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Perceived Stressors of Hospitalized Antepartal Adolescents

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This is to certify that the thesis prepared by Rita Murphy Ciavarelli entitled Perceived Stressors of Hospitalized Antepartum Adolescents has been approved by her committee as satisfactory completion of the thesis requirement for the degree of Master of Science.

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PERCEIVED STRESSORS OF HOSPITALIZED ANTEPARTAL ADOLESCENTS

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University

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ABSTRACT

PERCEIVED STRESSORS OF HOSPITALIZED ANTEPARTUM ADOLESCENTS

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The purpose of this study was to explore and describe adolescents' perception of stress during antepartal hospitalization. The research questions answered in this study were:

1. What are the perceived stressors of hospitalized antepartum adolescents?

2. Are there differences in the perceived stressors among early, middle, and late adolescents?

The study was conducted in a teaching hospital in the southeastern United States. A convenience sample of 14 adolescents participated in this study. The ages of the subjects ranged from 14 to 19 years old, with the majority of the subjects 16-19 years old. The subjects were all unmarried and had no other children. Reasons for hospitalization included preterm labor, pregnancy-induced hypertension, and vaginal bleeding. The range of gestational age was 24 to 36 weeks. The length of stay in the hospital at the time of participation in the study was 3 to 11 days.

The substage of each adolescent's development was determined using the Adolescent Developmental Inventory (ADI). This tool was devised by Bernardine Clark, Virginia Commonwealth University, Medical College of Virginia. The tool is unpublished and data for reliability and validity are not yet available. The ADI included 16 responses to interview questions designated into early, middle, or late adolescence categories. The subject was identified by substage according to the highest number of responses in that category. In the sample, two subjects were identified as early adolescents, two as middle adolescents, and 10 as late adolescents.

The Antepartum Hospital Stressors Inventory (ASHI) (White, 1981) was used to determine stressors identified by the subjects. The AHSI is a 47-item Likert-type scale in which the subjects assign a degree of stress on a continuum from "no stress" to "a great deal of stress." The items are grouped into seven categories: Separation, Environment, Health Status, Communication with Health Professionals, Self-image, Emotions and Family Status. The early adolescents identified the categories of Self-image and Emotions as most stressful. Both the middle and late adolescents identified Emotions and Separation as the categories of most stress. The category of Family Status was identified as least stressful for all the adolescent substage groups.

In ranking the categories by intensity, both early and middle adolescents rated Separation and Emotions as most stressful. These results coincide with White's findings. Late adolescents rated Emotions, Health Status, and Self-image as most stressful.

When intensity scores were examined for all substages, the majority of scores fell below the midpoint of two on the 0-4 scale. Only the early adolescent substage subjects rated intensity of six of the seven categories with scores above two.

CHAPTER ONE

Introduction

The health care delivery system is striving to meet the unique needs of adolescent clients. Although many adolescents still receive care in the more traditional settings of general clinics, private offices and hospitals, specific programs and clinics oriented to youth have emerged in the last 15 years. Denholm (1985), in a review of professional articles related to the hospitalized adolescent, found that the majority of topics discussed related to medical procedures, and policies for staff interactions with the adolescent. He notes that few authors considered the perception of the adolescent or supported the requirement that staff utilize current developmental theory in suggested interventions. Resnick, Blum and Hedin (1980), in a survey of high school students, found that these adolescents had specific desires for their health care services. Confidentiality is a priority, followed by an environment suited to teens, and health care providers able to interact in an accepting and straightforward manner. These adolescents also identified the priority of their needs to be related to emotional and sexual matters, and also interpersonal relationships with family members and peers. This indicates

that psychosocial concerns are viewed as more important to the adolescent than physical concerns.

During adolescence major changes occur psychologically, cognitively, and physically. These changes occur at different times for each individual, and chronological age alone cannot determine what developmental stage has been achieved. There are significant variations in development during the early, middle, and late substages of the adolescent experience (Fuhrmann, 1986; Hatcher, 1976).

When the psychological and physical changes of pregnancy are imposed on those of adolescence, the individual finds herself faced with a multitude of internal demands. Stress occurs when the individual perceives an imbalance between the demands and the ability to meet them (Clarke, 1984).

The purpose of this study was to determine what the pregnant adolescent, during hospitalization, perceives to be stressful.

Volicer (1973) identified stressors in hospitalized patients. Investigating a population of medical and surgical patients, the identified stressors included unfamiliar surroundings, loss of independence, separation from family, separation from spouse, financial problems, lack of information, isolation from their social group, threat of severe illness, and problems with medication.

White and Ritchie (1984) expanded Volicer's work by studying hospitalized antepartum patients. This population was primarily adult (over the age of 19 years). They identified seven categories of stressors which included separation, environment, health status, communication with health professionals, self-image, emotions, and family status. The Antepartum Hospital Stressors Inventory (AHSI), developed by White (1981), uses a self-report method described on a Likert-type scale. The scale ranges from "no stress" to "a great deal of stress," and includes the option of answering "does not apply to me."

Hatcher (1976) studied the psychological experiences of early, middle, and late adolescents related to unwanted pregnancy. The sample studied by this author represented a largely middle-class population choosing to resolve unwanted pregnancy through abortion.

Further investigation of Hatcher's work is being carried on by Bernardine Clarke, Virginia Commonwealth University, Medical College of Virginia. She is developing a tool, the Adolescent Developmental Inventory (ADI). In this tool, the substages of early, middle, and late adolescent development are identified based on subject response to interview questions in five main categories: significant persons, the girl's quality and style of relationships, her view of herself, her use of defensive mechanisms, and her goals and

interests. This tool is unpublished.

The numbers of pregnant adolescents continue to rise. This group is identified as at-risk for adverse pregnancies and unfavorable neonatal outcomes (Felice, 1981). For a variety of reasons, hospitalization may be required for the pregnant adolescent during the antepartal period. Frequently, these clients are placed on nursing units providing care for antepartum and postpartum clients representing a range of developmental stages across the childbearing continuum. The specific developmental needs of adolescence are not addressed. Appropriate and individualized care for the hospitalized antepartum adolescent can be promoted by identifying her perception of stressors, and her adolescent developmental substage. Studies identifying the pregnant adolescent's perception of stress have not been found in the literature.

Research Questions

The purpose of this study was to explore and describe adolescents' perceptions of stress during antepartal hospitalization. The questions to be answered in this study are:

1. What are the perceived stressors of hospitalized antepartum adolescents?

2. Are there differences in the perceived stressors among early, middle, and late adolescents?

Definition of Terms

For the purpose of this study, the following terms were operationally defined:

Psychological stressors - defined by scores on the Antepartum Hospital Stressors Inventory (AHSI) (White, 1981) (Appendix A) from the categories of Separation, Environment, Health Status, Communication with Health Professionals, Self-image, Emotions, and Family Status.

Antepartum - pregnancy gestation of 24-37 weeks at time of study.

Hospitalized - current, at the time of study, inpatient status at a health care facility for a duration not less than three days nor more than 10 days, for a pregnancy-related problem other than delivery (PIH, bleeding, etc.).

Adolescent - aged 14 to 19 years old at time of study; early, middle, and late stages of adolescence will be defined by scores on the Adolescent Developmental Inventory (ADI) (Clarke, 1986) (Appendix B).

Assumptions

1. There is stress related to hospitalization.
2. Antepartum hospitalization stress can be measured by the Antepartum Hospital Stressors Inventory (AHSI).
3. Early, middle, and late adolescent substages can be identified by the Adolescent Developmental Inventory (ADI).

4. Subjects in this study will respond to interview questions accurately and honestly.

Limitations

The following limitations exist for this study:

1. The sample of subjects were a nonrandomized convenience sample, thus findings are not generalized from the accessible to the target population.

2. Subjects may have interpreted the interview questions, from both tools, in different ways.

3. Other factors besides hospitalization may have influenced the perceived stress of the subject and were not measured in this study.

Delimitations

The following delimitations were placed on this study:

1. The study was conducted at one teaching hospital located in a southeastern city during the period between July 5, 1986 and September 30, 1986.

2. Only patients who were at least 24 weeks pregnant were considered for this study.

3. Only patients were were 14 through 19 years of age were interviewed.

4. Only those patients who were hospitalized for the first time during the course of the present pregnancy were considered for this study.

5. Only patients who were in their third to tenth day of hospitalization were considered for this study.

6. Only patients who were hospitalized for a pregnancy-related condition, other than delivery, were considered in this study.

7. Only patients who were hospitalized on a nursing unit other than labor/delivery and who were not receiving intravenous magnesium sulfate were asked to participate in this study.

Conceptual Framework

Introduction

The components for the theoretical framework for this study include the Betty Neuman Model of Nursing, stress theory, and adolescent developmental theory. The primary concept examined in this study was stress as perceived by hospitalized, antepartum adolescents. Adolescent developmental theory describes substages of early, middle, and late adolescence during this phase of maturation known as adolescence. The Neuman Model of Nursing recognizes an individual's dynamic interaction with the environment as well as the complexity of each individual.

Neuman Nursing Model

The theoretical framework of this study was based on Betty Neuman's Model of Nursing. This model is based on

systems theory, Selye's stress theory, adaptation theories, and holistic approaches to individuals and health care (Griffith & Christensen, 1982). This open systems model views the individual as composed of interrelated, psychological, physiological, sociocultural, and developmental variables. As the individual interacts with the environment, stressors--intrapersonal, interpersonal, and extrapersonal factors--affect the individual and generate varying responses. Nursing aims to attain and maintain maximum wellness by reducing the stressors or strengthening the individual's lines of defense.

The aim of Neuman's model is to

> provide a unifying focus for approaching varied nursing problems and for understanding the basic phenomenon: man and his environment. The model is based upon an individual's relationship to stress--his reaction to stress and factors of reconstitution--and is thought of as dynamic in nature (Neuman, 1982, p. 14).

The model considers three factors: the occurrence of stressors, the reaction of the client to the stressors, and the client's physiological, psychological, sociocultural and developmental status.

More than one stressor can occur simultaneously. Individuals differ in their reaction to the same stressor due to individual variables such as genetic structure, response pattern, organ strength, and weakness and ego strength.

Assessment of the client in the Neuman model includes risks or hazards to the client, meaning of the experience to the client, life style factors, coping patterns, socio-cultural supports, individual differences, and determination of internal/external resources available to the client.

