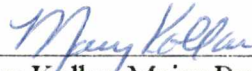


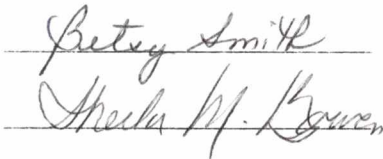
To the Graduate Council:

I am submitting herewith a thesis written by Barbara Jean Smith entitled "Fathers, Sons, and Health: Relationships Between Fathers' and Sons' Health Habits and Perspectives." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nursing.

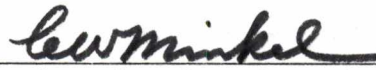


Mary Kollar, Major Professor

We have read this thesis and
recommend its acceptance:



Accepted for the Council:



Associate Vice Chancellor and
Dean of The Graduate School

FATHERS, SONS, AND HEALTH:
RELATIONSHIPS BETWEEN FATHERS' AND SONS'
HEALTH HABITS AND PERSPECTIVES

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Barbara J. Smith

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DEDICATION

To my husband and sons,
Larry, George and Daniel,
for their constant support, encouragement and faith.

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ABSTRACT

In this study Dorethea Orem's Self-Care Framework was used to explore the relationships between how a father takes care of his own health (self-care agency) and the health of his son (dependent-care agency), and how his adolescent son takes care of his health. This descriptive study focused on the relationship between the health habits and attitudes of fathers and the health habits and attitudes of their adolescent sons.

A convenience sample of adolescent males and their male parents was used. The adolescent males were in grades 10 and 11, from four public high schools in one county in a southeastern state. The male parent was defined as the adult male member in the household who acted as male parent. The following instruments were used: Denyes Self-Care Agency Instrument (DSCAI-90), Moore and Gaffney's Dependent-Care Agent Questionnaire, and Baldwin and Davis' Health Education Questionnaire IV (HEQ). A non-experimental descriptive correlational design was used. Pearson product-moment correlation coefficient (Pearson r) was used to explore correlations between male adolescents' and male parents' results on these instruments.

The subject population consisted of male parents ($n=38$), male adolescents ($n=44$) and male parent/male adolescent pairs ($n=33$). Responses did not meet the numbers required for an adequate sample size and demographics did not reflect a representative sample of the county population for these two groups. However, 80% of the male adolescents that responded had a male parent that also responded.

Relationships were found to exist between male parents' dependent-care agency and self-care agency, and male parents' beliefs and knowledge on health topics. No relationship was found between male parents' dependent-care agency or self-care agency and male adolescents' self-care agency. The researcher concluded that more research is needed to discover possible relationships in these concepts, with these, and other populations.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Need for the Study.....	1
Purpose of the Study.....	2
Statement of the Problem.....	2
Research Question.....	3
Subsidiary Questions.....	3
Limitations.....	4
Assumptions.....	4
Definition of Terms.....	5
Conceptual Framework.....	7
Summary.....	10
II. LITERATURE REVIEW.....	11
Orem as a Nursing Framework.....	11
Adolescent Self-Care and Health-Related Behavior.....	12
Parental Dependent-Care and Health-Related Behavior.....	16
Educational and Sociological Aspects of Father/Son Relationships.....	17
Developmental Stages of the Male Adolescent and the Male Parent.....	19
Summary.....	21
III. METHODOLOGY.....	23
Sample Selection.....	26
Instruments.....	27
Demographic Collection Sheets.....	28
Denyes Self-Care Agency Instrument (DSCAI-90).....	28
DCA: Dependent-Care Agent Instrument (Moore and Gaffney, 1989, Modified).....	29
Baldwin and Davis' Health Education Questionnaire IV.....	31
Reading Levels.....	32
Data Analysis.....	32
Summary.....	36
IV. FINDINGS.....	37
Demographic Data.....	37
Denyes Self-Care Agency Instrument (DSCAI-90).....	43
Baldwin and Davis' Health Education Questionnaire IV.....	46
Moore and Gaffney's Dependent-Care Agent Instrument.....	50
Results.....	52
Summary.....	57

CHAPTER	PAGE
V. SUMMARY AND CONCLUSIONS.....	59
Discussion.....	60
Implications.....	69
Recommendations for Future Research.....	71
REFERENCES.....	73
APPENDICES.....	78
Appendix A. Denyes Self-Care Agency Instrument (DSCAI-90).....	79
Appendix B. DCA: Dependent Care Agent Instrument (Moore and Gaffney, 1989) (Modified).....	82
Appendix C. Baldwin and Davis' Health Education Questionnaire IV (Modified).....	85
Appendix D. Baldwin and Davis' Health Education Questionnaire IV.....	87
Appendix E. Instructions.....	89
Appendix F. Informed Consent Letter.....	90
Appendix G. Demographic Information - Adolescent Male.....	92
Appendix H. Demographic Information - Male Parent/Male Parent Figure.....	93
VITA.....	94

LIST OF TABLES

TABLE	PAGE
1. Population of Male Adolescents in Target Schools/Number of Packets Distributed.....	27
2. Population of Male Adolescents in Target Schools/Number of Packets Distributed/Responses.....	38
3. Demographic Data - Adolescent Males.....	38
4. Demographic Data - Male Parents.....	40
5. Results - Denyes Self-Care Agency Instrument (DSCAI-90).....	44
6. Denyes Self-Care Agency Instrument (DSCAI-90) Comparison of Scale Results - Paired Male Parents/Adolescent Males.....	44
7. Denyes Self-Care Agency Instrument (DSCAI-90): Correlations - Paired Male Parents/Adolescent Males.....	45
8. Cronbach's Alpha Reliability Coefficients - Denyes Instrument/Scales.....	45
9. Baldwin and Davis' Health Education Questionnaire Results.....	46
10. Baldwin and Davis' Health Education Questionnaire IV: Comparison: Male Parents' and Male Adolescents' Responses.....	48
11. Baldwin and Davis' Health Education Questionnaire IV: Comparison: Male Parents' and Male Adolescents' Responses.....	49
12. Cronbach's Alpha Reliability Coefficients - Baldwin and Davis' Instrument..	50
13. Moore and Gaffney's Dependent-Care Agent Instrument.....	51
14. Relationship Between Male Parents' Dependent-Care Agency and Self-Care Agency.....	52
15. Relationship Between Male Parents' Dependent-Care Agency and Male Adolescents' Self-Care Agency.....	53

TABLE	PAGE
16. Relationship Between Male Parent's Self-Care Agency and Male Adolescents' Self-Care Agency.....	53
17. Relationship Between Health Topics Male Parents' and Male Adolescents' Report as Important to Discuss (Beliefs).....	54
18. Relationships Between Male Parents' and Male Adolescents' Reported Health Knowledge (Knowledge).....	55
19. Relationship Between Male Parents' Dependent-Care Agency and Male Adolescents' Reported Knowledge of Health Topics.....	55
20. Relationship Between Male Parents' Reported State of Health and Male Adolescents' Reported State of Health.....	56
21. Relationship Between Male Parents' Dependent-Care Agency, the Importance Male Parents Place on Discussing Health Topics and Male Parents' Knowledge of Health Topics.....	57

CHAPTER I

INTRODUCTION

In Healthy People 2000, (Department of Health and Human Services, Public Health Service (DHHS/PHS), 1991) the authors discussed the primary role that the family plays in establishing health promoting activities among its members. Parents can provide both the teaching and the supportive environment necessary to sustain health promoting activities. The authors of Healthy People 2000 proposed that health care providers, as often the sole source of health information, have the responsibility to form a partnership with the family, "translating science into practice" (p. 87). The researcher focused on the relationship between male parents' and male adolescents' health habits and perspectives. Findings of this study could provide health care professionals practical directions when teaching health education and health promotion to both of these groups, male parents and male adolescents. The developmental stages of the adolescent male and the adult parent were considered. Dorothea Orem's Self-Care Framework, with her definitions of self-care agency and dependent-care agency, was used as the nursing approach to these relationships.

Need for the Study

Why should nurses be interested in helping the adolescent male establish health promoting habits? The leading causes of death for young people aged 15 - 26 are injuries, homicides and suicides. The leading causes of death for adults, aged 25 - 64 are cancer, heart disease and injuries. HIV infection is the leading cause of death in men aged 25 - 44,

as of 1992 (DHHS/PHS, 1993b). It is vital that the groundwork is established for chronic disease prevention and promotion of healthy lifestyles that address injury prevention, safety and safe sexual practices as early as possible, especially by adolescence and young adulthood. Promotion of health activities that prevent or decrease risk is a vital area for intervention. Health activities that can be controlled and managed by the individual, such as dietary habits, physical activity levels, use of alcohol, tobacco and other drugs, and sexual activity, are all pertinent areas for parental and health professional interventions (DHHS/PHS, 1991).

Purpose of the Study

The purpose of this study was to look at the relationship between the male parents' health habits and perspectives and their adolescent sons' health habits and perspectives using Orem's Self-Care Framework. The leading causes of death for both adolescents and adults are preventable, either wholly or in part, by changes in lifestyle. Therefore, the goal of this study was to add to the knowledge base on effective content and effective timing of health education interventions with male adolescents and male parents. This could help health care professionals find additional ways to intervene to help adolescent males establish healthy lifestyles and positive lifetime health habits.

Statement of the Problem

Health statistics continue to reflect a lack of involvement by many adolescents in activities that promote chronic disease prevention and promotion of a healthy lifestyle. The

relationship between male parents' health habits and perspectives and those of their adolescent sons have not been adequately explored.

Research Question

Is there a relationship between male parents' health habits and perspectives and their adolescent sons' health habits and perspectives?

Subsidiary Questions

This study was designed to develop answers to the following questions.

1. Is there a relationship between male parents' dependent-care agency and male parents' self-care agency?
2. Is there a relationship between male parents' dependent-care agency and their male adolescents' self-care agency?
3. Is there a relationship between male parents' self-care agency and their male adolescents' self-care agency?
4. Is there a relationship between health topics male parents' and male adolescents' reported as important to discuss?
5. Is there a relationship between knowledge of health topics male parents' and male adolescents' report?
6. Is there a relationship between male parents' dependent-care agency and their male adolescents' reported knowledge of health topics?
7. Is there a relationship between male parents' reported state of health and their male adolescents' reported state of health?

8. Is there a relationship between male parents' dependent-care agency, the importance they placed on discussing health topics with their male adolescents,' and male parents' knowledge of health topics?

Limitations

1. This descriptive study was based on self-report data.
2. This study did not consider the impact of female-parent only households.
3. This study did not consider the impact of male parents who did not share the same household as their adolescent son.
4. This study did not include male parents who could not read and write.
5. Generalizability of the results of this study were limited since the subjects were a convenience sample from one county, in one southeastern state.

Assumptions

1. Subjects answered the questionnaires honestly and to the best of their knowledge.
2. The male parent/adolescent son pairs completed their questionnaires independently.
3. All subjects understood the instructions and questionnaires.
4. The questionnaires were not biased.
5. Instructions were followed by teachers handing out the study packets.

Definition of Terms

Dependent care:

Dependent care is [self-care] performed by responsible adults for socially dependent individuals (Orem, 1991, p. 64).

Dependent-care agency:

"Dependent-care agency is the complex developed capability of responsible adults to do the foregoing [self-care agency] for dependents" (Orem, 1991, p. 65). It is "the complex, acquired ability to incorporate knowing and meeting health-deviation self-care requirements of . . . children and needed adjustments in universal and developmental-type self-care requisites into ongoing systems of . . . parenting activities" (Orem, 1991, pp. 175-176).

Developmental self-care requisites:

Identified needs associated with "human development processes and with conditions and events occurring during various stages of the life cycle (e.g., prematurity, pregnancy) and events that can adversely affect development" (Orem, 1991, p. 125).

Health deviation self-care requisites:

Identified needs that are associated with "genetic or constitutional defects and human structural and functional deviations and with their effects and with medical diagnostic and treatment measures" (Orem, 1991, p. 125).

Male parent/male parent figure:

For the purposes of this study the male parent/male parent figure is the male member living in the same household who fulfills the role of parent. This may be the natural father, step-father, male relative (i.e., grandfather, uncle), or family friend. This person will be referred to as the male parent in this study.

Self-care:

"... the practical response to an experienced demand to attend to oneself ... may originate in the individual or from knowledge that a care measure should be performed that is health-promoting" (Orem, 1991, p. 124).

Self-care agency:

"... the complex developed capability that enables adults and maturing adolescents to discern factors that must be controlled and managed in order to regulate their own functioning and development, to decide what can and should be done with respect to regulation, to lay out the components of their therapeutic self-care demands (self-care

requisites, technologies, care measures), and finally to perform care measures designed to meet their self-care requisites over time" (Orem, 1991, p. 65).

Universal self-care requisite:

Needs "common to all human beings during all stages of the life cycle, adjusted to age, developmental state, and environmental and other factors. These are associated with life processes, with the maintenance of the integrity of human structure and functioning, and with general well-being" (Orem, 1991, p. 125). These include the need for air, water, food, elimination, a balance between activity and rest and solitude and social interaction, prevention of hazards to life, functioning and well-being, and promotion of normalcy.

Conceptual Framework

Orem's Self-Care Framework was used as the nursing framework for this study because it focuses on people's capabilities to take care of their own health and the health of their dependents. This framework provided an effective way to explore the relationships between how a father takes care of his own health and the health of his dependents, and how his teenage son is taking care of his own health.

Orem's Self-Care Framework is a conceptual model for nursing, incorporating both abstract and general concepts, with suggestions that tie these concepts together so that they can be applied to nursing in a practical sense. Orem's (1991) focus on self-care emphasized personal responsibility for health, for the self and dependents. This was pertinent to this study because the relationships between a male adolescent's self-care agency and his male parent's self-care agency and dependent-care agency were examined. According to Orem

the nurse has a role when there are health-related or health-derived limitations and there is partial or complete inability to meet self-care or dependent-care requisites. Nursing needs ways of identifying self-care agency and dependent-care agency deficits or limitations so that they know when intervention is necessary and appropriate.

Orem's approach to nursing incorporates a philosophy that is effective and empowering for the patient and the nurse. Orem designates three types of nursing system designs, (a) the wholly compensatory nursing system (used when the patient cannot or should not do any self-care actions), (b) the partly compensatory nursing system (used when the patient can do some, but not all, self-care actions), and (c) the supportive-educative nursing system (used when the patient can and should do all self-care actions) (Mehta, 1993). Orem also designates "methods of helping" which include acting for or doing for another, guiding or directing, providing physical or psychological support, providing and maintaining an environment that supports personal development, and teaching. Orem's supportive-education nursing system and this last method of helping--providing and maintaining an environment that supports personal development, and teaching--were the nursing system and method pertinent to this study. Increasing our understanding of the relationships between the parent's self-care agency and dependent-care agency and an adolescent's self-care agency can contribute to finding effective interventions when there are deficits or limitations.

