of menstruation
   - b. just prior to menstruation
   - c. immediately following menstruation
   - d. at unpredictable times throughout the cycle

7. Infertility (inability to achieve pregnancy) is:
   - a. familial or inherited
   - b. a male problem in one-third of cases
   - c. a female problem in 90% of the cases
   - d. easily diagnosed after six months of marriage

8. Which of the following is the poorest or least dependable method of contraception:
   - a. condom (male prophylactic)
   - b. diaphragm
   - c. post-intercourse douching
   - d. rhythm

9. A normal human ovum (egg) is approximately the same size as:
   - a. a pinhead
   - b. a small pearl
   - c. a dime
   - d. none of the above

10. Fertilization (union of sperm and egg) normally occurs in which of the following anatomical locations:
    - a. the uterus (womb)
    - b. the cervix (mouth of womb)
    - c. the tube
    - d. the vagina

By Warren Miller, M.D., and Norman M. Fisk, M.D., Stanford University School of Medicine.

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11. Menopause is a time of:
   a. diminished sexual desire
   b. absolute infertility
   c. rapid aging
   d. altered reproductive and menstrual functioning.

12. The rhythm method of contraception is:
   a. always effective
   b. avoidance of intercourse during unsafe (or fertile) times
   c. a technique of intercourse
   d. none of the above

13. Pregnancy would be impossible in early adolescence when menstruation has not yet even begun or is not at all regularly established.
   a. true
   b. false

14. Menstrual blood is similar to a body “poison” or toxin that must be eliminated in order for a woman to remain healthy.
   a. true
   b. false

15. A woman who begins to menstruate on the first Wednesday of every month is “as regular as a clock.”
   a. true
   b. false

16. In order to have a normal period there must be a moderate to heavy flow in terms of amount of blood and/or duration of flow.
   a. true
   b. false

17. The loss of one ovary through disease or surgery diminishes a woman’s fertility (ability to conceive) little if at all.
   a. true
   b. false

18. Anatomical differences (i.e., size, shape, capacity, etc.) of the genital organs has a great bearing on sexual compatibility or satisfaction.
   a. true
   b. false

19. Unplanned or undesired pregnancies have a greater likelihood of miscarrying than do planned pregnancies.
   a. true
   b. false

20. Failure to have an orgasm on the part of the female eliminates or substantially reduces the likelihood of becoming pregnant.
   a. true
   b. false

21. Withdrawal is an effective means of contraception (birth control).
   a. true
   b. false

22. Birth control pills directly increase the sex drive (desire) in most women.
   a. true
   b. false

23. Sperm retain their ability to fertilize (cause pregnancy) for one to two days following ejaculation (release).
   a. true
   b. false

24. Most women are more fertile during one particular season of the year than another.
   a. true
   b. false
APPENDIX D

24 ITEM SEXUAL KNOWLEDGE QUESTIONNAIRE KEY
KEY

1. a
2. d
3. c
4. b
5. d
6. a
7. b
8. c
9. a
10. c
11. d
12. b
13. b
14. b
15. b
16. b
17. a
18. b
19. b
20. b
21. b
22. b
23. a
24. b
APPENDIX E

INFORMATION CARD
MOTHER'S ATTITUDES: Child Rearing

Please complete this card and deposit it separately from the other materials in the box provided.

Thank you again for your help.

Name _____________________________________________________________

Address __________________________________________________________________

City __________________________________________________________________
APPENDIX F

COVER LETTER
Dear Mother:

The Psychology Department of the University of Central Florida, in cooperation with your child's day care center, is studying what mothers think about how children should be brought up. A lot has been written on this subject in various newspaper and magazine articles, but frequently these articles are not in agreement. We believe it would be a good idea to find out what mothers themselves think. You can help in this study by sharing your ideas.

Please read and follow the directions as given. On the first form, Attitudes on Family Life and Children, be frank and give your personal ideas regardless of what others may think. On the second form, Sexual Knowledge Questionnaire, answer the items to the best of your ability.

Do not give your name on any of the forms, but do fill in the detachable information card. Return the forms and card to your day care center in the envelope provided. We need to have your reply within three days.

If you would like to receive information about the outcome of this study, please retain our names and address. Write, after August 15, 1981, and include, at that time, your name and address so that we may respond.

Thank you very much for your cooperation.

Sincerely yours,

Susan F. McGolrick, B.A.
Graduate Student

Burton I. Blau, Ph.D.
Associate Professor
APPENDIX G

DEMOGRAPHIC INFORMATION PAGE
MOTHERS ATTITUDES: CHILD REARING

INFORMATION

Please complete the information below:

1. Age (check the correct category):
   - Below 19
   - 19 - 22
   - 23 - 24
   - 25 - 27

2. Race (check one):
   - Caucasian
   - Black
   - Hispanic
   - Asian

3. Education (circle highest level completed):
   - Grade school through high school
   - College
   - Graduate School

4. List ages and sex of your child(ren):
   - Age
   - Sex

5. Child Care Center (check one):
   - My child attends:
     - A university based child care center
     - A Head Start child care center
     - A privately or corporately owned child care center
     - A church affiliated child care center

6. Family Structure (check the correct category):
   - Original family unit (mother and father married once, to each other and all children are from this marriage).
   - Step/Blended family unit (father or mother natural parent of child(ren) and remarried to step-parent).
   - Single Parent family unit (mother never married, has custody of her natural child(ren).
   - Divorced/Separated family unit (mother presently divorced or separated, has custody of child(ren), has not remarried)
   - Other, please explain.

7. Income (combined family income/yearly):
   - Up to $5,000
   - $5,100 to 7,500
   - $7,600 to 10,000
   - $10,100 to 12,500
   - $12,600 to 15,000
   - $15,100 to 17,500
   - $17,600 to 20,000
   - $20,100 to 25,000
   - $25,100 to 30,000
   - $30,100 and above

8. Religion (check one):
   - Roman Catholic
   - Protestant
   - Jewish
   - None

   Attend religious services:
   - Weekly
   - Monthly
   - Less once month
   - Never
REFERENCE NOTES
REFERENCE NOTES

1. Zuckerman, M. Unpublished study, 1959. (Available from Institute of Psychiatric Research, Indiana University Medical Center, 1100 West Michigan, Indianapolis, Indiana.)


Zunich, M. Relationship between maternal behavior and attitudes toward children. Journal of Genetic Psychology, 1962, 100, 155-165. (b)