In this study, meaning of the experience of hospitalization based on perceived stress was measured using the Antepartum Hospital Stressors Inventory (AHSI). Individual differences in developmental substage was measured using the Adolescent Developmental Inventory (ADI). Life style factors, possible sociocultural supports were assessed using a demographic tool.

Intervention in Neuman's model can involve education, desensitization, avoidance of the stressor, stengthening individual resistance factors, and ranking priority of needs relating to symptoms and client strengths and weaknesses. Other interventions include shift of priorities as the client responds to treatment, or as the nature of the stressor changes; dealing with maladaptive process; optimum use of internal/external resources; motivation; behavior; progressive goal-setting, and maintenance of reasonable adaptive level of functioning. All of these can be useful with a hospitalized adolescent client, but the interventions go beyond the scope of this study which is solely identifying and describing the stressors perceived by the adolescent.

Stress

Recent stress theories consider stress to be an interaction or transaction between the individual and her internal or external environment. Environment is understood to be one's internal/external physical and social system (Cox, 1978; Clarke, 1984). The psychological aspect of one's internal environment will also be included when referring to the term environment. Cox (1978) states that stress is "an individual perceptual phenomenon rooted in psychological processes" (p. 18). Demand occurs when there is a request or requirement, regardless of environmental source, which is perceived by the individual as requiring an adaptive response, either physically, mentally or both (Cox, 1978; Clarke, 1984). An imbalance in the individual-environmental interaction is felt when perceived demand is either much lower or much higher than the individual's perceived ability to respond. This imbalance is stress (Clarke, 1984; White, 1984). The individual reacts by trying to restore balance. When the individual perceives her responses as equal to or greater than the demand, improved learning and positive self-esteem can result. The result can also be the loss of self-esteem and depletion of an individual's resources when the perception is of demand higher than the ability to respond, and an imbalance continues (Clarke, 1984).

Hospitalization can create an alteration in both external and internal environments. The individual is subjected to a variety of unfamiliar persons and experiences, while contact with family and friends is decreased. Independence is restricted or lost. Fears related to a lack of information regarding health status can create more demand on the individual.

Adolescent Development

Developmental theories indicate that an individual is faced with demands (challenges and tasks) that must be successfully mastered to move forward from one stage to another. While "adolescence" is one interval in overall life development, there are within it three substages that are related to psychophysiologic and psychosocial development, not necessarily chronological age (Hatcher, 1976). The early adolescent is oriented in the present, and expresses ambivalence regarding dependence/independence issues. The middle adolescent is coming to terms with her bodily changes, and dealing with increasing independence needs. In late adolescence, body changes are stabilized and thoughts are directed toward future goals in relationships and careers (Hatcher, 1976).

When pregnancy is imposed over the demands of cognitive and personality development already occurring in adolescence, further demands result. Rubin (1975) states that

during pregnancy an individual will focus her attention inward and will expend much effort on assessing qualities of human relationships, and verbal and nonverbal behaviors.

The hospitalized antepartum adolescent is faced with a multitude of demands arising from both internal and external environments. Nursing can effectively enter this individual-environmental interactional system to prevent or decrease effects of stressors (Neuman, 1982). The first step in the nursing process must be to assess the stressors from the unique perception of this adolescent population.

Conclusion

The Neuman Model of Nursing identifies every individual as having unique and interrelated psychological, physiological, sociocultural, and developmental characteristics. All individuals interact with their environment. The environment consists of both internal and external events related to each individual. The perception of stress is individualized and depends on the amount of threat to well-being balanced by the ability of an individual to cope with the threat.

This study investigated the perception of threat, or stress, experienced by adolescents who were pregnant and in the hospital. The internal demands of adolescent growth on physical, psychological and cognitive areas, and the internal demands introduced by pregnancy on the physical,

psychological and cognitive areas within an adolescent can create stressors. The external environment of a hospital setting with its limitations on independence, and concurrently occurring tests and treatments for a health problem can create further stressors. By identifying the categories of highest levels of perceived stress, as identified by each individual, appropriate interventions by the nurse, as suggested in Neuman's model, could promote decreasing stress and improved coping by each individual.

Rationale for Interest/Significance

This investigator has provided antepartal, intrapartal, and postpartal care in a variety of settings during the past nine years. This frequently brought her in contact with adolescent clients. This investigator feels that to better understand the differences seen in psychosocial development during the adolescent period, and to understand the adolescent's own perception of stress while under hospitalization, will lead to improved communication and less frustration for herself and her clients. The developmental demands of adolescence, the maturational demands of pregnancy, and the situational demands of hospitalization can be perceived as stressors. Improved understanding of these perceptions will assist nurses to promote, maintain, and restore optimal health to these adolescent clients. No studies identifying the perceived stressors experienced by pregnant adolescents

during hospitalization, nor any other tool to objectively identify adolescent substages has been found by this investigator.

CHAPTER TWO

Review of Literature

Introduction

The selected review of literature included stress, psychological stress of pregnancy, and adolescent development. Stress, as it specifically relates to adolescence, hospitalization, antepartal hospitalization, and in hospitalized adolescents was also reviewed.

The purpose of this research was to examine the perception of stress by adolescents in the hospital during pregnancy. The purpose of this review was to understand stress as a general topic and as it specifically relates to the developmental and situational conditions of the subjects in this research, and the environment in which the research was conducted.

Stress

Stress, as a concept, as been defined in several ways. Stress is a stimulus to which an individual responds in some way, by symptoms of strain or breakdown. Stress can also be thought of as a response, often without an overt definition (Nichols, 1981; Sheahan, 1979). A problem with these definitions of stress is that individuals react in

different ways to stimuli at different times. A better definition of stress takes into account the interaction between an individual and his internal or external environment.

Selye (1956, p. 22) argued that stress occurs within the individual and is the response to the stimulus, which he called the stressor. He identified a restorative process exhibited in an individual in response to any type of stressor. In a later work, Selye (1976, p. 42) included the importance of psychological events, not just physical ones, as stressors.

More recently, Lazarus (1984, p. 19) viewed stress as a relationship between a person and his environment. People are complex beings made up of both physical and psychological components, which comprise an internal environment. The external environment is composed of all elements outside of an individual--the physical setting in which he exists, and other people with which he has contact. Psychological stress can occur if the person perceives elements in either the internal or external environments as taxing or exceeding his resources and endangering his well-being (Lazarus, 1984, p. 24). The ability of an individual to appraise various aspects of his environment and perceive the resources within himself to cope, underlines the basis for nursing assessment. Health is the state of optimal well-being for any individual.

Therefore, any perception of endangerment to well-being could result in or promote illness. The goal of health professionals is to promote, maintain, and restore optimal health to each individual.

Psychological Stress of Pregnancy

Pregnancy is viewed as a time when women undergo an inner focusing (Coleman & Coleman, 1971), or as Rubin (1975) describes it, a centration of attention. They experience many changing feelings which can lead to confusion or embarrassment, as well as concern when they are unable to describe these feelings effectively. There is an increased sense of vulnerability brought on by the physical, psychological, and social changes that occur in pregnancy (Tipping, 1981).

Vulnerability implies a sense of endangerment or threat. Threat may originate either internally or externally. To feel vulnerable, a person must attach some personal significance to threats in the environment (Lazarus, 1964), and see them as taxing his physical, emotional, and cognitive resources.

Coleman and Coleman (1971) identify three stages of pregnancy with distinct characteristics. First stage is incorporation where the woman must accept the fetus as present in her body. There are feelings of ambivalence.

Sometimes the feeling of having a secret she can share with those she chooses, or feeling like she belongs with a specific group (pregnant women or mothers) makes her happy. At the same time she may have thoughts of terminating the pregnancy. She may feel trapped or have feelings of resentment for the baby due to the way she feels--lack of energy, morning sickness. Adolescents may feel an identity as a sexual being, feel happy to realize that the body changes have given them the power to produce a child. Pregnancy can give them a feeling they have the ability to be somebody (a mother) and to have something (a baby).

The second stage is characterized by differentiation, the act of understanding the fetus is actually not a part of mother's body but has a separate identity from her. The task in this stage is to form a unique mothering identity separate and apart from that of her own mother. Quickening, weight gains, and other physical changes help the mother identify the separateness of the baby. The need to be separate from her own mother in order to develop her own mothering identity does not preclude that the pregnant woman is also feeling an increased need to be nurtured. It is a time when the need to define or redefine her roles in the family and society emerge. The characteristics in this stage are similar to the conflicts experienced by the early

to middle adolescent, those of ambivalence in relationships and the need for autonomy or separation from her own mother (Hatcher, 1976).

The characteristics task of separation dominates the third stage. The woman must prepare to give up the fetus. She may be preoccupied with thoughts of the baby and a need for nesting or preparation activities. Fearful thoughts of labor and delivery, how well she will manage parenting, or annoyance at being uncomfortable with advancing pregnancy can be expected.

Rubin (1975) describes four tasks in pregnancy. The first task of pregnancy is seeking safe passage for herself and her child. The second task is ensuring the acceptance of the child by the significant persons in her family or social support group. The third is binding-in to her unknown child. The fourth is learning to give of herself.

Two of these tasks are concerned with the immediate external world for herself and her child. The remaining two tasks are concerned with herself in relation to her child. All four tasks are interdependent and are worked on concurrently and equally. The pregnant woman becomes progressively attuned to interpersonal interactions. This can be viewed negatively by those around her. She sometimes is seen to be overly sensitive, introspective, or analytical.

Stress can occur if the woman's resources, either physical, emotional or cognitive, are taxed in dealing with the relationships in the world around or within her. Completing the first task is threatened by obstetrical complications: pregnancy-induced hypertension, placenta previa, or premature labor. Hospitalization can remove a woman from her social support system if she is in a facility many miles from her home. This interferes with completion of the second task. A woman who faces the threat of losing her child may resist binding-in. Hospitalization also interrupts the woman's preparations at home for the coming child. The physical strain of dealing with hospitalization, and the emotional strain of dealing with any pregnancy complication may drain a woman's resources so that giving of one's self is not possible.

An adolescent whose family is unaccepting of her pregnany or shows no acceptance of the child she bears will have a difficult time with the second task. Some adolescents who have not achieved a positive self-image, or who are emotionally immature, will potentially have difficulty achieving binding-in and giving of one's self.

Bibring (1959) sees pregnancy as a developmental crisis, a time when a woman is profoundly concerned with interpersonal relationships, especially that with her own mother.