Orem (1991) defined two sets of presuppositions in her theory of self-care deficit. These presuppositions link this theory to her theory of self-care and to the concept of social dependency. The presuppositions key to dependent-care that linked self-care deficit to self-care were (a) that involvement in dependent-care was affected by the value the caregiver placed on care measures, "with respect to life, development, health, and well-being " (p. 70), and (b) in families and communities, the quality and completeness of dependent-care

were based on culture. Participation in dependent care was affected by the caregivers' comprehension of what to do under existing conditions and circumstances, and on their comprehension of how to do it (pp. 70-71). This aspect of Orem's theory was particularly pertinent to this study. Did male parents comprehend that they have a role in their adolescent sons' health education? Did male parents recognize their responsibility for helping their sons establish healthy lifestyle habits and develop effective self-care agency? Did male parents have the knowledge base to care for their sons? Information to help answer or propose answers to these questions was gathered by the questionnaires used in this study.

Orem (1991) proposed that "persons who take action to provide their own self-care or care for dependents have specialized capabilities for action. . . ." that the ability to engage in self-care or dependent care is "conditioned by age, developmental state, life experiences, sociocultural orientation, health, and available resources. . . ," and the "relationship of individuals' abilities for self-care or dependent care to the qualitative and quantitative self-care or dependent-care demand can be determined when the value of each is known" (p. 71). Samples from the chosen schools from one county in a southeastern state were predicted to provide a comprehensive look at the variety of these conditioning factors and their relationship to self-care agency and dependent-care agency in the subjects. Based on these propositions, Orem's Self-Care Framework provided a logical vehicle for studying the relationships of self-care agency and dependent-care agency to health habits and attitudes in adolescent males and their male parents.

Summary

Establishing the groundwork in adolescence for chronic disease prevention and promotion of a healthy lifestyle is a key area for parental and health care professionals' interventions. No research has specifically focused on the impact of the male parent's dependent-care agency on his adolescent son's self-care agency. When the leading causes of death for these two subject groups was considered, there was determined to be a need for research on the relationships between their dependent-care agency and self-care agency.

This study will be developed in five chapters. The need, purpose, research questions, subsidiary questions, limitations, assumptions, and conceptual framework were discussed in Chapter I. A review of recent literature, including Orem's Self-Care Framework, adolescent self-care and health-related behavior, and the educational and sociological aspects of father/son relationships and development will be discussed in Chapter II. The subjects, instruments, procedures, data collection, and findings of this study will be addressed in Chapter III. Data analysis and answers to each of the eight subsidiary questions will be provided in Chapter IV. Conclusions, discussion of the results, and recommendations for future research will be presented in Chapter V.

CHAPTER II

LITERATURE REVIEW

For this study a review of the nursing literature was undertaken that considered the use of Orem as a nursing framework, adolescent self-care or self-responsibility in health-related behavior, male adolescent self-care and health-related behavior, and dependent-care agency. Literature on the educational and sociological aspects of father-son relationships, paternal responsibilities, and the developmental stages of the two subject groups was also considered in this review.

The review of literature was divided into five sections: (a) Orem as a nursing framework, (b) adolescent self-care and health-related behavior, (c) dependent-care agency, (d) educational and sociological aspects of father/son relationship, and (e) developmental stages of the male parent and the male adolescent.

Orem as a Nursing Framework

Orem's Self-Care Framework has been used to look at health care and health promotion across the life span (Hanchett, 1990; Kennedy, 1989; McDermott, 1993; Moore, 1993; Parcel, Nader & Rogers, 1980; Schafer, 1989), including studies that looked at adolescent self-care and health related issues. The specific concept of developing self-care agency in the adolescent population has been addressed by many researchers (Denyes, 1980, 1988; Estes & Hart, 1993; Falsetti & Kovel, 1994; Frey & Denyes, 1989; Hartweg, 1990; McCaleb & Edgil, 1994). Denyes (1980, 1988, Frey & Denyes, 1989) used Orem's framework, to research adolescent self-care and self-care agency and predictors of health.

Denyes (1980) developed an instrument to measure self-care agency in adolescence. This instrument (Appendix A) was used in this study to measure self-care agency in both the male parent and the male adolescent subjects. Researchers reported that Orem's framework provided an effective guide for developing these health concepts.

Adolescent Self-Care and Health-Related Behavior

Adolescents are suspended between childhood and adulthood. Factors unique to this developmental stage must be incorporated into any study of this population. Denyes (1980) used Erikson's stages of development, and proposed that, while children and adolescents do not have fully developed self-care agency, they do possess strengths that enable them to perform self-care based on developmental milestones they have already attained. Frey and Denyes (1989), in their study of adolescents with diabetes mellitis, separated self-care actions needed for universal self-care from those self-care actions needed for health-deviation self-care. These authors proceeded on the premise that Orem implied that different self-care actions are needed to satisfy each situation, universal versus health-deviation. Their findings suggested that these two types of self-care are distinct and supported the existence of universal self-care activity in this population.

Barnes (1991) focused on nurses' methods of assessing the school-age child. Her goal was to identify appropriate teaching strategies when doing patient teaching. Barnes incorporated Erikson's Theory of Psychosocial Development and Piaget's Theory of Cognitive Development, along with Orem's Nursing Theory of Self-Care. She made effective suggestions for teaching plans that focused on advancing the patient's self-care capabilities. This supports the concept that self-care agency exists in the adolescent population and this ability can be used to support health promotion interventions.

Hartweg's (1990) concept of health promotion self-care took Orem's self-care one step further. The concept, health promotion self-care, was developed within Orem's model. Hartweg saw health promotion behavior as a type of self-care action. She defined health promotion self-care as "continuous activity which is self-initiated and deliberately performed to increase an individual's well-being" (p. 38). The relationship of the male parents' dependent-care agency and self-care agency on their adolescent sons' self-care agency, looked at in this study, may impact the establishment of lifetime health promotion behavior in the adolescent male.

This study only considered male adolescents who were attending school. Statistics reflected some success by parents and health professionals in promoting healthy behaviors by adolescents, particularly with those adolescents who stayed in school (DHHS/PHS, 1994a). As part of the 1992 National Health Interview Survey, the Centers for Disease Control (CDC) analyzed self-reported data gathered from a Youth Risk Behavior Survey of 12-19 year olds. These surveys were completed by 10,645 (77.2%) of eligible adolescents garnered from a larger sample of 120,000 persons that represented 49,000 households. Positive health behaviors (use of seat belts, condom use, eating fruits and vegetables) were higher in the in-school group. Not participating in negative behaviors (riding with a drinking driver, participating in physical fights, carrying a weapon, alcohol use, smoking cigarettes, marijuana use, cocaine use, sexual intercourse, sexual intercourse with four or more sex partners, eating high fat foods) was also greater in the in-school group.

While these results reflected a positive trend for those adolescents in school, the numbers of adolescents, even those in school, involved in risky health behaviors, was too high. The CDC reported that 33.2% of in-school adolescents used safety belts, which also meant that 66.8% did not use safety belts. The CDC reported that 29.2% of in-school

adolescents participated in moderate physical activity, which also meant that 70.8% did not participate in moderate physical activity. The CDC reported that 45.4% of in-school adolescents had had sexual intercourse. These numbers revealed that a high proportion of high school students in America were involved in high risk behavior that put them at increased risk for the very things that cause death and morbidity, "motor-vehicle crashes, other physical injuries, homicide, suicide, . . . unintended pregnancy, and infection with human immunodeficiency virus (HIV) and other sexually transmitted diseases" (DHHS/PHS, 1994a, p. 129).

The CDC (DHHS/PHS, 1994a) reported that about three million American adolescents smoke, with the average teenager trying their first cigarette at 14 1/2 years, and 70% of the smokers becoming "regular" smokers by age 18. From 1963-1991, the greatest change in the pattern of homicides was in males, aged 15-19 years. Their homicide rate increased 154% (from 13.0 to 33.0) from 1985 to 1991 (DHHS/PHS, 1994b). "In the United States in 1990, there were an estimated 1 million pregnancies and 521,826 births among women ages 15-19 years. Rates of teenage pregnancy and birth rates by state in 1990 exceeded those in most developed countries. An estimated 95% of teenage pregnancies are unintended (i.e., they occur sooner than desired or are not wanted at any time)" (DHHS/PHS, 1993a). Because HIV infection is now the number one cause of death in males aged 25 - 44, health education is even more important in the preceding years, when the disease is contracted (DHHS/PHS, 1993b). These numbers only emphasized the need for continued and increased parental and health professional involvement and interventions with the adolescent during this crucial period.

Snyder (1989) also addressed health promotion in this population. In the 1989 position paper, Health Care Needs of the Adolescent, he addressed the need for health care professionals to incorporate health promotion and disease prevention as a major part of

their interactions with adolescents. The goal was to influence health habits, lifestyle choices, and health status in adulthood. The basic premise in this position paper was that the health behaviors of adolescents have long-term health consequences. Kulbok, Earls and Montgomery (1988), in their examination of adolescents aged 14 - 19, also supported the concept that health care professionals' interventions with adolescents would result in improved adult health.

McCaleb and Edgil (1994) completed a descriptive study on self-care practices of healthy adolescents, looking at the relationship between self-care practices, self-concept, and selected conditioning factors. These conditioning factors included age, gender, developmental status, health state, sociocultural characteristics, and family characteristics. Orem's model was used and the influence of sociocultural characteristics on self-care activities was supported. This study supported a positive relationship between self-care and self-concept in this population, congruent with Orem's theories. It also showed that adolescents were engaged in self-care practices.

Denyes (1988) used an aggregate sample of research performed on adolescents, to test the relationship between self-care and self-care agency and prediction of health. For a study to be included the subjects had to be adolescents, specific instruments had to be used to measure general health states, self-care agency and self-care, specific basic conditioning factor variables had to have been measured (i.e. age, gender, grade level, birth order and number of siblings), presence or absence of health problems had to be measured and all data had to be available to the investigator. Aggregate size was $n = 369$. In this article Denyes proposed that, based on Orem's concept, "health is an outcome of self-care" (p. 16). Denyes described this relationship with the diagram "Basic conditioning > Self-care agency > Self-care > Health factors" (p. 16). This aggregate study did not provide major support for the basic conditioning factors as being a strong variable in an adolescent's self-

care agency or self-care. Denyes found that Orem's propositions related to health promotion were supported when health was defined as "a general positive state of integrity and soundness" (p. 13) and that this study provided a direction for health promotion using Orem's theories.

Snyder (1989) saw adolescence as the time when people start taking responsibility for their own health care decisions; therefore, this can be the ideal time for health education and health promotion efforts by parents and health care professionals.

Lipp and Trimble (1993), in their study of health behaviors in adolescent male football players concluded that lifestyle habits formed in youth often continue to adulthood. They also suggested that family members remained an influential part of an adolescent's life. This research supported this study's look at the relationships between male parents and male adolescents regarding dependent-care agency and self-care agency.

Parental Dependent-Care and Health-Related Behavior

Adolescence is a time of physical, emotional, and mental change. Adults can have the most difficulty dealing with the physical changes taking place in the adolescent. When the adolescent starts looking like an adult, dependent-care agency may be affected. Adults may assume that the adolescent is an adult before the adolescent is mature enough. Not until late adolescence do mental and emotional growth "catch up" with physical growth.

Only two studies, Moore and Gaffney (1989) and Baldwin and Davis (1989), explored Orem's concept of dependent-care agency. Moore and Gaffney developed an instrument, the Dependent Care Agent Questionnaire, as part of their study of mothers' performance of self-care activities for children. Baldwin and Davis (1989) developed their Health Education Questionnaire to predict potential for health education in the home. Both

Moore and Gaffney's Dependent Care Agent Questionnaire and Baldwin and Davis' Health Education Questionnaire were used in this study (Appendices B, C and D). This study was the first reported use of these instruments in a male parent/male adolescent population.

Estes and Hart (1993) looked at the Clinical Nurse Specialist's (CNS) use of promotion self-care strategies in the adolescent population. Orem's theory was used to develop a framework for predicting, recognizing, and satisfying adolescents' health promotion needs. This adolescent health promotion self-care model provided a practical framework for the CNS when providing care to adolescents. The authors identified a need to change their model to incorporate the influence of the dependent-care agent and egocentrism when intervening with adolescents using the adolescent health promotion self-care model. This supports this study's look at the impact of dependent-care agency on the adolescent's self-care agency.

Educational and Sociological Aspects of Father/Son Relationships

To examine aspects of father/son relationships, literature from education and sociology was reviewed. Research on paternal responsibilities and father-son relationship increased in the late 70's, and early 80's. Eversoll (1979) studied views of fathering, using a sample of 221 young adult males and their 211 pairs of parents. Five role dimensions of the father position were measured. These were nurturing, problem solving, providing, societal modeling, and recreating. Eversoll's results showed generational differences in expectations of the father role. Generally, the sons expected fathers to be more involved in "nurturing" and "recreating" and less involved in "providing" and "societal modeling" roles, than their parents did. Eversoll cautioned that the differences reflected in this study could have been affected by life cycle events. Later, the son's expectations may change to

become more like their parent's expectations as the sons become parents/middle-aged. Eversoll suggested building parenting courses that are based on "involved fathering," with potential to strengthen future families. Assessment of the male parent's dependent-care agency in this study was a reflection of these subjects "involved fathering."

The influence of the male parent's dependent-care agency could be impacted by the father/son relationship. Huttunen (1992) incorporated the factors warmth and closeness in a study that looked at father-son relationships. Subjects were 113 twelve year old boys and their fathers. This study focused on the fathers' impact on their sons' gender role identity. It did not show that the influence of the father had a clear association with the sex role orientation of the son. The study results supported the position that a son identifies with the masculine traits of the father, not the feminine traits of the father. Huttunen reported that the study also showed that a "masculine father who exhibits paternal control contributes to his son's androgynous development" (p. 259). Over 50% of sons with "masculine" fathers were either "masculine" or "androgynous," where, using the BEM Sex Role Inventory, both "masculine" and "androgynous" individuals are those who score above the median on masculine items. Huttunen reported that the father's femininity did not result in either "femininity" or "masculinity" in the son. This research can be applied to the influence the male parents' dependent-care and self-care agency has on their adolescent sons' self-care agency.

This literature supported the examination of relationships between male parents' and male adolescents' health habits and perspectives. The goal would be to add to the knowledge base on effective content and timing of health education interventions in these populations.

Developmental Stages of the Male Adolescent and the Male Parent

Orem (1991) considered health state and developmental state as separate entities. While Orem considered developmental requisites as an integral part of a self-care assessment, she did not identify specific developmental factors. Using Orem, nurses are to realize that at any given time an individual would have reached a particular stage of development. Orem clarifies stage of development as meaning "... certain developments have occurred or are occurring and that specific developments are or are not in accord with established norms. . ." (p. 183). Orem's dependent-care agency included a responsibility to provide an appropriate environment so that "... developmental potential is both recognized and fostered . . ." (p. 11).

Because Orem (1991) did not provide details on developmental "established norms," Erikson's stages of development were used in this study as a baseline to describe the developmental stages of the male parent and the adolescent male. As a precedent, Erikson was also used by Denyes (1980) when she developed her Orem-based self-care agency instrument for adolescents.

