

PURPOSE IN LIFE, APPRAISAL, AND COPING BEHAVIORS IN BLACK,
HISPANIC, AND WHITE ANGLO-SAXON PREGNANT ADOLESCENTS

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BY
BERTHA CRUZ ENDERS, B.S.N, M.S.

DENTON, TEXAS

AUGUST, 1988

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

July 7, 1988
Date

To the Dean for Graduate Studies and Research:

I am submitting herewith a dissertation written by
Bertha Cruz Enders

entitled Purpose in life, appraisal, and coping behaviors among
black, hispanic, and white anglo-saxon pregnant adolescents.

I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Margie N. Johnson
Major Professor

We have read this dissertation
and recommend its acceptance:

Glenn D. Tate
Carol J. Gordon
Margaret T. Beard
Glen Jennings

Accepted

Leslie M. Thompson
Dean for Graduate Studies and
Research

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ABSTRACT

PURPOSE IN LIFE, APPRAISAL, AND COPING BEHAVIORS AMONG BLACK, HISPANIC, AND WHITE ANGLO-SAXON PREGNANT ADOLESCENTS

Bertha Cruz Enders

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The purposes of this descriptive study were: (1) to identify differences in perceptions of life purpose, appraisal, and coping behaviors based on ethnicity; and (2) to describe the interrelationship of these variables, among black, hispanic, and white anglo-saxon pregnant adolescents. Conducted in five health agencies of a large metropolitan area, the study used a nonprobability sample composed of 63 black, 89 hispanic, and 55 white anglo-saxon pregnant women ages 13 to 25. Subjects completed a General Information Form, the Purpose in Life Test, PIL (Crumbaugh & Maholick, 1964), the Cognitive Appraisal questionnaire and the Coping Behaviors Inventory, CBI (Kaus, 1986). Multivariate analysis was used to test the hypotheses. The findings were: (1) There was no

statistically significant difference in PIL scores among the pregnant adolescents based on ethnicity. (2) The groups differed on two appraisal dimensions: resolution and desirability. Blacks and hispanics, more than whites, viewed the pregnancy as a difficult situation needing resolution. Hispanics, more than blacks or whites, viewed the pregnancy as desirable. (3) The groups differed on two coping dimensions: emotion and problem-solving behaviors. Black, more than hispanics or whites, used more emotion-focused coping behaviors. Whites tended to use problem-solving coping more than emotion behaviors. (4) A statistically significant relationship was found between the PIL and one or more appraisal variables in the three groups. (5) A statistically significant relationship was found between the PIL and one or more CBI subscale scores in the three groups. (6) A statistically significant relationship was found between one or more appraisal variables and coping subscales for black and white subjects, but not for hispanics. The study supported the implication that sociocultural differences in perception of pregnancy must be considered when assessing the nursing needs of the pregnant adolescent, and in program planning for the prevention of adolescent pregnancy.

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CHAPTER 1

INTRODUCTION

Pregnancy during adolescence represents a turning point in a young woman's life. It can lead to a breakdown of goals and dreams, or it can be an opportunity for a better understanding of herself and the future. The outcome, however, may be influenced by the way the young woman copes with the situation.

Even under the best of conditions, pregnancy is stressful to a woman because it imposes psychological, social, and physical adjustments. When pregnancy occurs during adolescence, these demands are exerted on the young woman at a time when she is confronting normal developmental tasks that are psychologically pressing in themselves (Osofsky & Osofsky, 1983; Peterson & Crockett, 1986). Pregnancy at this stage of development represents a threat to the already troubled individual. Furthermore, the risks and consequences of a premature and unscheduled pregnancy in this population have been well identified (Furstenberg, 1976; Graham, 1981; Lieberman, 1980; Menken,

1980; Trussell, 1980). A planned or unplanned pregnancy during the adolescent period, therefore, is a situation that exerts coping demands on the adolescent. To be successful at the outcome, it is essential that the young woman utilize all resources at her disposal for effective coping.

Lazarus (1966) postulated that the way a person copes with stressful situations is dependent on personal and environmental factors specific to the individual and the situation. Culture, as a personal and environmental factor, can be a strengthening resource when dealing with the stress of motherhood at an early age. The idea of culture-related factors as strengthening characteristics has been suggested by investigators who report an association between the high quality of social networks predominant in some subcultural groups and the favorable outcomes of pregnancy in adolescent women (Dott & Fort, 1976; Zuckerman, Winsmore, & Alpert, 1979). Others view the favorable outcomes among some high risk adolescent mothers as indicative of how in some subcultural groups, pregnancy and parenthood may be a form of competent coping with social roles and expectations (Hogan, 1978; Ladner, 1987; Stack, 1974). Still others suggest that the

cultural variations in perceptual meaning of concepts related to adolescence and maidenhood, support the notion that cultural groups also differ in their perceptions of early pregnancy and in the way they manage the stress of the situation (Whiting, Burbank, & Ratner, 1986).

Development of cultural influences on perceptual interpretations of events is a part of the normal development of the adolescent. In explaining the acquisition of self identity during adolescence, Erikson (1974, 1980) postulated that, in the process of ego diffusion, the teenager acquires a wider array of emotions, life convictions, and aspirations as part of his/her identity. The adolescent emerges from this task with a new vision of life and of the role he/she plays in the world (Erikson, 1980). The cultural group is important during this goal setting period because the cultural traditions and expectations learned by the individual serve as a guide in the acquisition of a sense of direction and in the achievement of fulfillment (Buhler, 1968).

This purposiveness, or meaning in life, becomes valuable to the young person in confronting problems in life. According to Frankl (1963), the individual who has

purpose, goals, or a task in life, can endure even the most extreme of stressful situations. Hence, a sense of purpose, or goal directedness, could be helpful to the individual in the perceptual assessment of stressful life events and in the selection of satisfactory coping strategies that ensue.

If nurses are to be effective in health promotion with pregnant young women of various sociocultural backgrounds, the interrelationship of cultural orientation, purpose in life, appraisal, and coping need to be identified. Such information would assist in a better understanding of the adolescent young woman, and in the subsequent support of the cultural strengths that maintain and promote health in this age group.

Problem of Study

The problem of the present study was the following:

What is the influence of ethnicity on the meaning and purpose in life, cognitive appraisal, and coping behaviors of pregnant adolescents?

Purpose of the Study

The purpose of the study was to identify differences and similarities in perceptions of (1) life purpose, (2) appraisal of the pregnancy situation, and (3) coping behaviors among black, hispanic, and white anglo-saxon pregnant adolescents. An additional purpose was to describe the interrelationships of life purpose, appraisal, and coping behaviors in black, hispanic, and white anglo-saxon pregnant adolescents.

Rationale for the Study

It is difficult to determine the exact indices of adolescent pregnancy because of inadequate information regarding miscarriage and stillbirth rates in this age group. Trends in birth and abortion rates, however, provide some indication of the scope of the problem.

High birth and abortion rates found in the adolescent population during the 1970's prompted some researchers to describe adolescent childbearing as a national epidemic (Alan Guttmacher Institute, 1976). At the international level in 1981, the United States ranked first among the developed nations of the world in teenage birthrate and abortion rate (Jones et al. 1985). More recently, Singh

(1986) reported a pregnancy rate of 111.2 per 1000 women 15 to 19 years old, and an estimated abortion rate of 42.9 per 1000 women, based on 1980 fertility data.

While fertility rates for adolescents 15 to 19 years declined since 1978, this decrease has concentrated in the older group of 17-19 years. The birthrate for the younger age group of 10-14 years, however, did not decrease significantly from 1.3 per thousand in 1973 when it was at its peak (US Bureau of the Census, 1981, p. 59). In actual numbers, moreover, there was an increase in the number of births to adolescents under 15 years of age in the decade of the seventies (Miller, 1983).

The contrasts between early and late adolescent birthrates are more evident when comparing ethnic groups. In 1979, the black: white ratio of birthrates for 14 year olds was 4.8 to 1, whereas the ratio for 19 year olds was 1.8 to 1 (Baldwin, 1983, p.6). Similar skewed ratios were evident for all adolescent age groups, indicating that black teenagers tended to have a higher birthrate and a greater proportion of births among the younger groups in relation to whites.

Although the problem of high adolescent birthrates has traditionally been more pronounced for blacks, a trend of

increasing birthrates, abortion rates, and out-of-marriage birthrates has been observed among white adolescents since the 1950's. The birthrate for white 15-19 year old women increased from 10.9 to 14.9 per thousand in the late 1970's, while the birthrate for black women in the same age group declined from a high 97.1 to 93.7 (Baldwin, 1983, p. 9).

Adolescent pregnancy among hispanics has been obscured by inadequate ethnicity information in most vital statistics data. Based on data from 23 states that had some form of ethnicity identification in census and vital statistic reports, the United States Department of Health and Human Services (USDHHS) reported the percent of all births in 1981 for women under 20 years according to ethnic group. In this report, blacks accounted for 24.6% of the total births in this age group. Hispanics and whites followed with 18.3% and 12.3% respectively. The remaining 44.8% were divided among American Indian, Alaskan Natives, Asian Americans, and others (USDHHS, 1986).

Rates for adolescent births outside of marriage have also showed a steep increase. In 1960, the out of marriage birthrate for women ages 15-19 years was 15.3 per

thousand. In 1970 it had risen to 22.4 per thousand, and to 26.9 per thousand in 1979 (Baldwin, 1983, p. 8). These statistics have led some researchers to conclude that the increasing nonmarital birthrate is at the root of the problem of adolescent pregnancy (Vinovski, 1981; Konner & Shostak, 1986).

Associated with the decrease in the overall fertility rate for the adolescent age group has been the increase in the number of abortions. From 1973 to 1978, the number of abortions for women under 15 years increased 30%, and for women 15-19 years the increase was 80% (Baldwin, 1983, p. 9). According to some analysts, this rise in abortions was a primary factor in the observed decline of adolescent births since 1978 (Chilman, 1986; Konner & Shostak, 1986).

In response to the growing societal concern about the problem, the 1978 Adolescent Health Services and Pregnancy Prevention Act was enacted (Paul & Pilpel, 1979) which promoted educational programs and health services for the pregnant adolescents (DHEW, 1979). As a result, numerous service programs emerged in the form of family planning programs, school based sex education programs, and clinics for maternal and child services. While acknowledging that these efforts have had some positive effect on the health

status of pregnant adolescents as a group as well as on their offsprings, some analysts report that these programs have had very little impact on the public sector costs that the problem represents, and they recommend prevention as the only solution (Klerman, 1986).

Taking a different perspective, Whiting et al. (1986) question the assumption of the undesirability of early childbearing particularly for the older adolescent. Likewise, Buchholz & Gol (1986) recommend a more positive view of the phenomenon of adolescent pregnancy and refer to ethnographic record and to some relevant research. Rather than viewing adolescent pregnancy as deviant behavior, these investigators interpret the varying early childbearing patterns of some American subcultures as norms of adolescent behavior that serve a purpose in their sociocultural environment. They propose that these patterns be studied for their usefulness in dealing with adolescent pregnancy in general (Whiting, et al, 1986). Furthermore, the need to study the cognitive and emotional aspects of the pregnant adolescent was addressed by the 1980 March of Dimes Conference group as an important step to prevention of unfavorable pregnancy outcomes (McAnarney, 1981).

Hence, research of individual and subcultural variations in the perception of, and coping with, pregnancy during adolescence is warranted. The need for research on cultural differences among pregnant adolescents was substantiated by the statistics that reflect the scope of the problem in this age group, the extent of negative consequences it represents, and by the interest of nursing for health promotion with the adolescent. The identification of coping competence of pregnant adolescents across ethnic groups would help in delineating the significance of early pregnancy and motherhood from the cultural perspective. Such knowledge would help nursing in the health promotion activities with this population.

Health Promotion and the Adolescent

Pender (1982) defines health promotion as those activities that "sustain or increase the level of well-being, of self actualization, and personal fulfillment of an individual or group" (p. 42). Nursing interventions directed at enhancing the accomplishment of fulfillment and self actualization in the pregnant adolescent are health promoting activities. From the holistic perspective of nursing, this self fulfillment and actualization can be viewed as purposiveness and

directedness for wellness and growth. Because health promotion implies some alteration of the self or the environment, coping behaviors could be perceived as by-products of the individual's attempts to achieve such a state while serving as protective devices against stress or disease.

The conceptualization of health promotion as directed activities toward increased wholeness, or balance, as termed by Johnson-Saylor (1980), implies encouraging an increased responsibility for the choices made in life. Health promotion interventions with young women in this age group that are considered at risk would help in preparing them to meet oncoming responsibilities and in reducing their vulnerability to an unwanted pregnancy. This task could be undertaken early or at any time in the adolescent period.

Although the statistics of adolescent pregnancy refers to this age group as being between 15 to 19 years, the period of adolescence for health promotion is generally considered to have a wider range. Murray & Zentner (1979) specify an 8 to 10 year span for the duration of the process of acquisition of physical and psychological maturity. The authors delineate three stages of female

adolescence for health promotion activities: early adolescence (12 to 14 years), middle adolescence (15 to 18 years), and late adolescence (20 to 24 years). For purpose of the present investigation, the adolescent period was considered to occur from 12 to 25 years of age, based on Murray & Zentner (1979).

Theoretical Framework

The study was guided by a conceptual model that seeks to explain the phenomenon of the sociocultural influences on man's behavior when dealing with stressful situations. The model was derived from the integration of several theories originating from psychology, sociology, anthropology, and nursing.

In essence, the model unites the multidimensional sociocultural concepts and the psychological processes of personality on the coping process of the individual. The psychological theory of coping by Lazarus (1966), the sociological theory of modernity by Inkeles & Smith (1974) and Triandis, Vassilou, & Vassilou's (1972) theory of culture were incorporated in the model. Lazarus' conceptualization of coping was utilized to explain behavior in stressful situations. The theory of modernity

was used to conceptualize the influence of social structure on behavior. And finally, the theory of subjective culture was utilized to conceptualize the acquisition of culture through ethnic identity. Rogers' Theory of the Unitary Human Being (Rogers, 1970, 1980, 1983) provided the framework for conceptualizing the individual's position within the environment and for relating the phenomenon of sociocultural influences on coping to nursing practice.

Theory of Coping

According Lazarus and colleagues, coping is a cognitive process that involves conscious or unconscious evaluative processes and demonstrable efforts that act as mediators in the man-environment relationship that has taxing energy demands on the individual. The first component, the evaluative process, consists of three cognitive functions: 1) Primary Appraisal, or judgement about the significance of the encounter to the individual, 2) Secondary Appraisal, or judgement about the alternatives and consequences of the efforts to be taken, and 3) Reappraisal, or changed appraisal based on new information about the occurrence, or as a result of an evaluation of the effectiveness of coping efforts used

already. Coping efforts constitute the second component of the coping process. These efforts are of two basic forms: 1) Problem-focused efforts, characterized by some action directed at the situation, such as to remove or modify the stressor, and 2) Emotion-focused efforts, characterized by intrapsychic processes such as denial and avoidance, as a way of reducing the emotional influence of the stressful situation (Lazarus & Folkman, 1984).

Because coping is viewed as efforts to manage a situation, any feeling, thought, or action that is directed at this goal is considered to be coping. Other factors associated with the coping process such as psychological, contextual, and situational conditions are interrelated, and their impact can be identified at different points in time in the process (Lazarus & Folkman, 1984).

With regard to the sociocultural factors, Lazarus & Folkman (1984) point out that internalized cultural values and beliefs, psychological deficits and environmental barriers, all influence the coping process through the perceptions of meaning and significance of the event. The emotional reaction of the individual to a stressful situation is guided by those factors that give

significance and meaning to the occurrence (Lazarus, Averill, & Opton, 1974).

Theory of Modernity

The relationship of the social structure and environment with the human being's capabilities for self actualization was conceptualized using the theory of modern man proposed by Inkeles & Smith (1974). The authors posit that man's exposure to the structural and organizational institutions of his social milieu determine the formation of attributes of self efficacy, a trait of modern man. The level of modernity, or self efficacy, varies with the individual depending on the degree of internalization of the institutional and organizational structures that surround him (Inkeles & Smith, 1974).

The basic proposition of the theory is that similar social structures tend to induce common psychic structures in the personalities of the people who participate. The level of industrialization, urbanization, and bureaucratization of the social structure explains the distinctive perceptions, attitudes, and values present in the populations of nations of different economic and political development. Differences in the levels of

modernity, that is, in the levels of self efficacy, occur within population groups because individuals respond to social milieus having a distinctive character and incorporate the mode of functioning of the institutions in which they are intimately involved. Thus, to the extent that the individual is involved with organizational and institutional structures in his environment, the individual is shaped by them in the acquisition of modernity attributes (Inkeles & Smith, 1974).

The attributes of modernity in man as described by the authors are: 1) openness to new experiences; 2) assertive behavior, such as increased independence from authority or traditional figures; 3) abandonment of passivity and fatalism, and belief in the efficacy of science; 4) ambition, or goals of achievement in life; 5) punctuality and advance planning for goals; and, 6) interest in current news. The determinants of these attributes are related to exposure to a modern, or developed political and economic system, and include: 1) formal education, 2) working in a factory, 3) exposure to mass media, 4) urban residence, and 5) exposure to consumer goods (Inkeles & Smith, 1974).

Theory of Subjective Culture

In the theory of subjective culture, Triandis et al. (1972) explain the differences and similarities in behavior among individuals based on perceptual differences originating from internalized cultural characteristics. Culture has a broad perspective and is defined as the man-made part of the human environment. Subjective culture is a cultural group's way of perceiving the man-made part of its environment and includes the perception of rules, group norms, roles, and values. It is a cognitive process whereby the individuals in a specific culture group acquire cognitive meaning of experiences. That is, subjective culture is the symbolic and cognitive meaning that a cultural group uses in dealing with the surroundings and that sustains the social systems in which it functions. Cultural group, according to the authors, is comprised of members who speak the same dialect, share major activities, or have a common ideology (Triandis, et. al., 1972).

The construct of subjective culture is multidimensional and is composed of numerous cognitive factors that ultimately influence behavior. Such processes as affect, attitudes, value, beliefs,

evaluations, categorizations, memories, opinions, roles perceptions, and stereotypes, held by the individual belonging to a culture group, form a net of systems that ultimately determine how an experience is perceived and how the individual reacts to it. The construct as defined by Triandis is similar to other concepts such as cognitive mapping, world view, or perspective of experiences, that have been posited as influencing the individual's perceptions of life experiences (Triandis et al., 1972).

Of particular importance is the theory's proposition that the individual pairs off the cognitive processes with conditioning, and with value and affect evaluation in determining behavior intentions. Thus, according to subjective culture theory, intentions and actions are determined by the affective evaluations the individual makes of a situation based on pleasant or unpleasant events learned within the cultural group. It therefore becomes a commitment to the group's cultural values acquired by the individual (Triandis et al., 1972).

Acquisition of subjective culture proceeds through socialization and is facilitated by the proximity among group members. Such proximity promotes high rates of interaction which leads to acquisition of similar norms,

attitudes, and roles. Other factors that assist in the acquisition of subjective culture are race, sex, and age, because they promote interactive behavior of members of a cultural group (Triandis et al., 1972).

The Theory of The Unitary Human Being

Rogers' theory of the Unitary Human Being (1970; 1980; 1983) seeks to explain the nature of man and his development. The assumptions of the theory are:

1. Man is a unified whole with characteristics that are more than and different from the sum of the parts.
2. The human being and the environment are in continuous mutual exchange of matter and energy.
3. The life process of the human being evolves unidirectionally and irreversibly along a four-dimensional reality.
4. Pattern and organization identifies the human being and reflects his uniqueness and innovative wholeness.
5. The human being has the capacity for abstraction, imagery, language, thought, sensation, and emotion (Rogers, 1970; 1980; 1983).