Pregnancy is also seen as a maturational crisis because of the biological, psychological, social, and transitional events which occur (Bibring, 1959; Coleman & Coleman, 1971; Rubin, 1975; Tilden, 1980). The successful completion of pregnancy developmental tasks is necessary for an optimal outcome for both mother and child. Interruption of the work on these tasks imposed by hospitalization or by the developmental tasks of adolescence can create stress.

Adolescent Development

Adolescence can generally be defined as the physical changes prompting individuating psychological events, or drive for independence, starting around the age of 12 years and culminating at the age of 18 years--the age of legal adulthood (Hofmann, Becker, & Gabriel, 1976). Freund described adolescence as the second onset of sexuality, a period of increased independence and investment of emotional significance in peer objects (Heisler & Friedman, 1980). Erikson (1963, p. 10) saw the major focus of adolescence as the search for identity. Piaget (1970, p. 111) discussed the onset of formal operations in adolescence, giving the adolescent new ability to use more complex organizing systems for hypothesizing.

During adolescence, major developmental changes will occur psychologically, physically, and cognitively. The individual cannot be identified in any one developmental

stage solely based on age (Fuhrmann, 1986; Hatcher, 1976; Clarke, 1986). Therefore, care for the adolescent client must be individualized based on developmental uniqueness, and must be provided by the individuals who are knowledgeable of these developmental stages. Further, the health care needs must be determined based on what adolescents identify as pertinent to them (Farrell, Kettyle, & Lummes, 1984; Resnick et al., 1980).

At puberty, the physical structure begins to show evidence of sexual development and during, roughly, the next decade, growth spurts will cause an increase in height and weight. Full development of primary and secondary sexual characteristics will occur during this time. These developments will occur within the individual at varying rates, and not all adolescents of the same age will display the same changes. It is understandable that as the body goes through rapid changes so, too, does the individual's self-perception. Most often the adolescent bases his perception of self on the real or imagined perception of others. Elkind (1984) emphasizes that the adolescent's perception is very real to him, and that trying to deny or reason it away simply does not work. Elkind's concepts of imaginary audience and personal fable relate to the egocentrism of adolescence. Adolescents reach cognitive abilities which enable them to think about "thinking" for the first time. They

become obsessed with the idea of what other people think. Since adolescents are also preoccupied with the rapid physical changes in their own bodies, they begin to believe that everyone else is thinking about what they are thinking about--that is, themselves. The adolescents may be self-conscious, feeling that even strangers are looking at them and thinking about them. However, this sense of self-consciousness confirms their sense of specialness. It assists in identity formation. It also contributes to what Elkind (1984) calls personal fable. It, too, is the result of higher cognitive functioning. The adolescent believes he is someone unique and special, and therefore not vulnerable to the dangers and consequences that may befall others.

According to Piaget (1970), cognitive abilities develop through stages. Concrete operations allow individuals to do in their heads what they could previously only do with physical manipulation. It applies only to reality, to things, not abstractions. When thinking emerges further into the realm of possibility, and the individual can deal with abstract thoughts and principles, he is said to be in formal operations.

Erikson (1963) postulates that individuals work successively upon tasks related to trust, autonomy, initiative, industry, identity, intimacy, generativity, and integrity. Identity formation holds priority during

adolescence. Two major positive outcomes are a firm heterosexual identity and a beginning commitment to an occupational identity. A recognition of, and a responsibility to, a larger social system, a system of values and a philosophy of life, emerge.

Hatcher's (1976) work focused on distinguishing the psychological experiences of early, middle, and late adolescence. Early adolescence is characterized by an ambivalent style. An emphasis on relationships with girlfriends reflects an important effort toward separating from mother for the first time. The girl may still have intense wishes to remain symbiotically close to her mother. There are also mixed feelings occurring due to the beginnings of undefined sexual impulses and the adolescent's vague sense of herself as female.

Middle adolescence is characterized by self-involvement, and the re-emergence of the oedipal struggle. In this stage, she competes with mother for the love and attention of father. In the process she seeks autonomy from her family for the first time. Peers become essential as a replacement for parents, although the adolescent in this stage has an inconsistent sense of self and therefore is unable to express genuine intimacy. This period represents the most egocentric stage.

The late adolescent works to resolve her work identity and love identity commitments. Ego organization is more reliable; a more stable personality with established defenses is available for the first time. In this stage, the adolescent can enjoy more security and intimate love relationships, and is more comfortable in loosening the ties with her family.

Stress in Adolescence

The literature review exploring stress in adolescence demonstrates no studies attempting to examine stress from the adolescent's own point of view. Most authors utilize stress theory and developmental theory to hypothesize that adolescence is a time of internal stress related to changes in physical, emotional, and cognitive ability. External factors promoting stress in the adolescent arise from misunderstanding of the adolescent's behavior by adults, peer pressure and societal restrictions on behavior (Reres, 1980; Price, 1985).

This researcher sought to examine the perception of stress of an adolescent population during a hospitalization for a pregnancy-related problem. Stress is a relationship between a person and his environment (Lazarus & Folkman, 1984). The environment is comprised of conditions which exist both outside and within an individual. The internal environment during adolescence is comprised of developing

psychological and cognitive functions as well as physical growth. Pregnancy is a situation which also imposes changes on an individual's internal environment. The condition of pregnancy causes physical changes, and the need to accomplish certain tasks (Rubin, 1975) requiring psychological and cognitive development. The internal environment in any individual also includes resources of strength to utilize in coping with any threat to well-being. Stress can occur if the individual perceives the demands arising from the environment are taxing the resources in the environment. Imbalance in the environment due to a depletion of coping resources can lead to illness. Nursing can provide resources in the external environment which can assist an individual to cope. Knowledge and support can provide an individual with tools to deal with identified stressors in the internal environment. Identification of potential threats to well-being is a function of the nurse-client relationship.

Stress of Hospitalization

Volicer (1973) developed the Hospital Stress Rating Scale (HSRS) in an attempt to identify stressors related to hospitalization. The tool contains 49 items which the patient rates in order of amount of stress associated with the event. In developing the tool, she found that higher ratings were given by single than by married subjects, by

females compared with males, and by younger people compared with older adults. This suggests a perception of stress related to demographic characteristics. This further suggests that possibly adolescents who are hospitalized during pregnancy may perceive higher levels of stress than adult pregnant women or general population subjects who are hospitalized.

Volicer's (1973) research showed that stressors identified by medical and surgical patients were: unfamiliar surroundings, loss of independence, separation from spouse, financial problems, isolation from other people, lack of information, threat of severe illness, separation from family, and problems with medication. Between the medical and surgical subject groups no difference was found in scores related to certain items: separation from spouse, isolation from other people, separation from family, and problems with medications. Surgical subjects scored higher stress in unfamiliarity with surroundings, loss of independence, and threat of severe illness. Medical subjects scored higher stress in the areas of financial problems, and lack of information.

Certain events with direct relationship to the behaviors of hospital staff were rated relatively high: inadequate explanation of diagnosis, inadequate explanation of treatment, and unconcerned attitude exhibited by the staff members.

Higher stress related directly to behavior of hospital staff would be especially pertinent to the pregnant woman who is already very attuned to her perceptions of interpersonal interactions. The pregnant woman assesses the intent or meaning of verbal as well as nonverbal modes of expression (Rubin, 1975).

Stress Caused by Antepartal Hospitalization

Taylor (1985) identified major concerns of women hospitalized during pregnancy. Questionnaires were sent to the mothers of all live babies born in hospitals in the Bath Health District over a period of two calendar months. Five hundred sixty-two useable surveys were collected. These women identified several consumer complaints. They were: lack of information, conflicting information, inadequate communication between staff members relating to patient's diagnosis, staff who were not very interested in them, and staff who did not treat them with enough respect but rather like children. Other concerns noted were the need for more privacy, feelings of depression and boredom, and homesickness. The inability to rest due to noise was also noted. She suggested ways to improve care for these patients. An improved ability to communicate and more information sharing with the patient was seen as a need among staff members. She also suggested recreational activities, more generous visting times, giving the patient more privacy, and planning

treatments and routines to allow for longer rest periods. Allowing the patient to wear her own clothes, and providing a way for the patient to go outside to sit or take walks was seen as helpful. Finally, she suggested developing strategies which could provide for the patient's needs at home rather than necessitating hospitalization.

Williams (1986) described the efforts of a high-risk pregnancy unit to alleviate stress in long-term hospitalized patients. Occupational therapy services, relaxed visiting hours, which include allowing the patient's children to visit regardless of age, both help to alleviate boredom or depression. Patients are permitted to sign out of the unit for visits to other hospital areas including a nearby outdoor patio. Teachers are available for school-age patients. Dietary flexibility, ward parties, and educational tours of nursery and labor and delivery suites are provided. A group support system among the patients is encouraged. The importance of nursing not only in monitoring physical conditions but also in the emotional support for these patients is emphasized. This unit claims a significantly improved outcome in fetal morbidity since its inception in 1981.

White and Ritchie (1984) explored stressors identified by hospitalized antepartum women. Sixty-one subjects were surveyed using the Antepartum Hospital Stressors Inventory

(AHSI). This tool consists of a Likert-type scale listing 47 potential stressors. These are divided into seven major categories: Separation, Environment, Health Status, Communication with Health Professionals, Self-image, Emotions, and Family Status. Subjects responded to each item from "no stress" (0) to "a great deal of stress" (4). The option "does not apply to me" was also available. Each subject also responded to an interview during which they had the opportunity to further describe their stressors, and to identify the events they found most stressful. Patients eligible for inclusion in the study met the following criteria: 20-38 weeks gestation, stated intent to keep the baby, no previous hospitalization during the present pregnancy, and an unpredictable length of hospital stay.

The authors concluded that the most stress was experienced in relation to separation from home and family, disturbing emotions, changes in family circumstances, health concerns, and changing self-image, listed in decreasing order of stress.

Dorman (1986) continued the work of White and Ritchie by surveying a convenience sample of 20 couples (mothers and fathers) and 11 mothers (without partners). The age range of her subjects was 16-41 years with a majority of subjects 17-25 years old. The range of gestational age was 28-38 weeks. The Antepartum Hospital Stressors Inventory and the

Antepartum Hospital Stressors Inventory-Fathers (an adaptation of the AHSI) were used in this study.

The categories of Emotions and Separation were identified as being the most stressful by all the mothers. The categories identified as least stressful were Environment and Communication with Health Professionals. These results support White's work in the ranking of these categories.