Erikson (1993) described adolescence as the time when childhood ends, where everything learned and relied upon previously is questioned. The adolescent can begin to see the adult tasks before him, is concerned about how he appears to others, and is constantly comparing how he appears to others and how he sees himself. Erikson defined the task of the adolescent as identity, a sense of ego identity, where what was learned in the past is "relearned" and attains new meaning. Erikson saw adolescence as the psychological stage "between childhood and adulthood, and between the morality learned by the child, and the ethics to be developed by the adult" (p. 263).

The developmental state of the male parent must also be considered. Erikson (1993) proposed that the mature man is involved with the task of generativity. He considered generativity to be "the concern in establishing and guiding the next generation" (p. 267). This placed parents at a stage where they want to learn more about how to influence their children. The alternative to Erikson's generativity is stagnation. Parents who do not successfully navigate this developmental stage are considered stagnant. They have great difficulty nurturing and guiding their children and may need interventions and nurturing as much as their children. Considering the age of the adolescent males in this study (grades 10 and 11), theoretically their male parents were in Erikson's generativity versus stagnation stage of development.

Because the adolescent often looks like an adult, parents and other adults can forget that the adolescent is still a child. Adolescents still need and depend on their parents, even while their roles are changing. This is where the aspects of Orem's 'dependent-care agency' and Erikson's 'generativity' impact on parental influence. The parental role of dependent-care agent is a key aspect of the relationship with the adolescent. The adolescent may be maturing rapidly, but the parent-adolescent relationship is still a socially dependent relationship. If the parents have progressed to Erikson's 'generativity' stage they would be focusing on establishing and guiding the next generation. This fundamental drive, combined with dependent-care agency responsibilities, could produce a situation where both adolescents' and parents' developmental needs could be met.

Koch and Freeman (1992) discussed adolescents' continuing need for parents to set limits, to not hang on, but to stay involved, to grow and adapt as the adolescents grow and adapt to a life of their own. This built on Erikson's "generativity" aspects with the parent, the role of being a guide to the next generation. Snarey (1993) also used Erikson's developmental theory, defining three types of generativity for fathers. These are (1)

biological (birth fathers), (2) parental (childrearing fathers), and (3) societal (cultural fathers). Parental generativity included carrying out childrearing activities that "promote children's ability to develop their full potential in terms of realizing a favorable balance of . . . identity" (p. 21). Parental generativity was described as a situation where children provided the opportunity for their parents to develop their need to be generative, while parents provided support for their children's development.

Elkind (1967, 1984) addressed cognitive abilities of adolescents, focusing on their egocentrism, and the concepts of imaginary audience and personal fable. The concept of imaginary audience was described as the adolescents' assumption that people around them were focused on them, with critical attention. Whether this critical attention was positive or negative was based on the adolescents' perspective. The concept of personal fable describes the story some adolescents tell themselves about their own imagined accomplishments. Elkind concluded that the health care professional must consider these concepts and adolescents' cognitive abilities when designing health interventions for adolescents.

Summary

Chapter II contains a review of literature that addressed five areas: (a) Orem as a nursing framework, (b) adolescent self-care and health-related behavior, (c) dependent-care agency, (d) educational and sociological aspects of father/son relationship, and (e) developmental stages of the male parent and the male adolescent.

Orem's Self-Care Framework provided a solid basis for exploring self-care and dependent-care agency in a variety of populations, including the male adolescent. No previous research was located that considered self-care and dependent-care agency within the father/son dyad or dependent-care agency in the male parent. Previous education and

sociology research had considered father/son relationships and the impact of the relationship on the son's development. Studies supported the concept that health habits developed during youth extend to adulthood. The impact of the developmental stages of both the male parent and the male adolescent had also been considered by various researchers, and was considered by Orem to be a factor in dependent-care agency. Therefore, how and when health habits are formed is significant to health care professionals when planning health promotion interventions with both adolescent males and their male parents. This study explored the relationship between fathers and sons as a key part of dependent-care agency/self-care agency transition.

CHAPTER III

METHODOLOGY

A non-experimental, descriptive, correlational design was used to study of the relationship between male parents' and male adolescents' health habits and perspectives. Orem's self-care framework, with its focus on people's capabilities to take care of their own health and the health of those socially dependent on them provided the theoretical basis of this study.

Based on the literature review several possible instruments were considered. Instruments selected for consideration were based on Orem's Self-Care Framework, and measured dependent-care, self-care agency, or addressed health issues. The target population was identified as 10th and 11th grade males and their male parents. This grade range was selected so that the age of the adolescents would be greater than thirteen but not exceed eighteen, in order to keep the focus on the adolescent versus young adult developmental stage. The central office of the county school system where the researcher proposed conducting the study was contacted. The supervisor of health services for the county school system was designated as point of contact and she was provided copies of all proposed demographic information forms and questionnaires for review and approval. School selection was done in coordination with the supervisor of health services for one county's schools and was based on the range of cultural and socio-economic conditions represented by the populations that attend these schools.

The initial proposal was approved by the University of Tennessee College of Nursing Human Subjects Committee, the University of Tennessee, Knoxville, Institutional Review Board, and the central office of the county schools. The target population of

potential adolescent male participants were to be approached at school by the researcher, and provided an informed consent letter. The letter was to be taken home for required signatures and returned to the researcher through the school. The adolescent males who completed the informed consent letters would then be given their demographic information sheet, Denyes Self-Care Agency Instrument, and Baldwin and Davis' Health Education Questionnaire IV to complete and turn in at school, in a session monitored by the researcher. Upon completion of the instruments, those male adolescents who had a male parent who had agreed to participate, were to be given packets to take home for their male parents to complete. The packets would have contained a letter of instruction, a demographic information form, the Denyes Self-Care Agency Instrument, Baldwin and Davis' Health Education Questionnaire IV, Moore and Gaffney's Dependent-Care Agency Instrument, and a stamped envelope, addressed to the researcher, in care of the University of Tennessee, Knoxville, College of Nursing.

Complications arose when the researcher contacted the principals of the schools where the proposed data collection was to take place. The principals had the final say on access to their students. A change in class scheduling had taken place at the beginning of the semester when data was to be collected. The principals could not take any of their teachers' class time to allow the researcher access to the students. Under the new block scheduling, there was no unscheduled or 'home room' time available.

The method of accessing students was reassessed and a revised proposal was created. The revised proposal was approved by the researcher's chair, the University of Tennessee, Knoxville, Institutional Review Board, the county schools, and the involved principals. Under the revised proposal one point of contact at each of the four schools was provided enough packets for the approximate number of male students in the classes where teachers agreed to participate. Each packet contained a letter of instruction (Appendix E),

an informed consent letter (Appendix F), a stapled set of instruments for male adolescents and a stapled set of instruments for male parents. The male adolescents' sets of instruments included a demographic information sheet (Appendix G), Denyes Self-Care Agency Instrument, and Baldwin and Davis' Health Education Questionnaire IV. The male parents' sets of instruments included a demographic information sheet (Appendix H), the Denyes Self-Care Agency Instrument, Baldwin and Davis' Health Education Questionnaire IV, and Moore and Gaffney's Dependent-Care Agency Instrument. A stamped envelope, addressed to the researcher, in care of the University of Tennessee, College of Nursing, was included in each packet. Participants were instructed to return the signed informed consent letter and the completed instruments in the envelope provided.

The packets were handed out by teachers. All teachers were given the following printed instructions to read: "These packets contain instructions and questionnaires for a study being conducted by a University of Tennessee nursing student. The study is looking at health habits and health knowledge in males in the 10th and 11th grades. If there is a male parent in the household, he is also being asked to participate. Health information on females is just as important, but is not being looked at in this study. Please take this packet home. Review and follow the instructions with your parents. Your participation is greatly appreciated."

Data was collected from instruments returned in the four week period after distribution at the schools. Confidentiality was maintained at all times by separating informed consent letters from completed instruments when they were received, not including any names on instruments, and storing informed consent letters and completed instruments separately. The researcher never had personal contact with any of the male adolescent subjects or male parent subjects.

Sample Selection

Signatures of the male parent and the adolescent male, indicating informed consent and willingness to participate in the study, and parent/legal guardian consent for adolescent participation, was the basis for final subject selection. Adolescent males had to be less than 18 years of age at the time data was gathered. The male parent that participated had to live in the same household as the adolescent male. This information was validated from the returned informed consent forms and the completed demographic information sheets.

To achieve an adequate sample size for statistical analyses, the goal was to have at least 10 percent participation, with at least 30 percent being the optimal number (Dempsey & Dempsey, 1992). Figures were based on May 1995 statistics provided by the county school's attendance department. The populations at these schools are listed in Table 1. The number of packets distributed, by school, are also listed in Table 1. A total of 1,114 packets were distributed. Ten to thirty percent participation equated to between 111 and 333 participants pairs, based on total number of packets distributed.

Participation in this study was entirely voluntary. Informed consent letters were returned with completed instruments from those subjects who desired to participate. Completed instruments were coded so that adolescent males and their male parents could be matched for data analysis, however, no names appeared on any of the completed instruments. Completed instruments and informed consent forms were stored in separate envelopes in a locked filing cabinet at the University of Tennessee, Knoxville, College of Nursing, Room 235.

Table 1. Population of Male Adolescents in Target Schools/Number of Packets Distributed

School	Population (10th & 11th Grade)		# Of Packets	
1	309		222	
2	377		377	
3	480		480	
4	<u>351</u>		<u>35</u>	
	Total	1517	Total	1114

Instruments

The researcher used demographic collection sheets, the Denyes Self-Care Agency Instrument (DSCAI-90), the DCA: Dependent Care Agent Instrument (Moore and Gaffney, 1989) (Modified), and Baldwin and Davis' Health Education Questionnaire (Modified). Male adolescents were asked to complete a demographic collection sheet, the DSCAI-90 and a modified version of Baldwin and Davis' Health Education Questionnaire. Male parents were asked to complete a demographic collection sheet, the DSCAI-90, Baldwin and Davis' Health Education Questionnaire (unmodified), and a modified version of Moore and Gaffney's Dependent Care Agent Questionnaire.

Demographic Collection Sheets

Demographic information requested was based on Orem's (1991) universal, developmental, and health deviation requisites (see definitions). The demographic information sheets were designed to collect the appropriate data from each subject to validate eligibility for participation and to describe the subject within Orem's framework.

Denyes Self-Care Agency Instrument (DSCAI-90)

Denyes' Self-Care Agency Instrument (1980) was a 34-item self-report instrument designed to measure self-care agency. This scale was based on Orem's concept of self-care agency. There were six separate scale scores: ego strength, valuing of health, health knowledge and decision-making capability, energy, feelings, and attention to health. Content and factor analysis were established by determining correlations between self-care agency, self-care practices and health status, factor analysis and pilot testing. Items # 20, 21, 30 and 31 required recoding (subtracting original score from 100). Items 1 - 7 were scored on a scale from 0 - 100, with "0" meaning "nothing" and "100" meaning "everything." In items 8 - 15, also scored on a 0 - 100 scale, "0" means "not at all" and "100" means "totally." Items 16 - 34 were scored 0% to 100%, with "0%" meaning "none" and "100%" meaning "all." Of thirteen reported studies conducted using this instrument, nine were conducted with adolescents, one with school-aged children and three with adult women. There were no reported studies with adult males and adolescent males that used this instrument. Reported alpha reliabilities for this instrument in the thirteen studies ranged from 0.81 to 0.90 for the total scale. McBride (1991) reported an alpha coefficient for the total instrument of 0.86. McBride did a comparative analysis of three

instruments designed to measure Orem's self-care agency concept. She included Denyes Self-Care Agency Instrument, Kearney and Fleischer's Self-Care Agency Instrument and Hanson and Bickel's Perception of Self-Care Agency Instrument. McBride concluded that one instrument alone did not totally measure all of the dimensions of the concept "self-care agency" and that there was a need for further exploration of this concept. McBride stated that traits unique to each instrument were feelings and values (the Denyes instrument), decision-making (the Hanson and Bickel instrument), and motivation (the Kearney and Fleischer instrument) (Kearney & Fleischer, 1979; McBride, 1991).

DCA: Dependent Care Agent Instrument (Moore and Gaffney, 1989) (Modified)

The original Moore and Gaffney's (1989) Dependent-Care Agent Instrument was a 39-item Likert scale, with a five choice scale, designed to measure mothers' performance of self-care activities for children. The scale ranged from "never," "1," to "always," a "5." Moore (1993) reported a coefficient alpha of 0.91 for the instrument. Content validity was evaluated by a panel who were either experts on children or experts on Orem's model. Moore reported factor analysis as established for factors similar to Orem's requisites.

Orem (1991) looked at self-care requisites as the purpose, or reasons why people do self-care activities. Orem labeled these reasons as either universal, developmental, or health deviation requisites (see definitions). Universal requisites included such basics as the need for air, water, food, elimination, activity and rest, solitude and social interaction, protection from hazards and the wish to be normal. Developmental requisites were actions that supported development or actions that prevented things that had a negative impact on development. Health deviation requisites related to times when a health problem existed, and included getting appropriate medical assistance, learning to assess degree of illness and

adjusting to and caring for self or a dependent, when ill. According to Moore and Gaffney (1989), analysis provided support for Orem's model, with factors representing requisites within Orem's three dimensions. This instrument was modified for this study and two questions were dropped. The possible range of scores for the modified version of this instrument used in this study was 37 - 185. "Lower scores signify less dependent-care agent performance, while higher scores signify more" (p. 204).

Changes were made in this instrument to make it more appropriate for the male adolescent/male parent subjects. This instrument was previously used with mothers and children aged 3 - 16. The original wording on Moore and Gaffney's Dependent Care Agency Instrument addressed "mothers" and used the term "child." These terms were changed to "parent or parents" and "teenager" for this study. Other changes were made as follows: Question #6 (Original) I encourage periods of rest in my child's day. (Change) I encourage my teenager to get adequate rest each day; Question #9 (Original) I make sure my child has play opportunities. (Change) I make sure my teenager has recreation opportunities; Question #15 (Original) When someone is smoking, I try to get my child out of the room. (Change) I teach my teenager the dangers of using tobacco products (for example, cigarettes, smokeless tobacco, cigars); Question #22 (Original) I notice how often my child urinates. (Not Used); Question #28 (Original) I make sure my child uses safety restraints in the car. (Change) I make sure my teenager uses seat belts when driving or riding in a car; Question #30 (Original) I help my child learn new words. (Change) I encourage my teenager to read; Question #33 (Original) I note how often my child has a bowel movement. (Not Used). Moore and Gaffney (1989) included a recommendation to use this instrument in a study that measured fathers' dependent care performance.