In the principles of homeodynamics, Rogers explains the nature of man's evolution throughout the life process, and the nature of man's interaction with the environment. Rogers conceptualizes the essence of the unitary human being as a human-environment energy field that exists in a four-dimensional reality of space and time, and composed of a totality of nonlinear coordinates characterized by relativity (Rogers, 1980).

According to Rogers, the human and the environmental energy fields exchange energy continuously while undergoing change in themselves. The human capacity for ordering of its energy field in this dynamic process is referred to as "patterning" and it occurs in a wave-like fashion. This self-regulating mechanism of the human being is an attempt of the energy field to meet the demands exerted by the environmental energy field (Rogers, 1983). Thus, the phenomenon of energy exchange plays a significant role in the maintenance of functioning capacity, and more importantly, in the orderly progression of the individual toward a higher, more complex form of organization of the whole self, that is, toward its own evolution (Rogers, 1970, p. 64).

Rogers views this self-regulatory process between the individual and the environment as tension producing, continuous, and unavoidable. Yet, these occurrences are positive and creative, according to Rogers, because they have transformational properties. They assist the individual in the progression toward a higher form of personal integration (Rogers, 1983).

The capacity for, and the inevitability of, change is inherent in Rogers' conceptualization of the life process. This capacity of the human being to acquire a new form, to transcend or to change toward innovation and diversity, implies that the individual moves toward more complex states of being with more awareness, and with higher consciousness capabilities. Although not always known to the individual, this goal seeking direction constitutes man's purpose in the life process, and the potential for growth is always present (Rogers, 1983).

While optimistic with respect to the persons' transcendence and growth potentialities, Rogers does point out that the individual plays an important part in the actualization of his capabilities. Thus, even though change is only progressive, it is not predetermined, and to some extent is uncertain (Rogers, 1970; 1983). The

person has the capacity to exercise choices and to manipulate the environment in attempts to achieve all his potentialities. The type of choices made in the interaction may influence the extent of his self-regulation. Thus, the change, or growth, is relative to the person and varies from person to person (Rogers, 1983, p. 222).

Coping and Rogers' Theory of Unitary Human Being

Since according to Rogers' framework all behavior is a manifestation of human-environmental energy exchange (Rogers, 1983, p. 223), it would seem that coping could be an indication of self-regulation, or patterning, of the energy field. Figure 1 is a pictorial representation of the phenomenon of coping within Rogers' view of the human-environment energy field in its evolutionary process. In the illustration, coping is represented as a wave pattern that occurs in rhythmic form and with increasing

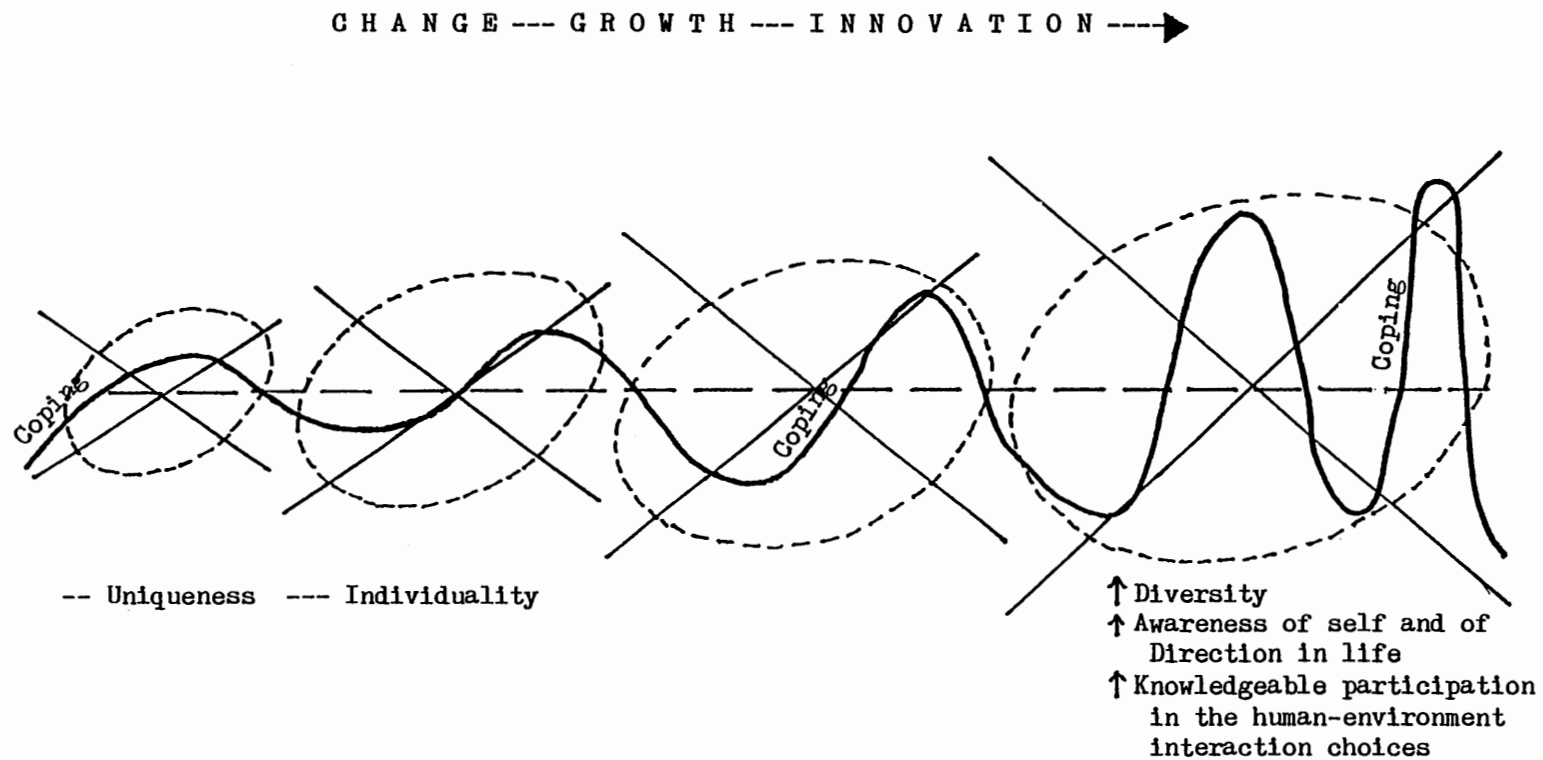


Figure 1. Pictorial representation of coping as a manifestation of patterning and organization, adapted from Rogers' conceptualization of the relative present (Rogers, 1980, p. 332).

complexity as the human being progresses through the life processes. Change, growth, and innovation, characterize the life process, and the individual, represented by the 4-D energy field, strives towards diversity, increased awareness, and organization in the form of knowledgeable interaction with the environment.

With regards to practice, Rogers posits nursing interventions as being directed toward a "restructuring of the man-environment energy field for a more effective fulfillment of life's capabilities" (Rogers, 1970, p. 127). Thus, it can be stated that the function of nursing is to assist the individual in his self-regulating processes directed towards reestablishing rhythmicity of exchange within the man-environment energy field.

Nursing can strive for this accomplishment with the pregnant young woman by encouraging knowledgeable participation in the coping process. Nursing interventions that include the promotion of coping choices that enhance increased awareness of self and the acquisition of a broader outlook of life would be health promoting activities. The perception of coping with pregnancy as potential for growth, therefore, would be in keeping with Rogers' positive view of stress.

Merging of Theories

In development of the model, specific components of the theories were united to form the interrelationships that explain the phenomenon of coping from the sociocultural perspective. The influence of culture and social structure on the beliefs, and perception of life's occurrences as proposed by Inkeles & Smith (1974) and Triandis et al. (1972), help explain the relationship among cultural and macrosocial factors and the evaluative elements of coping. The theory of psychological coping explains the phenomenon of psychological stress control as a cognitive process, and, it delineates the steps of the process and the interrelated factors that are inherent to the process itself. The cognitive appraisal process, or the judgement of the individual regarding what is at stake and of the resources or options available, determine the type of efforts that ensue. Values, goals and commitments, as well as beliefs or expectations about oneself and the world, shape the cognitive appraisal thereby influencing the emotions that are likely to appear in particular stressful encounters (Lazarus, 1977; 1984). The sociocultural system, therefore, as the major force in the acquisition and internalization of such cultural

processes, assists in determining the quality of the emotion elicited in response to a stressful demand. This emotion guides the person's cognitive and affective judgement in the situation.

Inkeles perceived the modern person as goal-oriented and purposeful, and a product of exposure to and participation in institutionalized norms and values. The assumption of this view rests on the premise that self-efficacy, or modernity, is a personality characteristic that assists the individual to function in a modern world. Triandis et al. (1972) views values and the desirability of experiences as a product of the subjective culture acquired from the immediate group of reference. The sense of goal direction, or purposiveness, of the individual, and the world view provided by the subjective culture guide the individual in the appraisal of the experience that requires some form of coping response.

The situational context of the coping process is explained by Rogers' (1970) view of the individual in a mutual interactive exchange of energy and exerting energy demands to varying degrees depending on the person's point on the life process and on personal and environmental characteristics at the point in time. The situation

demanding energy that is perceived by the individual as taxing becomes a stressful encounter and psychological coping follows.

Because the stressful situation includes the person and the environment in a transactional process, the perceptive component of appraisal is essential in the evaluation of the situation (Lazarus, DeLongis, Folkman, & Gruen, 1985). The sociocultural component, in turn, is essential in the perceptive process, most especially in cognitive appraisal where it influences coping behavior.

Model of Sociocultural Influences on Coping

Figure 2 represents a conceptual map of the interrelationships of constructs in the theoretical model developed. Figure 3 depicts the theoretical model developed according to Gibbs (1972) paradigm.

Definition of Constructs

The constructs essential to the model and their definitions are:

1. Social structure = any or all aspects of the social system, especially macrosocial phenomena such as society, organizations, communities,

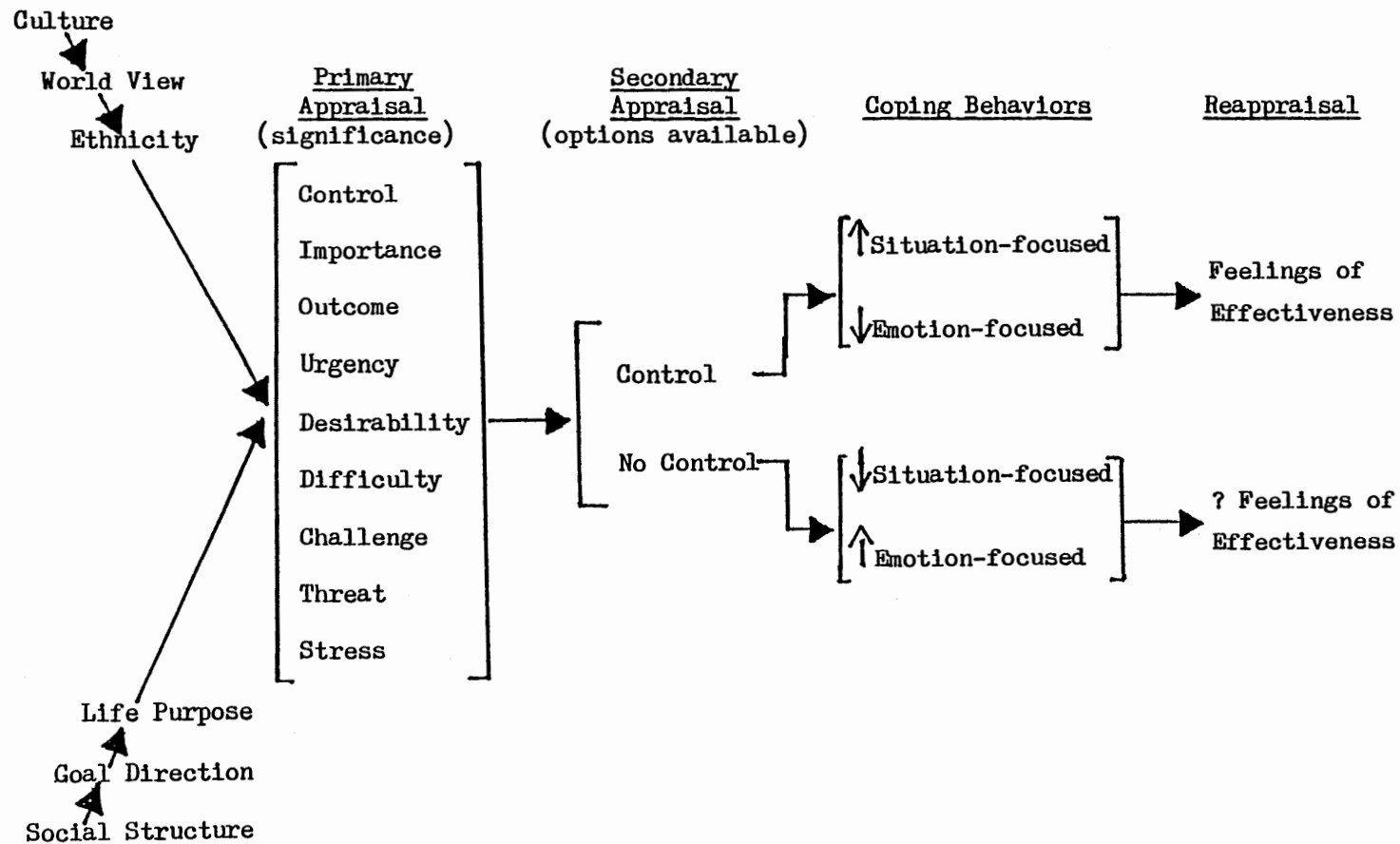


Figure 2. Conceptual map of the sociocultural influences on coping.

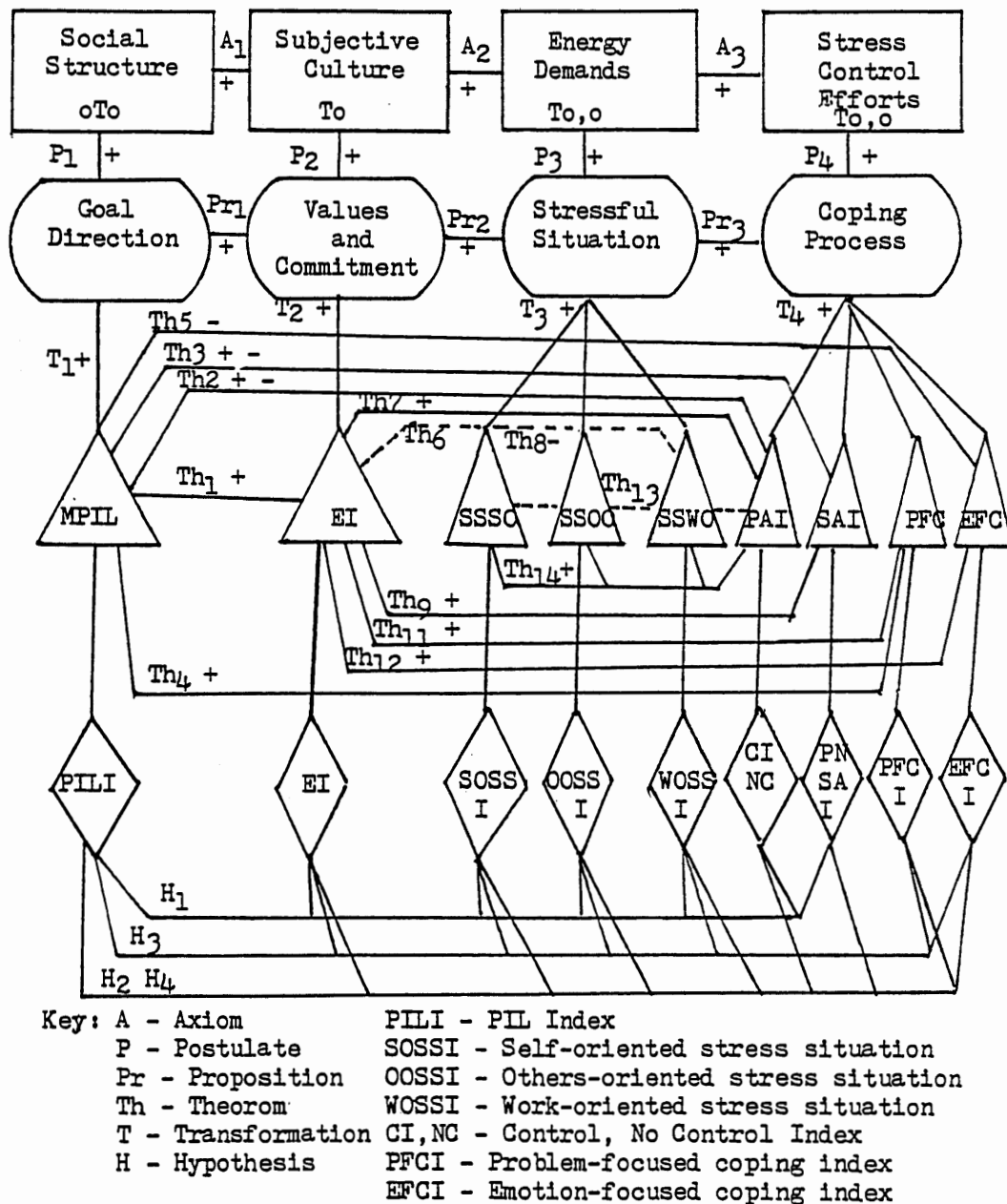


Figure 3. Model of sociocultural influences on coping,
developed according to Gibbs' (1972) paradigm.

social classes, and macrosocial processes such as industrialization, urbanization, social mobility, and their interaction with the individual and the exhibited patterns of behavior (House, 1981).

2. Subjective culture = a cultural group's way of perceiving the environment; composed of perception of rules, norms, roles, and values that are internalized by the group members depending upon the degree of socialization within the group.
3. Man-environment interaction energy demands = the energy required in a transactional exchange between man and all that surrounds him (Rogers, 1970).
4. Stress control efforts = the cognitive and behavioral efforts directed at the resolution of man-environment energy demands and that ultimately result in outcomes expressed as morale, sense of well being, social and occupational functioning, somatic health, and a new sense of goal-direction (Lazarus & Folkman, 1984; Rogers, 1970).

Definition of Concepts

The concepts of the model are defined and their referential formulas specified according to Gibbs (1972) as follows:

1. Goal-directedness (GD) = psychological characteristic of the individual reflecting a sense of purpose in life.
Referential formula: $G/D = f(PILI)$, where
PILI = Purpose in Life Index.
2. Ethnic identity (EI) = the individual's identification with a particular ethnic group, its values, norms, and roles; varying in strength and consciousness levels depending on the extent of contact with the group and on the extent of commitment acquired; may be self ascribed (SAEI) or externally ascribed (EAEI) by others (Zielyk, 1986).
Referential formula: $EI = SAEI$ (or $EAEI$)
3. Stressful situation (SS) = the product of the energy exchange between person and environment and exerting taxing demands on the individual; occurring in situations that are self-oriented

(SOSS), others-oriented (OOSS), or work-oriented (WOSS).

Referential formula: $SS = SOSS, (or\ OOSS), (or\ WOSS)$

4. Coping (C) = the cognitive and behavioral processes through which the individual manages the demands of a taxing person-environment relationship and the emotions they generate; includes primary appraisal (PA), secondary appraisal (SA), coping efforts (CE), and reappraisal (RA).

Referential formula: $C = f(CE + (PA + SA) + RA)$

Definitions of Coping Elements

Primary appraisal (PA) = judgement about the meaning and significance of the situation composed of index scores relative to Importance (II), Challenge (ChI), Control (CI), Threat (ThI), Stress (SI), Difficulty (DI), Desirability (DeI), Outcome (OI, and Urgency (UI).