For the fathers in this study, the categories identified as most stressful were Health Status and Separation. The categories of Self-image and Environment were identified as causing the least amount of stress.

In view of these findings, hospitalization could interfere with the woman's ability to complete the tasks of pregnancy (Rubin, 1975, 1984). The task of safe passage for herself and her child is threatened if there are risk factors or medical conditions requiring hospital treatment. The health care providers can assist her with the physical aspects of this task as well as address the psychosocial needs to assure an emotionally safe passage. Hospitalization produces an isolation and separation from friends and family, thus interfering with the task of ensuring acceptance of her unborn child by significant others. Providing opportunity, through flexible visitation policy and devising means for the patient to access her friends and family, can assist her with this task. The task of

binding-in may be threatened by a high-risk pregnancy producing less confidence in the woman of her ability to produce a healthy child. The risks of developing emotional ties to the child who may not survive further impede completion of this task. Rubin's last task, the giving of one's self, can be threatened when a woman experiences fear and restrictions imposed by hospitalization.

These four tasks are interdependent and are worked on concurrently through the pregnancy. Antepartal hospitalization threatens completion of these tasks.

Stress in Hospitalized Adolescents

The literature demonstrates an attempt to determine concerns of the adolescent who is hospitalized, through evaluating the subject's preferences for care and criticism of care in specific inpatient settings.

Reddihaugh and Court (1979) explored the needs of adolescents cared for in a large children's hospital. Questionnaires were administered to 100 adolescents, aged 13-17, who had been in the hospital for at least two days. Time was also spent in discussion with them. The questionnaire consisted of 30 multiple choice questions and six open-ended questions, the latter being verbally answered by each patient privately with the interviewer. Problems perceived by the adolescents included disturbances at night by younger children, inadequate provision for secondary schooling,

inadequate privacy, inappropriate mealtimes, and insufficient recreational activities. The subjects also expressed need for opportunity to discuss their illness and treatment with the staff.

A survey of high school students regarding their attitudes, beliefs, and opinions about health, illness, and medical care was conducted by Resnick et al. (1980). They identified two sets of health concerns among adolescents: the traditionally medical type, and "personal" concerns. The latter is defined by the students as any issue related to interpersonal relationships with family and friends, sexuality, drugs and alcohol. Personal health concerns were given priority in order of importance with interpersonal relationships being most important. The survey revealed a high preference for health care providers who are technically competent, warm, compassionate, and willing to communicate with teens in an understandable and straightforward manner. Willingness to listen, explain, and regard teens in thinking, feeling human beings was emphasized as necessary in health care providers.

Craft (1981) determined that hospitalized adolescents preferred a health professional for information provider. The adolescents commented on the need to trust the information provider.

In Stevens' (1986) study, an attempt was made to identify what adolescents consider stressful about hospitalization for surgery, and to examine the congruency between anticipated and actual stressful episodes. Sixty-three adolescents admitted to a hospital for scheduled surgery constituted the sample. Data were collected by pre- and postoperative interviews, the Rosenberg Self-Esteem Scale, and the Tanner Self-Staging Scale. Four categories of stressful episodes were described. Pain was described as the most stressful episode during hospitalization. The other episodes were: anticipation of the surgical procedure and associated risks, the visible and handicapping consequences of surgery (cast, nasal packing, shaved hair), and socially interruptive results of surgery and hospitalization. The last category includes separation from friends, parents, siblings, other family members, school and pets. Younger adolescents reported more concerns about separation from others than older adolescents.

The sample met the following criteria: admission to an inpatient setting for a scheduled elective surgical procedure requiring an overnight stay the evening before surgery, fluent in English, and had no known developmental delays.

The results of the study revealed no significant relationship between anticipated and actual episodes. Nor was

there a significant relationship between self-esteem, age, gender, Tanner stage, and number of previous hospitalizations for surgery and either the major anticipated stressful event or the major reported stressful event.

The result of this study suggests that pain is one of the most stressful episodes for hospitalized adolescents. Patient teaching about potential painful treatments and supportive care for pain control are inferred nursing needs.

Summary

During adolescence major developmental changes occur psychologically, physically, and cognitively. The individual cannot be identified in any one developmental stage solely based on age. Hatcher (1976) distinguished psychological experiences of early, middle and late adolescence.

Lazarus (1984) viewed stress as a relationship between a person and his environment. Coleman and Coleman (1971), Rubin (1975), Tipping (1981) and Bibring (1959) indicate that even a normal pregnancy involves certain psychological stresses.

Hospitalization during pregnancy is occurring more frequently for at-risk patients such as adolescents. Volicer (1973) examined stress in hospitalized medical and surgical patients. White and Ritchie (1984) expanded this

work and examined stress in hospitalized antepartum women. This researcher continued White and Ritchie's work using an adolescent population.

No studies examining stress in adolescence from the adolescent's perspective were found. No studies of an antepartum hospitalized adolescent population were discovered during this literature review.

CHAPTER THREE

Methodology

Introduction

The purpose of this study was to explore and describe the perception of stress experienced by adolescents during antepartal hospitalization. The research questions were:

1. What are the perceived stressors of hospitalized antepartum adolescents?

2. Are there differences in the perceived stressors among early, middle, and late adolescents?

In the following section, the setting, population, sample, design, instrumentation, and data analysis will be discussed.

Setting

The setting used for this investigation was a 1,050-bed teaching hospital in a southeastern city in the United States. This hospital serves as a perinatal referral center for the central portion of the state it resides in as well as serving the population of a city of approximately 600,000.

Antepartum patients are placed on one of three nursing units. Two of these are maternity units located on the east and west wings of one floor. Each maternity unit

consists of a 24-bed postpartum wing, a nine-bed antepartal wing, and a newborn nursery containing 25 bassinets. The antepartal wings consist of three private rooms and three semi-private rooms. The third nursing unit is a 30-bed gynecology unit. Nine beds of this unit are used, if needed, for antepartum patients. The designated antepartal beds are in four semi-private rooms and one private room on a separate section of the unit.

Population

The target population was adolescents who were aged 14 through 19 years, and who were hospitalized with a pregnancy-related problem other than delivery. These young women were in their third to tenth day of their first hospitalization during the pregnancy. Only those who were at least 24 weeks gestation were considered for this study.

Sample

A convenience sample for this investigation was drawn from the above described population during the period from July 5, 1986 to September 30, 1986. It included 18 subjects who met the criteria. During the course of data collection, four subjects refused to be interviewed. One was a 15 year old, married, primipara who stated she was just unhappy to be in the hospital and that was her major stress. She preferred not to talk any further about it. Her mother

was present at the time this investigator contacted her. Two other subjects were 16 years old, described by the nursing staff as "immature for their age." These two subjects simply said they did not want to participate in an interview, no reason was given. The last subject to refuse was 19 years old and at the time of contact was preparing to go home. She stated she would talk to me but really did not have the time for an interview as her husband was coming to take her home during his lunch hour. The final sample consisted of 14 subjects who participated in the study.

Methodology

A list of potential subjects was identified by the investigator from the current computer listing of patients on each of the maternity units. This listing identified room number, patient name, age, diagnosis, and physician. A census board on the gynecology unit, which was updated daily, listed the room number, patient name, diagnosis, and physician. After identifying potential subjects, the patient's chart was briefly reviewed to ascertain that she met the requirements for inclusion in the study.

This investigator then approached the nurse caring for the antepartal patients during that shift to determine if the identified subjects could be contacted at that time. The nurse was asked if the patient was ill or if she was resting and could not be disturbed. The staff nurse was

also consulted regarding any potential subjects who might not have been identified on either the computer or census list.

If the subject met the criteria, she was approached by the investigator who briefly described the purpose of the study. If the subject declined to participate, she was thanked for her time and no further contact with her was made.

If the subject agreed to be interviewed, her written informed consent was obtained (Appendix C). The informed consent was read to her by the investigator, and then given to her to read over. The following points, outlined in the consent form, were stressed to each subject: (a) all information offered by the subject was confidential; (b) participation or nonparticipation in the interview would not affect her medical or nursing care in any way; (c) she could refuse to answer any interview question, and (d) she also had the option of ending the interview at any point if she so chose. Before signing, each subject was asked if she had any questions regarding the information stated in the consent form.

If the subject was less than 18 years old, the consent form was left with her and she was requested to have a parent or guardian read the consent and sign if permission was granted for the subject to be interviewed. All subjects

under 18 years old had written parental permission to participate in this study.

If the subject agreed to be interviewed, the investigator gave the subject the option of being interviewed at the time of contact, or setting up a time later in the day or on the following day when the subject might prefer. Several subjects opted for a later time due to expected visitors or scheduled tests at the time of first contact. Since the data collection would take approximately one hour, as stated in the consent form, the interviewer felt that giving each subject this option would provide optimum chance of an uninterrupted interview. Each interview took place with the subject alone in her room, without friends or family members present.

At each interview, the subject was asked to turn her television volume down or off. The investigator sat on a chair at each subject's bedside, and to provide further privacy, the door to each subject's room was closed.

The investigator read all questions from the Antepartum Hospital Stressors Inventory (AHSI) and demographic questionnaire to each subject and recorded the responses. Data from the Adolescent Developmental Inventory (ADI) was obtained through questions for that tool, which the investigator used in the course of conversation with each subject. All questions were used.

Design

This descriptive study was designed to determine stressors which adolescents perceived in relation to antepartal hospitalization, and to determine if differences existed among the perceived stressors of early, middle, and late adolescents. This investigation design had some threats to internal and external validity. The sample was nonrandomized, and no control group was used. Events related to family, peers, or other variables in a subject's life might create stress unrelated to pregnancy or hospitalization. There was an inability to generalize from the accessible to the target population, since the sample was small and nonrandomized. Since data were obtained using interview, there was a threat of potential interviewer bias. Since each subject was aware of the purpose of the interview, the potential for Hawthorne effect existed. All attempts were made to keep the conditions of each interview the same, and conditions of the study normal. Each subject answered all interview questions.

Instrumentation

The Antepartum Hospital Stressors Inventory (AHSI) (White, 1981) (Appendix A), the Adolescent Developmental Inventory (ADI) (Clarke, 1986) (Appendix B), and a demographic questionnaire (Appendix D), developed by the investigator, were used in this study.