Baldwin and Davis' Health Education Questionnaire IV

Baldwin and Davis' Health Education Questionnaire (HEQ) was a 34-item Likert type instrument based on Orem's Self-Care Framework. It was designed to assess parents' potential as health educators. It was developed from parents' ideas regarding their health beliefs and knowledge, and from information on existing national health education programs for school-age children. Factor analysis was done on this instrument. The two factors in this instrument were "Health Beliefs" and "Health Knowledge." Cronbach's alpha reliability coefficient for the 16 health belief items was 0.89. The 16 health knowledge items had a coefficient of 0.92. Baldwin and Davis added an item on "sexually transmitted diseases" to their revised HEQ IV, based on Surgeon General recommendations to include content on AIDS in all school health education programs. The instrument used for this study was the 34-item HEQ IV that included the item on sexually transmitted diseases. There were two scores for each subject, with all scores ranging from 17 - 85. The male parents had two questions. The first question was "How important is talking to your teenager about these topics?" The male parents' second question was "How much do you know about these topics?" For both questions, lower scores indicated less importance/knowledge and higher scores indicated more importance/knowledge. The adolescent males' first question was "How important is talking to your male parent (or male parent figure) about these topics?" The adolescent males' second question was "How much do you know about these topics?" Scoring was the same as for male parents.

Reading Levels

Feedback from the county school administrators and the county school health services identified the need to keep the reading levels of all instruments at about the sixth grade level or less. WordPerfecttm Corporations' Gram-mat^{ik5}tm was used to provide statistical analysis of reading levels for all instruments used in this study. This tool used three readability formulas: the Flesch-Kincaid Grade Level formula, the Flesch Reading Ease, and the Gunning Fog Index. The Flesch-Kincaid Grade Level considered a readability score of grades 6-10 to be most effective for a general audience. The Flesch Reading Ease scored 0 - 100, with the range 90 - 100 indicating "very easy" to read, down to 0 - 30 indicating "very difficult" to read. The Fog Index also measured the approximate difficulty of the text, with the lower the score the easier a document was to read (WordPerfecttm Corporation, 1993). All questionnaires completed by the subjects reflected readability levels of 7th grade or less. Baldwin and Davis' Health Education Questionnaire measured at the 7th grade level or less; Moore and Gaffney's instrument measured at the 5th grade level or less; Denyes instrument measured at the 3rd grade level or less.

Data Analysis

A non-experimental descriptive correlational design was used in this study. Pearson product-moment correlation coefficient (Pearson r) was used to analyze correlations between male adolescents' results on Denyes Self-Care Agency Instrument (DSCAI-90) and Baldwin and Davis' Health Education Questionnaire, male parents' results on these instruments, and male parents' results on Moore and Gaffney's Dependent-Care Agent

Instrument. The DSCAI-90, the six scales of the DSCAI-90, Baldwin and Davis' two item sets, 'beliefs' and 'knowledge,' and Moore and Gaffney's Dependent-Care Agent Instrument were tested for internal consistency using Cronbach's alpha. Correlations with demographic data were not feasible because the subjects that responded were not representative of this county's population. The SAStm statistical analysis program was used to analyze the data collected.

Variables included self-care agency (parent and adolescent), dependent-care agency (parent), importance of health education topics (parent and adolescent), and knowledge level regarding health education topics (parent and adolescent). Demographic data considered in correlation analysis included current reported health state (adolescent and parent).

A positive correlation was predicted between dependent-care agency and self-care agency in the male parent and self-care agency in the male adolescent. A positive correlation was also predicted between the importance the male parent places on discussing health topics with his adolescent son and his knowledge of health topics and the importance the adolescent male places on discussing health topics and his knowledge of health topics.

Subsidiary Question One: Is there a relationship between male parents' dependent-care agency and male parents' self-care agency? Data for this question were obtained from male parents' total scores on Moore and Gaffney's instrument and total scores on Denyes' instrument. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' dependent-care agency and self-care agency, with a set $p \leq 0.05$.

Subsidiary Question Two: Is there a relationship between male parents' dependent-care agency and male adolescents' self-care agency? Data for this question were obtained from male parents' total scores on Moore and Gaffney's instrument and male adolescents' total scores on Denyes' instrument. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' dependent-care agency and male adolescents' self-care agency, with a set $p \leq 0.05$.

Subsidiary Question Three: Is there a relationship between male parents' self-care agency and male adolescents' self-care agency? Data for this question were obtained from male parents' total scores on Denyes' instrument and male adolescents' total scores on the same instrument. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' self-care agency and male adolescents' self-care agency, with a set $p \leq 0.05$.

Subsidiary Question Four: Is there a relationship between health topics male parents' and male adolescents' reported as important to discuss? Data for this question were obtained from male parents' subtotal scores for items 1-17 on Baldwin and Davis' instrument and male adolescents' subtotal scores for the same items. Data were also obtained from male parents' scores on Denyes Scale #6, Attention to Health, and male adolescents' scores for the same scale. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' reported importance of discussing the health topics and male adolescents' reported importance of discussing the health topics, with a set $p \leq 0.05$.

Subsidiary Question Five: Is there a relationship between knowledge of health topics male parents' and male adolescents' report? Data for this question were obtained from male parents' subtotal scores for items 18-34 on Baldwin and Davis' instrument and male adolescents' subtotal scores for the same items. Data for this question were also obtained from male parents' scores on Denyes Scale #3, Health Knowledge and Decision-Making Capability, and male adolescents' scores for the same scale. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' reported knowledge of the health topics and male adolescents' reported knowledge the health topics, with a set $p \leq 0.05$.

Subsidiary Question Six: Is there a relationship between male parents' dependent-care agency and male adolescents' reported knowledge of health topics? Data for this question were obtained from male parents' total scores on Moore and Gaffney's instrument and male adolescents' subtotal scores for items 18-34 of Baldwin and Davis' instrument. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' dependent-care agency and male adolescents' reported knowledge the health topics, with a set $p \leq 0.05$.

Subsidiary Question Seven: Is there a relationship between male parents' reported state of health and male adolescents' reported state of health? Data for this question were obtained from the demographic information sheets for both male parents and male adolescents. Pearson's product-moment correlation coefficient was applied to examine the relationship between male parents' reported state of health and male adolescents' reported state of health, with a set $p \leq 0.05$.

Subsidiary Question Eight: Is there a relationship between male parents' dependent-care agency and the importance he places on discussing health topics with their male adolescents, and his knowledge of these health topics? Data for this question were obtained from male parents' total scores on Moore and Gaffney's instrument, male parents' subtotal scores for items 1-17 of Baldwin and Davis' instrument, and male parents' subtotal scores for items 18-34 of Baldwin and Davis' instrument. Pearson's product-moment correlation coefficient was applied to examine these relationship, with a set $p \leq 0.05$.

Summary

The researcher used demographic information forms, the Denyes Self-Care Agency Instrument, Baldwin and Davis' Health Education Questionnaire, and Moore and Gaffney's Dependent-Care Agent Instrument to collect data necessary for this study. Confidentiality was maintained by coding male parent/male adolescent pairs, ensuring no names were on completed instruments, and separating signed informed consent letters from completed instruments. The SAStm statistical analysis program was used by the researcher to analyze the data.

CHAPTER IV

FINDINGS

Thirty-eight male parents and forty-four male adolescents participated in this study. Thirty-four male parent/male adolescent pairs were identified from initial coding, however, one set was an outlier. The demographic data for all subjects (n=82) closely reflected the demographic data of the paired male parents/male adolescents (n = 33). Therefore, with the focus of this study being relationships between male parents' and male adolescents' health habits and perspectives, only paired subjects were used to answer the subsidiary questions. Data was obtained from demographic information forms, the Denyes Self-Care Agency Instrument, Baldwin and Davis' Health Education Questionnaire, and Moore and Gaffney's Dependent-Care Agent Instrument. Upon completion of the four week data collection period, data were analyzed using the SAStm statistical analysis program. Data was double entered into a SAStm data set and a MSWORDtm data file. Frequency distribution of all variables in both data sets were cross-checked against source instruments to ensure correct data were entered.

Demographic Data

Overall response rates are summarized in Table 2. The 3% response rate for male parent/male adolescent pairs did not meet the goal of at least 10% participation needed to achieve an adequate sample size for statistical analysis (Dempsey & Dempsey, 1992). Demographic data were summarized in Tables 3 and 4. There were no significant

Table 2. Population of Male Adolescents in Target Schools/Number of Packets Distributed/Responses.

School	Population (10th & 11th Grade)	# Of Packets	Responses Adol/Parent
1	309	222	4/1
2	377	377	15/10
3	480	480	21/21
4	351	35	4/4
Unknown			0/2
Total:	1517	Total: 1114	Total: 44/38

Table 3. Demographic Data - Adolescent Males (n=33)

Variable	N	%
Age (in years)		
17	6	18%
16	17	52%
15	9	27%
14	1	3%
School attending:		
School #1	3	3%
School #2	9	27%
School #3	19	58%
School #4	4	12%

Table 3 (Continued)

Variable	N	%
Ethnic background		
Caucasian	29	88%
Asian	2	6%
American Indian	1	2%
African American	1	3%
Unknown	2	3%
Birth order		
Youngest	15	46%
Middle	2	6%
Oldest	9	27%
Only child	7	21%
Participating Male Parent		
Male parent participated	35	80%
Male parent did not participate	5	11%
No male parent in household	4	9%
Time in Household with Male Parent		
17 years	4	12%
16 years	15	46%
15 years	8	24%
6 - 14 years	3	9%
1 - 5 years	3	9%
Relationship to male parent		
Birth son	27	82%
Adoptive son	1	3%
Step-son	3	9%
Other-Family	1	3%
Other	1	3%
State of health		
Excellent	18	55%
Good	12	36%
Average	3	9%

Table 3 (Continued)

Variable	N	%
Source of health information		
Doctor	11	33%
Mother	6	19%
School	7	21%
Parents	5	15%
Father	1	3%
Media	2	6%
No response	1	3%

Table 4. Demographic Data - Male Parent (n=33)

Variable	N	%
Age (in years)		
50 - 52 years	4	12%
45 - 49 years	14	42%
40 - 44 years	7	21%
35 - 39 years	5	15%
30 - 34 years	2	6%
< 30 years	1	3%
School adolescent attends		
School #1	1	3%
School #2	9	27%
School #3	19	58%
School #4	4	12%
Ethnic background		
Caucasian	30	91%
African American	1	3%
Asian	2	6%

Table 4 (Continued)

Variable	N	%
Level of education		
> one college degree	10	30%
One college degree	10	30%
Some college/No degree	8	24%
High School or GED	3	9%
< High School	2	7%
Household Income		
> \$80,000	7	21%
\$40,000 - \$79,999	14	42%
\$20,000 - \$39,999	7	21%
\$5,000 - \$19,999	2	6%
No report	3	10%
Source of health information - parent		
Doctor	20	61%
Mother	2	6%
Wife	1	3%
Reading	6	18%
Media	1	3%
Other or not specified	3	9%
Parent's reported source of their son's health information		
Doctor	11	34%
School	5	16%
Parents	3	9%
Son's mother	3	9%
Pediatrician	3	9%
Television	2	6%
Son's Father	2	6%
Reading	1	3%
Other/No response	2	6%
Relationship with male adolescent		
Birth father	27	82%
Adoptive Father	1	3%
Step-father	3	9%
Other-Family	1	3%
Guardian	1	3%

Table 4 (Continued)

Variable	N	%
Reported health state		
Excellent	13	39%
Good	15	46%
Average	5	15%
Time in household with adolescent		
17 years	4	12%
16 years	15	46%
15 years	8	24%
10 -14 years	1	3%
1 - 9 years	5	15%

differences between the demographic data of all subjects and subjects that were part of male parent/male adolescent pairs. Demographic data and statistical analyses were reported based on male parent/adolescent male pairs (n=33 pairs). The mean age of male parents was 43, with a standard deviation of +/-6. The age range was 27 years, with the youngest being 25 (an older brother) and the oldest 52 (a birth parent). The mean age of adolescent males was 15.8, with a standard deviation of +/- 0.7. The age range was 3 years, the youngest being 14 and the oldest being 17.

The greatest response rate was from School #3, with 58% of male parent/adolescent male pairs coming from this school. School #3 represented 43% of the targeted population. This school represented a high socioeconomic population in one county. Ethnic background was predominantly Caucasian at 91% and 88% respectively in the male parent/adolescent male pairs. This was consistent with the ethnic breakdown for the county (89.7% Caucasian male) based on 1990 census data (Vickers, 1994). Sixty percent of the male parents reported at least one college degree, and half of these had more

than one college degree. This was not consistent with census data for the county. 1990 census data reflected that, in the county only 23.9% of adults aged 25 or more had a bachelors degree or higher (Vickers, 1994). Sixty-three percent of the male parents reported household incomes of \$40,000/year or greater, with half of these reporting an annual income of greater than \$80,000. This was not consistent with 1992 data which reflected per capita personal income state-wide of \$17,622, and per capita personal income of \$19,601 for the county. Median household income for the county in 1989 was \$26,010 (Vickers, 1994).

These demographics indicated that the general population of the county, high school graduates with per capita income \$19,601 or household income of \$26,010, were not adequately represented. Therefore, no correlations were explored based on these demographics.

Denyes Self-Care Agency Instrument (DSCAI-90)

This instrument was used to measure self-care agency and was completed by all subjects, male parents and adolescent males. The DSCAI-90 consisted of 34 questions, with scores ranging from 0 -100. Each of the questions was allocated to one of six scales: (a) Scale 1, Ego Strength; (b) Scale 2, Valuing Health; (c) Scale 3, Health Knowledge and Decision-Making Capability; (d) Scale 4, Energy; (e) Scale 5, Feelings; (f) Scale 6, Attention to Health. A total score, computed by adding scores 1-34 and dividing by 34, was also determined. Scores are reported in Tables 5 and 6. Table 7 includes Pearson r values and p values. No relationships were identified between male parents' and male adolescents' responses to these scales. Table 8 presents the alpha reliability coefficients for the total scores and for each of the scales, by populations group.

Table 5. Results - Denyes Self-Care Agency Instrument (DSCAI-90)

	Totals	
	Mean	Range
Paired male parents (n = 33)	75	91 - 49
Paired adolescent males (n = 33)	77	56 - 91

Table 6. Denyes Self-Care Agency Instrument (DSCAI-90) - Comparison of Scale Results - Paired Male Parents/Adolescent Males. (n = 33 pairs)

	Parents		Adolescents	
	Mean	Range	Mean	Range
Scale 1, Ego Strength	80	41 - 100	83	14 - 100
Scale 2, Valuing Health	85	40 - 100	84	53 - 100
Scale 3, Health Knowledge	79	49 - 99	82	43 - 99
Scale 4, Energy	79	36 - 100	74	0 - 100
Scale 5, Feelings	79	45 - 100	79	32 - 100
Scale 6, Attention to Health	46	7 - 82	54	7 - 100

Table 7. Denyes Self-Care Agency Instrument (DSCAI-90): Correlations - Paired Male Parents/Adolescent Males. (n = 33 pairs)

	r =	p =
Denyes Total Scores	0.01	0.98
Scale 1, Ego Strength	0.03	0.88
Scale 2, Valuing Health	0.21	0.24
Scale 3, Health Knowledge	0.03	0.85
Scale 4, Energy	0.12	0.49
Scale 5, Feelings	0.20	0.26
Scale 6, Attention to Health	0.30	0.09

Table 8. Cronbach Alpha Reliability Coefficients - Denyes Instrument Scales

Scales:	1	2	3	4	5	6	Totals
Male Parents (n=33)	.96	.84	.90	.82	.88	.78	.90
Male Adolescent (n=33)	.94	.79	.91	.85	.81	.85	.91
Male Parent/Male Adolescent Pairs (n=33 pairs)	.86	.80	.87	.68	.81	.82	.89

Baldwin and Davis' Health Education Questionnaire IV

This instrument was used to measure importance of discussing health topics (beliefs) and knowledge of health topics (knowledge). The questionnaire consisted of 34 items, divided into two parts. Items 1 - 17 listed health topics that the subjects scored on a 1 - 5 scale based on importance to discuss (beliefs) with the other party. Items 18 - 34 listed health topics that the subjects scored on a 1 - 5 scale based on their knowledge of the topic. Subtotal scores for items 1 - 17 had a possible range of 17 - 85. Subtotal scores for items 18 - 34 also had a possible range of 17 - 85. Table 9 provides the results for items with significant correlations and subtotal results for this instrument.