Referential formula: $PA = II, ChI, CI, TI, SI, DI, DeI, OI, \text{ and } UI.$

Secondary appraisal (SA) = the perceived controllability of the situation dependent on the options and resources available, and the success of efforts effected; control is determined by the indexes in Cognitive Appraisal Questionnaire (Kaus, 1986) in Outcome (OI), Challenge (ChI), Urgency (UI), and Effectiveness (EI); no control situation is determined by indexes in Difficulty (DI) and Threat (ThI).

Referential formula: $SA = f(CI - NCI)$, where CI = Control Index, and NCI = No Control Index.

Subreferential formulas:

$CI = f(OI + ChI + EI + UI)$

$NCI = f(DI + ThI)$

Coping efforts = problem (or situation)-focused (PFCI) and emotion-focused behaviors (EFCI) identified through composite indexes of specific Coping Behaviors Inventory (Kaus, 1986) subscales named Evaluation and Problem Solving (EvPSI), Social Support (SSI), Optimistic Thinking (OThI), Wishful Thinking (WThI), Denial and Avoidance

(DeAvI), Religion (RelI), Seeking Information (SInI), Change Self or Environment (ChSEnI), and Minimizing Importance (MImI).

Referential formulas:

$$PFCI = f(EvPSI + OThI + SInI + ChSEI)$$

$$EFCI = f(SSi + WThI + DeAvI + RelI + MImi)$$

Unit of Analysis

The unit of analysis in the model is the individual at any point in the life cycle in any sociocultural environment. The unit term in the present study was the young woman in the early, middle, and late adolescent stages of development who is experiencing pregnancy.

Time Unit

The time units of the model symbolized in Figure 4 are:

oTo = The point in time that the social structure exerts its influence upon the individual, and denotes an indefinite antecedent time period, [o], when the influence occurred.

To = The point in time of the man-environment energy exchange that generates a stressful situation

when cultural values and commitments exert their influence.

To,o = The on-going time element of a continuous person-environment relationship and time in which simultaneous coping efforts are being elicited.

Propositions Tested

Multiple relational statements in the form of axioms, postulates, propositions, transformational statements, theorems, and hypotheses can be derived from the model for testing purposes. The propositions that were tested in the study represent Theorems 1 to 12 depicted in Figure 3, as follows:

1. The sense of purpose in life among individuals is a function of the acquired ethnic identity.
2. The cognitive appraisal of a stressful life event among individuals is a function of the acquired ethnic identity .
3. The cognitive appraisal of a stressful event among individuals is a function of the acquired sense of purpose in life.
4. The relationship between purpose in life and the cognitive appraisal of a stressful situation among

individuals is a function of the acquired ethnic identity.

5. The coping efforts among individuals when managing stressful situations is a function of the acquired ethnic identity.
6. The relationship between cognitive appraisal and the coping efforts used in dealing with a stressful situation is a function of the acquired ethnic identity.

Assumptions

The assumptions of the model that served as assumptions for the present study are:

1. Psychological stress is a universal human phenomenon characterized by continuous exchange of energy demands between the individual and the environment.
2. The person is a unified whole human being, capable of experiencing stress, cognition, emotion, affect, and socialization.
3. The person in all phases of development moves toward a higher order of self, and therefore has a purpose, or goal in life.

4. Culture is a facet of all human experience.
5. Culture is learned and therefore acquired in varying degrees among people.
6. Ethnic identity is an expression of the cultural experience and vice versa.
7. Coping is beneficial to human functioning and to the growth potential, therefore desirable and needs to be promoted.

Research Questions

The present study seeks to answer the following questions:

1. To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ in the acquired sense of purpose of life?
2. To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ in the cognitive appraisal of the pregnancy situation?
3. To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ in coping behaviors used in dealing with the pregnancy situation?

4. To what extent is the sense of purpose in life related to the cognitive appraisal of the pregnancy situation among black, hispanic, and white anglo-saxon pregnant adolescents?
5. To what extent is the acquired sense of purpose in life related to coping behaviors among black, hispanic, and white anglo-saxon pregnant adolescents?
6. To what extent is cognitive appraisal of the pregnancy situation related to coping behaviors among black, hispanic, and white anglo-saxon pregnant adolescents?

Hypotheses

The hypotheses tested in the present study were:

1. There is no significant difference in Purpose in Life Test (PIL, Crumbaugh & Maholick, 1964) scores among black, hispanic, and white anglo-saxon pregnant adolescents.
2. There is no significant difference in the cognitive appraisal of the pregnancy situation as measured by the Cognitive Appraisal Questionnaire

(Kaus, 1986) among black, hispanic, and white anglo-saxon pregnant adolescents.

3. There is no significant difference in the Coping Behaviors Inventory (Kaus, 1986) subscales scores among black, hispanic, and white anglo-saxon pregnant adolescents.
4. There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Subhypotheses:

- 4.1. There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores in black pregnant adolescents.
- 4.2. There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores in hispanic pregnant adolescents.
- 4.3. There is no significant relationship between the PIL Test scores and the Cognitive Appraisal Questionnaire scores in white anglo-saxon pregnant adolescents.

5. There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Subhypotheses:

- 5.1. There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in black pregnant adolescents.
- 5.2. There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in hispanic pregnant adolescents.
- 5.3. There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in white, anglo-saxon pregnant adolescents.
6. There is no significant relationship between Cognitive Appraisal Questionnaire scores and Coping Behaviors Inventory subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Subhypotheses:

- 6.1. There is no significant relationship between Cognitive Appraisal Questionnaire scores and Coping Behaviors Inventory subscale scores among black pregnant adolescents.
- 6.2. There is no significant relationship between Cognitive Appraisal Questionnaire scores and Coping Behaviors Inventory subscale scores among hispanic pregnant adolescents.
- 6.3. There is no significant relationship between Cognitive Appraisal Questionnaire scores and Coping Behaviors Inventory subscale scores among white, anglo-saxon pregnant adolescents.

Definition of Terms

The following terms were defined for purpose of the present study:

1. Purpose in life

- a. Theoretical = "the ontological significance of life from the point of view of the experiencing individual " (Crumbaugh & Maholick, 1964, p. 200).

- b. Operational = the score on the Purpose in Life Test (Crumbaugh & Maholick, 1964).

2. Cognitive appraisal

- a. Theoretical = "the process of categorizing an encounter, and its various facets, with respect to its significance for well being" (Lazarus & Folkman, 1984, p. 179).
- b. Operational = the scores on the 10 Cognitive Appraisal Questionnaire variables represented by indexes ranging from 1 to 6 (Kaus, 1986).

3. Ethnic identity: black, hispanic, or white anglo-saxon

- a. Theoretical = "the sum total of feelings on the part of group members about values, symbols, and common histories that identify them as a distinct group" (Royce, 1982, p. 18), specifically as black, hispanic, or white anglo-saxon ethnicity.
- b. Operational = Self ascription to either the black, hispanic, or white anglo-saxon group, as demonstrated by a written checkmark in the corresponding category of the General Information Form.

4. Pregnant adolescent

- a. Theoretical = the female that is experiencing pregnancy during the period of life that begins at puberty and that extends for 8 or 10 years, or longer, during which physical and psychological maturity is developed, and self-sufficiency and readiness for adult responsibilities is accomplished (Murray & Zentner, 1979).
- b. Operational = the female in the age range of 12 to 25 years that is experiencing a pregnancy.

5. Stressful situation

- a. Theoretical = the energy exchange demands exerted on the individual in the day to day person-environment relationships and perceived by the person as taxing on resources available (Lazarus & Folkman, 1984).
- b. Operational = the concern for the pregnancy state being experienced, and represented by the scores on the Cognitive Appraisal Questionnaire (Kaus, 1986) items of threat, challenge, and stress perceived.

6. Coping efforts

- a. Theoretical = "the cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141).
- b. Operational = the scores on the subscales of the Coping Behaviors Inventory (Kaus, 1986) that identify situation-focused and emotion-focused behaviors.

Limitations

The study had the following limitations:

1. Use of a nonprobability sample limited the generalizability of the results to the population studied; and
2. Sample composed of pregnant adolescents seeking services at a health agency, in itself considered to be a situation directed behavior.

Delimitations

The delimitations of the study were:

1. Age-no older than 25 years,
2. Be experiencing pregnancy,
3. Ethnic group-black, hispanic, or white anglo-saxon, and,
4. Reading ability-English or Spanish.

Summary

The basis for the study was presented in this chapter. It includes the statement of the problem, the purpose, the rationale for conducting the study, the theoretical framework that guided the investigation, the assumptions, propositions, questions for research, hypotheses, and definitions. Chapter 2 addresses the review of literature pertaining to the interrelationship of constructs focused in the propositions tested.

CHAPTER 2

REVIEW OF THE LITERATURE

The theoretical and empirical support for the concepts of coping, culture, ethnicity, and their interrelationships in the pregnant adolescent are presented in this chapter. The discussion on coping includes a historical review, definitions, and development of coping capabilities. The discussion on culture includes theories of culture, ethnicity, and relationships to coping behavior. The pregnant adolescent is discussed in relation to coping with the stress of pregnancy in different ethnic groups. The chapter concludes with a summary of the review of literature presented.

COPING

Coping as a concept in human behavior, is well documented in the literature and can be found in almost any area of study. Because the focus of the study is on the concepts of culture, purpose in life, and coping and their interrelationships in the pregnant adolescent, the

present discussion centers on the literature support of the origin of the concept of coping, its development in the adolescent, and coping in different cultural groups.

Historical Review

The term coping has been prominent in scientific and popular literature since the 1950's when stress related research pointed to the importance of the psychological aspects of the adaptation outcome (Lazarus & Folkman, 1984). Origin of the concept, however, can be traced to the late 1800's and psychoanalytic theory.

In postulating that the unconscious ego defense mechanisms of the personality were a form of guarding against intrapsychic conflict, Freud was the first to conceptualize coping and apply it clinically for the reduction of intrapsychic tension (McCrae, 1984). While useful in psychoanalysis, the defense mechanisms of coping were viewed in a psychopathological perspective, however. Anxiety, as a form of stress, and ego defenses as the defense mechanisms as negative forms of coping were the focus of clinical psychology during the 1940's and the 1950's (McCrae, 1984). This conceptualization of anxiety as stress has continued in the work of Spielberger (1976)

and Haan (1977). The notion of unsatisfactory responses to stress in the form of defense mechanisms has been continued by Vaillant (1977) and Menninger (1977).

In the 1950's stress related research became prominent in the literature as a result of Selye's theoretical and empirical writings about life stress and mental and physical illnesses (Lazarus & Folkman, 1984). The stress syndrome, or the General Adaptation Syndrome (G.A.S.), was identified by Selye in the early 1950's and it focused on the biological processes of the individual in response to illness threats. Defined as "the nonspecific changes of the body as they develop throughout time during continued exposure to a stressor", the G.A.S. as early conceptualized, referred to the psychological elicitors as "orders, challenges, and offenses" and to the resistance responses as "complex emotional defense measures" (Selye, 1956, p. 262). In later conceptualizations, however, the author acknowledged the psychological processes of perception and emotion, jointly with the chemical and physical agents, as being decisive in eliciting the G.A.S. (Tache' & Selye, 1985). In addition to the internal physiological responses to the stress demands, active and emotional response forms have been incorporated to the

conceptualization of the stress syndrome. The stressor is an environmental demand, or the stimulus for the G.A.S., and adaptation is viewed as the effective response to the demand (Tache' & Selye, 1985).

Lazarus & Folkman (1984) attribute the popularization of the stress concept in research to several investigators and writers, who, in the late 1960's and early 1970's tried to explain stress theory and to delineate research methodology for scientific study of the concept. In addition, the recognition that coping was the decisive factor for a positive adaptational outcome of the stress syndrome was the turning point for emphasis on coping research over stress research. New psychosocial concerns and interests such as psychosomatic medicine, behavioral therapy, ecology, life processes, and individual differences, that emerged in the 1970's and 1980's prompted new perspectives in the study of coping (Lazarus & Folkman, 1984).

Conceptualizations of Coping

Although the concept of coping has been used extensively, the term has suffered from confoundedness particularly in reference to its substantive nature. The

concept is sometimes used interchangeably with the concept of stress and at other times with adaptation (Panzarine, 1985). Various definitions have been associated with the concept depending upon the level of abstraction and theoretical formulation being used as a basis for research. The most popular approaches have been the psychoanalytic and the cognitive-phenomenological models. These two major frameworks have formed the basis for the varying conceptualizations of coping, and for the subsequent variation in the measurement of its dimensions.

The Psychoanalytic Approach

The psychoanalytic approach has been the background for conceptualizations of coping as a hierarchical set of responses to the demands of stress. This approach is based on the perspective that the individual behaves according to certain traits or personal structures developed as a result of ego drive (Michels, 1981). Haan (1969) views coping as the highest form of ego functioning. Behavior characterized as flexible, purposive, reality and future oriented, and cognitive and open in dealing with impulses is considered coping. Defensive and fragmented processes are considered less

effective when dealing with reality. Thus, according to Haan, it is the quality of the ego operation that determines whether the response is or is not adaptive.

Menninger (1963) viewed the level of internal disorganization of the individual at the time of the response to stress as the basis for classifying it as symptomatic of psychopathology. The ego has a regulatory function when confronted with threat, according to Menninger (1977). The minor stress are handled by "normal or healthy" mechanisms, while greater and prolonged stresses result in ego dysfunction devices (Menninger, 1977, p. 157-158). Thus, coping behaviors are those devices that do not produce any internal disorganization (ego dysfunction) in the individual. When dyscontrol or dysequilibrium in ego functioning occur, the devices become symptoms and ultimately pathological.

In keeping with the hierarchical conceptualization of ego related responses to stress, Vaillant (1977) based his classification of ego defenses on the maturity of the mechanism elicited. According to Vaillant, the mature defenses are more adaptive and therefore more reflective of coping than the psychotic mechanisms that are considered most primitive.

Coping, in the psychoanalytic models, therefore, is viewed either as a personality-related tendency, or trait, and stable enough to be identified. It is commensurate with the adaptive outcome and it is believed to be identifiable in personality characteristics.

The Cognitive-Phenomenological Approach

In contrast to the psychoanalytic approach where coping is hierarchical and based on the effectiveness of the response, the cognitive-phenomenological perspective views coping as a process. Originated by Lazarus in the early 1950's (Lazarus, 1966), the concept has been refined subsequently through a series of theoretical formulations and studies by the author and colleagues (Coyne & Lazarus, 1980; Folkman & Lazarus, 1980; Lazarus, 1966, 1977, 1981; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). It differs from the psychoanalytic approach in its emphasis on the individual's appraisal of the situation and of what can be done, rather than on internal and external forces as determinants of the coping behavior. Coping is a transactional process between man and environment as opposed to an ego response to an external demand (Lazarus, 1981).

Another difference in this approach is the acknowledgement of the adaptive value in some coping methods like denial and defense reaction for some situations (Lazarus, 1983). These same responses are considered maladaptive responses in most of the ego functioning classifications of coping (Haan, 1969; Menninger, 1963; Vaillant, 1977).

The concept of cognitive appraisal in Lazarus' approach is based on the phenomenological perspective in psychology that states that it is the meaning of an experience that determines the behaviors and emotions that ensue (Lazarus & Folkman, 1984). Cognitive appraisal is thus defined as the "evaluative cognitive processes that intervene between the encounter and the reaction" (Lazarus & Folkman, 1984, p. 52). Three kinds of cognitive appraisal are proposed: 1) Primary appraisal, or judgement that the situation is irrelevant, benign-positive, or stressful. If judged stressful, the situation may be perceived as harmful, a loss, threatening, or challenging; 2) Secondary appraisal, or judgement about what can be done and the consequences of such action; and 3) Reappraisal, or the changing of the

appraisal of the situation based on additional information obtained (Lazarus & Folkman, 1984).

Coping is defined as the "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Person and environmental factors influence the cognitive appraisal process by generating emotions at the point of perception of any experience (Lazarus, 1977, 1984; Lazarus, Kanner, & Folkman, 1980). The different ways of judging the situation (i.e. threatening or challenging) elicit different types of emotion based on the individual's personal experience and personal and environmental resources (Lazarus, et al, 1980).

In this perspective, coping has two functions, the changing of the situation or problem, and the regulation of emotional distress. These are achieved by various types of behaviors (Lazarus, 1981) that can differ among individuals and within the individual across situations because of the dynamic nature of the stressful encounter and the inherent characteristics of the individuals (Folkman & Lazarus, 1981; 1985; Lazarus & DeLongis, 1981).

The identification of the dimensions of coping in the empirical context, therefore, rests not in identifying the trait or the disposition of the individual for coping, but in identifying the processes of appraisal and the efforts used by different individuals in different situations and contexts. While some components of the coping process have been found to be more stable than others, stability and consistency of coping efforts in similar situations are difficult to identify. For this reason, it is not possible to predict how the individual will respond to the same demands at a later time.

Folkman, Lazarus, Gruen, & DeLongis (1986) investigated the stability of coping in 85 married couples. Subjects were interviewed monthly for six months regarding their appraisal and ways of coping with everyday hassles. In assessing the extent of stability of cognitive appraisal and coping efforts across diverse stress encounters, the authors found that positive reappraisal was the most stable component of the coping process. Low stability across the encounters were reported for primary and secondary appraisal. Coping efforts were identified as having higher stability than primary appraisal. The authors conclude that the

component most influenced by personality factors may be the reappraisal, or the reassessment of the effectiveness of the coping efforts used. Thus, reevaluation of the situation may be the coping element most subjective to a pattern in the individual when confronted with different situations. Judgement about what is at stake and judgement about what are the options will vary most across situations, making it difficult to establish patterns of both (Folkman, Lazarus, Gruen, & De Longis, 1986).

Development of Coping

While literature abounds on the nature of coping in general, and on the behaviors that are used by individuals when confronted with stress, research that focuses on the identification of coping efforts throughout the life span and especially during adolescence is limited. As suggested by the findings of studies of coping with adult populations, the influence of the age factor on the process centers on the variability of the type of stress confronted and on the resources available at different periods of life, rather than on the type of efforts used (West & Simmons, 1983; Lazarus & DeLongis, 1981; McCrae, 1982, 1984).

The few studies identified that viewed coping within a developmental perspective and that have investigated the role that social and familial influences play on the development of coping abilities have tended to see the concept in a traditional way, as a trait. Labels or classifications of the different coping styles identified are assigned accordingly.

Murphy (1964) suggests that coping styles do not necessarily have to be continuous characteristics. Changes do occur in the life of the individual. As in the pre-school period, factors such as self-perceptions, health, control, competition, achievement, and perceived awareness of status in relation to others may promote coping abilities when dealing with environmental and developmental demands in the individual.

In a classic longitudinal 20-year study of 54 children in stable middle class community of the midwest United States, Murphy & Moriarty (1976) investigated the contribution that coping efforts had on the development process on the child from infancy to adolescence. The authors were particularly interested in identifying the coping responses to the everyday problems, demands, and stresses typical of children in a stable middle class

social context. They sought to identify the "large patterns of structuring and orchestrating combinations of coping devices and defense mechanisms" utilized by the children (Murphy & Moriarty, 1976, p. 5). Coping was viewed as a style, or pattern, of behavior that ultimately contributed to mastery of the external pressures experienced by the child. Two major concepts of coping patterns were identified: 1) Coping with the environmental demands, and 2) Coping to maintain integrity, that is, to reduce vulnerability to the demands. Active and passive coping devices directed at solving problems as well as defense mechanisms were observed in both patterns. Contributors to the development of coping patterns were family factors that reflected freedom to explore opportunities, economic security, religious orientation, family unity and respect for individuality and discipline (Murphy & Moriarty, 1976).