Antepartum Hospital Stressors Inventory

The AHSI, a Likert-type scale, required each subject to assign a degree of stress on a continuum from "no stress," "very little stress," "some stress," "a lot of stress," to "a great deal of stress." The AHSI lists 47 potential stressors assigned to seven major categories (Appendix E). These major categories are defined as follows:

1. **Separation:** the change in a woman's relationships and activities outside of the hospital (which occur while she is hospitalized).

2. **Environment:** the experiences resulting from being in a hospital milieu due to at-risk pregnancy.

3. **Health Status:** the circumstances, experiences and concerns from increased medical intervention in a hospital setting during pregnancy.

4. **Communication with Health Professionals:** the experiences in relating with health professionals involved in the care of a pregnant woman in the hospital.

5. **Self-image:** the changes in perceptions and evaluations of self which occur when a pregnant woman is hospitalized.

6. **Emotions:** those feelings experienced by a pregnant woman in the hospital which may be disturbing to her.

7. **Family Status:** the family circumstances resulting from a hospitalized pregnant woman's absence from her home.

The tool is composed of a random arrangement of items from the seven categories. Responses are scored for each item on a Likert-type scale from "no stress" (0) to " a great deal of stress" (4). The option, "does not apply to me," is included for each item. Scores for each stressor category are calculated as the total score divided by the number of "applicable" stressors in that category.

Reliability by a modified split-half analysis, and a split-half coefficient alpha of .9108 was obtained by White and Ritchie. Content validity was assessed by a panel of maternity nursing experts and mothers who had been at-risk maternity patients. Concurrent validity was demonstrated through positive correlation of AHSI results and interview responses ($p = .001$), calculated by a Z score. In White's study, the subjects tended to identify the same categories of stressors being most stressful in both the AHSI and the interview ($Z = -6.03$, $p = .0001$). Further analysis of the AHSI by White using content validity of the interview responses revealed items which were unclear or not included in the AHSI. The item, "being given too much information about your condition," was considered by many subjects to be unclear. They stated it was impossible to receive too much information. Items which subjects felt were not included in the AHSI were items concerning feeling exhausted all the time, yet doing nothing; feelings of boredom due to

fatigue from bedrest; and receiving confusing and changing information from various health care professionals. White included these additional stressors under Health Status and Communication with Health Professionals in the revised tool.

For this study with an adolescent population, the investigator modified the wording on White's tool in the following manner: the word "partner" was changed to "partner or boyfriend"; and the item, "being away from my work," was amended to "being away from my work or school." The item, "thinking about my partner doing my work," was amended to "thinking about my partner or family doing my work or chores for me."

Prior to beginning the AHSI in this study, each subject was asked to define the word "stress" to determine if the concept was familiar to the subjects. Responses included "things that are on your mind and that bother you," or "anything that makes you feel bad," and "things that you have to deal with." This investigator felt that the responses indicated the perception of an event which threatened well-being and required efforts to then cope with the event. This is in accordance with the concept of stress as defined by Lazarus (1984).

Scoring for Antepartum Hospital Stressors Inventory

For each subject, the raw scores from the AHSI were reported as identification scores and intensity scores.

For identification scoring the responses "no stress" and "does not apply to me" were scored as zero. All other responses, "very little stress," "some stress," "a lot of stress," and "a great deal of stress" were scored as one. The items of each category were totaled and divided by the total number of items in that category, giving a percentage score. High scores represent identification of more items in that category as stressful. If a subject identified with all the items in the category, then the identification score was 100%.

The calculation for intensity scores was done by assigning a zero score to a "no stress" response. "Very little stress" was assigned one, "some stress" was assigned two, "a lot of stress" was assigned three, "a great deal of stress" was assigned four, and "does not apply to me" was assigned nine. Intensity scores represent the mean scores for each category, where items for each category are totaled and then divided by the number of items in that category. If the subject indicated the response "does not apply to me," then the total of the items was divided by the number of items minus the number of "does not apply to me" responses.

Instrumentation for Adolescent Development

The substage of each adolescent's development was determined using the Adolescent Developmental Inventory (ADI), a tool devised by Bernardine Clarke, Virginia Commonwealth University, Medical College of Virginia, from the work of Hatcher (1976). The substages of early, middle, and late adolescent development were identified based on subject response to interview questions in five main categories: significant persons; the girl's quality and style of relationships; her view of herself; her use of defense mechanisms; and her goals and interests. The tool is unpublished, and data for reliability and validity are not yet available. The ADI used by this investigator included 16 responses designated into early, middle, or late categories. The subject was identified by the substage according to highest number of responses in the early, middle or late categories.

Demographics

The demographic tool included: (1) the grade the subject was in last year; (2) marital status; (3) number of persons living with her; (4) relationship to subject of persons living with her; (5) what kind of home subject lived in--house, apartment, farm, room, trailer, or other; (6) where subject slept; (7) did subject have a place

within the home that was her own private area; (8) number of other children; (9) age of father of the baby, and (10) length of hospital stay. Also included by investigator was age of subject and diagnosis for hospitalization as well as gestational age in weeks.

Data Analysis

The data obtained from this investigation were analyzed using descriptive statistics. The sample was nonrandomized, small in size, and the AHSI was scored using an ordinal scale. To make comparison between the early, middle, and the late adolescent groups, the Mann-Whitney U test was selected. Due to the small number of subjects obtained, this test could not be used. To analyze the demographic data obtained, various descriptive statistics, such as range, mean, and standard deviation were used.

CHAPTER FOUR

Presentation and Interpretation of Data

Introduction

This descriptive study was conducted to identify the stressors perceived by adolescents who were hospitalized during pregnancy, and to determine if there were differences in identified stressors among early, middle, and late adolescents. To determine the stressors identified by each subject, the 47-item Antepartum Hospital Stressors Inventory (AHSI) (White, 1981) was used. To determine the substage of each adolescent's development, the Adolescent Developmental Inventory (ADI) (Clarke, 1986) was used. Personal demographic questions were answered by each subject.

The data for the study were collected from July 5, 1986 to September 30, 1986. Data were collected from 14 subjects. Descriptive statistics, such as range, mean, and standard deviation were used to compare the subjects' demographic data.

Demographic Data

The subjects ranged in age from 14 to 19 years old, with a mean age of 17.4 years. The subjects were all

unmarried and had no other children. Of the sample, nine were black, five were white. The completed grade level was grades 8 to 12, with a mean of 10.3 grades being completed (Table 1). Fathers' ages ranged from 17-30, with a mean of 20.7 years.

Table 1

Age of Mothers and Fathers, Grade Level of Mothers

	Adolescent Substage		
	Early (N=2)	Middle (N=2)	Late (N=10)
Mother's Age			
Range	16+18	14+16	16-19
Mean	17	15	18
Father's Age			
Range	18+19	19+24	17-30
Mean	18.5	21.5	21.1
Grade Level (Mother's)			
Range	8+9	9	9-12
Mean	8.5	9.0	11.0

Most of the subjects lived in a city (11), with the remainder living in rural areas. The type of home most subjects lived in at the time of the interview was an apartment (6). Four subjects lived in a house, two lived in a room, and one each lived on a farm or in a trailer. Eleven subjects stated that they did have a place within the home

that is their own private area, even if they were sharing a bedroom with someone else. All subjects lived with at least one other person. Nine stated they had their own bedroom.

Thirteen of the subjects lived with their families. Four lived with both parents, nine others lived with only one parent, mother, and one subject lived with her maternal grandparents. Only one subject lived with the father of her baby. Nine of the subjects had up to three siblings also living at home. Each subject was in her first hospitalization during the present pregnancy. The average length of stay for all subjects was 5.2 days. The range was 3 to 11 days.

Table 2

Number of People in Home
Other than Subject

	Adolescent Substage		
	Early (N=2)	Middle (N=2)	Late (N=10)
No. people in home other than subject (mean)	3.5	3.0	3.5

The reason for hospitalization included various diagnoses for the subjects. These included five with pregnancy-induced hypertension, two with preterm labor, two with bleeding, one was being evaluated to rule out labor,

one had a kidney infection, one for diabetic control, and two had ruptured membranes.

Of all the subjects, the range for the gestational age of the pregnancy was 24-36 weeks with a mean of 30.0 weeks. Three were 24-25 weeks gestation, one was 26 weeks, one was 28 weeks, four were 29-30 weeks, one was 33 weeks, and four were 35-36 weeks.

Adolescent Developmental Inventory

Data were collected from 14 adolescents. Using the Adolescent Developmental Inventory (ADI), these subjects were identified as either in early, middle, or late adolescence. Two were identified as early, two identified as middle, and 10 identified as in late adolescence.

The age ranges of both the subjects and the fathers of the babies for early adolescents are older than what is generally thought of as an early adolescent age range (12-14) (Table 1). The age range for the middle adolescent subjects is similar to what is generally considered appropriate (14-16), but the father's age is again older. The age range for the late adolescent subjects as well as the age of fathers of their children was again within expected norms (16-18 years old and over). The means for the grade levels completed were 8.5 for early adolescents, 9.0 for middle adolescents, and 11.0 for late adolescents, again within expected norms for those generally considered

appropriate age ranges for early (12-14), middle (14-16), and late (16-19) adolescence. In this study, the grade level of the subject was more indicative of substage than was age of subject.

In summary, all of the subjects were unmarried and had no other children. All of the subjects lived with at least one other person. Only one subject, a late adolescent, lived with the father of her baby. All the others lived with family members. Most of the subjects lived in an urban area. Most subjects reported that they did have a place within the home that they considered to be their own private area.

The reasons for hospitalization varied, including preterm labor, pregnancy-induced hypertension, and bleeding. The gestational age of the pregnancies ranged from 24 to 36 weeks. The length of stay in the hospital at the time of the interview ranged from three to 11 days.

Antepartum Hospital Stressors Inventory Data

Calculating the Identity Scores

The responses "no stress" and "does not apply to me" were scored as zero. All other responses, "very little stress," "some stress," "a lot of stress," and "a great deal of stress" were scored as one. The items of each category were then totaled and divided by the total number

of items in that category, yielding a percentage score. High scores represent identification of more items in that category as stressful. If a subject identified with all the items in the category, the identification score was 100%. Table 3 lists the total number of items in each category. The separate items for each category are listed in Appendix E. The number of items in each category varied.

Table 3

Antepartum Hospital Stressors Inventory Categories

Category	No. of Items
Separation	7
Environment	9
Health Status	9
Communication	6
Self-image	8
Emotions	5
Family Status	3

Ranking of the Categories by Identification Scores

The ranking of the identification scores from the highest to the lowest for the total group, the categories were: Emotions, Separation, Self-image, Health Status, Communication, Environment, and Family Status. In ranking the identification scores for each substage, the categories were:

Early adolescents: Self-image and Emotions (both identified 100%), Environment, Separation, Communication, Health Status, and Family Status.