Table 9. Baldwin and Davis' Health Education Questionnaire (n=33 pairs)

Health Topic (Beliefs)	Parent Mean	SD	Adolescent Mean	SD
Item 17. Coping with divorce	3.0	1.6 $r = 0.44$	2.4 $p = 0.02$	1.5
Subtotal: Items 1-17	72	11 $r = 0.012$	56 $p = 0.9$	20
<u>Health Topic (Knowledge)</u>				
Item 25. Understanding death	4.2	1.0 $r = 0.44$	4.4 $p = 0.01$	1.0
Item 33. Child abuse	4.2	1.2 $r = 0.34$	3.7 $p = 0.05$	1.1

Table 9 Continued

Health Topic (Knowledge)	Parent Mean	Parent SD	Adolescent Mean	Adolescent SD
Item 34. Coping with divorce	3.5	1.6 $r = 0.34$	3.0 $p = 0.05$	1.6
Subtotal: Items 18-34	72	8.5 $r = 0.1$	72 $p = 0.58$	9.9

In the portion of this questionnaire that addressed health topics important to discuss (beliefs), the health topic 'coping with divorce' correlated ($r = 0.44$, $p = 0.02$). There was no correlation between male parents' and male adolescents' subtotal scores on health topics to discuss (beliefs). In the portion of this instrument that addressed knowledge of health topics, three items reflected correlation: 'understanding death' ($r = 0.44$, $p = 0.01$), 'child abuse' ($r = 0.34$, $p = 0.05$), and 'coping with divorce' ($r = 0.34$, $p = 0.05$). There was no correlation between male parents' and male adolescents' subtotal scores on reported health knowledge. Tables 10 and 11 list high and low scored items, comparing male parent and adolescent male responses. Table 10 addresses health topics to discuss (beliefs), items 1 - 17. Table 11 addresses knowledge of health topics (knowledge), items 18 - 34. Table 12 provides alphas for this instrument.

Analysis of items that had a positive correlation between male parents and male adolescents indicated the following: Health topic 'coping with divorce' lists in both the male parents' and the male adolescents' bottom five items to discuss; health topics 'coping with divorce,' 'understanding death,' and 'child abuse' list in both the male parents' and the male adolescents' bottom five knowledge items.

Table 10. Baldwin and Davis' Health Education Questionnaire IV: Comparison: Male Parents' and Male Adolescents' Responses (Beliefs)

Health Topics - Beliefs

TOP FIVE HEALTH TOPICS - MOST IMPORTANT TO DISCUSS (Based on item score sums, with # 1 having the largest sum)

PARENTS

1. Personal hygiene (T)
2. Dental hygiene (T)
3. Drug abuse **
4. Alcohol abuse **
5. Safety issues (T)
Effects of smoking (T)

ADOLESCENTS

1. Accomplishments
2. Exercise and rest (T)
3. Drug abuse (T) **
4. Alcohol abuse (T) **
5. Peer relations

BOTTOM FIVE HEALTH TOPICS - LEAST IMPORTANT TO DISCUSS (Based on item sum scores, with #1 having the least sum score)

PARENTS

1. Coping with divorce **
2. Understanding death **
3. Nutrition
4. Child abuse **
5. Peer relations

ADOLESCENTS

1. Coping with divorce **
2. How the human body works
3. Dental hygiene
4. Child abuse **
5. Understanding death **

(T) Indicates a tie in scoring

** Indicates items included in both male parents' and male adolescents' groupings.

Table 11. Baldwin and Davis' Health Education Questionnaire IV: Comparison: Male Parents' and Male Adolescents' Responses (Knowledge)

Health Topics - Knowledge

TOP FIVE HEALTH TOPICS - MOST KNOWLEDGE (Based on item score sums, with #1 having the highest sum score.)

PARENTS

1. Effects of smoking **
2. Accomplishments **
3. Drug abuse **
4. Alcohol abuse (T) **
5. Personal hygiene (T)

ADOLESCENTS

1. Puberty and sex (T)
2. Effects of smoking (T) **
3. Drug abuse **
4. Alcohol abuse **
5. Accomplishments **

BOTTOM FIVE HEALTH TOPICS - LEAST KNOWLEDGE (Based on the item sum scores, with #1 having the lowest sum score)

PARENTS

1. Coping with divorce **
2. Nutrition **
3. How the human body works **
4. Contagious diseases **
5. Exercise and rest

ADOLESCENTS

1. Coping with divorce **
2. Child abuse
3. How the human body works **
4. Contagious diseases **
5. Nutrition **

(T) Indicates a tie in scoring

** Indicates items included in both male parents' and male adolescents' groupings.

Table 12. Cronbach's Alpha Reliability Coefficients - Baldwin and Davis' Instrument

	Alphas		Totals
	Items 1 - 17 (Beliefs)	Items 18 - 34 (Knowledge)	
Male Parents	.94	.92	.95
Male Adolescents	.97	.93	.95
Male Parent/Male Adolescent Pairs	.93	.91	.93

Moore and Gaffney's Dependent-Care Agent Instrument

This instrument was used to measure the male parents' dependent-care agency. Only male parents completed this instrument. It was a 37 item questionnaire, with a possible range of total scores from 37 - 185. The total scored were used for analysis. For the male parents that were part of male parent/adolescent male pairs ($n = 33$), the mean score was 148, standard deviation 23, minimum score 70 and maximum score 183. Table 13 summarizes specific items that received the five highest scores and those that received the five lowest scores.

Table 13. Moore and Gaffney's Dependent-Care Agent Instrument - Comparison

Summary of Responses

TOP FIVE RESPONSES: (Based on sum of scores, with top response having the highest score)

1. (Question # 10) I encourage my teenager to participate in family activities.
2. (Question # 34) I encourage my teenager to be a responsible family member.
3. (Question # 2) I take action to ensure my teenager's home is a safe one.
4. (Question # 9) I make sure my teenager has recreation opportunities.
5. (Question # 24) I support my teenager's participation in group activities.

BOTTOM FIVE RESPONSES: (Based on sum of scores, with the first response receiving the lowest sum score.)

1. (Question # 1) I take my teenager for regular health checkups.
 2. (Question # 30) I evaluate the quality of the air my teenager breathes.
 3. (Question # 13) I remind my teenager to drink enough fluid.
 4. (Question # 26) I check places outside our home for potential hazards for my teenager.
 5. (Question # 12) I evaluate my teenager for signs of minor illness.
-

This instrument was used in conjunction with the DSCAI-90 and Baldwin and Davis' Health Education Questionnaire IV to answer subsidiary questions. Alpha for this instrument was 0.93 (n=33 male parents).

Results

Subsidiary Question One: Is there a relationship between male parents' dependent-care agency and male parents' self-care agency? To answer this question male parents' total scores on Moore and Gaffney's instrument and total scores on Denyes' instrument were correlated. Table 14 reflects this correlation. There was a positive correlation between these variables. High scores on Moore and Gaffney's dependent-care agent instrument correlated with high scores on Denyes self-care agency instrument. Low scores on Moore and Gaffney's dependent-care agent instrument correlated with low scores on Denyes self-care agency instrument.

Table 14. Relationship Between Male Parents' Dependent-Care Agency and Self-Care Agency. (n = 33)

	Moore and Gaffney: Total Score	
DSCAI-90: Total Score	r = 0.35	p = 0.04

Subsidiary Question Two: Is there a relationship between male parents' dependent-care agency and male adolescents' self-care agency? To answer this question male parents' total scores on Moore and Gaffney's instrument and male adolescents' total scores on Denyes' instrument were correlated. Table 15 reflects this analysis. There was no relationship between these variables.

Table 15. Relationship Between Male Parents' Dependent-Care Agency and Male Adolescents' Self-Care Agency. (n=33 pairs)

Male Parents' Total Score: Moore and Gaffney Instrument		
Male Adolescents' Total Score: DSCAI-90	$r = 0.27$	$p = 0.12$

Subsidiary Question Three: Is there a relationship between male parents' self-care agency and male adolescents' self-care agency? To answer this question male parents' total score on Denyes' instrument and male adolescents' total score on the same instrument were correlated. Table 16 reflects this analysis. There was no relationship between these two variables.

Table 16. Relationship Between Male Parents' Self-Care Agency and Male Adolescents' Self-Care Agency. (n=33 pairs)

Male Parents' Total Score: DSCAI-90		
Male Adolescents' Total Score: DSCAI-90	$r = 0.005$	$p = 1.0$

Subsidiary Question Four: Is there a relationship between health topics male parents' and male adolescents' reported as important to discuss? To answer this question male parents' subtotal scored for items 1-17 on Baldwin and Davis' instrument and male adolescents' subtotal scored for the same items were considered. Data were also considered from male parents' Denyes Scale #6, Attention to Health, scores and male adolescents' scores for this

scale. Table 17 reflects these correlations. There was no correlation between the subjects' scores on the Baldwin and Davis' instrument or Scale #6 of the DSCAI-90.

Table 17. Relationship Between Health Topics Male Parents' and Male Adolescents' Reports as Important to Discuss (Beliefs). (n=33 pairs)

Male Parents' Subtotal: Baldwin and Davis' Instrument, Items 1-17

Male Adolescents' Subtotal:

Baldwin and Davis' Instrument, Items 1-17

$r = 0.012$ $p = 0.9$

Male Parents' Scale #6 Scores: DSCAI-90

Male Adolescents' Scale #6 Scores: DCSAI-90:

$r = 0.29$ $p = 0.09$

Subsidiary Question Five: Is there a relationship between knowledge of health topics male parents' and male adolescents' report? To answer this question male parents' subtotal scores for items 18-34 on Baldwin and Davis' instrument and male adolescents' subtotal scores for the same items were correlated. Data from male parents' scores on Denyes Scale #3, Health Knowledge and Decision-Making Capability, and male adolescents' scores for this scale were also considered. Table 18 reflects these correlations. No relationship was reflected between any of these variables.

Table 18. Relationships Between Male Parents' and Male Adolescents' Reported Health Knowledge (Knowledge). (n=33 pairs)

Male Parents' Subtotal: Baldwin and Davis' Instrument, Items 18-34

Male Adolescents' Subtotal:

Baldwin and Davis' Instrument, Items 18-34: $r = 0.1$ $p = 0.58$

Male Parents' Scores: DSCAI-90 Scale #3

Male Adolescents' Scores:

DSCAI-90 Scale #3: $r = -0.03$ $p = 0.9$

Subsidiary Question Six: Is there a relationship between male parents' dependent-care agency and male adolescents' reported knowledge of health topics? For this question male parents' total scores on Moore and Gaffney's instrument and male adolescents' subtotal for items 18-34 of Baldwin and Davis' instrument were considered. Table 19 reflects this analysis. There was no relationship between these variables.

Table 19. Relationship Between Male Parents' Dependent-Care Agency and Male Adolescents' Reported Knowledge of Health Topics.

Male Parents' Total Score: Moore and Gaffney's Instrument

Male Adolescents' Subtotal:

Baldwin and Davis' Instrument, Items 18-34 $r = 0.28$ $p = 0.11$

Subsidiary Question Seven: Is there a relationship between male parents' and male adolescents' reported state of health? For this question male parents' reported state of health

and male adolescents' reported state of health from the demographic information sheets were considered. Table 20 reflects this analysis. There was no correlation between these variables.

Table 20. Relationship Between Male Parents' Reported State of Health and Male Adolescents' Reported State of Health. (n=33 pairs)

	Male Parents' Reported State of Health	
Male Adolescents' Reported State of Health	$r = 0.02$	$p = 0.9$

Subsidiary Question Eight: Is there a relationship between male parents' dependent-care agency and the importance he places on discussing health topics with his adolescent son, and his knowledge of these health topics? For these questions male parents' total scores on Moore and Gaffney's instrument, subtotal scores for items 1-17 of Baldwin and Davis' instrument, and subtotal scores for items 18-34 of Baldwin and Davis' instrument were correlated. Table 21 reflects this analysis. There was a correlation between the male parents' beliefs and knowledge of health topics. There were no other correlations between variables.

Table 21. Relationship Between Male Parents' Dependent-Care Agency, the Importance Male Parents Place on Discussing Health Topics and Male Parents' Knowledge of Health Topics.

	<u>B/D Subtotal Items 1-17</u>	<u>B/D Subtotal Items 18-34</u>
<u>M/G Total</u>	$r = 0.33$	$r = 0.28$
	$p = 0.06$	$p = 0.11$
		<u>B/D Subtotal Items 18-34</u>
<u>B/D Subtotal Items 1-17</u>		$r = 0.53$
		$p = 0.002$

Summary

In conclusion, results of data analysis were discussed in Chapter IV. Results were discussed according to the instruments used in the study and the subsidiary questions. The lack of significant response and lack of representation of the subjects that responded compared to the state and county population, limited correlations with demographic data. There were correlations on Baldwin and Davis' HEQ IV health topics. These included 'coping with divorce' as a topic for discussion, and three health topics on reported knowledge, 'understanding death,' 'child abuse,' and 'coping with divorce.' Subsidiary question results reflected correlations between male parents' dependent-care agency and their own self-care agency and male parents' beliefs and knowledge on health topics. No relationships were identified between male parents' dependent-care agency and male

adolescents' self-care agency or between male parents' self-care agency and male adolescents' self-care agency. There were no relationships between male parents' health beliefs and knowledge and male adolescents' health beliefs and knowledge when subtotal scores were considered. There were no relationships between male parents' health state and male adolescents' health state. Alpha's for the three instruments, the DSCAI-90, Baldwin and Davis' HEQ IV, and Moore and Gaffney's DCA Instrument, reflected internal consistency. Pearson's product-moment correlation coefficient, with set $p \geq 0.05$ was used in these analyses to determine significance.

CHAPTER V

SUMMARY AND CONCLUSION

The relationship between the male parents' health habits and perspectives and their adolescent sons' health habits and perspectives was addressed in this research study. To answer this question, the researcher used Orem's Self-Care Framework to determine whether there were specific relationships between (a) male parents' dependent-care agency and self-care agency, (b) between male parents' dependent-care agency and their adolescent sons' self-care agency, (c) between male parents' self-care agency and their male adolescents' self-care agency, (d) between male parents' and male adolescents' beliefs and knowledge of specific health topics, (e) between male parents' dependent-care agency and their male adolescents' knowledge of health topics, (f) between male parents' and male adolescents' health states, and (g) between male parents' dependent-care agency and beliefs and knowledge of specific health topics.