Focusing on findings in the same study, Moriarty & Tousseing (1976) reported on the functional aspects of the coping styles of the subjects while in adolescence in relation to the specific point in time that the children were growing up, the decade of the 60's. The adolescents were classified into one of two coping styles,

traditional, or renewal. The traditional style reflected the conservative view of the community. The renewal style reflected the development of new values in the individual. Further classification was made based on the extent to which the two groups maintained their respective values and how they used them. Results indicated that although the two groups dealt with the problems of everyday life in their society differently, the majority were developing values and views that differed from those in the community, and that were most identical with values attributed to militants in other places. Both groups were similar in their views on growing up and self-respect and showing no obvious alienation. Both perceived a changing world and saw the inadequacy of values and beliefs for adaptation to the changes. The authors conclude that during the historical times of the 1960's, adolescents within this conservative sociocultural environment coped in their own way with an unpredictable and changing world. They support Erikson's (1970) view that the ego diffusion identified in the dissent of youth in the 1960's was reflective of the sociocultural instability of the times. While coping in different styles, the adolescents in that study apparently were most influenced in their development

of coping abilities by the immediate surroundings and specific family dynamics.

The process by which coping capabilities are formed from infancy to adulthood is not quite clear. Some theoretical propositions have been exposed that indicate that the family context is the source of coping learning.

Thompson & Lamb (1983) offered an explanation of coping development that is associated with socio-emotional development in infancy. This view appears to be the most compatible with coping as a process concept in which emotion is a primary element in the appraisal component and in the intrapsychic behaviors used. Using findings from studies of mother-infant interaction as support, the authors posit that the quality of the caretaker's behavior influences the development of emotional responsiveness in the infant. In its best form this emotional responsiveness is the capacity of the infant to self-regulate emotion, also seen as the ability of the infant to cope with different situations.

In these investigations, the authors observed that mothers who responded interactively, promptly, and appropriately to their infants' demands promoted the use of purposeful emotional expressions in the infant, and

that the infant regulated these emotional expressions according to the situation. Mothers who were insensitive or unhelpful to their infants' demands tended to foster intense, nonregulated emotional expression, or a muted emotional response where the infants avoided interaction with the caretaker (Thompson & Lamb, 1983). To these theorists, regulation of emotion seen as early as infancy constitutes coping, and this is developed and promoted by a responsive, loving, and expressive caretaker.

Similarly, Diaz Guerrero (1979) considers the mother-child relationship to be the primary factor responsible for the development of coping style in children. He further ascertains that coping style is well established by the age of 6 years, and that as the caretaker, the mother is the most important person in the development of coping. Through the socialization process, the caretaker is the primary transmitter of the sociocultural norms and values that guide the manner in which the child copes with different situations. According to the author, there are two styles of coping, passive, or self-modifying, and active, or other-modifying; and the style is dependent on culture (Diaz Guerrero, 1979).

In a transcultural study of Mexican and American school children using three psychological tests reported to be sensitive to active or passive coping styles, Diaz Guerrero (1979) found that the children demonstrated the style in keeping with the posited cultural coping style. Mexican children demonstrated passive style characteristics, and the United States children demonstrated active style characteristics. The implication was made that the United States has an active culture and Mexico a passive culture, which accounted for differences in coping style.

CULTURE

Anthropologists and sociologists have debated about the construct of culture for years, giving rise to numerous definitions of the terms. Controversies about culture and about its influence on human behavior are evident in the vast amount of literature on the subject. Likewise, debate about the definition of ethnicity as a manifestation of culture has emerged with similar controversies regarding its role in behavior.

Conceptualizations of Culture

Culture has traditionally been defined in anthropology as the heritage of a people identified in the physical and behavioral practices shared by the group members of a specific society. This view, espoused by early anthropologists like Kroeber, Kluckholm, and others, was considered too broad and diffuse by anthropologists and sociologists of the early 1950's. Instead, newer and narrower conceptualizations emerged that reflected the individual's mental processes in the cultural experience and that deemphasized the physical components (Keesing, 1981). Several views have been debated in the literature; cultures as adaptive systems, cultures as cognitive systems, cultures as structural systems, and cultures as symbolic systems (Keesing, 1981).

According to the cognitive view, culture is not the material phenomena of a people, but rather a cognitive blueprint, or map, where all the materials, behaviors, and emotions are organized to guide the individual in the perceptions, relationships, and interpretations of experiences. In this schemata, language is an important subsystem, because through it, a view of the culture can

be obtained, and similarities, or universals between cultures can be studied (Murdock, 1965).

This view has been termed the realist view because of its adherence to interpretation of reality as the cultural experience (Rohner, 1984; Triandis et al., 1984). Keesing (1981) refers to this view as the new ethnography because of an upsurge in the study of cultures using the emic approach, that is, according to the perspective of the culture, rather than from the perspective of the external structure of the investigator, the etic approach.

Goodenough (1963) offered the first view of culture as a cognitive system when he proposed that culture was the entire way of life of a people, and that it included the knowledge and ideas that permitted the individuals to function in the society. Other proponents of the cognitive view are Spradley (1972) and Wallace (1970).

With the writings of Geertz in the early 1970's, an additional element was incorporated to the culture construct. Symbolic meaning, or the idea that culture was composed of the shared meanings and symbols of a people and that this shared meaning is observable in the social actions of the group (Keesing, 1981). This view has come to be called the nominalist view, and in the opinion of

some theorists, it replaced the cognitive conceptualizations (Rohner, 1984).

According to Geertz (1973), cultural systems are ideational but its patterns can be observed in the shared codes of meaning of the people. Unlike the cognitivists who viewed perceptual systems existing in the minds of people, and who use language as the vehicle to study the cultural cognition, Geertz proposes that culture is a thing of this world represented by human action. In a sense, then, culture exists in the description and interpretation given to it by the observer. Geertz further proposes that to study the culture system, one must interpret not only the organizational, or mapping of the coding system, but what is more important, one must interpret what the symbolic action signifies in the group. Thus, as human behavior is accepted as symbolic action, the problem to research is what is being said through the demonstrated action (Geertz, 1973, p. 10).

In agreement with the cognitivists, the symbolicists propose that the religious, philosophical, aesthetic, scientific, and ideological culture patterns are "programs" that provide a blueprint for the organization of social and psychological processes. These various

cultural symbol systems are extrinsic sources of information for the perception, understanding, judgement, and manipulation of the world (Geertz, 1973, p. 216).

Schneider (1968) agreed with Geertz in the conceptualization of culture as a structural system of symbols and meanings. He differs in that he views the system as composed of units and rules about relationships and behaviors that are not always observable in behaviors. Symbols and meanings that give man his position in the world are separated from those that originate with the social system and that guide the actions of the groups (Keesing, 1981). Thus, culture and society combined, serve as the external sources of information for the organization of the socio-psychological processes of the individual. The conceptualization offered by Triandis et. al. (1972, 1984) utilized in the present study, adheres to both the cognitivist and the nominalist viewpoints.

A somewhat different view was offered by the adaptationists who regard culture as the specific body of instruments, behavioral and physical, which come between man and his environment and that help ensure survival and security (Keesing, 1981). In this perspective, cultural changes allow the individual to survive with his

surroundings and human evolution is based on the technology, economy, and social organization in which it exists.

Keesing (1981) proposes a separate view that integrates all the preceding conceptualizations, when he suggests that culture is "a system of competence shared in its broad design and deeper principles, and varying between individuals in its specificities" (p. 58). Unlike the other definitions that include man's knowledge, thoughts, and feelings about the world, this view focuses on the abstract ideas derived from these shared feelings. Keesing refers to the "shared collectives", or the "magic of shared symbols" (p. 58). Culture, then, is the composite of theoretical propositions that people have about what his people know, believe, and mean, as well as what rules to follow in that particular society. According to Keesing, it is this theory to which a native refers when interpreting the unfamiliar or the ambiguous situation. While partly unconscious, this theoretical composition can be studied in the social behaviors of a people (Keesing, 1981).

Culture and Behavior

The debate about the essence of culture has prompted a similar controversy about its influence on human action. Two theoretical views have served as the background for most studies.

The oldest and most popular explanation is the "value paradigm" (Swidler, 1986, p. 273), or the idea that norms and values constitute the link between culture and behavior. Culture imposes certain values and expectations that in turn direct behavior toward some goals and not to others. These standards exist as a map in the mind of the individual and action is subsequently directed toward these goals (Goodenough, 1963).

The second explanation is the one adhered to by the nominalists. This viewpoint posits that culture is the patterned behavior of a people, or the source of strategies for action (Swidler, 1986). Culture shapes action not by means of its values and rules, but by providing the tools that can be used by individuals to organize action through time. These tools are the symbols, stories, rituals, and world views which people use to solve problems (Swidler, 1986, p. 273).

The complexity involved in determining the relationship between human behavior and culture, was best summarized by Keesing (1981) when he wrote:

the extent to which human action is guided by the general conceptual cultural code, theory of the world, and the social life found within the individual's unique experience of life may never be known. At best, interpretation and explanation are possible but prediction of behavior based on cultural competence models are not quite possible yet (p. 64).

Culture and Coping

According to Lazarus (1984), culture exerts its influence on coping by means of emotions. As an inherent part of the cognitive appraisal processes, emotions form the basis for the type of judgement that the individual makes of the stressful situation. Because people from different cultures differ in their world view perspectives, the appraisal of situations vary also according to these views.

In a study with college students on the role of emotions in the cognitive appraisal component, Folkman & Lazarus (1985) tested the participants' emotional and coping responses to a midterm exam. Tested at three points in time, before the exam, during waiting of results, and after outcome was known, they found that the

students' emotional responses of threat or challenge were often contradictory at the different times. Also, they found that the individual differences in emotions reflected differences in cognitive appraisal and coping (Folkman & Lazarus, 1985).

Ethnicity as a Culture Concept

Debates about the definition of ethnicity, or ethnic identity and its relationship to culture have made the concept as elusive as the culture construct. Various definitions and terms are used interchangeably in the scientific literature generally referring to the implication that ethnicity represents culture in the individual.

Sociologists in general disagree about the nature of ethnicity, its manifestations, and the extent to which it represents cultural ideas and meaning. In a review of the sociological literature on the definitions of ethnicity, Isajiw (1974) identified 27 different definitions and a lack of general consensus on the concept.

Some theorists relate ethnicity to various ideational origins or to wider more complex social constructs besides culture. The nature and origin of ethnicity has been

related to theories of stratification, to pluralism and assimilation, to individual freedom in societies, and to organizational growth, or modernity (Hraba & Hoiberg, 1983; Yancey, Ericksen & Juliana, 1976).

Others include a volition dimension to ethnicity when they categorize ethnicity as compulsory ethnicity or ethnicity by consent (Lal, 1983; Yancey et al., 1976). Ethnicity by consent is therefore characterized by commitment as opposed to compulsory ethnicity where ethnicity is imposed by society and industrialization.

Ethnicity as genuine culture is based on the assumption that the individual has a need to feel a sense of belonging, and that this need can be satisfied by immediate groups (Greeley, 1974). Values acquired through this association never completely disappear, according to the proponents of this view. However, it is not only culture that determines ethnicity according to adherents to this perspective. There is an interdependence between identity, or the self identification as consciousness of belonging to a group, and culture, and the community. In other words, to truly have the concept of ethnicity as representative of this belongingness, the three components must be present. The person identifies as part of the

ethnic group, assumes the symbolic perspective, and is recognized by the community as a member of that group (Zielyk, 1986). Thus, self identification is considered a form of practiced identity according to Zielyk. It represents a form of culture commitment because in order to self identify oneself as belonging to a specific group, a series of basic associations are made: (1) belonging by birth or ancestry, (2) a sharing of history with the group, (3) regional or geographic area belongingness, (4) sharing of religion, and (5) sharing of cultural symbolism. These, of course, are dimensional among individuals (Zielyk, 1986).

Measurement of ethnicity as culture is difficult, therefore, because of the varied conceptualizations and the different dimensional factors that are involved. While Zielyk (1986) suggests that self-identification may be sufficient, others emphasize more extensive methods of measurement for the different dimensions (Clinton, 1982).

THE PREGNANT ADOLESCENT

Since the 1970's there has been a proliferation of studies relevant to adolescent pregnancy that address a wide array of concerns. The following discussion focuses

on the issues of: causes of adolescent pregnancy, the significance of pregnancy to the adolescent, and coping with pregnancy among adolescents from different ethnic groups.

Causes of Adolescent Pregnancy

In studying the causes of adolescent pregnancy in the last two decades, it has become clear that there are no simple direct explanations to the problem. As Chilman (1983) point out, it is easy to attribute the phenomenon to specific factors such as increase in adolescent sexual activity and to the ineffective use or lack of use of contraception. However, the issue is complex and there are no single individual causative factors. While specific determinants can be identified, numerous other interacting social, psychological, situational, and biological factors complicate the search for an answer to the question of why some adolescents get pregnant and others do not (Chilman, 1983).

Two factors have traditionally been associated with early pregnancy: the increase in sexual nonmarital activity among adolescents and the failure to use effective contraceptives (Chilman, 1983). These

determinants, however, are not as simple as they appear. According to a review done by Chilman (1983), numerous other underlying factors have been found to be associated with both of these determinants. Situational and socioeconomic position, geographical and demographic characteristics, peer relationships, religious and familial aspects, were only a few of the factors that also played a significant role. Psychological conditions relating to self esteem, needs, and the use of drugs and alcohol, as well as sociological factors relating to social and deviant behavior problems, role transition, and attitudinal perceptions, along with the biological aspects of early puberty and age expectations, are only a few of the elements associated with increased nonmarital intercourse among adolescents (Chilman, 1983).

On a broader perspective, the impact of societal changes occurring in the country over the past two decades, has influenced the sexual behavior of adolescents in general. Changes in sexual activities among adolescents have been occurring in an environment which, because of the nature of the social political, and economic events of the time, promoted a liberal sexual outlook not only for adolescents but for society in

general (Chilman, 1983). During this time, there was evidence that supported the notion that adolescents were engaging in sexual activity earlier than in previous times, as well as increasing in incidence (Chilman, 1983).

Likewise, the failure to use contraceptives as a causative factor has been associated with a combination of variables similar to those associated with sexual activity. Structural barriers, primarily related to the implementation of contraceptive services for adolescents, have contributed to the ineffectiveness of contraceptives in this age group.

Taking a more theoretical approach, Bolton (1980) outlined several perspectives that have been used by some researchers and agencies to explain the occurrence of adolescent pregnancy. While acknowledging that some may be misconceptions based on data obtained from populations affected by socioeconomic, racial, and minority problems, Bolton suggests that these views have become generally accepted.

The theoretical causes of adolescent pregnancy as described by Bolton (1980) are: 1) The Public Understanding Theory which states that lower socioeconomic women deliberately have more children in an effort to get

welfare benefits. While this view has been discounted empirically, this belief is very popular among members of higher socioeconomic classes. 2) The Filling the Void Theory which states that adolescent pregnancy is a manifestation of some unresolved conflict in the adolescent. This perspective is used by some psychologists who view adolescents using pregnancy in order to establish identity, or to search for pleasure and love. 3) The Power Struggles in Family Theory which states that adolescent pregnancy is a form of adaptation to the limited power she has within the family. In this perspective, the adolescent manipulates the sex power to attain some control in the family. 4) The Influence of Social Context Theory which views adolescent pregnancy as the result of the social influences that suggest social acceptance of self enjoyment and fun activities. 5) The Problems of Powerlessness Theory views adolescent pregnancy as the result of the individual's participation in the lower socioeconomic status or minority group environment. 6) The Unavoidable Contributions Theory suggests that most adolescent pregnancies occur by chance associated with increasing sexual activity among teenagers. In this perspective, adolescent pregnancy is

viewed as a problem of responsible decision-making and behavior (Bolton, 1980).

The complexity of related factors that constitute the antecedents to adolescent pregnancy indicate the futility of delineating direct causal relationships. For this reason, investigations that aim to identify more adequate methods by which the young woman can deal with her pregnancy may be more warranted, than research directed at finding out the causes with prevention as the ultimate aim.

Culture, Coping, and Adolescent Pregnancy

The idea that culture offers a world view by which individuals can view and deal with the world has been suggested in the literature. Sociologists and behavioral scientists have addressed this issue when they focus on attitudinal and perceptual differences among ethnic groups.

Different ethnic groups are viewed as possessing specific world views and attitudes that help in the perception of life's experiences. For example, orientations such as fatalism, reliance on folk medicine, and lack of time perception, are generally associated with

hispanic and black ethnic groups. Farris & Glenn (1976), for example, reported Mexican Americans as being more fatalistic and more familistic than Anglo subjects. The anglo-white subculture in the United States has been described as more externally oriented and future oriented, than the Mexican American subculture (Diaz Guerrero, 1979). Yet others have reported different findings (Turner & Kiecolt, 1984).

Turner & Kiecolt (1984) compared Anglos', Mexican Americans' and blacks' responses to risk and uncertainty over earthquake. It was found that blacks tended to be more fatalistic about the event, than Anglos or Mexican Americans. The authors concluded that Mexican Americans had greater preoccupation with the future, while blacks tended to be more present oriented. Anglos tended to be similar to Mexican Americans in disposition toward future orientations. Mexican Americans and blacks were less favorable toward science than Anglos, with blacks being more consistent in this perception.

Ethnic differences in perceptions of stress and in dealing with stressful situations have been identified in the literature. Concerning adolescent pregnancy, black subjects have been reported to perceive the situation of

pregnancy in adolescence as more positive than white anglo-saxon subjects (Gabriel & McAnarney, 1983). Butts (1981) discusses basic values found in the subculture that may be related to such perspective. Generalized attitudes such as a sex-positive view of life, valuing of an extended family, and a historical valuing of fecundity as described by Butts (1981) may help explain this positiveness in perception of early childbearing.

Hispanics tend to value motherhood at an early age too. In a study of 122 Mexican-Americans pregnant and recently delivered adolescents that were at different stages of acculturation, Becerra & de Anda (1984) found that no matter what level of acculturation they had achieved, the young women in general tended to feel good about the pregnancy. They also tended to see themselves in the motherhood role in the future. Held (1981) also found that Mexican American pregnant teenagers tended to rate their pregnancy more favorably than white or black subjects. Cultural values associated with hispanics such as valuing contact with extended family, close family ties, and the respect for elders, may be associated with the general positive feeling of pregnancy at an early age (Martinez, 1981).

Adolescents who find themselves pregnant tend to cope with the pregnancy through the use of support systems. In general, studies that investigated how the adolescent deals with the concerns of pregnancy indicate that social support and the availability of close family members are the major and most helpful forms of coping for these young women (Barth & Schinke, 1983; Barth, Schinke, & Maxwell, 1983; Colletta, Hadler, Gregg, 1981; Crawford, 1980; Cronenwelt, 1985; Held, 1981; Presser, 1980; Tilden, 1983).

The extent that cultural orientation and world view helps the adolescent cope with pregnancy cannot be discerned from the findings in these studies. The literature does suggest that differences do exist, however. Further investigation of such differences would be helpful in identifying the relationships that may account for findings.

Summary

A review of the literature pertaining to the concepts investigated in this study and their interrelationships in the pregnant adolescent was discussed in this chapter. A historical review of the concept of coping, its definition

and measurement variation, and its development in the individual were presented. Culture and ethnicity were discussed in their relationship to behavior in general, and to coping behavior specifically. And lastly, a review of the current literature about coping with adolescent pregnancy among ethnic groups was presented. The need for further exploration of the relationship between cultural orientation and coping behavior was identified.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The purpose of the study was to identify differences in purpose in life, appraisal, and coping behaviors among pregnant adolescents of black, hispanic, and white anglo-saxon ethnic origin. This chapter discusses the methods and procedures used in the study. It includes the design, settings used for data collection, population and sample, description of procedures used in the protection of human subjects, instruments, data collection procedures, and the treatment of the data.

Design

A comparative correlational survey design was used. According to Waltz & Bausell (1981), the descriptive survey is comparative if it compares two or more representative groups in relation to certain variables. The descriptive survey becomes correlational when it investigates the direction and the magnitude of

relationships among variables in a particular population (Wilson, 1985).