Middle adolescents: Emotions, Separation, Communication, Environment, Health Status, Self-image, and Family Status.

Late adolescents: Separation, Emotions, Health Status, Self-image, Communication, Environment, and Family Status.

For all subjects, the category of Emotions was identified as stressful with a percentage score of 74 or greater. Separation was also identified as highly stressful with a score of 71% or greater. Self-image was identified as stressful with a 100% score by early adolescents, but the same category scores for the other substages were much lower: 50% for middle adolescents, and 62% for late adolescents. The category of Family Status was ranked last by subjects in all the substages.

Table 4

ID Scores by Categories for Each Substage

Category	Total Score (N=14) Mean % (SD)	ID Scores: Early Substage Score (N=2) Mean % (SD)	ID Scores: Middle Substage Score (N=2) Mean % (SD)	ID Scores: Late Substage Score (N=10) Mean % (SD)
Separation	79 (0.17)	85 (0.20)	71 (0.00)	80 (0.19)
Environment	59 (0.28)	88 (0.00)	61 (0.07)	53 (0.30)
Health Status	63 (0.19)	72 (0.07)	55 (0.15)	63 (0.22)
Communication	61 (0.28)	83 (0.00)	66 (0.23)	56 (0.30)
Self-image	66 (0.25)	100 (0.00)	50 (0.00)	62 (0.25)
Emotions	80 (0.34)	100 (0.00)	90 (0.14)	74 (0.38)
Family Status	45 (0.33)	66 (0.00)	16 (0.23)	46 (0.35)

Calculating the Intensity Scores

The questionnaire was scored as follows: "no stress" (0), "very little stress" (1), "some stress" (2), "a lot of stress" (3), "a great deal of stress" (4), and "does not apply to me" (9). Intensity scores represent the mean scores for each category calculated by taking the total of items in each category and dividing by the number of items in that category. Where the response was "does not apply to me," the total of the items was divided by the number of items minus the number of "does not apply to me" responses.

Ranking the Categories by Intensity Scores

In ranking the intensity scores from highest to lowest for the whole group, the categories were: Emotions, Health Status, Separation, Self-image, Family Status, Communication and Environment. The ranking of the intensity scores for each substage were:

Early adolescents: Emotions, Separation, Health Status, Communication, Self-image, Environment, Family Status.

Middle adolescents: Separation, Health Status, Emotions, Communication, Self-image, Environment and Family Status.

Late adolescents: Emotions, Health Status, Self-image, Separation, Family Status, Communication and Environment.

Table 5

Intensity Scores by Category for Each Substage

Category	Total Group (N=14) Mean (SD)	Early Substage (N=2) Mean (SD)	Middle Substage (N=2) Mean (SD)	Late Substage (N=10) Mean (SD)
Separation	1.85 (0.79)	2.85 (0.20)	1.64 (0.50)	1.70 (0.78)
Environment	1.20 (0.78)	2.05 (0.07)	0.94 (0.23)	1.08 (0.83)
Health Status	1.94 (0.83)	2.49 (0.89)	1.56 (0.97)	1.91 (0.84)
Communication	1.28 (0.75)	2.16 (0.70)	1.08 (0.58)	1.15 (0.73)
Self-image	1.68 (0.86)	2.12 (0.70)	1.03 (0.75)	1.72 (0.91)
Emotions	2.24 (1.29)	3.30 (0.14)	1.50 (0.98)	2.18 (1.38)
Family Status	1.32 (1.13)	1.75 (0.35)	0.25 (0.35)	1.45 (1.23)

Summary of Data from Intensity Scores

In general, the intensity mean score for the total group and each substage fall below the midpoint on the scale (0-4), indicating a low perception of stress by the subjects in this study. For the total group, only the category of Emotions scored above the scale midpoint. Early adolescents scored above the midpoint on all categories except Family Status. Middle adolescents scored below the midpoint for all categories. Late adolescents scored above the midpoint on only one category, Emotions.

In White's (1981) study, the category of Separation was the only category with a mean intensity score above the midpoint (mean = 2.02). Dorman (1986) reported a mean intensity score above the midpoint in the categories of Separation (2.32), Emotions (2.33), and Family Status (2.27) for the mothers group.

The means for intensity scores reported in this study for the total group are higher than those reported in White's study. The means for the early adolescent substage are higher than those reported in either White's or Dorman's studies. The mean intensity scores in all categories for both middle and late adolescent substages are similar to those reported by White, and lower than those reported by Dorman.

White (1981) found the categories relating to Separation and Emotions were rated as more stressful than all other stressor categories. Dorman (1986) also found this to be true with the mothers in her study, but found fathers ranked Health Status and Separation as most stressful. In this study, by intensity scores, Emotions, Health Status and Separation were rated as most stressful (for early and middle adolescents). Late adolescents rated Emotions, Health Status and Self-image as most stressful.

White's (1981) study found that Family Status, Health Status and Self-image were rated as eliciting average responses from her subjects. The same was true for mothers in Dorman's (1986) study, while fathers ranked Family Status, Emotions and Communication with Health Professionals as the next stressful areas. In this study, both early and middle adolescents ranked Communication with Health Professionals, Self-image and Environment as next stressful areas. Late adolescents ranked Separation, Family Status and Communication with Health Professionals as the next stressful areas.

In this study, Communication with Health Professionals and Family Status were ranked least stressful for the subject group as a whole. For both early and middle adolescents, the category of Family Status was ranked least stressful. For late adolescents the category of Environment was ranked least stressful.

The subjects in White's (1981) study ranked Communication with Health Professionals and Environment as least stressful. Dorman (1986) found the same response in her study from mothers, but found fathers ranked Self-image and Environment as least stressful.

Differences between the identified stressors for early, middle, and late adolescents would have been calculated using the nonparametric statistical test, the Mann Whitney U test. Due to the very small number of subjects in each substage, even combining early and middle substages into one group, did not allow use of this test. The Mann Whitney U test analyzes the differences in ranks of scores between two samples. It is a test based on assignment of ranks to the measurements. The sum of the ranks for the two groups can then be compared by calculating the U test (Polit & Hungler, 1983).

Summary of Findings

The analysis of data identified the stressors perceived by hospitalized antepartum adolescents as well as ranking those stressors by intensity.

Early adolescents identified the categories of Emotions and Self-image as the most stressful with Environment as the next ranked stressor. Middle adolescents ranked the categories of Emotions and Separation as the most stressful.

Late adolescents identified the categories of Separation and Emotions also as the most stressful.

The least stressful categories identified for early adolescents were Health Status and Family Status; for middle adolescents were Self-image and Family Status; and for late adolescents, Environment and Family Status. For all substages Emotions was ranked among the most stressful categories, and Family Status was identified as least stressful for all the substages.

When intensity scores were compared, Emotions was ranked highest for both late and early adolescents with middle adolescents ranking Separation as highest in intensity. Those categories with the lowest intensity scores were Family Status for early and middle adolescents, and Environment for late adolescents.

Mean intensity scores from this study were compared with scores from White (1981) and Dorman (1986). It was found that scores in this study for the whole group and for the early adolescent substages were higher than those reported by either White or Dorman.

CHAPTER FIVE

Summary of Investigation, Implications for Nursing and Recommendations

Summary of Investigation

The purpose of this study was to explore and describe the stressors perceived by early, middle and late adolescents during antepartal hospitalization. The research questions answered in this study were:

1. What are the perceived stressors of hospitalized antepartum adolescents?

2. Are there differences in the perceived stressors among early, middle, and late adolescents?

The study was conducted in a teaching hospital in the southeastern United States. A convenience sample of 14 adolescents participated in the study.

The Antepartum Hospital Stressors Inventory (AHSI) was used to determine stressors identified by the subjects. The AHSI is a 47-item Likert-type scale in which the subjects assign a degree of stress on a continuum from "no stress" to "a great deal of stress."

The substage of each adolescent's development was determined using the Adolescent Developmental Inventory (ADI). The substages of early, middle, and late adolescence were

identified based on subject response to interview questions in five main categories: significant persons, the girl's quality and style of relationships, her view of herself, her use of defense mechanisms, and her goals and interests. A written demographic questionnaire developed by the researcher was also completed for each subject. The diagnosis and gestational age as well as date of admission to the hospital was obtained from each subject's chart.

The subjects ranged in age from 14 to 19 years old with the majority of the subjects 16-19 years old. The age for fathers of the subjects' babies ranged from 17 to 30 years old. The educational levels of the subjects ranged from completion of grade eight through completion of high school. The subjects were all unmarried and had no other children. Most of the subjects stated they lived in a city, and the type of home most subjects lived in was an apartment. Eleven subjects stated that they had a place within the home that they considered their own private area. The number of people living in the home other than the subject ranged from one to five persons.

Each subject was undergoing her first hospitalization during the present pregnancy. The range of time spent in the hospital at the time of interview was 3 to 11 days. The gestational age of the pregnancy for each subject ranged from 24-36 weeks. The reasons for hospitalization varied and included pregnancy-induced hypertension, preterm

labor, vaginal bleeding, kidney infection and diabetic control.

A total of 14 subjects were obtained. Using the Adolescent Developmental Inventory (ADI) these subjects were identified as: two in early adolescence, two in middle adolescence and 10 in late adolescence.

Stressors identified by these subjects in relation to antepartal hospitalization were placed in seven categories: Separation, Environment, Health Status, Communication with Health Professionals, Self-image, Emotions and Family Status. The categories of Self-image, Emotions, and Separation were identified as being most stressful for the group as a whole. Early adolescents identified both Self-image and Emotions as most stressful. Middle adolescents identified Emotions and Separation as most stressful. Late adolescents identified Separation and Emotions as most stressful.

In comparing the identification scores for each category among the substages, early adolescents ranked Self-image and Emotions both first as most stressful with each category scoring a 100% identity score. Emotions was ranked first in order of identified stressors by early and middle adolescents, and ranked second in order of stress by late adolescents. Late adolescents placed Separation as first among the categories ranked from most to least stressful. The category of Family Status was identified as least stressful for all three substages.