There were correlations between male parents' dependent-care agency and their self-care agency, and between male parents' beliefs and knowledge of health topics. There also were correlations between male parents' and male adolescents' for specific items on Baldwin and Davis' HEQ IV. These were 'coping with divorce' in the beliefs area, and 'understanding death,' 'child abuse,' and 'coping with divorce' in the knowledge area. There were no relationships identified between male parents' dependent-care agency and male adolescents' self-care agency or between male parents' and male adolescents' self-care agency. No relationships were identified between male parents' and male adolescents' overall beliefs or knowledge of health topics. There was not a relationship between male parents' and male adolescents' health states.

Discussion

There were thirty-eight male parent and forty-four male adolescent respondents, with thirty-three male parent/male adolescent pairs. Eighty percent of male adolescent respondents had male parents that responded. The ethnic background of respondents was predominantly Caucasian, 91% for male parents and 88% for male adolescents. Sixty percent of male parents reported at least one college degree, with half of these reporting more than one college degree. Sixty-three percent of male parents reported household income of \$40,000/year or more, and half of these reported annual income of greater than \$80,000.

The number of responses, demographics of the responding subjects, relationships and lack of relationships reflected by subjects' responses produced interesting and unexpected results. The ethnic breakdown of subjects was consistent with the county's general population which was 89.7% Caucasian. However, the educational levels and annual incomes reported by male parents was not reflective of the county's general population. In the general population of the county most adult males over age 25 are high school graduates and the annual household income is \$26,010 (Vickers, 1994).

Three percent of the targeted population responded to this study. Did the low number of questionnaires returned for this study from male parents reflect a lack of 'generativity' or variations in 'generativity?' According to Erikson, these parents should be concerned about "establishing and guiding the next generation" (p. 267). Erikson (1993) also said that there may be individuals "who, through misfortune or because of special and genuine gifts in other directions, do not apply this drive to their own offspring" (p. 267). Demographic data reflected 60% of responding male parents had one or more college degrees and 63% with incomes greater than \$40,000/year. Did their intellectual or creative

abilities, or their drive to be financially successful affect dependent-care agency? Today employees have threats of job loss, pay cuts, and decreasing benefits. The current economic situation and a focus on providing for their families may be male parents primary concern, rather than health-related activities.

Male parents and male adolescents that responded to this study may have done so because of existing self-care agency or dependent-care agency, school affiliation, and/or male parents' educational level. The fact that 60% of the responding male parents had at least one college degree may reflect an educated subpopulation that already had an interest in and supported research in general. Research that involved themselves and their offspring may have generated enthusiasm for participation.

The lack of self-care agency or dependent-care agency, school affiliation, and/or male parents' educational level may have been influencing factors for those who did not respond. Cultural considerations, where lack of trust in anything official or in anyone who asked questions about subjects considered private may have accounted for some who chose not to respond. These considerations coincided with Orem's (1991) proposition that the ability to engage in self-care or dependent-care was ". . . conditioned by age, developmental state, life experiences, sociocultural orientation, health, and available resources. . ." (p. 71).

The researcher did not have any direct contact with students and relied on teachers to follow instructions when handing out research packets. Different teachers may have inadvertently placed different degrees of importance on participation in this study. The importance the male adolescent placed on participation may also have affected participation. Some may not have shown the research packet to their parents, because there was no grade or consequence involved for nonparticipation. The researcher relied on communication between male adolescents and male parents for male parents to find out

about this study. Male adolescents whose male parents did not want to participate may have associated with the parental lack of participation, and therefore did not participate themselves. Male adolescents who were not interested in participating may not have told their male parents about the study. The target population was given four weeks to respond. Points of contact at all four schools were asked to remind students of the study at the two week point. Perhaps turn-around time was too short or the reminder given at the two week point did not reach the targeted male adolescents.

The researcher examined the relationship between male parents' dependent-care agency and their self-care agency. There were no research studies found that examined dependent-care agency and self-care agency with male parents and their adolescent sons, or any studies that looked at relationships between dependent-care agency and self-care agency in any population. There were only two studies that considered dependent-care agency. One only used mothers (Moore & Gaffney, 1989). The other addressed parents, however 89% of respondents were mothers (Baldwin & Davis, 1989). Results of both of these studies supported the concept of dependent-care agency.

Studies had considered and reported self-care agency in adult, adolescent and child populations (Denyes, 1980, 1988; Estes & Hart, 1993; Falsetti, & Kovel, 1994; Frey & Denyes, 1989; Hanchett, 1990; Hartweg, 1990; Kennedy, 1989; McCaleb & Edgil, 1994; McDermott, 1993; Moore, 1993; Parcel, Nader & Rogers, 1980; Schafer, 1989). The findings in this study indicated a positive relationship between male parents' dependent-care agency and self-care agency. Male parents who reported taking care of themselves also reported taking care of their male adolescents, with the opposite also being true. This may mean that health patterns established when these parents were young were now impacting their health interactions with their offspring. This supported Orem's (1991) dependent-

care/self-care link that involvement in dependent-care was affected by the value the caregiver placed on care measures.

In examining the relationship between male parents' dependent-care agency and their male adolescents' self-care agency and the relationship between male parents' self-care agency and their male adolescents' self-care agency the researcher focused on father/son relationships and developmental stages of male parents and male adolescents. The literature reflected self-care agency in adolescent populations (Frey & Denyes, 1989; Hartweg, 1990; Lipp & Trimble, 1993; McCaleb & Edgil, 1994), but not a correlation between male adolescents' self-care agency and male parents' dependent-care or self-care agency. Results of this study did not establish a correlation between male parents' dependent-care agency or self-care agency and male adolescents' self-care agency. How male parents' reported taking care of their own and their dependents' health was not related to how male adolescents' reported taking care of themselves.

Snyder (1989) saw adolescence as the ideal time for health education and health promotion efforts, relating this to adolescence as a time when people start taking responsibility for their own health care decisions. Huttunen's (1992) study supported the position that a son identified with the masculine traits of the father, but not the feminine traits. Erikson (1993) placed these male adolescents in the developmental stage "ego identity." This literature suggested developmental traits might make male adolescents resistant to emulating health related self-care behaviors of their male parents, especially if self-care was viewed culturally as a feminine trait. Male adolescents' desire to establish their sense of self, "ego identity" may support this resistance. This view of the literature supports the lack of correlation between male parents' dependent-care agency and self-care agency and male adolescents' self-care agency as a reflection of the male adolescent developmental state. Self-care agency of children may not correlate with parents' self-care agency until

the children are themselves adults. Questions relating to the most appropriate age for effective health interventions also apply here. When is it crucial to establish effective self-care patterns?

Relationships between male parents' and male adolescents' reported knowledge of health topics and health topics that were considered important to discuss were also examined. There were no significant correlations between male parents' and male adolescents' health beliefs and knowledge when subtotal scores were considered. Generally, health topics male parents reported knowledge of and felt were important to discuss (beliefs) did not correlate with health topics male adolescents reported knowledge of and felt were important to discuss. This may be attributable to changes in school curriculum and changes in media dissemination of information on health topics. When male parents were in high school, health education classes may not have existed. If they did, they probably did not address health topics such as 'contagious diseases,' 'understanding death,' 'puberty and sex,' 'alcohol abuse,' 'drug abuse,' 'effects of smoking,' 'child abuse,' or 'coping with divorce.' Lack of knowledge and cultural consideration may have made certain health topics uncomfortable or unacceptable for discussion between male parents and male adolescents. Even with the media making many of these health topics items for public discussion, societal and cultural constraints or lack of knowledge may not have made them topics that male parents and male adolescents are comfortable discussing.

There were correlations between specific health topics in both 'beliefs' and 'knowledge' areas. Low scoring on the importance of discussing 'coping with divorce' and the lack of knowledge reported by both the male parent and the adolescent for this health topic may signal a potential stressor for both parties, considering that approximately 50% of all marriages in the United States end in divorce. If neither party believes this topic

should be discussed and divorce occurs within their family, their ability to cope with this event may be severely compromised.

It is worth noting that with both groups the health topics 'understanding death' and 'child abuse' scored as one of the bottom five items for discussion. Seeing the topic 'understanding death' in this grouping could be related to the developmental stage of the adolescent. Adolescents typically have feelings of immortality and egocentrism and may not be concerned with death. It could also be related to the developmental stage of the male parent (considering the age range of 30's to early 50's) where the majority may not have had to come to grips with their own mortality. According to Erikson (1993) coming to grips with death was in the "ego integrity" versus "despair" developmental stage, which follows the "generativity" developmental stage. Death typically is "hidden" in the United States. Most people die in the hospital, and rarely is death discussed. Not wanting to discuss death may also be a result of some of the cultural or societal taboos previously discussed.

Seeing the topic 'child abuse' in this grouping is not easily associated with developmental stage, but there could be cultural reasons for the correlation. This subject placed low in both importance to discuss and knowledge for both populations. It could be a taboo subject for both generations. Lack of knowledge by both populations could be related to existent dependent-care agency, where abuse was not part of the environment. Since child abuse crosses all socioeconomic and cultural lines, the socioeconomic and cultural aspects of this study's demographics may not be pertinent. These relationships require further research.

There was no relationship identified between male parents' dependent-care agency and their male adolescents' reported knowledge of health topics. This lack of correlation was not supported by the literature. This may have been a reflection of the population that

responded. It may have been a reflection of culturally defined male parent/female parental roles and the effect of those roles on offspring. Moore and Gaffney's instrument identified various activities that reflected dependent-care agency. The male parents' top five activities, those they reported they did most often, addressed social and safety functions, i.e. participation in family activities, being a responsible family member, actions to make the home safe, making sure there are recreation opportunities and supporting participation in group activities. The male parents' bottom five dependent-care activities, those they reported doing least often, addressed health and safety functions, i.e. regular health checkups, air quality, adequate fluid intake, checking for potential hazards, and evaluating teenager for signs of minor illness.

Eversoll's (1979) results may correlate here. His results showed generational differences in expectations of the father role, with sons expecting fathers to be more involved in "nurturing" and "recreating" and less involved in "providing" and "societal modeling" roles than their parents did. This appears to be reflected in male parents' top five and bottom five responses to Moore and Gaffney's instrument. In this study male parents reported doing social functions with male adolescents more often than health-related activities. If the male parent does not see health-related activities and imparting health knowledge as part of his dependent-care role, then it is not surprising that there is not a relationship between his dependent-care agency and his male adolescent's knowledge of health topics. This did support Orem's presuppositions in her theory of self-care deficit. These presuppositions were that involvement in dependent-care was affected by the value the caregiver placed on care measures and the quality and completeness of dependent-care was based on culture. This may reflect a need for health care professionals to get male parents more actively involved in family health education efforts. If this reflects a lack of knowledge on the part of male parents, then basic health education interventions are

indicated. Was this a reflection of a belief by male parents that health topics are not important or not part of their responsibilities? If it is, then there may be a need for motivational interventions with this population regarding health issues. Cultural considerations also may play a key role in development of any interventions.

Only one of the male adolescents reported 'father' as his source of health information. Eleven of the male adolescents listed 'doctor' as his source of health information, seven listed 'school,' and six listed 'mother.' This may align with socially and culturally acceptable methods of obtaining health information. It may also signify that other people in the male adolescents' environment are providing dependent-care agency.

There was no relationship between male parents' and male adolescents' reported state of health. The majority of both groups identified their state of health as either 'excellent' or 'good' (Tables 3 and 4). 'Excellent' predominated with male adolescents. 'Good' predominated with male parents. This could simply be a reflection of their physical and developmental stages. Because of their age adolescents are in better health than their parents. Because of age and generational differences, there may never be a relationship between reported states of health between parent and child, or, once the child becomes an adult, a relationship might develop, similar to the proposal that there may be a relationship between parent's and adult children's self-care agency.

In examining the relationship between male parents' dependent-care agency, the importance they placed on discussing health topics with their male adolescents, and male parents' knowledge of health topics, the only correlation identified was between male parents' overall beliefs and knowledge on health topics. This correlation suggests that interventions that increase knowledge could impact on beliefs. Health topics significant to disease prevention, e.g. AIDS, and health promotion, e.g. nutrition, might be included for the health provider to teach. The opposite could also be true, that the belief that a particular

health topic is important to discuss would be the driving force for male parents to improve their knowledge base. Clarifying these ideas could be another focus for future research.

The lack of relationship between male parents' dependent-care agency, their beliefs about and knowledge of health topics and male adolescents' self-care agency may also reflect cultural male/female parental roles. This requires reconsideration of the instruments used in this study to measure dependent-care agency and self-care agency. Moore and Gaffney's instrument was designed to measure dependent-care agency in mothers. The alpha for this instrument in this study was 0.93, indicating internal consistency. Denyes' instrument was designed to measure self-care agency in adolescents. Neither of these instruments had been previously used to study the male parent population. There may be social and cultural differences between mothers and fathers that were not reflected in these instrument and therefore affected the outcome of this study. Tools designed to measure male parents' dependent-care agency and adult males' self-care agency may be needed to adequately study these concepts in this population.

The positive relationship between male parents' dependent-care agency and self-care agency supported the idea that dependent-care agency was affected by the value the caregiver placed on care measures. The male adolescents' developmental stage, incorporating their desire to establish their own unique identity, may have impacted their responses regarding self-care, belief about health topics, and knowledge of health topics. Positive relationships between three health topics, 'understanding death,' 'coping with divorce,' and 'child abuse' generated social and cultural questions and possible health education interventions. Dependent-care agency and self-care agency in male parents and male adolescents generated social and cultural questions that may need to be answered before effective interventions can be designed based on these concept, for these populations.

Implications

The goal of this study was to add to the knowledge base on effective content and timing of health education interventions with male adolescents and male parents. Orem's concept that dependent-care agency was a very complex ability that could be acquired by mature individuals, to meet the self-care needs of those socially dependent on them was intertwined with self-care agency. Orem's dependent-care/self-care connection was that involvement in dependent-care is affected by the value the caregiver placed on all care measures. The concept of dependent-care agency provided a broad, but effective platform from which to study the male parent/adolescent male dyad.

Potential areas for nursing interventions included (a) the male parent, regarding his dependent-care health responsibilities for his adolescent son and self-care responsibilities regarding his own health, (b) the adolescent male, regarding his growing self-care responsibilities, and (c) focusing on promoting self-care as a basic intervention for effective health promotion, disease prevention and, eventually, dependent-care agency, with each child and adolescent. Many health promotion and disease prevention strategies and interventions already exist. The challenge is to reach the vulnerable populations and identify the critical timing, or lack of critical timing of health interventions.

Some potential health topics for nursing education in these two populations might include basics such as contagious diseases, nutrition and how the human body works. Low scoring on the importance of discussing 'coping with divorce' and the lack of knowledge reported by both the male parent and the adolescent for this health topic may signal a potential stressor for both parties, considering the divorce statistics in the United States. The lack of knowledge reported by both subject group on the health topic 'child abuse' was also of concern. In this study however, these results may simply be a reflection of the

socioeconomic and cultural setting for the majority of the parent/adolescent pairings. This correlation may signify that both 'coping with divorce' and 'child abuse' may be health topics that needs more emphasis during health teaching.