Setting

The study was conducted in five health agencies that serviced pregnant women in a large metropolitan region of the southwestern United States. The agencies were: 1) a community health center, 2) a youth clinic, 3) a family planning clinic, 4) a university outpatient clinic, and 5) a Woman, Infant, and Children (WIC) nutritional program. The four outpatient clinics were located within an approximate ten-mile radius in the center of a large metropolitan city of 904,078 population. The WIC program was located in an adjacent county of 143,126 population (USBUREAU OF CENSUS, 1983). All five agencies provided services to low income populations on an appointment basis. In the prenatal clinics, services were provided based on a sliding fee scale.

The community health clinic provided health services to predominantly hispanic male and female patients of all ages; the youth clinic serviced children up to age 16 that were predominantly black and hispanic; the family planning clinic serviced women of childbearing age with family planning and prenatal care; the university clinic was a

satellite providing prenatal and gynecological services to predominantly black and hispanic women; and the population serviced by the WIC program was predominantly white. A large majority of the patients serviced in the community health clinic, however, did not speak or read English.

Population and Sample

The population for the study was the total number of pregnant adolescents and young women under 25 years, of black, hispanic, or white ethnic origin that were registered as clients in the five participating institutions at the time of the study. The exact size of the total population was not known because of difficulty encountered in obtaining access to records. In two agencies, the records of all the registered clients were not available to the investigator because of the agencies' concern for the privacy of the patients.

A nonprobability sample was used and stratification procedures were employed to improve representativeness. Stratification, or quota sampling, is a form of nonprobability sampling that can be used when random selection is not possible (Kerlinger, 1973). In quota sampling, knowledge about the way the population is

divided in relation to certain variables is used to obtain subjects that are representative of that strata. The subjects are then selected in the field using prearranged categories to obtain the predetermined number of cases in each category (Kerlinger, 1973).

In the present study, the variable that was used to determine the size of the ethnic groups was the proportion of births to young women in each age group category up to 25 years of age, as reported by the United States Department of Health and Human Resources (1985). Based on such proportions, and on the accessibility of the populations in each setting, the planned quota size for each ethnic group was; Black $n = 60$, Hispanic $n = 80$, and White $n = 50$.

Selection of subjects for inclusion in the study was based on the following criteria: pregnancy, age no older than 25 years, ethnic group self-identification as black, hispanic, or white anglo-saxon, ability to read English or Spanish, and agreement to participate in the study.

A total of 219 pregnant young women agreed to participate and answered the questionnaires. Twelve questionnaires (5.4 %) were disqualified because of incompleteness or overage, leaving a total sample of 207.

Ten of the disqualified questionnaires had approximately half of the items incomplete in at least one of the scaled instruments. The primary reasons for the incomplete questionnaires were: (1) participant's oversight in answering the instruments, or (2) neglecting to return to the interview room for completion after the clinic consultation.

Protection of Human Subjects

Permission to conduct the study was obtained from the Human Subjects Review committee of the Texas Woman's University prior to initiation of the investigation. Written permission to conduct the study in the facility was obtained from each of the participating agencies. Only one agency had a research review committee and that committee approved the study with the use of the institutions' procedures for obtaining informed consent.

In all the settings, patients were invited to participate in the study in a private room or in an isolated area. The investigator explained the purpose of the study, its expected benefits and possible risks, and provided assurances of anonymity and confidentiality of information. Additionally, the investigator explained

that the subject had the right to drop out of the study at any time and that her participation or refusal would not affect the services received in the agency. The verbal and written explanation was provided in the English or Spanish language, whichever was preferred by the client (see Appendix A). The explanation given to patients in the agency that approved the study with the use of the institution's forms is in Appendix B. To further assure anonymity, the questionnaires were numbered and the names of subjects were not identified or listed anywhere.

In cases where the patient was accompanied by one or both parents, the explanation was also given to the parents. Patients were asked to read and sign an informed consent form (Appendix C) when they agreed to participate in the study.

Instruments

The instruments used for data collection were: 1) the General Information Form, (2) the Cognitive Appraisal Questionnaire (Kaus, 1986), (3) the Coping Behaviors Inventory (Kaus, 1986), and (4) the Purpose in Life Test, or PIL (Crumbaugh & Maholick, 1964).

The General Information Form

The General Information Form (Appendix D) was developed by the investigator for use in the present study to obtain information about the characteristics of the subjects and about their pregnancy situation. The form is composed of 10 forced-choice questions relevant to ethnic identity, age, marital status, socioeconomic and educational level, living arrangements, stage of pregnancy, reason for being pregnant, feelings of support from others, and decision about raising the baby.

The Cognitive Appraisal Questionnaire

The Cognitive Appraisal Questionnaire (Appendix E) was developed by Kaus (1986) to assess the individual's appraisal of a situation based on perception dimensions of live events presented in the literature. The instrument is composed of 10 questions in 6 point Likert scale format.

Each item is scored separately and represents a specific dimension involved in appraising a stress-producing situation. The respondent evaluates the situation in focus in terms of the degree of control, importance, desirability, outcome, urgency, difficulty, challenge, threat, stressfulness, and coping effectiveness

perceived. The instrument is self-administered and response to each item is made by circling the number that best represents the degree to which the element is perceived with the situation in focus.

As utilized by Kaus (1985), a score of 1 indicated that the element was highly relevant in the situation, while a score of 6 indicated the inverse. To keep the direction of the scoring uniform in all the instruments utilized in this study, a score of 1 indicated minimal or no relevance, while a score of 6 indicated high relevancy.

Validity and reliability for the instrument were not reported. Kaus (1985) does point out the need for a measuring scale to assess appraisal and suggests that until such an instrument is available, the appraisal questions offer some dimensions with which to explore the process.

The Coping Behaviors Inventory

The Coping Behaviors Inventory, or the CBI, (Appendix F) was designed to assess the coping methods used by individuals in dealing with a current stressful situation. The instrument was developed by Kaus (1986) based on 14 conceptual categories derived from the literature on

coping as a transactional process and in part from the Ways of Coping Checklist by Folkman & Lazarus (1980). It differs from the Ways of Coping Checklist by its focus on a current stressful situation that may or may not be perceived as a problem, as opposed to a stressful past event referred to as a problem. The CBI was selected for assessment of coping in the present study because pregnancy was an existing situation for the subjects at the time of the investigation.

The CBI is composed of 65 items designed in a 6 point Likert format that represent coping methods used by individuals in dealing with situations in everyday life. The instrument is self administered and responses are made by circling the number that best represents the degree to which the items apply to the situation in focus. A score of 1 indicated that the item applied very little or not at all, and a score of 6 indicated that the item applied very much or strongly.

Subscales of the CBI

Kaus (1986) identified nine subscales in the CBI that group to form two major coping scales: The Situation-Focused Coping Scale and the Emotion-Focused Coping Scale. The Situation-Focused Coping Scale is derived from the

summation of four subscales that represent types of coping directed toward changing the situation in some way. The Emotion-Focused Coping Scale is derived from the summation of the scores in five subscales that represent types of coping directed toward changing the individual's feelings about the situation. The subscales for the CBI their maximum and minimum possible scores are listed in Table 1. The item numbers for the nine subscales are listed in Appendix J.

Validity and Reliability of the CBI

The CBI was constructed and validated by Kaus (1986) using a repeated measures research design with two samples of college students ($n = 358$ each) and with two differing situations in focus, one of control, and one of no control.

Table 1.

Score Ranges for the CBI Subscales

Subscale	Score Range	
	Maximum	Minimum
Situation-Focused Coping		
Evaluation and Problem Solving	13	78
Optimistic Thinking	08	48
Seeking Information	06	36
Change Self or Environment	09	54
Emotion-Focused Coping		
Social Support	07	42
Wishful Thinking	05	25
Denial and Avoidance	08	48
Religion	04	24
Minimizing Importance	05	30

Content validity of the instrument was assessed by a panel of experts that classified the items as situation or emotion focused using the conceptual categories of origin. Construct validity was determined by means of factor analyses. First, exploratory factor analysis was conducted for the Control and No Control conditions to

identify the factors in each situation, followed by confirmatory factor analysis to assess factor invariance across the two conditions. A nine-factor structure model for the CBI was therefore established with internal consistency (Cronbach's alpha) estimates that ranged from .65 to .90 in the subscales.

Additional cross-validation of factor invariance was conducted by examining loading differences across the two samples and across the two conditions, determining the standard error, and identifying significant differences. Cross sample factor invariance was confirmed for most of the scales with the exception of the Denial and Avoidance subscale. Partial reliability of the CBI was therefore demonstrated for most of the scales (Kaus, 1986).

Social desirability of the CBI was examined through correlations with the Marlow-Crowne Social Desirability Scale. The Wishful Thinking and the Denial subscales were identified as negatively correlated to social desirability ($r = -.15$, $r = .17$) suggesting that although the relationships are weak, low scores in these scales might be indicative of concern for social desirability. The author proposes caution in interpreting results of these two subscales (Kaus, 1986).

The Purpose in Life Test

The Purpose in Life Test (PIL) was designed by Crumbaugh & Maholick (1964) to measure the degree to which a person senses a purpose in life (see Appendix G). The instrument is based on Frankl's conceptualization of the will to meaning, or the search for meaning as a motivating force in life. In this study, the PIL was used to measure the extent to which the pregnant adolescents experienced a purpose or goal in their lives.

The PIL is composed of 20 items of semantic differential format in a 7 point scale. Each item contains a qualitative phrase at each extreme of the scale where the number 1 represents minimum and 7 is maximum. The instrument is self administered and responses are made by circling the number that more closely represents the respondent's attitude toward the item. Summation of the 20 items yields an overall score ranging from 20 to 140. The total score represents the degree of purpose in life of the respondent.

Norms for the Purpose in Life Test

Crumbaugh & Maholick (1969) recommend the following norms for adult populations: 113 or above, indicates the

definite presence of a sense of purpose in life; 92 to 112, represents an uncertainty range; and a score below 91 suggests a lack of purpose in life. Other investigators have documented adult norms with healthy and ill populations that coincide with those reported by Crumbaugh and Maholick (Yarnell, 1971; Meier & Edwards, 1974; Reker, 1977; Hubbard, 1981; Planchok, 1984).

Limited studies that use the PIL with adolescent populations have been reported in the literature. The PIL mean scores that have been identified in younger populations tend to be lower than the expected adult norms and fall in the uncertain range (Meier & Edwards, 1974; Phillips, Watkins, & Noll, 1974; Dougherty, 1983). Additionally, significant mean differences have been identified between the younger and older healthy and ill adolescents. Meier & Edwards (1974) reported a mean of 105.0 for the younger 13 to 15 age group and a mean of 99.4 for the 17 to 19 age group. Dougherty (1983) reported slightly higher mean scores for healthy adolescents (mean = 100.33 to 102.25), and similar scores for adolescents with cancer (mean = 96.3 to 110.33).

Studies with college populations which might include the older adolescent to the exclusion of the younger group

have reported means ranging from 101.32 to 118.8 (Phillips, Watkins, & Noll, 1974; Soderstrom & Wright, 1977; Reker & Cousins, 1979; Paloutzian, 1981; Kurlycheck & Trepper, 1982). The lowest means reported with a college student population ranged from 52.69 to 53.6 (Simmons, 1980).

Norms for pregnant populations are not available. The PIL was utilized in one study that investigated decision making in gnant adolescents but the mean scores were not reported (Phillips, 1984). Similarly, PIL norms with different ethnic populations have not been reported in the literature. In a study with Mexican-American Registered Nurses, Floyd (1980) reported a PIL mean score of 116.5 (SD 14.1).

Mean scores with populations outside the United States have been comparatively lower than the American established norms. Sharpe & Viney (1973) reported a mean of 99.6, SD 16.0, in a sample of Australian college students. Similarly, Dufton & Perlman (1986) reported mean scores of 99.8 to 113.9. An even lower group index (mean = 77.78, SD 16.72) was identified in a sample of South African young people ages 15 to 30 years about to enter a religious group (Stones & Philbrick, 1980).

Validity of the PIL

The PIL has been found to be a valid and reliable tool in the measurement of purpose in life. It has been utilized with varied populations in relationship with other concepts and constructs and various validity and reliability estimates have been reported in the literature.

Initial validity of the PIL was established with a population of psychiatric patients and nonpatients. The PIL correlated significantly ($r = .68$, $n = 136$) with Frankl's original questionnaire that measured the concept of existential frustration (Crumbaugh & Maholick, 1964). Concurrent validity of the instrument has been verified by means of correlations of the PIL scores achieved by the subjects with the ratings of the subjects' purposiveness as perceived by others. Psychiatric patients' PIL scores correlated ($r = .38$, $n = 50$) with therapists' ratings (Crumbaugh & Maholick, 1964) and parishioners' scores with their minister's ratings, $r = .47$, $n = 120$ (Crumbaugh, 1968).

Negative correlations found between the PIL and instruments measuring psychological conditions that are inverse to a sense of purpose have further substantiated

the concurrent validity of the scale. A negative relationship has been identified between the PIL and depression scales such as the depression subscale of the MMPI (Crumbaugh & Maholick 1964; Crumbaugh, 1968), and the SDS subscale of the Zung Rating Scale (Phillips, 1980). Likewise, negative relationships have been identified between the PIL and the anxiety scale of the MMPI and the Spielberger State-Trait Anxiety Inventory (Yarnell, 1971); and between the PIL and Rotter's IE Locus of Control Scale (Phillips, 1980), The Seeking of Noetic Goals Scale (Reker & Cousins, 1979), and the Short Rating Scale of Pattern A Behavior (Planchok, 1984).

Positive relationships of the PIL with scales that measure constructs similar or comparable to purpose in life has strengthened the validity of the instrument. The PIL has been found to be positively correlated with instruments such as the self actualization subscale of the POI (Battista & Almond, 1973; Phillips, et al, 1974), the Rokeach List of Values (Simmons, 1980; Paloutzin, 1981), the self confidence subscale of the Cattell 16 Personality Factor Test (Crumbaugh, Maholick, Raphael, & Shrader, 1970), the Life in Present and Life in Future subscales of the Life Areas survey, the self concept subscale of the

Edwards Personality Inventory (Reker, 1977), and the Vigor Vitality subscale of the Profile of Mood (Floyd, 1980). Correlations with the Srole Anomie Scale have been conflicting. A positive correlation was reported by Crumbaugh (1968), while Garfield (1973) identified no significant relationship.

Minimal correlation has been identified between the PIL and the Marlow-Crowne Social Desirability Scale. Crumbaugh & Maholick (1969) conclude that the influence of social desirability upon the PIL does not jeopardize the validity of the instrument but caution about the use of the instrument in competitive situations.

Construct validity of the PIL has been further established by means of factor analyses. Reker & Cousins (1979) identified a six-factor structure of the PIL in a study of the complementarity of the PIL with the SONG scale in a population of college students. The six factors that accounted for 61.1% of the variance were: purpose in life, goal achievement, self-fulfillment, internal external locus of control, and life view.

A two-factor structure, life satisfaction and life purpose, was reported by Dufton & Perlman (1986) in a similar population. Harlow, Newcomb, & Bentler (1986)

reported the use of three underlying factors in a drug related study with adolescents. The three factors identified were: no plans, no directions, and no solutions.

Reliability of the PIL

The PIL has been found to be a reliable instrument in the measurement of purpose in life by means of split half reliability and test-retest methods with various populations. Crumbaugh & Maholick (1964) and Crumbaugh (1968) reported split half reliability with normal and psychiatric patients of correlations in .80s and Spearman Brown corrections of low 90s. Hubbard (1981) reported a split half reliability of $r = .74$ with an adult hemodialysis patient population. Similar split half measures were reported with a population of inmates (Reker, 1977), and college students (Reker & Cousins, 1979). Planchock (1984) reported reliability (Cronbach's alpha of .83) with a population of cancer patients. Additionally, Phillips (1984) reported a Cronbach's alpha of .80 with a population of white pregnant adolescents age 13 to 19 years.

Pilot Study

A pilot study was conducted in a hospital prenatal clinic setting prior to initiating the present study. The pilot study was conducted 1) to assess the understanding of the questionnaires by the adolescent women, and 2) to assess the feasibility in a clinic setting, of the data collection procedures planned.

The sample consisted of 6 pregnant women, 2 black, 1 hispanic, and 3 white anglo-saxon, ages 14 to 16. The instruments used were: 1) an earlier version of the General Information Form, 2) the Ways of Coping Checklist (Folkman & Lazarus, 1980), and 3) the Purpose in Life Test (Crumbaugh & Maholick, 1964). Pregnant women between the ages of 12 to 20 , black, hispanic, or white, who were able to speak and read English, and who agreed to participate were invited to participate. After obtaining informed consent from those who agreed to participate in the study, the investigator collected the data by the interview method. The interviews were tape-recorded.

Using an interview protocol, subjects were instructed to focus on a particular problem or stressful event that they had experienced and evaluate it in terms of certain criteria. Following, the subjects answered the Ways of

Coping Checklist with the problem in mind. The investigator read the questionnaire items and requested the answer for each item in a 6 point scale. The PIL was answered lastly using the same procedure. Approximate time for the interview was 45 minutes.

The following modifications to the final data gathering procedures were made as a result of the pilot study:

1. The General Information Form was revised. Questions relevant to residency, place of birth, and language spoken at home were deleted because they were found to be irrelevant to the study.
2. The Ways of Coping Checklist for assessing coping behaviors was deleted because subjects had a hard time identifying a problem or stressful event. A search for a more appropriate instrument yielded the Coping Behaviors Inventory that focused on pregnancy as the current situation.
3. The most appropriate time to ask the subjects to answer the questionnaire was identified as being during their waiting time before the clinic visit. Subjects were reluctant to stay and answer the questionnaires after the clinic visit even though they agreed to do so prior to

being consulted. One subject left the clinic without the investigator's knowledge after having agreed to participate.

4. The data collection procedure was changed from a tape-recorded structured interview to an unstructured interview with self-administered questionnaires because of various problems identified. First, the tape-recorded interview was too lengthy and subjects were hesitant to participate. Secondly, the tape-recordings were of poor quality because of noise interference occurring in the clinic setting. And thirdly, the reading of the questionnaire by the investigator became monotonous and tiresome. It was also observed that the subjects were able to read the items without difficulty.

With the purpose of verifying if the questionnaires could be read and understood by the very young adolescents, the investigator requested two nonpregnant girls to read and answer the questionnaires and to identify areas that they did not understand. Two girls, ages 12 and 14, were able to read the questionnaires and identified no problems in comprehension of the items.

Collection of Data

Data were collected during June, July, and August 1987. The investigator collected the data in the four health centers and one research assistant collected data in the WIC program. Prior to commencing data collection, the research assistant underwent a training session with the investigator for the purpose of explaining the study and the information requested in the questionnaires, and the procedures to be followed during the data collection.

A schedule for data collection at each setting was developed for the days that the prenatal clinics were held. In the health centers, data collection took place during the prenatal clinic hours. In the WIC Program, data collection took place during the nutritional clinic hours and during the prenatal classes conducted at scheduled times each month.

In the prenatal clinics, patients that met the selection criteria for the study were identified by the personnel or by the investigator through record review of the daily appointments. In the WIC program setting, the eligible clients were identified by the personnel during nutritional evaluation appointments or during the nutritional classes.

After identification, the investigator would call the eligible client to a private room where she would be invited to participate in the study. In the WIC nutritional classes, subjects would be invited to participate as a group, and those agreeing to participate would be approached individually in a private area.

Patients in obvious distress or discomfort, or who were identified as not able to participate by the clinic personnel, were not approached. When more than one eligible candidate was available at the same time, a group of 3 to 4 clients was called to the interview room.