In ranking the intensity scores from highest to lowest for the whole group, the categories were ordered in the following way: Emotions, Health Status, Separation, Self-image, Family Status, Communication and Environment. Early adolescents rated Emotions, Separation, and Health Status as the first three categories with higher intensity of stress. Middle adolescents also ranked these three categories among the highest in intensity, with a difference in rank ordering--Separation, Health Status, and Emotions--in a decreasing order of intensity. Late adolescents ranked Emotions, Health Status, and Self-image in the highest level of intensity of stress.

Conclusions

The mean intensity scores for the total group of subjects in this study are below the scale midpoint of "two," indicating low stress levels perceived for all categories except Emotions. Early adolescent subjects were the only part of this sample that indicated stress perceived on the higher end of the scale. All scores were above the midpoint, except in the category of Family Status. The early adolescent is beginning to experience changes in both her body and in relationships with family and friends. The pregnant early adolescent who is hospitalized is dealing with even more changes. The higher stress scores indicated by this group were not surprising. The middle and late

adolescent groups may have reported lower stress scores due to increased coping skills concomitant with advancing maturity. Although, in general, the overall scores indicating low stress experienced by all subjects was surprising.

The overall low scores for stress among hospitalized antepartum adolescents may reflect a feeling that hospital care is dealing with a problem in the pregnancy and therefore helpful, not stressful. Also, the adolescent is the focus of attention and concern from health care providers. This attention may be considered positive in view of the natural egocentrism of the adolescent.

The AHSI was designed using a sample aged greater than 18 years. It is possible that the items and wording used in the tool could be revised to better assess the needs of an adolescent population. The items in the category of Family Status reflect concerns of someone who is responsible for the financial and authority needs of the family unit. This did not pertain to the adolescents in this study. This is an area for further evaluation.

In this study the categories of Emotions and Separation were identified as ranking among the most stressful categories for all adolescent substages. This supports the findings of both White and Dorman.

Implications for Nursing

Due to the low number of subjects in this study, it is not possible to apply any conclusions to the general population. There are, however, potential implications which can be important considerations in the nursing care given to pregnant adolescent clients.

Nurses need to be aware of the different substages in adolescence. When assessing adolescent clients, it is important to identify the developmental level of the adolescent and understand the different needs of an early, middle, or late adolescent. The age of an adolescent cannot accurately identify the developmental substage. The development of an objective tool to assist in the assessment of an adolescent's developmental substage can improve nursing's assessment of the unique needs of the adolescent client.

The categories of emotions and self-image were identified as most stressful for early adolescents. Emotions and separation were identified as most stressful for the middle and late adolescents. Nurses can be aware of the potential for feelings of loneliness, depression, fear, and anger among all their adolescent clients when hospitalized for antepartum problems. The changes in self-image produced by hospitalization--being dressed for bed all the time, being dependent on others, being less active than usual, and being asked about themselves by patients and their visitors--have

been identified by early adolescents as being very stressful. Some suggestions for nursing care based on these findings are to make nurses aware of the potential underlying emotions that all their adolescent clients may be feeling and to be empathetic to these in all dealings with adolescents. Taking time to encourage the adolescent to express these sometimes confusing emotions and to help the adolescent identify and deal with these emotions should be a primary nursing concern. Allowing the adolescent to wear their own clothing instead of hospital gowns when possible, and to decrease feelings of dependence by encouraging the adolescent to assist in making decisions about planning their health care should be encouraged. This decision making can be as simple as allowing the adolescent to decide when to bathe and choose what foods to eat. More complex decisions related to health care can be encouraged by providing education to the adolescent related to body functions, and improved understanding of health problems.

The feelings of separation from home, family and significant others for the adolescent can be minimized by allowing flexible policies for visitation--longer visiting hours for allowing contact with friends and family, allowing the adolescent use of a telephone can decrease feelings of isolation.

These implications relate well to the Neuman Model of Nursing. Neuman's model promotes assessment of stressors in a person's internal and external environments (Neuman, 1982b). The nursing plan of care is then to assist in decreasing those stressors and/or improving the client's coping mechanisms. The nurse can help the client identify the internal/external resources available to cope with perceived stressors. Interventions for the adolescent client might include identifying individual strengths and weaknesses, promoting adaptive behaviors, education and using all available resources.

Recommendations

As a result of this study the following recommendations are made to promote improved nursing care for the hospitalized antepartal adolescent client:

1. Replicate the study with a larger sample size of early, middle, and late adolescent clients.

2. Replicate the study with a different population from private and community hospitals.

3. Continue developing an objective tool for the assessment of early, middle, and late developmental sub-stages of adolescence.

4. Plan and implement nursing measures to reduce stress among hospitalized antepartal adolescents.

5. Develop a study to test effectiveness of stress reduction techniques for hospitalized antepartal adolescent clients.

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APPENDIX A

ANTEPARTUM HOSPITAL STRESSORS INVENTORY (AHSI)

Antepartum Hospital Stressors Inventory

INSTRUCTIONS:

Women who are pregnant and are staying in the hospital find they must cope with a number of new things. These things can be upsetting or stressful to them. We usually think of stress as something that makes it difficult for us to relax. Here is a list of experiences which pregnant women who have to stay in the hospital might find stressful. Please circle the line which shows how each of these experiences affect you.

EXAMPLE:

	No Stress	Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Dropping a cake I've just baked.						

Please circle the line which shows how each of these experiences affect you.

	No Stress	Very Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Being less active than usual.						
Wanting to be home to get ready for the baby.						
Taking medication.						
Thinking about my health.						
Understanding explanations for tests.						
Sleeping alone.						
Being away from my work or school.						
Thinking about being a mother.						
Having tests done.						
Being away from home.						
Being asked about myself by other patients and their visitors.						

	No Stress	Very Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Trying to understand medical terms.						
Being given too much information about my condition.						
Thinking about my baby's health.						
Feeling worried.						
Sleeping in a strange bed.						
Being dependent on others.						
Thinking about my partner/ family doing my work.						
Being away from my partner.						
Lacking privacy.						
Feeling scared.						
Being away from my usual activ-ities.						

	No Stress	Very Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Being given too little information about my condition.						
Thinking about extra expenses while I'm in the hospital.						
Hearing the staff being noisy.						
Thinking about other patients' health.						
Having nurses check my baby's heart rate.						
Depending on staff to keep my room clean.						
Feeling depressed.						
Hearing hospital noises.						
Sharing a room with another patient.						
Noticing staff are hurrying with my care.						

	No Stress	Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Thinking about the care of my children at home.						
Being bored from lack of activities.						
Having hospital prepared meals.						
Wondering how long I'll be in hospital.						
Hearing heart beats on monitors.						
Missing prenatal classes.						
Feeling angry.						
Being dressed for bed all the time.						
Being isolated from my friends.						
Thinking about giving birth.						
Feeling lonely.						
Needing a special diet.						

	No Stress	Little Stress	Some Stress	A Lot of Stress	A Great Deal of Stress	Does Not Apply to Me
Thinking about results of tests.						
Telling unfamiliar staff about myself.						
Being away from my family.						

APPENDIX B

ADOLESCENT DEVELOPMENTAL INVENTORY (ADI)

Interview Questions for Adolescent Developmental Inventory

I. Have you thought about what your labor and delivery will be like?

1. Who do you plan to have with you?
2. Have you thought of names for the baby yet?

II. Tell me about your pregnancy:

1. How has it gone for you?
2. What made you think you were pregnant? How did you find out for sure? Do you remember when and where you got pregnant?
3. Where are you receiving prenatal care? When did you first go to get prenatal care (how many weeks pregnant)? Did someone go with you to your visits?
4. Have you gone to prenatal classes?
5. (Emotional Component)

   What are your first memories of being pregnant?
   Who did you tell? How did they feel?
   How did your family respond when you told them?
   Have things changed between you and your family since then?
6. Was your pregnancy planned? What thought did you have about the possibility of pregnancy? Had you worried or thought that some day this might happen? Did you think it could happen?
7. (Previous Pregnancy Experience)

   Have you ever been pregnant before?
   Have you ever thought your were pregnant before? Had a false alarm?
   If you were pregnant before, what did you do?
   Who helped you to decide?
8. (Nutrition)

   Tell me how you eat during your pregnancy: What is a typical example of what you usually eat for breakfast? Lunch? Supper? Snacks?
   Do you think what you eat affects the baby in any way? How?

III. Tell me about yourself:

1. How would you describe yourself?
2. What are three things you like about yourself?
3. What are three things you would change about yourself?
4. How do you get along with your family? With the baby's father?
5. How has this pregnancy affected you? Your family?
6. How does your family feel? How do you feel about their reactions?
7. How does the baby's father feel?
8. Will you continue to see him?
9. What do you think your relationship with him will be like after the baby is born?

IV. Tell me about your family:

1. Who works? Who goes to school?
2. How do you get along with other people in your family?

V. What about your other friends?

1. Do you have any special friends?
2. What do you enjoy doing together?
3. Has it changed since you have been pregnant?
4. Do you think it will change after you have the baby?
5. How do you spend your free time?

VI. Tell me about your dating:

1. Do you enjoy going out with a lot of boys, or do you have one steady boyfriend at a time?
2. How many times have you been in love?
3. When was your first sexual experience, and what was it like for you?
4. Have you ever used birth control?
5. What kinds do you know about?
6. Do you remember where you were when you got pregnant?

VII. Future

1. What has been the effect of the pregnancy on your life?
2. What were your plans for the future before you got pregnant?
3. What effect will being a mother have on your future?
4. Will you be returning to school or work?
5. Who do you plan to have take care of your baby?
6. What would you change in the present if you could?

VIII. Draw a person for me. Please draw both head and body.

IX. What are your three biggest wishes or hopes in your life?

Adolescent Developmental Inventory

Mother's Age: _____ Father's Age: _____

Race: B W Other __ Marital Status: S M D

Residence: City Urban Rural

Item	Early	Middle	Late
1. Who accompanied girl to clinic and/or L&D?	Girlfriend, sister, or alone.	Parents.	Boyfriend.
2. When first pregnant who did she tell?	Girlfriend only.	Parents only.	Boyfriend only.
3. Where did conception occur?	Girlfriend's apartment.	Parent's home.	Boyfriend's apartment or own.
4. Whom does she mention most frequently?	Girlfriend.	Parents.	Boyfriend.
5. Impression of interpersonal style?	Little relatedness, relatively isolated from interviewer, little eye contact, no initiation of conversation.	Narcissistic, dramatic, for what she might get from situation. Eye contact as though to audience dramatic in conversation.	Realistic, related interview, considered response. Appropriate eye contact, interested in interview.
6. Self-report: How does she get along with others?	Describes self as passive, resense of commitment cannot answer.	Hungry for relationships toward ego building ends, collects objects.	More mature and realistically related to other.