This exploration of the relationship between male parents' dependent-care agency and self-care agency and their adolescent sons' self-care agency provided nursing with some initial information on correlation and lack of correlation between dependent-care and self-care agency in these populations. This new knowledge could influence health education approaches for the male adolescent, used by parents, nurses, and all health care professional. Male parent/male adolescent interactions and relationships in the areas of self-care and dependent-care have not been previously researched. Relationships identified by this study may provide clues for development of effective interventions with both age groups, for example health topics 'coping with divorce,' child abuse,' and 'understanding death.' The possibility that another member of the family was providing necessary dependent-care agency regarding health matters should also be considered.

The researcher's use of Orem's Self-Care Framework added to nursing's knowledge on Orem's concepts of dependent-care, dependent-care agency, self-care, self-care agency, general health education, and health promotion. Specifically, Orem's (1991) proposition that the ability to engage in self-care or dependent-care was ". . . conditioned by age, developmental state, life experiences, sociocultural orientation, health, and available resources. . ." (p. 71) and that in the dependent-care/self-care link involvement in dependent-care was affected by the value the caregiver placed on care measures. The instruments, which were all developed based on Orem's theories, had alphas that indicated that they reliably measured the concepts self-care agency, dependent-care agency and beliefs and knowledge related to specific health topics. However, results of this study suggest that instruments that are designed for male parents/adult males may be needed.

Recommendations for Future Research

While this study has limited generalizability, it generated many questions and ideas. For future research it is suggested that investigators develop of shorter dependent-care and self-care assessment tools. Designing dependent-care and self-care assessment tools specifically for adult males is also suggested. This might encourage more participation from the general population and more practical responses from the male adult population. The reading levels of all tools needs to remain no higher than the 6th grade reading level. Including provisions to sample the illiterate population would also add value to a similar research effort.

Different approaches to these populations may also be effective. A longitudinal design, following male and female subjects from birth through adolescents, adulthood and parenthood might generate very useful data on both self-care agency and dependent-care agency. A phenomenological approach that addressed the male parenting experience might also generate useful data for health care interventions.

Future research efforts could explore the following questions that focus on dependent-care and self-care. What is the relationship between self-care agency and dependent-care agency in the general adult population? Would interventions that increased self-care agency in children and adolescents result in adults with increased self-care agency and dependent-care agency? When is the optimal time for health promotion interventions with children or adolescents to encourage establishment of disease prevention lifestyles or is timing irrelevant? By the time people reach adolescence is it too late to make significant inroads into established health patterns? How early in life does self-care agency need to be nurtured to have a significant impact on self-care and dependent-care agency in the adult?

Other family relationships also need to be explored. What are the relationships between a female parent's and male adolescent's self-care agency? How does that relate to the female parent's dependent-care agency? What are the relationships between a male parent's and female adolescent's self-care agency? How does that relate to the male parent's dependent-care agency? What are the relationships between both parent's self-care agency and the self-care agency of their pre-adolescent children? What is the impact when parents participate in parenting and health education classes with their pre-adolescent and adolescent children? Would this be an effective way of intervening with adolescents, to teach them effective health promotion and self-care agency while reaching their parents at this same time? How can nursing effectively intervene with parents, as the parents are establishing a family, to assist in development of health promotion and disease prevention lifestyles for the children?

Additional studies are needed to further explore the concept of dependent-care in this population and in the general adolescent population, with female adolescents, female parents, and in the extended family. The concept of self-care agency as a skill that begins in infancy also has fascinating potential for research. This coincides with questions relating to effective timing of health interventions that enhance maximum development of self-care agency.

This study of male parents/adolescent males and their dependent-care agency, self-care agency, and health habits and perspectives was an initial attempt to explore these concepts in two populations. Further research is needed to adequately explore the relationships suggested by this study. Interventions based on these relationships can help health care professionals provide anticipatory guidance to male parents and earlier guidance to adolescent males to enhance health promotion and disease prevention in these populations.

REFERENCES

REFERENCES

Baldwin, J., & Davis, L. L. (1989). Assessing parents as health educators. Pediatric Nursing, 15, 453-471.

Barnes, L. P. (1991). Teaching self-care to children. Journal of Maternal-Child Nursing (MCN), 16, 101.

Denyes, M. J. (1980). Development of an instrument to measure self-care agency in adolescents. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.

Denyes, M. J. (1988). Orem's model used for health promotion: Directions from research. Advances in Nursing Science, 11 (1), 13-21.

Dempsey, P. A. & Dempsey, A. D. (1992). Nursing research with basic statistical applications (3rd ed.). Boston: Jones and Bartlett.

Department of Health and Human Services, Public Health Service (DHHS/PHS). (1991). Health people 2000: National health promotion and disease prevention objective. (DHHS Publication No. (PHS) 91-50213). Washington, DC: U. S. Government Printing Office.

Department of Health and Human Services, Public Health Service (DHHS/PHS). (1993a). Morbidity and mortality weekly report, 42 (38). Waltham, MA: Massachusetts Medical Society.

Department of Health and Human Service, Public Health Service (DHHS/PHS). (1993b) Morbidity and mortality weekly report, 42 (45). Waltham, MA: Massachusetts Medical Society.

Department of Health and Human Services, Public Health Service (DHHS/PHS). (1994a). Morbidity and mortality weekly report, 43 (32). Waltham, MA: Massachusetts Medical Society.

Department of Health and Human Service, Public Health Service (DHHS/PHS). (1994b). Morbidity and mortality weekly report, 43 (40). Waltham, MA: Massachusetts Medical Society.

Elkind, D. (1984). Teenage thinking: Implications for health care. Pediatric Nursing, 383-385.

Elkind, D. (1967). Egocentrism in adolescence. Child Development, 38, 1025-1034.

Erikson, E. H. (1993). Childhood and Society (Reissued ed.). New York: W. W. Norton.

Estes, S. D., & Hart, M. (1993). A model for the development of the CNS role in adolescent health promotion self-care. Clinical Nurse Specialist, 7, 111-115.

Eversoll, D. (1979). A two-generational view of fathering. The Family Coordinator, 14, 503-508.

Falsetti, D., & Kovel, M. (1994). How one school-based clinic is meeting the challenge of adolescent health care. Journal of the American Academy of Nurse Practitioners, 6 (8), 363-368.

Frey, M. A., & Denyes, M. J. (1989). Health and illness self-care in adolescents with IDDM: A test of Orem's theory. Advances in Nursing Science, 12 (1), 67-75.

Hanchett, E. S. (1990). Nursing models and community as client. Nursing Science Quarterly, 3 (2), 67-72.

Hartweg, D. L. (1990). Health promotion self-care within Orem's general theory of nursing. Journal of Advanced Nursing, 15, 35-41.

Huttunen, J. (1992). Father's impact on son's gender role identity. Scandinavian Journal of Educational Research, 36 (4), 251-260.

Kearney, B. Y. & Fleischer, B. J. (1979). Development of an instrument to measure exercise of self-care agency. Research in Nursing and Health, 2 (1), 25-34.

Kennedy, M. B. (1989). Male self-assessment of contraceptives: Perception and use. Unpublished master's thesis, University of Michigan, Ann Arbor.

Koch, J. B., & Freeman, L. N. (1992). Good parents for hard times: Raising responsible kids in the age of drug use and early sexual activity. New York: Simon & Schuster.

Kulbok, P. P., Earls, F. J., & Montgomery, A. C. (1988). Life style and patterns of health and social behavior in high-risk adolescents. Advances in Nursing Science, 11 (1), 22-35.

Lipp, E. J., & Trimble, E. (1993). Health behaviors of adolescent male football athletes. Pediatric Nursing, 19, 394-397.

McBride, S. H. (1991). Comparative analysis of three instruments designed to measure self-care agency. Nursing Research, 40 (1), 12-16.

McCaleb, A., & Edgil, A. (1994). Self-concept and self-care practices of health adolescents. Journal of Pediatric Nursing, 9, 233-238.

McDermott, M. A. N. (1993). Learned helplessness as an interacting variable with self-care agency: Testing a theoretical model. Nursing Science Quarterly, 6 (1), 28-38.

Mehta, S. M. (1993). Applying Orem's self-care framework. Geriatric Nursing, 14, 182-185.

Moore, J. B. (1993). Predictors of children's self-care performance: Testing the theory of self-care deficit. Scholarly Inquiry for Nursing Practice: An International Journal, 7, 199-212.

Moore, J. B., & Gaffney, K. F. (1989). Development of an instrument to measure mother's performance of self-care activities for children. Advances in Nursing Science, 12 (1), 76-84.

Orem, D. E. (1991). Nursing: Concept of practice (4th ed.). St. Louis: Mosby Year Book.

Parcel, G. S., Nader, P. R., & Rogers, P. J. (1980). Health locus of control and health values: Implications for school health education. Health Values: Achieving High Level Wellness, 4 (1), 32-37.

Schafer, S. L. (1989). An aggressive approach to promoting health responsibility. Journal of Gerontological Nursing, 15 (4), 22-7, 40-1.

Snarey, J. (1993). How fathers care for the next generation: A four-decade study. Cambridge, MA: Harvard University Press.

Snyder, L. (1989). Position paper: Health care needs of the adolescents. Annals of Internal Medicine, 110, 930-935.

Vickers, B. B. (Ed.). (1994). Tennessee Statistical Abstract (15th ed.). Knoxville, TN: Center for Business and Economic Research.

WordPerfect Corporation (1993). Gram-mat`-ik5 User's Guide. Orem, UT: WordPerfect Corporation.

APPENDICES

APPENDIX A

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Source # _____
ID # _____

DENYES SELF-CARE AGENCY INSTRUMENT (DSCAI-90)

General Instructions

- A. Please fill in the number that best answers each question for you.
B. There are no right or wrong answers.
C. Please feel free to write in comments.
D. For all questions about your health, please answer based on what you think health is for you.

Directions:

Please fill in any number from 0 to 100 that best answers each question for you. 0 means "nothing"; 100 means "everything"; numbers in between mean your answer is between nothing and everything. You can think of it like a line with 0 at one end, 100 at the other, and all the other numbers in between like this:

- _____ 1. On a scale of 0 to 100, how much do you know about your body and how it works?
- _____ 2. On a scale of 0 to 100, how much do you know about eating as it relates to your health?
- _____ 3. On a scale of 0 to 100, how much do you know about exercise as it relates to your health?
- _____ 4. On a scale of 0 to 100, how much do you know about sleep and rest as they relate to your health?
- _____ 5. On a scale of 0 to 100, how much to you know about smoking as it relates to your health?
- _____ 6. On a scale of 0 to 100, how much do you know about stress as it relates to your health?

_____ 7. On a scale of 0 to 100, how much do you know about your own personal strengths?

The questions change some; please keep filling in numbers from 0 to 100. 0 means "not at all"; 100 means "totally."

_____ 8. On a scale of 0 to 100, how aware are you of your own sexuality?

_____ 9. On a scale of 0 to 100, how aware are you of your feelings?

_____ 10. On a scale of 0 to 100, how able are you to describe the different feelings you experience?

_____ 11. On a scale of 0 to 100, how able are you to talk about your feelings?

_____ 12. On a scale of 0 to 100, how much experience have you had in making decisions about your health?

_____ 13. On a scale of 0 to 100, how much do you value your health?

_____ 14. On a scale of 0 to 100, how much does your family value their health?

_____ 15. On a scale of 0 to 100, how much do your friends value their health?

For the rest of the questions please fill in a percent from 0% to 100%. 0% means "none"; 100% means "all."

_____ % 16. What percent of the time are you capable of making good decisions about your health?

_____ % 17. What percent of the time do you think clearly and logically about your health?

_____ % 18. What percent of the time are you in touch with what's going on with your health?

_____ % 19. What percent of the time do you think about your health?

_____ % 20. What percent of the time does a lack of information interfere with you taking care of your health?

- _____ % 21. What percent of the time do you feel too tired to take care of your health?
- _____ % 22. What percent of the time do you have good feelings about yourself?
- _____ % 23. What percent of the time do you feel proud about doing things well?
- _____ % 24. What percent of the time do you feel good about your body?
- _____ % 25. What percent of the time do you think you have control over your health?
- _____ % 26. What percent of the time do you think about what your health might be like in the future?
- _____ % 27. What percent of the time do your friends say and do things to encourage you to take care of your health?
- _____ % 28. What percent of the time does your family say or do things to encourage you to take care of your health?
- _____ % 29. When you need health information, what percent of the time are you willing to ask for it?
- _____ % 30. What percent of the time does a lack of strength interfere with you taking care of your health?
- _____ % 31. What percent of the time do your peers pressure you into doing things that are not good for your health?
- _____ % 32. What percent of the time do you feel good about yourself?
- _____ % 33. What percent of the time do you feel good about doing things well?
- _____ % 34. What percent of the time do you make good decisions about your health?

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APPENDIX B
DCA: DEPENDENT CARE AGENT INSTRUMENT
(MOORE AND GAFFNEY, 1989)
(Modified, Barbara J. Smith, 1995)

This questionnaire is designed to identify activities that parents do with teenagers. Please circle the number that indicates how frequently you do each activity with your teenager.

What is the age of the teenager for whom you are answering this questionnaire? _____

Key

5 = Always - what you consistently do all the time.

4 = Frequently - what you usually do.

3 = Occasionally - what you sometimes do.

2 = Seldom - what you rarely do.

1 = Never - what you never do at any time.