Voluntary informed consent was sought following a verbal and written explanation of the study purposes and objectives to the subjects (Appendix A). After consent was obtained, the subject was given an envelope that contained the three questionnaires, a pencil, and a clip board. In cases where the subject preferred, or could read only in Spanish, the translated version of the questionnaires was provided.

The subject was instructed to read the instructions carefully, to answer all items, and to return the questionnaires to the investigator in the envelope when completed. The investigator was available to answer any

questions. The time for completion of the questionnaires was approximately 25 minutes.

Every effort was made to avoid interruptions by providing sufficient time for answering the questionnaires prior to the clinic consultation. However, some subjects interrupted the answering of questionnaires to attend to the clinic appointment. These subjects were asked to return to the interview room for completion of the questionnaires immediately after consultation. It was observed, however, that some subjects were reluctant to return to the interview room after their clinic appointment.

Treatment of the Data

Three major statistical steps were conducted with the data collected in this study. First, frequency distributions and measures of central tendency were computed for the demographic and pregnancy situation variables in order to provide a description of the sample as a whole. Second, crosstabulations of the demographic and pregnancy data and inferential statistics were computed in order to provide a descriptive comparison of the three ethnic groups. And thirdly, inferential

statistics were utilized in the testing of the established hypotheses. The Statistical Package for the Social Sciences, SPSSX (1985) on the DEC20 system was used in different steps of the data analysis.

In the descriptive analysis, frequency distributions were calculated for each of the items in the General Information Form to examine the characteristics of the entire sample. This analysis was used to describe the homogeneity of the sample in terms of demographic characteristics, living arrangements, pregnancy situation, emotional support perceived, and decision about the baby. Secondly, cross-tabulation with inferential statistical analysis for significant differences by ethnic group was computed for each of the items in the General Information Form. This analysis was used to describe and compare the characteristics of the three ethnic groups.

Testing of the null hypotheses was performed using multivariate inferential statistics as follows:

Hypothesis 1. There is no significant difference in the Purpose in Life Test, (PIL, Crumbaugh & Maholick, 1964) scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Prior to testing hypothesis 1, the PIL total score for each case was computed by adding the raw scores in the 20 items of the PIL Test. The PIL total mean scores were calculated for the black, hispanic, and white anglo-saxon groups.

Hypothesis 1 was tested using One-Way Analysis of Variance (ANOVA). According to Kerlinger (1973), ANOVA is an appropriate procedure to test differences of more than two groups for statistical significance.

Hypothesis 2. There is no significant difference in the cognitive appraisal of the pregnancy situation as measured by the Cognitive Appraisal Questionnaire (Kaus, 1986) among black, hispanic, and white anglo-saxon pregnant adolescents.

The scores on the ten questions of the Cognitive Appraisal Questionnaire were utilized as individual variables in testing Hypothesis 2. Discriminant analysis was used in testing Hypothesis 2.

According to Klecka (1980), discriminant analysis (DA) is a statistical technique which allows the researcher to

study the differences between two or more groups of subjects with respect to several discriminating variables simultaneously. The technique has two major applications, interpretation and classification, which can be used separately or jointly in one investigation.

DA is used for interpretation when the researcher wants to study the ways in which groups differ on some variables. It allows the researcher to see if the groups can be discriminated on the basis of some set of characteristics, how well they discriminate, and which characteristics are the most powerful discriminators. DA is used for classification when the researcher wants to identify one or more combinations of the group characteristics, known as mathematical equations, or discriminant functions, that will allow one to identify the group which a case most closely resembles (Klecka, 1987).

In this study, discriminant analysis was used for interpretation purposes in order to study differences among the ethnic groups based on the 10 cognitive appraisal variables. The discriminating variables used in the analysis were the 10 variables in the Cognitive

Appraisal Questionnaire with scores ranging 1 to 6, considered to be measured at the interval level.

Hypothesis 3. There is no significant difference in the Coping Behaviors Inventory (CBI, Kaus, 1986) subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Prior to testing Hypothesis 3, the scores for each subject on each of the 9 CBI subscales were derived by adding the corresponding item scores in each subscale. Mean scores for each ethnic group on the nine CBI subscales were then calculated.

Hypothesis 3 was tested using discriminant analysis following the same sequence used in testing Hypothesis 2. Group differences among black, hispanic, and white anglo-saxon pregnant adolescents were studied based on the 9 subscale scores of the Coping Behaviors Inventory.

Hypothesis 4. There is no significant relationship between the Cognitive Appraisal scores and the PIL scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Subhypotheses

- 4.1 There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores among black pregnant adolescents.
- 4.2 There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores among hispanic pregnant adolescents.
- 4.3 There is no significant relationship between PIL Test scores and Cognitive Appraisal Questionnaire scores among white anglo-saxon pregnant adolescents.

The three subhypotheses pertaining to Hypothesis 4 were tested using multiple regression procedures. Multiple regression analysis is useful in analyzing the collective and separate effects of two or more independent variables on a dependent variable (Pedhazer, 1982). By studying the interrelationships between independent variables and a dependent variable, multiple regression helps explain the presumed phenomenon represented by the dependent variable (Kerlinger, 1973).

In this study, multiple regression procedures were used for comparison of relationships based on Pedhazer (1982). First, separate regression analyses were

performed on the PIL scores by ethnic category using the 10 cognitive appraisal variables as independent variables, to obtain the regression coefficients for each group. Next, the regression coefficients were examined for differences between the groups. Lastly, the cognitive appraisal elements that best explained the scores on the PIL for each of the three ethnic groups were identified.

Hypothesis 5. There is no significant relationship between the Purpose in Life Test (PIL, Crumbaugh & Maholick, 1964) and the Coping Behaviors Inventory (CBI, Kaus, 1986) subscale scores among black, hispanic, and white anglo-saxon pregnant young women.

Subhypotheses

- 5.1 There is no significant relationship between the PIL Test scores and the Coping Behaviors Inventory subscale scores in black pregnant adolescents.
- 5.2 There is no significant relationship between the PIL Test scores and the Coping Behaviors Inventory subscale scores in hispanic pregnant adolescents.

5.3 There is no significant relationship between the PIL Test scores and the Coping Behaviors Inventory subscale scores in white anglo-saxon pregnant adolescents.

Multiple regression procedures were used in the testing of the three subhypotheses relative to Hypothesis 5. The sequence followed was the same as in testing Hypothesis 4. First, multiple regression analyses were performed on the PIL scores by each ethnic category, using the 9 subscale scores as independent variables, to obtain the regression coefficients in each group. Next, the regression coefficients were examined for differences among the groups. And lastly, the subscales that best explained the PIL total scores in each of the three ethnic groups were identified.

Hypothesis 6. There is no significant relationship between the Cognitive Appraisal Questionnaire scores and the Coping Behaviors Inventory scores among black, hispanic, and white pregnant young women.

Subhypotheses

- 6.1 There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in black pregnant adolescents.
- 6.2 There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in hispanic pregnant adolescents.
- 6.3 There is no significant relationship between PIL Test scores and Coping Behaviors Inventory subscale scores in white anglo saxon pregnant adolescents.

Hypothesis 6 was tested using canonical correlation analysis. Canonical correlation analysis is a multivariate technique that allows the analysis of the relationships between two sets of variables simultaneously (Kerlinger, 1973). It is useful in determining which of the independent and dependent variables are most closely associated.

In this study, the relationship between the scores on the 10 Cognitive Appraisal variables and the 9 subscale scores of the Coping Behaviors Inventory for each of the three ethnic groups was determined using three separate canonical correlation analysis. The canonical

correlations were examined for magnitude, and the variables that were most closely associated in each of the three ethnic groups were identified.

Summary

The methods and procedures utilized in the study were presented in this chapter. Methodological procedures addressed were: 1) the design, 2) the settings, 3) population and sample, 4) protection of human subjects procedures, 5) instruments, 6) data collection procedures, and 7) the treatment of the data. The findings of the data analysis are reported in Chapter 4.

CHAPTER 4

ANALYSIS OF DATA

The analysis of the data collected in the study is presented in this chapter. Descriptive statistics are used to describe the sample as a whole. A descriptive comparison of the sample by ethnic groups is provided using descriptive and inferential statistics, and the findings concerning the statistical analyses in the testing of the hypotheses are reported.

Description of the Sample as a Whole

The findings relevant to the characteristics of the sample as a whole are reported here in two parts. First, the demographic characteristics of the sample are discussed, and then the information obtained relevant to the pregnancy situation of the subjects as a total group is examined.

Demographic Characteristics of the Sample

The total sample was composed of 207 pregnant young women between the ages of 13 and 25 years. The mean age

was 18.9 years (SD=2.61). A total of 9.2% of the subjects were in the young adolescent age group of 13-15 years, 35.7% were in the middle adolescent age group 16 - 18 years, and 55.1% were in the older adolescent age group of 19 to 25 years. Composition of the total group according to ethnicity was 30.4% (n = 63) Black, 43.0% (n = 89) Hispanic, and 26.6% (n = 55) White Anglo-Saxon.

As observed in Table 2, the WIC program, the university clinic and the community clinic had almost equal representation in the total sample, while the family planning clinic and the youth clinic had the least. This finding was primarily a result of the different number of patients/clients seen at the five settings at the time of data collection. The university clinic and the community clinic had a large clinic staff in comparison with the other agencies, therefore servicing more patients on a daily basis. Thus, there were more eligible candidates for the study from those settings than from the family planning clinic and the youth project which were smaller in staff and in number of daily appointments. The WIC program, although small in staff and in daily appointments, had a large percent representation because

the clients were serviced on a daily basis, permitting more frequent data collection contacts, than in the other settings where the prenatal clinics were held once or twice a week.

Table 2

Distribution of Sample by Agency

Agency	Frequency	%
WIC program	54	26.1
Community clinic	44	21.3
Prenatal planning clinic	22	10.6
Youth clinic	30	14.5
University clinic	57	27.5
Total	207	100.0

In general, subjects in the total sample had reached the junior high or high school grade level. As observed in Table 3, 84.0% reported the highest grade completed was in the 7th through 12th grade. Only 8.3% reported that the highest grade completed was of the elementary level, and fewer (8.0%) reported having attended or completed college. The mean educational level achieved was 10.1 years (SD 2.41). The minimum grade completed was 2nd

grade, and the maximum was the 4th year of college. However, only 15.5% (n = 32) reported that they currently attended school.

Table 3

Distribution of Sample by Highest Grade Completed

Grade Completed	Frequency	%
2nd - 6th	17	8.2
7th - 9th	55	27.0
10th - 12th	118	57.0
1st - 4th yr. college	16	7.7
No response	01	0.4
Total	207	100.3

(Mean = 10.1, SD 2.41, Skewness = -.770)

When asked where they had obtained their education, 16.4% of the total sample reported having received their education in some country other than the United States, with the majority citing Mexico and El Salvador. Other countries cited were Ecuador and Canada. Subjects that were educated in some Latin American country (15%, n = 31) usually did not speak English well or at all.

The sample was represented by married and unmarried participants in approximate equal proportions (51.2% unmarried, 48.8% married). On the average, those that were married reported having been married for slightly less than two years (mean = 20.3 months, SD 20.2, skewness = 1.442), ranging from a minimum of 1 month to a maximum of 8 years. In general, the pregnant adolescent in the total sample lived with her husband or with her parents. A substantial percentage (42.0%) reported living either with the husband or with husband and his family; and another substantial percent (44.0%) were living at home with either mother or father, with both parents, or with a parent and a stepparent. Only 7.7% of the total sample indicated that they were living alone. Other living arrangements such as living with relatives or friends were reported by 12.4% of the total sample (see Table 4).

A large number (39.1%) of the young women in this study did not know the monthly income of the household. In general, however, the participants were of low income level, with 41.5% reporting a monthly income of less than \$1000.00, 15.5% reporting between \$1000.00 and \$2000.00 a

month, and only 3.9% reporting income of more than \$2000.00.

Table 4.

Frequency and Percent of Subjects in Sample According to Living Arrangements

Living Arrangement	Frequency	%
Alone	16	7.7
With Mother	64	30.9
With Father	21	10.1
With Mother and Stepfather	4	1.9
With Father and Stepmother	2	1.0
With Boyfriend/Boyfriend's family	17	8.2
With Husband/Husband's family	87	42.0
With Relatives	19	9.2
With Others	7	3.4

The Pregnancy Situation of the Sample

The information obtained relevant to the young women's pregnancy situation indicates that, in general, the subjects in the study were primiparas, past the first

trimester of pregnancy, and had not planned to get pregnant.

As observed in Tables 5 and 6, a slight majority (55.6%) of the subjects were experiencing their first pregnancy, and they were in the third trimester of pregnancy (59.3%). Although a considerable proportion was married, a higher proportion (61.8%) reported that the pregnancy was unplanned. Only 79 subjects (38.2%) reported that they had intended to get pregnant.

Table 5

Frequency Distribution of Sample by Number of Previous Pregnancies

Previous pregnancies	Frequency	%
None	115	55.6
One	67	32.4
Two or more	25	12.1
Total	207	100.1

When asked to identify a reason why they were pregnant, 40.1% of the total sample could not identify a reason, and 21.7% indicated reasons such as getting

careless or forgetting to take the birth control pill. Twenty one percent of the participants indicated that it was time to have a baby, suggesting that these young women were part of the group for whom the pregnancy was a

Table 6

Distribution of Sample by Stage of Pregnancy

Stage	Frequency	%
First trimester, < 12 weeks	15	7.2
Second trimester, 12.1 - 24 weeks	67	32.3
Third trimester, > 24.1 weeks	123	59.4
No response	02	.9
Total	207	99.8

Mean = 26.8, SD = 9.02, Skewness = -.410

planned pregnancy. Other psychological reasons offered by some theorists as reasons for pregnancy among adolescents and young women, such as, to get back at parents, to have someone to love, to make boyfriend happy, etc., were chosen very infrequently by the subjects (see Table 7).

Table 7.

Frequency and Percent of Subjects According to Reason for
Pregnancy

Reason	Frequency	%
Feel like an adult	3	1.4
Have someone to love	45	21.7
Didn't know could get pregnant	13	6.3
Felt it was time to have a baby	46	22.2
Wanted to be like friends	2	1.0
Make boyfriend happy	7	3.4
Make up for a loss	3	1.4
Get back at parents	2	1.0
Don't know, it just happened	83	40.1
Other reasons, i.e. got careless, forgot to take birth control pill, etc.	45	21.7

When asked to identify the amount of emotional support they felt they were getting from significant others that were available to them, the majority of subjects identified at least one person who they perceived as giving support during the pregnancy. The mother was

available and was perceived as providing some or a lot of support by 82.1% (n = 170) of the subjects. For a large majority of participants (80.6%, n = 167), the father of the baby was available and provided emotional support. Sixty six percent had a girlfriend that provided some degree of support. Significant others such as sisters, brothers, husband's or boyfriend's relatives, grandparents, relatives, and friends were perceived by some of the subjects as providing some support, although the proportions of young women indicating these individuals as supportive were considerably smaller. See Table 8 for summary of results.

Concerning plans for raising the baby, the majority of the subjects in this sample had already made a decision in this regard. Seventy-one percent of the subjects indicated that they and the father of the baby would raise the baby. Another 22.7% indicated that they alone would do so. Very few stated that the parents alone or others would take the responsibility, and few (2.9%) stated they had not decided (see Table 9). None of the subjects reported they planned to place the baby for adoption.

Table 8.

Percent of Subjects According to Support from Significant
Others category

Significant Other	% of subjects			
	A lot	Some	None	N/A
Mother	61.8	20.3	9.2	8.7
Father	28.5	25.6	23.2	22.7
Baby's father	63.3	17.4	14.0	5.3
Girlfriend	34.3	31.9	12.6	12.6
Sister(s)	40.6	24.6	10.6	10.6
Brother(s)	22.2	29.0	20.3	20.3
Grandparents	26.6	21.7	20.8	30.9
Relatives	20.3	36.7	13.5	29.5
Boyfriend/Husband's family	36.2	50.3	19.8	15.9
Others	5.3	1.9	2.4	90.3

Description of Ethnic Groups

Significant differences were identified among the groups relevant to marital status, school attendance, educational level, some of the living arrangements cited, and pregnancy status characteristics. These findings are

Table 9.

Distribution of Sample by Decision Regarding Raising the
Baby Category

Decision	Frequency	%
Raise baby alone	47	22.7
Raise baby in union with the father of the baby	147	71.0
Parents of adolescent to raise the baby	3	1.4
Do not know yet	6	3.0
Others will raise	4	1.9
Total	207	100.0

presented in two parts. A description of the differences and similarities in demographic characteristics among the three subgroups is presented first, followed by a comparative description of the groups as to the pregnancy situation variables.

Demographic Characteristics of the ethnic groups

The demographic characteristics of the black, hispanic, and white anglo-saxon groups of subjects are presented in Tables 10 through 18.

The white anglo-saxon subjects were slightly older than the black or hispanic participants (see Table 10). This slight difference, however, did not reach statistical significance.

In general, the white anglo-saxon and the black subjects had attained a higher educational level than the hispanic subjects. On the average, both the black and white groups had completed the 11th grade (Mean = 11.0, SD = 1.59 for the black group, and Mean = 11.0, SD = 1.92 for the white group), while the highest grade mean for the hispanics was 8.9 (SD = 2.66). An analysis of variance test (ANOVA) was computed to ascertain whether the difference in means among the three groups was significant. Table 11 summarizes the results of the analysis. A statistical difference among the three means was identified.

Moreover, although the majority of hispanic subjects reported being educated in the United States, another 32.7% obtained their education in a Latin American country such as Mexico, El Salvador, or Ecuador. One subject of the black group was educated in Nigeria, and one white

Table 10

Mean Age and Standard Deviation by Ethnic Group

Group	Mean	SD
Black	18.5	2.44
Hispanic	18.9	2.77
White Anglo-saxon	19.6	2.44

Table 11

Summary of Analysis of Variance on the Mean Educational Level of Ethnic Groups

Source	df	SS	MS	<u>F</u>	<u>p</u>
Between Groups	2	215.500	107.750	22.326	0.0
Within Groups	293	979.703	4.826		

anglo-saxon subject had been educated in Canada. All other subjects in the black and white anglo-saxon group were educated in the United States.

Subjects in the black group did better in school attendance than the other two groups. Although the great majority of subjects in all groups did not attend school, of those that did attend school, more black young women

did so than hispanic or white anglo-saxon subjects (see Table 12).

Table 12

Distribution of Sample by School Attendance and Ethnic Group

Category	Ethnic Group			Total
	Black	Hispanic	White	
Attending school	18	11	3	32
Not attending school	45	78	52	175
Total	63	89	55	207

Mean = 31.154, 2 df, $p = .001$

The three groups also differed significantly in marital status, as can be observed in Table 13. Whereas subjects in the hispanic and white groups were predominantly married, the majority of black participants was not married. When comparing the total number of subjects in each group that were not married, the black subgroup had the highest percentage of subjects in this category. The majority of the married women in the study

was hispanic. These findings coincided with the findings relevant to the planning of the pregnancy. In comparison with the black and white groups, whose majority of subjects reported that the pregnancy was not planned, a significantly large proportion of hispanics indicated that the pregnancy was planned.

Mean length of time married for the white subjects was 22.0 months (SD = 20.0), slightly higher than the hispanic and the black group means (Mean = 19.9, SD = 21.67, and Mean = 16.77, SD = 11.80, respectively). This difference was not statistically significant.

Table 13

Distribution of Sample by Marital Status by Ethnic

Group

Marital Status	Ethnic Group			Total
	Black	Hispanic	White	
Married	10	53	38	101
Not married	53	36	17	106
Total	63	89	55	207

Mean =40.51, 2 df, $p = < .0001$

Description of ethnic groups by pregnancy situation

Tables 14 through 18 provide a comparative description of the pregnant adolescents by ethnic group on variables relevant to the pregnancy situation. The groups are compared on gestation period, whether the pregnancy was a planned pregnancy or not, number of previous pregnancies, reason for getting pregnant, sources of emotional support, and decision about the baby.