Item	Early	Middle	Late
7. What is relation like to boyfriend?	Transitory-irrelevant to pregnancy, does not know him well.	Narcissistic extension of self, feels need for him for the moment and then may discard. Parents may object to him.	Some stable relationships, wish for permanence, some measure of intimacy.
8. What is her experience of sexuality like?	Depersonalized, irrelevant to relationship. Does not seem to enjoy sex except cuddling.	Uses sex to hold onto narcissistic object. No sense of mutuality, need to be loved and recognized is paramount.	More enjoyment of genuine sexual expression connected to real feelings.
9. How does the girl describe her family?	Isolated from them. Does not express much closeness except to mom. Or may be internally fighting closeness to mother.	Actively fighting parents. Rebellious; oedipal issues.	Can objectify relationship to & feelings about family-even if in conflict with them, some understanding of them as people.
10. How does the girl describe herself?	Little stable self-concept, responds by describing other people's response to her. Or, cannot answer.	Describes self in self-absorbed manner or self-deprecatory.	Mature, self-representation, sees some signs of identity confusion, insight into own state of flux.

Item	Early	Middle	Late
11. DAP	Draws male or asexual female (no breasts or pants).	Hyper-feminine glamorous or romanticized.	Realistic feminine perception.
12. Three wishes.	Concrete.	Glamorous, unrealistic.	Future oriented, realistic.
13. When did she begin prenatal care?	High number of weeks (8-12), lacks knowledge.	Moderate number of weeks (8-12).	Low number of weeks, understands.
14. Knowledge about and use of contraception.	No use.	Understands, but little or no use.	Planned use.
15. Nutrition effects on fetus, neonate.	No knowledge, no effect on eating.	Knowledge, no effect on eating.	Knowledge, effects on eating.
16. What are girl's future plans and interests?	Unfocused, vague, little conception of future in any realistice sense.	Some sense of future, but narcissistically expressed. No work started toward a goal. Prince Charming fantasy.	More goal-oriented. More of a plan as to how to organize future. May have started to work toward goals

Stage of Adolescence	Total	Total	Total
_____	_____	_____	_____

% _____

APPENDIX C

CONSENT FORM

Consent Form

I give my consent to participate in the study conducted by Rita A. Murphy, R.N., B.S., a graduate student at the Medical College of Virginia, Virginia Commonwealth University, School of Nursing. I have been informed that the purpose of the study is to learn what is stressful to teenage mothers when they are in the hospital during their pregnancy.

I understand it will involve completion of a written questionnaire, and participation in an interview in which I will discuss my feelings about my pregnancy and hospitalization. I understand that this interview will be tape recorded only so that the information I share will reflect my thoughts clearly. The total time involved will be approximately one hour.

I understand that this information will be held in confidence, and that I may withdraw from the study at any time. I understand that these questions may possibly cause some anxiety or concern and that I will have an opportunity to discuss any of these feelings with Ms. Murphy after the interview.

My name will not be used in the study results and report. I may refuse to answer any interview questions, and if I withdraw from this study or do not wish to participate, it will not affect my medical or nursing care in any way.

The expected benefit from this study is to improve the nursing care of teenage mothers in the hospital. The results of this study will be made available to me. My signature of this statement signifies my consent to participate in this study.

Date: _____ Signed: _____

Date: _____ _____
(Signature of parent or guardian)

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Personal Data

What grade were you in last year?

Are you married, single, or divorced: M S D

How many people live with you?

How are they related to you? (mother, sister, friend, brother, father, etc.):

_____ _____ _____

_____ _____ _____

What kind of home do you live in?

House ___ Room ___

Apartment ___ Trailer ___

Farm ___ Other _____

Where do you sleep?

Do you have a place within your home that is your own private area?

Do you have any other children?

How old is the father of this baby?

How long have you been in the hospital?

APPENDIX E

STRESSORS GROUPED ACCORDING TO CATEGORY

All Items Included in the Total Score

Separation:	being away from home being away from my partner being away from my family being away from my work being away from my usual activities being isolated from my friends sleeping alone
Environment:	being bored from lack of activities having hospital prepared meals lacking privacy hearing heart beats on monitors hearing hospital noises hearing the staff being noisy sleeping in a strange bed sharing a room with another patient depending on staff to keep my room clean
Health Status:	wondering how long I'll be in the hospital thinking about other patients' health thinking about my health thinking about my baby's health taking medications having tests done thinking about the results of tests having nurses check my baby's heart rate needing a special diet
Communication with Health Professionals:	noticing staff are hurrying with my care trying to understand medical terms understanding explanations for tests telling unfamiliar staff about myself being given too much information about my condition being given too little information about my condition
Self-image:	being dependent on others thinking about being a mother being dressed for bed all the time being asked about myself by other patients and their visitors wanting to be home to get ready for the baby thinking about giving birth being less active than usual missing prenatal classes

Emotions:	feeling lonely feeling depressed feeling worried feeling scared feeling angry
Family Status:	thinking about extra expenses while I'm in the hospital thinking about my partner doing my work thinking about the care of my children at home

APPENDIX F

LETTERS

[redacted]
Richmond, Virginia 23224
Phone: [redacted]

May 29, 1986

Ms. Maureen White, RN, MSN
Reproductive Care Program
5821 University Avenue
Halifax, Nova Scotia
B3H 1W3

Dear Ms. White:

I am a graduate nursing student at Virginia Commonwealth University, Medical College of Virginia. For my thesis I plan to conduct a study of perceived stress in hospitalized antepartum adolescents.

I have read your study published in the 1984 Maternal-Child Nursing Journal, and request your permission to utilize the questionnaire you devised for that study. I would appreciate it if you could send me any further revisions you may have made on the instrument, and instruction for scoring the results. I would also appreciate any further research or added information on your 1984 study that was not published in the Maternal-Child Nursing Journal. The results of the completed study will be made accessible to you.

Your permission will be appreciated for the conduction of this study.

Thank you very much for your time and effort.

Sincerely,

[redacted]

Rita A. Murphy

Reproductive Care Program
Co-ordinator: Wendy M. Woodhams

5821 University Avenue, Halifax, Nova Scotia B3H 1W3
Telephone: (902) 429-0509

July 7, 1986

Ms. Rita A. Murphy
[redacted]
Richmond, Virginia 23224

Dear Ms. Murphy:

In response to your recent letter, I am sending you information regarding my 1981 Antepartum Stressors study. A copy of the research instrument (AHSI) and information regarding its development and use are enclosed. I merely copied some sections of my thesis so you may need to wade through a lot of "formality". I've also enclosed information on the analysis used and my recommendations for future study. I regret to tell you I haven't yet taken the time to re-assess the stressor categories or re-evaluate the instrument. We did replicate the study in 1982 with 23 patients on an antepartum-postpartum unit. The results (unpublished to date) are essentially the same.

One note on the AHSI, the forms distributed to subjects were printed on colored, legal-sized paper.

You have my consent to use the enclosed materials in your proposed research providing, of course, that the source of the information is appropriately cited. I am pleased that you have chosen the thesis study topic of perceived stress in hospitalized antepartum adolescents. I believe they are an important subgroup of antepartum patients. As you'll see from my study the population contained only 7 "older" teenagers and only 8 single mothers. They really didn't display particular characteristics in this limited study. There was a positive correlation between age and the number of stressors identified from the environment category. The older women and the married women also identified more stressors from the items listed in the "family status" category (see pages 57-62). I suspect there are some other stressors which could have been listed and would be common among adolescents e.g. "being away from school", "missing dates", parent lecturing, wondering whether or not to keep the baby etc. I will be very intersted to hear what your study finds. I wish you much success in your graduate work.

If you have further questions, please do not hesitate to call.

Sincerely,

[redacted]te,
Perinatal Visiting Nurse
Reproductive Care Program

Encl.

[redacted]
Richmond, Virginia 23224
June 17, 1986

Ms. Mary Lindamood, R.N.
Associate Director of Research
and Development
Medical College of Virginia Hospitals
Department of Nursing Services
MCV Station, Box 7
Richmond, Virginia 23298

Dear Ms. Lindamood:

I am a graduate student in the School of Nursing. I plan to investigate perceived stressors in hospitalized antepartum adolescents for my thesis, and I would like to collect data on 8-West, 8-East, and 9-Central between July 1 and August 31, 1986.

Enclosed is my thesis proposal. My thesis advisor is Dr. JoAnne Henry. Any suggestions you may have for my implementation of this study will be greatly appreciated. If you have any questions regarding this study, please contact me. I hope that you will be able to grant me permission to collect data at MCVH.

Sincerely,

[redacted]

Rita A. Murphy

Enclosure

Medical College of Virginia
Virginia Commonwealth University

July 1, 1986

Ms. Rita A. Murphy
[redacted]

Dear Ms. Murphy:

Thank you for submitting your thesis proposal "A Study of Perceived Stressors in Hospitalized Antepartum Adolescents" for our review.

As you know, I shared it with Barbara Fleming, Assistant Director for OB-GYN Nursing. I understand that you and she agreed upon the communication that needs to occur at the unit level as you proceed with data collection. I hope that you are able to obtain your sample during the time frame you have established.

Good luck!

Yours truly,

[redacted]

Mary O. Lindamood, RN
Associate Director
Critical Care Department
Nursing Services

MOL/lmh

cc: Barbara Fleming, Assistant Director, OB-GYN Nursing
Sarah S. Strauss, Ph.D., Research Nurse, Box 567

[redacted]

June 25, 1986

Barbara W. Fleming, R.N., M.S.
Assistant Director of OB/GYN Nursing
Medical College of Virginia Hospitals
Nursing Services
MCV Station, Box 7
Richmond, Virginia 23298

Dear Ms. Fleming:

I am a graduate nursing student at MCV planning to collect data for my thesis from July 1, 1986 to August 30, 1986 on the following units: 8W, 8E, 9-Central. Enclosed is a copy of the consent form I plan to use. A copy of my proposed study, A Study of Perceived Stressors in Hospitalized Antepartum Adolescents, has been sent to Ms. Mary Lindamood.

If you have questions or concerns, please contact me. Thank you.

Sincerely,

[redacted]

Rita A. Murphy

Enclosure: Consent Form

Telephone: [redacted]

VITA