- | | | | | | | | |
|---|--------|---|---|---|---|---|-------|
| 1. I take my teenager for regular health checkups. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 2. I take action to ensure that my teenager's home is a safe one. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 3. I try to help my teenager have a healthy self-image. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 4. I encourage my teenager to be in activities with others his own age. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 5. I make sure that my teenager is provided with foods from each of the four basic food groups. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 6. I encourage my teenager to get adequate rest each day. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 7. Before judging his performance, I take my teenager's limitations into consideration. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 8. I see that my teenager is current on his immunizations. | Always | 5 | 4 | 3 | 2 | 1 | Never |

- | | | | | | | | |
|---|--------|---|---|---|---|---|-------|
| 9. I make sure my teenager has recreation opportunities. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 10. I encourage my teenager to participate in family activities. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 11. I make sure my teenager gets a good night's sleep. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 12. I evaluate my teenager for signs of minor illness. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 13. I remind my teenager to drink enough fluid. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 14. I help my teenager learn to get along with others. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 15. I teach my teenager the dangers of using tobacco products (for example, cigarettes, smokeless tobacco, cigars) | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 16. I make sure my teenager develops an understanding of the nutritional value of food he eats. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 17. I pay attention to my teenager's food preferences. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 18. I teach my teenager to be aware of safety hazards. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 19. I assist my teenager in coping with stressful events. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 20. When the doctor orders a medication for my teenager, I make sure the directions are followed carefully. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 21. I ask the doctor or nurse about complications of medical treatments my teenager is receiving. | Always | 5 | 4 | 3 | 2 | 1 | Never |
| 22. I encourage social activities for my teenager. | Always | 5 | 4 | 3 | 2 | 1 | Never |

23. I make judgments about whether my teenager is growing and developing normally. Always 5 4 3 2 1 Never
24. I support my teenager's participation in group activities. Always 5 4 3 2 1 Never
25. I praise my teenager. Always 5 4 3 2 1 Never
26. I check places outside our home for potential hazards for my teenager. Always 5 4 3 2 1 Never
27. I make sure my teenager uses seat belts when driving or riding in a car. Always 5 4 3 2 1 Never
28. I encourage my teenager to be increasingly independent. Always 5 4 3 2 1 Never
29. I encourage my teenager to read. Always 5 4 3 2 1 Never
30. I evaluate the quality of the air my teenager breathes. Always 5 4 3 2 1 Never
31. I help my teenager to communicate effectively. Always 5 4 3 2 1 Never
32. I teach my teenager to take care of other people's property. Always 5 4 3 2 1 Never
33. I help my teenager adjust to changes. Always 5 4 3 2 1 Never
34. I encourage my teenager to be a responsible family member. Always 5 4 3 2 1 Never
35. I try to know what my teenager is doing in school. Always 5 4 3 2 1 Never
36. I make sure that my teenager participates in physical exercise. Always 5 4 3 2 1 Never
37. When the weather is hot or when my teenager has been active, I encourage him to drink more liquids. Always 5 4 3 2 1 Never
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APPENDIX C
BALDWIN AND DAVIS' HEALTH EDUCATION QUESTIONNAIRE IV
(Modified by Barbara J. Smith, 1995)

Instructions: This questionnaire identifies health issues that are of interest to school-age children and their parents. Since parents can educate their children about these health issues, it is important to know how you perceive your father as a health educator. Please answer the following questions by circling the number that best answers the question for you. There are no right or wrong answers.

How important is talking to your male parent/male parent figure about these topics?

		Key					
Not Important		1	2	3	4	5	Extremely Important
HEALTH TOPICS		Circle the number that matches how important you feel it is to talk to your male parent/male parent figure about this topic.					
(1)	How the human body works		1	2	3	4	5
(2)	Personal hygiene		1	2	3	4	5
(3)	Dental hygiene		1	2	3	4	5
(4)	Safety issues (fire, traffic, poisons, etc.)	1	2	3	4	5	
(5)	Nutrition		1	2	3	4	5
(6)	Exercise and rest		1	2	3	4	5
(7)	Contagious diseases		1	2	3	4	5
(8)	Understanding death		1	2	3	4	5
(9)	Peer relations		1	2	3	4	5
(10)	Accomplishments		1	2	3	4	5
(11)	Puberty and sex		1	2	3	4	5
(12)	AIDS		1	2	3	4	5
(13)	Alcohol abuse		1	2	3	4	5

- | | | | | | | |
|------|---------------------|---|---|---|---|---|
| (14) | Drug abuse | 1 | 2 | 3 | 4 | 5 |
| (15) | Effects of smoking | 1 | 2 | 3 | 4 | 5 |
| (16) | Child Abuse | 1 | 2 | 3 | 4 | 5 |
| (17) | Coping with divorce | 1 | 2 | 3 | 4 | 5 |

How much do you know about these topics?

- | | | | | | | | |
|--|----------------------|---|---|---|---|---|-------------------|
| | | Key | | | | | |
| | Almost nothing | 1 | 2 | 3 | 4 | 5 | Almost everything |
| | HEALTH TOPICS | | | | | | |
| | | Circle the number that matches how much you know about each topic. | | | | | |
- | | | | | | | |
|------|--|---|---|---|---|---|
| (18) | How the human body works | 1 | 2 | 3 | 4 | 5 |
| (19) | Personal hygiene | 1 | 2 | 3 | 4 | 5 |
| (20) | Dental hygiene | 1 | 2 | 3 | 4 | 5 |
| (21) | Safety issues (fire, traffic, poisons, etc.) | 1 | 2 | 3 | 4 | 5 |
| (22) | Nutrition | 1 | 2 | 3 | 4 | 5 |
| (23) | Exercise and rest | 1 | 2 | 3 | 4 | 5 |
| (24) | Contagious diseases | 1 | 2 | 3 | 4 | 5 |
| (25) | Understanding death | 1 | 2 | 3 | 4 | 5 |
| (26) | Peer relations | 1 | 2 | 3 | 4 | 5 |
| (27) | Accomplishments | 1 | 2 | 3 | 4 | 5 |
| (28) | Puberty and sex | 1 | 2 | 3 | 4 | 5 |
| (29) | AIDS | 1 | 2 | 3 | 4 | 5 |
| (30) | Alcohol abuse | 1 | 2 | 3 | 4 | 5 |
| (31) | Drug abuse | 1 | 2 | 3 | 4 | 5 |
| (32) | Effects of smoking | 1 | 2 | 3 | 4 | 5 |
| (33) | Child Abuse | 1 | 2 | 3 | 4 | 5 |
| (34) | Coping with divorce | 1 | 2 | 3 | 4 | 5 |

Reference: Baldwin, J., & Davis, L. L. (1989). Assessing parents as health educators. *Pediatric Nursing*, 15, 453-471. Note: Modified by Barbara J. Smith, 1995.

APPENDIX D
BALDWIN AND DAVIS' HEALTH EDUCATION QUESTIONNAIRE IV

Instructions: This questionnaire identifies health issues that are of interest to school-age children and their parents. Since parents are in a position to educate their children about these health issues, it is important to know how they perceive themselves as health educators. Please answer the following questions by circling the number that best answers the question for you. There are no right or wrong answers.

How important is talking to your teenager about these topics?

		Key					
		1	2	3	4	5	
							Extremely Important
HEALTH TOPICS		Circle the number that matches how important you feel it is to talk to your teenager about this topic.					
(1)	How the human body works			1	2	3	4 5
(2)	Personal hygiene			1	2	3	4 5
(3)	Dental hygiene			1	2	3	4 5
(4)	Safety issues (fire, traffic, poisons, etc.)	1		2	3	4	5
(5)	Nutrition			1	2	3	4 5
(6)	Exercise and rest			1	2	3	4 5
(7)	Contagious diseases			1	2	3	4 5
(8)	Understanding death			1	2	3	4 5
(9)	Peer relations			1	2	3	4 5
(10)	Accomplishments			1	2	3	4 5
(11)	Puberty and sex			1	2	3	4 5
(12)	AIDS			1	2	3	4 5
(13)	Alcohol abuse			1	2	3	4 5
(14)	Drug abuse			1	2	3	4 5
(15)	Effects of smoking			1	2	3	4 5

(16)	Child Abuse	1	2	3	4	5
(17)	Coping with divorce	1	2	3	4	5

How much do you know about these topics?

Key						
Almost nothing	1	2	3	4	5	Almost everything

HEALTH TOPICS

Circle the number that matches how much you know about each topic.

(18)	How the human body works	1	2	3	4	5
(19)	Personal hygiene	1	2	3	4	5
(20)	Dental hygiene	1	2	3	4	5
(21)	Safety issues (fire, traffic, poisons, etc.)	1	2	3	4	5
(22)	Nutrition	1	2	3	4	5
(23)	Exercise and rest	1	2	3	4	5
(24)	Contagious diseases	1	2	3	4	5
(25)	Understanding death	1	2	3	4	5
(26)	Peer relations	1	2	3	4	5
(27)	Accomplishments	1	2	3	4	5
(28)	Puberty and sex	1	2	3	4	5
(29)	AIDS	1	2	3	4	5
(30)	Alcohol abuse	1	2	3	4	5
(31)	Drug abuse	1	2	3	4	5
(32)	Effects of smoking	1	2	3	4	5
(33)	Child Abuse	1	2	3	4	5
(34)	Coping with divorce	1	2	3	4	5

Reference: Baldwin, J., & Davis, L. L. (1989). Assessing parents as health educators. Pediatric Nursing, 15, 453-471.

APPENDIX E INSTRUCTIONS

I thank you in advance for sharing your time and participating in this study! Your input is very valuable. Request the participation of both the 10th or 11th grade male in your household AND the male parent/male parent figure in the household. If there is no male parent/male parent figure in your household, participation of the male adolescent is still requested and encouraged. For this study, the terms male parent and male parent figure refer to the male in the household who acts as male parent. It may be the natural father, stepfather, a male relative or a family friend. However, you must be living in the same household as the male teenager participating in this study. Completing these forms should take about 30 minutes. There is an Informed Consent Letter that needs to be signed first. Then each of you has a couple of questionnaires to complete. Please complete them by yourself. Note: If there is no male parent/male parent figure in the household, the Informed Consent still needs the male adolescent's signature and the signature of a parent or guardian. Please follow these steps:

1. Both the male parent and the male adolescent need to sign the Informed Consent letter. A parent or legal guardian must also consent to the male adolescent's participation. I will separate this letter from completed questionnaires and your privacy will be protected.
2. Now, go to your questionnaires. DO NOT PUT YOUR NAME ON ANY OF THE QUESTIONNAIRES! The demographic sheets on top will identify which one is for the adolescent male and which one is for the male parent.
3. Complete your demographic sheet. (Both of you)
4. Complete the Moore and Gaffney Dependent-Care Agent Questionnaire. (Only the male parent has this questionnaire to complete!) You are answering these questions for your activity level with the male teenager in your household that participated in this study.
5. Complete Denyes Self-Care Agency Instrument (both of you, but please, do this independently!). On this form, you base your answers on what you think health is for you.
6. Complete Baldwin and Davis' Health Education Questionnaire IV (both of you, but, again, do this independently!).
7. Place the completed Informed Consent Letter, the adolescent's packet of questionnaires and the male parent's packet of questionnaires in the envelope provided. It is stamped, so just drop it in the mail! If you have questions, please call me, Barbara Smith, at 933-7642. Again, thank you for participating.

APPENDIX F
INFORMED CONSENT LETTER

FROM: Barbara J. Smith, R.N.
The University of Tennessee, Knoxville
College of Nursing

TO: All Male Students (Grades 10 and 11) and Their Parents

My name is Barbara Smith. I am a registered nurse, and attend the University of Tennessee, working on a master's degree to be a Family Nurse Practitioner. As part of this program I am doing a study about fathers and sons health habits. This information is very important to health care professionals. Understanding things that build good health habits can help us make health education more effective.

Because this study looks at fathers' and sons' health issues, I need you and your father to participate. For this study, the "father" can be the male member of the family, living in the same household, who acts as male parent. For example, this may be your natural father, stepfather, a male relative (i.e., grandfather, uncle), or family friend. Taking part will involve about 25-40 minutes of your time. After I receive consent, I will ask both you and your father to complete several questionnaires. You will complete your questionnaires at school and take your father's questionnaires home. Your father will complete his questionnaires at home and mail the forms back to the researcher in the addressed and stamped envelope provided. If there is no male parent available to participate, I still encourage you to participate. Your ideas and opinions are valuable to this study.

Taking part in this study does not involve any risk. When both you and your father are participating, I will assign codes to match you with your father. These codes will not be associated with your names. I will submit study results for publication so that other health care professionals, e.g., school nurses, health education planners, can use this information. Published results will only reflect grouped information, with no individual participant identified by name. Participation is voluntary and you can withdraw any time without penalty. You must be male and less than 18 years of age to participate. If your father participates, he must be living in the same household you do.

Please complete the attached Informed Consent Form and return it to school by _____. Please note that I need signatures from you, your father (the male parent) (if participating), and your parent or legal guardian authorizing your participation.

Contact the researcher at (423) 933-7642 if you have any questions or want to obtain results of the completed study. Thank you for joining me in this study. I appreciate your participation.

Part I.

I agree to participate in this study.

Male Adolescent/ Printed Name

Male Parent Participant/Printed Name

Male Adolescent/Signature and Date

Male Parent Participant/Signature and Date

Part II.

I give permission for _____, to participate in this study.

Print student's name

Parent/Legal Guardian/Printed Name

Parent's/ Legal Guardian/ Signature and Date

APPENDIX G

Demographic Information - Adolescent Male

1. Age (in years): _____
2. Name of School Currently Attending: _____
3. Ethnic background: (Circle one) American Indian Hispanic Asian
 Middle Eastern African-American
 Caucasian Other (Specify) _____
4. List the people who live in the same house as you: (For example: two brothers, one step-sister, father, uncle, etc. Do not list names.)
5. Your birth position: (Circle one) Only child Oldest Middle Youngest
6. Check one of the following:
☐ () There is no male parent or male parent figure in my household.
☐ () There is a male parent or male parent figure in my household, and he is participating in this study.
☐ () There is a male parent or male parent figure in my household, but he did not choose to participate in this study.
7. If there is a male parent/male parent figure living with you, how long has he lived in the same household? _____
8. (If applicable) What is your relationship to the male parent/male parent figure who is also participating in this study? (Circle) Birth son Step-son Other _____
9. Describe the state of your health in one word (For example: excellent, good, average, poor): _____
10. Who or what is your main source of health information? _____

APPENDIX H
Demographic Information - Male Parent/Male Parent Figure

1. Age (in years): _____
2. Household income: 0 - \$4,999 _____ \$30,000 - \$39,999 _____
\$5,000 - \$9,999 _____ \$40,000 - \$49,999 _____
\$10,000 - \$14,999 _____ \$50,000 - \$59,999 _____
\$15,000 - \$19,999 _____ \$60,000 - \$69,999 _____
\$20,000 - \$24,999 _____ \$70,000 - \$79,999 _____
\$25,000 - \$29,999 _____ \$80,000 or greater _____
3. Level of education:
Less than High School _____
High School Diploma or GED _____
Completed some college courses-No degree _____
College degree(s) (List) _____
4. Occupation: _____
5. Ethnic background: (Circle one) American Indian Hispanic Asian
Middle Eastern African-American
Caucasian Other (Specify) _____
6. How long have you lived in the same household as the male adolescent participating in this study? _____
7. (If applicable) What is your relationship to the male adolescent participating in this study? (Circle) Birth father Step-father Other _____
8. Describe the state of your health in one word (For example: excellent, good, average, poor): _____
9. Who or what is your main source of your health information? _____
10. Who or what is the main source of your son's (male adolescent in this study) health information? _____

VITA

Barbara J. Smith was born in New Richmond, Wisconsin on November 6, 1951. She attended St. Bridget's Catholic Grade School and River Falls, Wisconsin public high school, graduating in June 1969. She entered the University of Wisconsin, River Falls in August 1969, where, after one year she interrupted her education to enter the United States Air Force. After serving in the Air Force for twenty years she retired December 1, 1990, and returned to school in August 1991.

In May 1994 she received her Bachelor of Science in Nursing from the University of Tennessee, Knoxville. She is a member of Gamma Chi Chapter of Sigma Theta Tau, International Honor Society of Nursing. While working as a registered nurse on the neurology/neurosurgery floor at the University of Tennessee Medical Center in Knoxville, Tennessee, she continued to pursue a Master of Science degree in Nursing, with a Family Nurse Practitioner focus. This thesis is for the Master of Science program. This degree will be awarded in December 1995.