The black, hispanic, and white anglo-saxon pregnant adolescents in this study did not differ significantly in the number of weeks pregnant. Table 14 presents the calculated mean number of weeks gestation by ethnic group. On the average, subjects in all three groups were early in the third trimester of pregnancy.

Table 14

Mean Number of Weeks Gestation by Ethnic Group

Group	Mean	SD
Black	28.65	9.02
Hispanic	27.75	8.55
White anglo-saxon	25.63	9.69

$F = .9565, p = .3860$

A statistically significant difference was found among the groups on the planning of the pregnancy. Table 15 displays the distribution of subjects in each group on whether the pregnancy was planned or unplanned. Of the 79 subjects in the total sample that responded that their pregnancy was planned, 59.5% were hispanics. The black group had the highest proportion (38.3%) of subjects indicating that their pregnancy was unplanned. These findings were statistically significant (Mean = 15.561, $df = 2$, $p < .001$).

Table 15

Distribution of Subjects by Planning of Pregnancy and
Ethnic Group

Category	Ethnic Group			Total
	Black	Hispanic	White	
Planned	14	47	18	79
Unplanned	49	42	37	128
Total	63	89	55	207

Mean = 15.56, $df = 2$, $p < .001$

No statistically significant differences were found among the three groups based on number of previous pregnancies. The majority of subjects in all three groups in this study reported no previous pregnancies. Of those reporting one or two previous pregnancies, a slight majority were hispanics (see Table 16).

The findings regarding the reasons for getting pregnant by ethnic group are summarized in Table 17. Frequency distribution of subjects answering positively in each category by ethnic group are presented. As observed Table 16

Distribution of Subjects by Number of Previous Pregnancies and Ethnic Group

Previous Pregnancies	Ethnic Group			Total
	Black	Hispanic	White	
None	33	51	31	115
One	22	28	17	67
Two or more	8	10	7	25
	63	89	55	207

in the table, the groups differed significantly on four reason categories: have someone to love, time to have a baby, just happened, and other reasons such as carelessness or forgetting to take the birth control pill. Proportionately more hispanics than white or black subjects cited the sentimental reasons such as someone to love and time to have a baby. Of those who indicated they did not know, or that it just happened, the greater proportion was black. A greater proportion of those citing other reasons such as carelessness was white.

There was no statistically significant difference among the groups based on the perceived support from significant others, with the exception of support from the mother. As observed in Table 18, black and hispanic subjects tended to perceive more support from the mother when this person was available. This finding was statistically significant.

The groups did not differ significantly on decision about the baby. A large majority of subjects in all three ethnic groups either planned to raise the baby in union with the father or by themselves.

Table 17

Frequency of Positive Responses on Reasons
for Pregnancy by Ethnic Group

Reason	Total	Ethnic Group		
		Black	Hispanic	White
Feel like an adult	3	1	2	-
Have someone to love	45	13	27	5**
Didn't know could get pregnant	13	3	7	3
Felt it was time to have a baby	46	6	27	13**
To be like friends	2	-	2	-
Make boyfriend happy	7	2	4	1
Make up for a loss	3	2	1	-
Get back at parents	2	1	-	1
Don't know, just happened	33	36	28	19**
Other, i.e. careless	45	9	16	16*

* $p = <.05$, ** $p = <.01$

Testing of The Hypotheses

The presentation of the results for each hypothesis includes: a restatement of the hypothesis being tested, descriptive statistics of the relevant data used in the

Table 18

Distribution of Sample by Perceived Emotional Support
From the Mother by Ethnic Group

Support	Ethnic Group			Total
	Black	Hispanic	White	
None	6	8	5	19
Some	15	8	19	42
A lot	39	60	29	29
Not available	3	13	2	18
Total	63	89	55	207

analysis, the statistical procedure(s) used and its purpose in the specific situation, and, description of the findings including tables and figures accordingly.

Hypothesis One

Hypothesis one stated: There is no significant difference in Purpose in Life Test (PIL) scores among black, hispanic, and white pregnant young women. The research question addressed was: To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ on the Purpose in Life (PIL) Test scores?

Prior to testing hypothesis one, the internal consistency reliability of the PIL was verified by means of the SSPSx package Reliability procedure. Cronbach's alpha was estimated at 0.83, indicating that the test was reliable in measuring purpose in life, and the PIL total score would be acceptable for comparison among groups.

The PIL total score for each subject was computed through summation of the 20 PIL Test items as indicated by Crumbaugh & Maholick (1969). The mean PIL total score for the entire sample was 103.59, SD = 16.1. Although the hispanic young women had a slightly higher mean score than the other two groups, the PIL means for the three groups were very similar (see Table 19).

Table 19

Mean and Standard Deviation of Purpose in Life (PIL) Total Scores by Ethnic Group

Group	Mean	SD
Black	102.85	16.23
Hispanic	104.79	16.03
White Anglo-Saxon	102.47	16.39

The one-way analysis of variance (ANOVA), where $n_1 = 63$, $n_2 = 89$, and $n_3 = 55$, was used to test the hypothesis of no difference among the groups on the PIL total mean scores. A significance level of .05 was considered acceptable for rejection of the null hypothesis that the PIL total score means of the three groups were all equal. Results of the ANOVA calculations are displayed in Table 20.

Table 20

Summary of Analysis of Variance on Purpose in Life (PIL)
Total Scores of Black, Hispanic, and White Anglo-Saxon
Pregnant Adolescents

Source	df	SS	MS	<u>F</u>	<u>p</u>
Between	2	232.31	116.15	.44	.64
Within	204	53483.78	262.17		
Total	206	53716.09			

As observed in Table 20, the resulting F statistic was .44, with a probability of .64. Since the computed F was lower than the critical value of $\underline{F} = 3.04$, (.95; 2,203), and the probability was higher than the established .05

significance level, Hypothesis 1 was accepted. This finding indicated that the groups did not differ on the total PIL mean scores.

Factor Analysis of the Purpose in Life Test

Additional analysis was conducted to further ascertain whether or not the total PIL total score in this population represented a homogenous dimension of purpose in life as proposed by its authors (Crumbaugh & Maholick, 1964). Exploratory factor analysis was conducted using principal components and maximum likelihood extractions with varimax and oblique rotations using one to six factor solutions. Such a sequential approach is recommended when the objective is to arrive a factor pattern that best fits the data (Kim, 1986a). The eigen value of 1 criteria was utilized for extraction of factors and a .30 factor loading was utilized for interpretation of factor composition.

The solution that appeared to best fit the data was the six factor solution derived by maximum likelihood extraction with varimax rotation. Six factors were extracted with eigen values greater than one in 11 iterations, and they accounted for 58.8% of the variance.

The meaning of each factor was obscured by several

items that had minimal loadings of .30 on several factors, however. To facilitate interpretation of the factors, the loading criteria was raised to .45 and the factors with less than three items were eliminated. In this manner, Factors 5 and 6 were eliminated, leaving four interpretable factors that accounted for 48.4% of the variance. This four-factor structure in this population was compatible with the scree plot that indicated 4 to 5 factor composition.

Table 21 shows the eigen values and the percent of variance accounted for by the four factors. The factor correlation matrix is in Appendix G.

Table 21

Eigen Values, and Percent of Variance For The Purpose in
Life (PIL) Factors

Factor	Eigen Value	Pct of Var	Cum Pct
1	5.16775	25.8	25.8
2	1.79486	9.0	34.8
3	1.50165	7.5	42.3
4	1.21038	6.1	48.4

Factor 1 was labeled "Accomplishment of Life's Goals", and it was composed of 4 items (8, 1, 3, and 4) that seemed to indicate a sense of accomplishment of some established goals, and a sense of control and direction in life. Factor 2 was labeled "Happy with Self", and it was composed of 6 items (13, 11, 12, 20, 9, and 6) that seemed to indicate a sense of happiness, or positive outlook of self and life. Factor 3 was labeled "Enthusiasm about the Future" and was composed of 3 items (2, 10, and 5) that seemed to indicate a sense excitement and adventure in living. Factor 4 was labeled "Control of Life" and was composed of 3 items (14, 16, and 19), and it seemed to indicate a sense of contentment and control of own future.

It was therefore concluded that the Purpose in Life Test scores of this population represented four dimensions. Further analysis of Hypothesis one was therefore warranted.

Further Analysis of Hypothesis One

Four subscale scores were computed per subject through summation of the item scores relevant to the factors. The four subscales were: Goal Accomplishment, Happiness with Self, Enthusiasm about Future, and Control of Own Life.

Group mean scores for the four PIL subscales were computed based on ethnicity.

Cronbach's alpha estimates were calculated for each subscale to ascertain their internal consistency reliability (Waltz, Strickland, & Lenz, 1984). The Cronbach's alpha estimates for each subscale were: Goal Achievement, 4 items, $\alpha = .73$; Happiness with Self, 6 items, $\alpha = .75$; Enthusiasm About The Future, 3 items, $\alpha = .60$; and Control of Own Life, 3 items, $\alpha = .44$.

The group means were then compared utilizing a series of one-way analysis of variance (ANOVA) for the purpose of determining if there were significant differences in subscale scores among the three groups. No statistically significant difference in mean scores was found on any of the PIL subscales. The null hypothesis was accepted that there is no significant difference of PIL Test subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents. Table 22 contains a summary of the analysis of variance results for each subscale.

Hypothesis Two

Hypothesis two stated: There is no significant difference among black, hispanic, and white anglo-saxon

pregnant adolescents on the Cognitive Appraisal Questionnaire scores. The research question addressed was: To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ on the Cognitive Appraisal Questionnaire scores?

Table 22

Summary of Analysis of Variance on the Four PIL
Subscale Scores of Black, Hispanic, and White Anglo-Saxon
Pregnant Adolescents

Source of Variance	SS	df	MS	<u>F</u>	<u>p</u>
Subscale: Accomplishment					
Between Groups	74.3788	2	37.1894	2.6480	.07
Within Groups	2865.0221	204	14.0442		
Total	2939.4010	206			
Subscale: Happiness					
Between Groups	54.5464	2	27.2732	.7688	.46
Within Groups	7236.7676	204	35.4744		
Total	7291.3140	206			
Subscale: Enthusiasm					
Between Groups	27.2603	2	13.6302	.8240	.44
Within Groups	3374.4595	204	16.5415		
Total	3401.7198	206			
Subscale: Control					
Between Groups	10.1391	2	5.0696	.3907	.67
Within Groups	2646.7304	204	12.9742		
Total	2656.8696	206			

In testing Hypothesis 2, discriminant analysis was used to: (1) determine for which of the individual variables was there a significant difference among the three ethnic groups when they appraised their pregnancy situation, (2) determine which were the combination of variables that reflected underlying functions and that discriminated among the groups in their appraisal of the pregnancy situation. A significance level of .05 was considered acceptable for rejection of the hypothesis. The variable names used in the analysis procedures for testing Hypothesis 2 were: Control, Importance, Desirability, Outcome, Urgency, Difficulty, Challenge, Threat, Stress, and Effective Coping (see Appendix E).

Findings

The results of the discriminant analysis for group differences on the cognitive appraisal variables are presented here as suggested by Klecka (1980) and include: 1) testing of the hypothesis which involves determining whether the 10 appraisal variables can, as a set, differentiate between the groups, 2) identification of the discriminant functions that are statistically and substantively significant, 3) examination of the structure

coefficients along with the group centroid positions for an explanation of the meaning of each function, 4) measurement of the relative discriminating power of the individual variables that make up the discriminating functions.

Test of hypothesis

Klecka (1980) explains that while Wilks' Lambda is a multivariate measure of group differences over several variables (the discriminating variables), it is best used as an intermediate statistic by converting it into a test of significance such as chi square or the F statistic. The Wilks lambda was used to evaluate the hypothesis of equal means on the ten predictor variables associated with each criterion group.

As observed in Table 23, the Wilks Lambda calculated for the discriminating variables prior to the derivation of any discriminant functions indicated that four of the ten variables were significantly different among the three groups. These variables were: Desirability, Outcome, Urgency, and Difficulty.

The canonical discriminant functions

In light of the significant differences in means of four of the cognitive appraisal variables among the three groups, discriminant analysis proceeded to identify the underlying discriminating dimensions and to test their significance by means of the Wilks Lambda (U) statistic.

Table 23

Wilks' Lambda (U-Statistic) and Univariate F-ratio with 2 and 200 Degrees of Freedom for Cognitive Appraisal

Variables

Variable	Wilks' Lambda	<u>F</u>	<u>p</u>
Control	.99848	.1526	.8586
Importance	.99161	.8463	.4305
Desirability	.92811	7.746	.0006*
Outcome	.96323	3.818	.0236*
Urgency	.87304	14.54	.0000*
Difficulty	.96347	3.792	.0242*
Challenge	.98163	1.871	.1566
Threat	.97681	2.374	.0958
Stress	.99519	.4835	.6173
Effectiveness	.99241	.7649	.4667

* $p < .05$

According to Klecka (1980), a canonical discriminant function is a linear combination of the discriminating variables which are formed to satisfy certain conditions,

and it represents the maximum group differences of means on the predictive variables (p. 16).

Results of the analysis yielded two significant discriminant functions that maximized the differences among the three groups based on the 10 discriminating appraisal variables (see Table 24).

Table 24

Canonical Discriminant Functions for the 10 Cognitive Appraisal Variables among Black, Hispanic, and White Anglo-Saxon Pregnant Adolescents

Fcn	Eigen value	Percent of variance	Cum percent	Canonical correlation
1	.3154	74.27	74.27	.4897
2	.1092	25.73	100.00	.3138

As noted on Table 24, the eigen value of Function 1 is almost three times as large as that of Function 2 and that Function 1 accounted for 74% of the total discriminating power of the two combined functions. This finding is interpreted as indicating that most of the significant information about group differences was absorbed by Function 1, the most powerful of the two.

The Wilks lambda for both functions when considered simultaneously was .6852, as observed in Table 25. This Wilks' Lambda was equivalent to a chi square of 74.071, $df = 18$, $p < .0001$. The null hypothesis that the means of both functions are equal in the three populations can be rejected. Hypothesis 2 was therefore not accepted.

Table 25

Statistics For The Two Canonical Functions Identified In
Black, Hispanic, and White Anglo-Saxon Pregnant
Adolescents.

After Fcn	Wilks' Lambda	Chi- Square	df	p
0	.6852	74.071	12	.0000
1	.9014	20.327	8	.0092

The Wilks' lambda associated with Function 2 after Function 1 was removed was .9014, equivalent to a chi square of 20.327, $df = 8$, $p < .01$. Since the observed significance level is less than the established .05, the null hypothesis that the means in the second function are equal in the three populations can be rejected. Hence, Function 2 also makes a statistically significant

contribution towards differentiation among the groups, although to a lesser degree than Function 1.

The magnitude of the discriminating power of function 1 was further verified in its derived canonical correlation coefficient (see Table 24). The canonical correlation coefficient is a measure of association which summarizes the degree of relatedness between the groups and the discriminant function (Klecka, 1980, p. 36). The measure is useful in judging the substantive utility of the function because it reports how well it is performing in its discriminating ability (Klecka, 1980). As observed in Table 24, Function 1 had a moderate canonical correlation of .44 and Function 2 had a weak correlation of .29. This finding indicates that although the discriminant power found for Function 1 is not very strong, Function 1 does separate the groups and it is the most powerful of the two functions.

The meaning of the discriminant functions

The relationships between the individual variables and the canonical discriminant functions identified were used to interpret the meaning of the functions. According to Klecka (1980) the pooled-within-groups correlation coefficients are useful in identifying the kind of

information within the function that helps discriminate between the groups, as well as in identifying the meaning and name of the function through the variables with the highest correlation.

The correlations between the individual appraisal variables and the two discriminant functions identified in the study are presented in Table 26. The variables with the highest correlations for each function and that are utilized for interpretation of meaning in both functions are denoted by asteriks.

The loading matrix in Table 26 shows that the first discriminant function is correlated most highly with Urgency ($r = .67$) and Difficulty ($r = .34$), while Function 2 is loaded most heavily with both Desirability ($r = .58$) and Outcome ($r = .58$). Desirability also loaded on Function 1 at a very low level.

Based on the factor loadings described, Function 1 appears to discriminate the groups on appraisal of the pregnancy situation and its difficulties as a situation that needs to be resolved. Discriminant function 1, therefore, was named 'Appraisal of need for resolution of a difficult pregnancy situation'.

The variables with the highest correlations for Function 2 were Desirability ($r = .58$) and Outcome ($r = .58$). The loadings on these two variables seem to

Table 26

Pooled-Within-Groups Correlations Between Discriminating Variables and Canonical Discriminant Functions

Variables	Func 1	Func 2
Urgency	.67013*	.18507
Difficulty	.34668*	.00443
Challenge	- .23981	.07230
Control	- .06724	- .03018
Desirability	.35398	.58913*
Outcome	- .02907	.58899*
Threat	.22024	- .27781
Effectiveness	- .00901	.26413
Importance	.16398	.21931
Stress	.06703	.17684

indicate that Function 2 discriminates the groups as to how good they feel about their pregnancy and their positive expectations of the outcome. Based on these

loadings, Function 2 was named 'Appraisal of goodness of the pregnancy situation and outcome'.

Thus, Function 1 is the most powerful discriminator and it separates the groups as to their perception of the pregnancy situation as needing to be resolved in its difficulties. Function 2 separates the groups as to how positive they appraise their pregnancy situation and its expected outcome. These differences can be better visualized by means of a territorial map that demonstrates the relative position of each group on both functions, or dimensions.

Territorial map of discriminant functions

Figure 5 is a territorial map of the three groups in this study and it depicts the position of their group centroids relative to the two discriminating functions identified. The group centroid represents an imaginary point which has coordinates that are the means of the discriminant scores for each group on the two functions. As the typical position for the group on the 10 variables, the centroid summarizes the position of a group in a dimensional space, and therefore helps in identifying how the groups differ (Klecka, 1980).

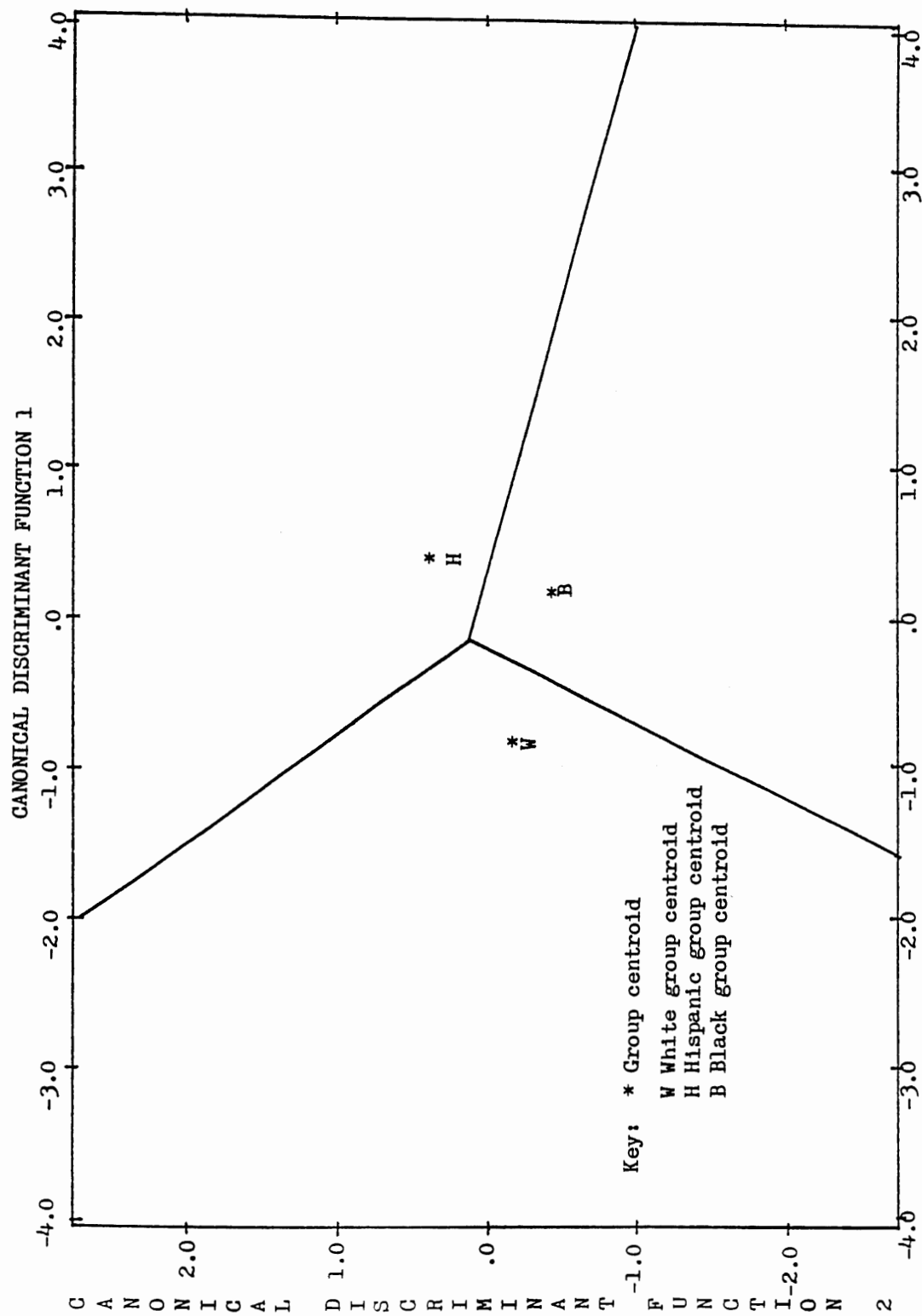


Figure 4. Territorial map of discriminant function group centroids for black, hispanic, and white pregnant adolescents on cognitive appraisal.

Table 27

Canonical Discriminant Functions of Cognitive Appraisal
Evaluated at Group Means (Group Centroids) for Black,
Hispanic, and White Anglo-Saxon Pregnant Adolescents

Group	Group Means	
	Function 1	Function 2
Black	.1701	- .4725
Hispanic	.4125	.4138
White Anglo-Saxon	- .8412	- .1306

The group centroid for the black, hispanic, and white subjects that appear plotted in the territorial map are listed in Table 27. The group mean values on Function 1 differ more between the hispanic (mean = .41) and the white anglo-saxon (mean = - .84) group. On Function 2, the group means of the black and white groups are closer together, with the black group centroid (mean = -.47) having a greater negative value than the hispanic group (mean = -.13).

The horizontal dimension in Figure 4 represents Function 1, or 'Urgency in dealing with pregnancy

situation', while the vertical dimension represents Function 2, or 'Desirability of the pregnancy situation'. As can be observed in Figure 4, the horizontal axis, or Function 1, clearly separates the white anglo-saxon group from the hispanic and black groups. The separation based on Function 2 is not as pronounced, as noted by the positioning of the respective group centroids.

Function 2 separates the black group from the other two groups, although to a lesser degree than Function 1. As can be observed in Figure 4, the three group centroids are located in close proximity to each other relative to the vertical axis. This substantiates the low discriminating power of Function 2 relative to Function 1.

The findings relative to Function 1, are interpreted as indicating that the hispanic subjects, more so than the white and black subjects, tended to appraise their pregnancy situation as somewhat difficult and needing to be resolved. The negative group mean of the white subjects appear to indicate that this group tended to appraise the pregnancy situation with less urgency, in comparison to the hispanic and black groups. That is, the white subjects tended to see the situation as easier to

deal with and therefore not as a situation that needed to be resolved.

The findings relative to Function 2 are interpreted as indicating that of the three groups, the hispanic group and the white group tended to appraise the pregnancy situation as more desirable and to be more positive about the outcome. The black group, however, tended to appraise the pregnancy situation as less desirable and tended to be less optimistic about the outcome.

Hypothesis Three

Hypothesis 3 stated that: There is no significant difference in the Coping Behaviors Inventory (CBI) subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents. The research question addressed was: To what extent do black, hispanic, and white anglo-saxon pregnant adolescents differ on the Coping Behaviors Inventory (CBI) subscale scores?

The Coping Behaviors Inventory Subscales

The nine subscales that represent the 9 factors underlying the CBI as identified by Kaus were the following: Evaluation and Problem Solving, Optimistic

Thinking, Seeking Information, Changing Self and Environment, Social Support, Wishful Thinking, Denial and Avoidance, Religion, and Minimize Importance.

Prior to testing Hypothesis 3, estimates of the internal consistency reliability of the Coping Behaviors Inventory (CBI) were generated. Cronbach's alpha for the subscales are reported in Appendix J.

Hypothesis three was tested using discriminant analysis (1) to determine for which of the individual CBI subscales was there a significant difference among the three groups, and (2) to determine which were the CBI subscales that grouped together to form underlying dimensions and that discriminated among the groups on the way they coped with the pregnancy situation.

Findings

As in Hypothesis 2, the results of the discriminant analysis for group differences on the CBI subscale scores are presented according to each step undertaken: (1) testing of the hypothesis which involves determining whether the 9 subscales can, as a set, differentiate between the groups, (2) identification of the discriminant functions that are statistically and substantively

significant, (3) examination of the structure coefficients along with the group centroid positions for an explanation of the meaning of each function, and (4) measurement of the relative discriminating power of the individual variables that make up the discriminating functions.

Testing of the Hypothesis

The scores for the 9 subscales were computed by summing the item scores for each scale. Tabachnick & Fidell (1983) suggest that summation of the scaled variable scores loading highly on a factor is the simplest way of obtaining a factor score that is representative of that latent dimension. Mean scores and standard deviations for each subscale by ethnic group are listed in Appendix I.

As in Hypothesis 2, the Wilks lambda statistic was used to evaluate the hypothesis of equal means on the nine CBI subscales associated with each ethnic group. Table 28 shows the Wilks Lambda calculated for the discriminating variables (subscales) prior to the derivation of the discriminant functions.

As can be observed in Table 28, six of the 9 subscales were significantly different among the three groups. They

were: Evaluation and Problem Solving, Change Self and Environment, Wishful Thinking, Denial and Avoidance, Religion, and Minimizing Importance.

Table 28

Wilks' Lambda (U Statistic) and Univariate F-Ratio with 2
and 200 Degrees of Freedom for the 9 CBI Subscales

Variable	Wilks' Lambda	F-Ratio	Signif
Evaluation and Problem Solving	.96137	4.099	.0180*
Optimistic Thinking	.98348	1.713	.1828
Seeking Information	.99639	0.370	.6912
Chang Self and Environment	.97099	3.047	.0497*
Social Support	.99585	0.425	.6541
Wishful Thinking	.86187	16.350	.0000*
Denial and Avoidance	.96899	3.264	.0402*
Religion	.94500	5.937	.0031*
Minimize Importance	.92431	8.353	.0003*

* $p < .05$

Hypothesis 3 was not accepted. Statistically significant differences in six of the CBI subscale scores were found among the black, hispanic and white anglo-saxon pregnant adolescents.

The Canonical Discriminant Functions

Because significant differences in the means of six subscales were identified, the next step was the identification of the underlying discriminating dimensions of these variables, and to test their significance by means of the Wilks Lambda (U) statistic. The canonical discriminant function represents the maximum group differences of means on the 9 subscales (Klecka, 1980).

Two discriminant functions that maximized the differences among the three groups based on the 9 subscales were identified. The two discriminant functions identified, eigen values, percent of variance explained, and the canonical variates are displayed in Table 29.

Table 29 demonstrates that Function 1 is the most powerful of the two functions, as denoted by the eigen value of .2936, compared to a low eigenvalue of .0632 for Function 2. Table 30 shows that both functions were

statistically significant. The null hypothesis that the means of both discriminant functions are equal in the three ethnic groups is therefore not accepted. It is Table 29

Canonical Discriminant Functions for the 9 CBI Subscales among Black, Hispanic, and White Anglo-Saxon Pregnant Adolescents

Function	Eigen Value	Percent of Variance	Cumul Percent	Canon Correlation
1	.2936	82.29	82.29	.4476
2	.0632	17.71	100.00	.2438

concluded that both functions make a statistically significant contribution towards discriminating among the groups on coping behaviors, with Function 1 being the most powerful of the two.

The power of Function 1 is further verified through the corresponding canonical correlation coefficient listed in Table 29. As discussed in testing Hypothesis 2, the canonical correlation is useful in judging the substantive utility of the function (Klecka, 1980). Function 1 ($R_C = .4476$), while Function 2 has very limited discriminating utility ($R_C = .2438$).

Table 30

Statistics of the Two Discriminant Functions of the Coping Behaviors Inventory (CBI) Subscales

After Function	Wilks' Lambda	Chi Square	Df	p
0	.7525	57.449	10	.0000
1	.9413	12.214	4	.0158

The meaning of the discriminating functions

The subscales with the highest correlations, and therefore the most important for Function 1 and 2 are listed in Table 31 and denoted with asterisks. As observed, the subscales with the loadings above .30 on function 1 were Wishful Thinking, Minimizing Importance, Religion, and Denial and Avoidance. Less important was Optimistic Thinking. On function 2 the subscales with loadings above .30 were Evaluation and Problem Solving and Changing Self and Environment. Less important were Seeking Information and Social Support (see Table 31).

The loading of the subscales on the discriminant functions seemed to separate the subscales into two

Table 31

Pooled-Within-Groups Correlations Between the CBI
Subscales and the Canonical Discriminant Functions

Subscale	Function 1	Function 2
Wishful Thinking	.71938*	.36744
Minimizing Importance	.51866*	.26541
Religion	.44246*	.01892
Denial and Avoidance	.35920*	.14271
Optimistic Thinking	- .20615*	.20542
Evaluation and Problem Solving	.15569	.69738*
Change Self and Environment	.16730	.37256*
Social Support	- .04172	.28160*
Seeking Information	.08746	.13687*

Note: The most important subscales on each function are identified with an asterisk.

dimensions of coping: emotionally based behaviors directed at relieving some of the psychological concerns, and action behaviors directed at resolution of problems related to the situation. The functions were therefore

named thusly: Function 1 - Emotion based coping and
Function 2 - Activity based coping.

Territorial Map of the Discriminant Functions

The group centroids, or group means on each function are listed in Table 32. On Function 1 the values are more notably different between the black group (mean = .543) and the white group (mean = -.848). On function 2 the most notable difference is between the hispanic group (mean = -.279) and the black group (mean = .280). The group centroids, or the groups' typical positions on the 9 subscales, are plotted on the territorial map shown in Figure 5.

Table 32

Canonical Discriminant Functions at Group Centroids on the 9 CBI Subscales for Black, Hispanic, and White Anglo- Saxon Pregnant Adolescents

Group	Function 1	Function 2
Black	.5433	.2807
Hispanic	.1395	- .2799
White Anglo-Saxon	- .8482	.1314

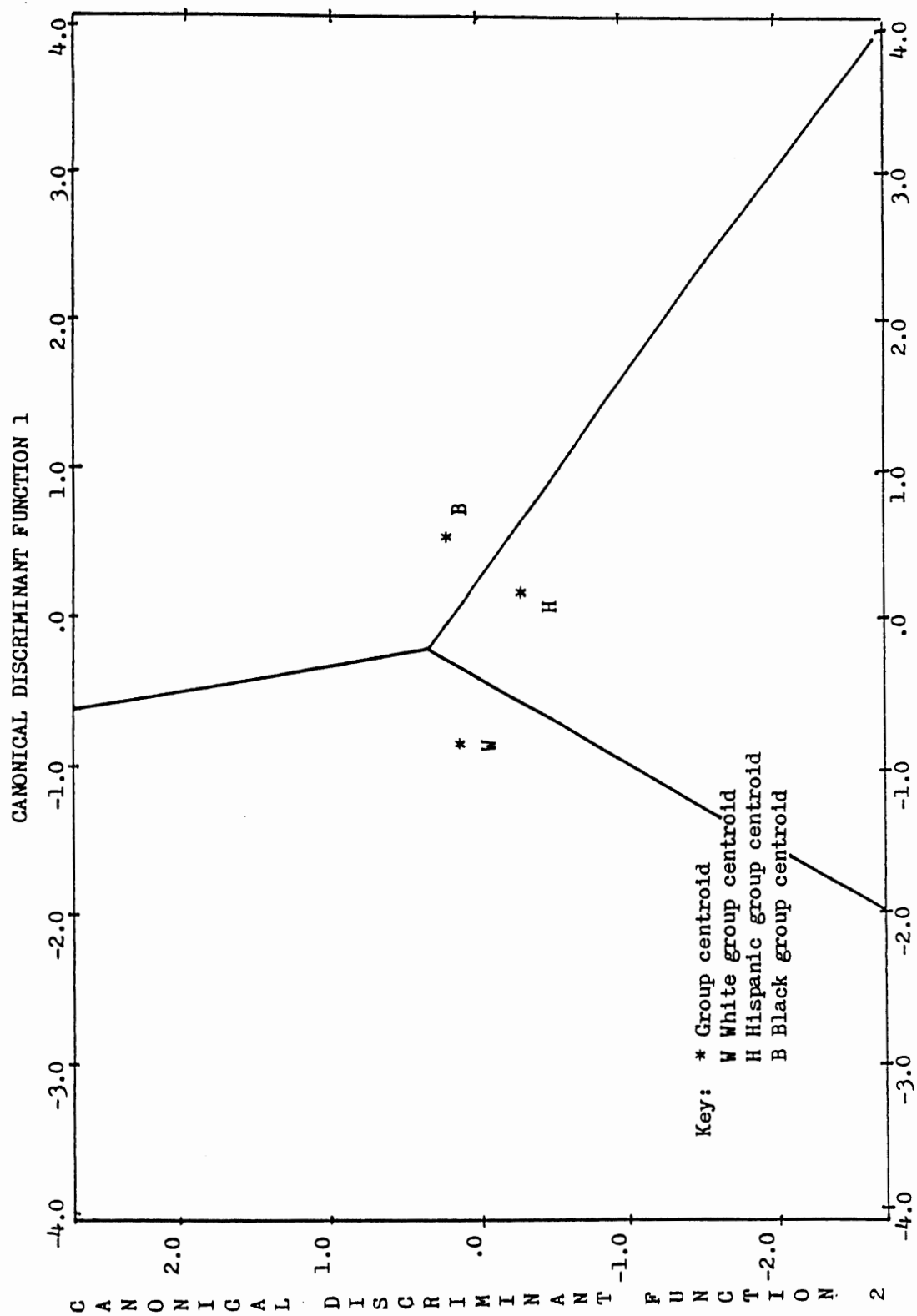


Figure 5. Territorial map of discriminant function group centroids for black, hispanic, and white pregnant adolescents on coping behaviors.

As can be observed in Figure 5, Function 1, Emotion based coping separates the three groups reasonably well. The major distinction, however, is between the white anglo-saxon group and the black group, as noted by the positioning of the group centroids further apart than between whites and hispanics, and hispanics and blacks. This separation is further confirmed in the values of the group centroids listed in Table 32. The black group, and the white group seem to be most differentiated on Function 1, with the black group achieving a higher positive group mean on this dimension than the white group.

The interpretation is made that the black group differed from the white anglo-saxon group and less so from the hispanic group in the extent of emotion based coping behaviors used in dealing with the pregnancy. Subjects in the black group tended to use more emotion based coping behaviors than the white and hispanic groups. Hispanics reported using these mechanisms also, but to a lesser degree than did the black group. White subjects on the other hand, were most differentiated from the black and hispanics by the negative mean value (-.84) on the emotion based behaviors.

Differences among the groups were less marked along Function 2, problem solving coping behaviors. This function discriminated mostly between hispanics and blacks, as noted by the group centroids identified in Table 31 and their positioning on the map. Hispanic subjects, as a group, tended to use less problem-solving behaviors in relation to their pregnancy, than white anglo-saxon and black subjects.

Based on the values and positioning of the group centroids on both functions and in relation to each other, the following conclusion is made. Black subjects as a group tended to use more emotion based coping than problem solving approaches in relation to their pregnancy situation than the other two groups. Hispanic subjects tended also to use emotion focused behaviors although to a lesser extent than the black group. White subjects as a group tended to use the action directed approaches more than the emotion directed approaches.

Hypothesis Four

Hypothesis four stated: There is no significant relationship between PIL total scores and the Cognitive Appraisal Questionnaire scores among black, hispanic and

white anglo-saxon pregnant young women. The research question addressed was: To what extent is the sense of purpose in life related to the cognitive appraisal of the pregnancy situation among black, hispanic, and white anglo-saxon pregnant adolescents?

Hypothesis 4 was tested by means of three subhypotheses as follows:

4.1. There is no significant relationship between PIL scores and the cognitive appraisal scores in black pregnant adolescents.

4.2. There is no significant relationship between PIL test scores and the cognitive appraisal scores in hispanic pregnant adolescents.

4.3. There is no significant relationship between PIL test scores and the cognitive appraisal scores in white anglo-saxon pregnant adolescents.

To assess the relationship between the ten cognitive appraisal variables and the PIL scores for the three ethnic groups, three multiple correlations, one for each group, were obtained using stepwise regression analysis. Prior to testing the subhypotheses, pearson correlation coefficients were calculated between the 10 cognitive appraisal variables and the PIL total scores for the three

groups individually. The correlation coefficients for each group are listed in Appendix K.

Table 33 demonstrates the multiple correlation coefficients obtained through stepwise regression analysis for the three ethnic groups and the tests of significance for each coefficient.

Table 33

Multiple Correlation Coefficients (R) and Coefficients of Determination (R²) Between the Cognitive Variables and PIL Test Scores by Ethnic Group

Ethnic Group	R	R ²
Black	.391*	.153
Hispanic	.572**	.328
White Anglo-Saxon	.636**	.404

* $p < .01$; ** $p < .001$, one tailed

As observed in Table 33, the multiple Rs between the PIL total score and the 10 cognitive appraisal variables for the three groups were moderate in strength and all had a significance of less than the established alpha of .05. Thus, Subhypothesis 4.1, 4.2, and 4.3 were not accepted.

It is concluded that there is a significant relationship between the 10 cognitive appraisal variables and the sense of purpose in life in black, hispanic, and white anglo-saxon pregnant young women.

A difference in strength of the relationship between appraisal and PIL can be observed among the groups, however. As observed in Table 33, white anglo-saxon pregnant young women had the highest multiple correlation ($R = .63$) of the three groups, and the black group had the lowest ($R = .39$). The percent of variance in the PIL explained by the cognitive appraisal variables in each regression equation was low for all groups as observed by the low values in the multiple Rs. The variables explained 15.3% of the variance in the PIL in the black group, 32.8% in the hispanics, and 40.4% in the white anglo-saxon group.

The variables that were the best predictors of the PIL total score for each of the groups are demonstrated in Table 34. The Outcome appraisal variable was the best and only predictor for the PIL score for the black group. Outcome was also the best predictor for the hispanic group along with the Effective Coping variable. While Effective Coping was the best predictor for the White group, this

It is concluded that there is a significant relationship between the 10 cognitive appraisal variables and the sense of purpose in life in black, hispanic, and white anglo-saxon pregnant young women.

A difference in strength of the relationship between appraisal and PIL can be observed among the groups, however. As observed in Table 33, white anglo-saxon pregnant young women had the highest multiple correlation ($R = .63$) of the three groups, and the black group had the lowest ($R = .39$). The percent of variance in the PIL explained by the cognitive appraisal variables in each regression equation was low for all groups as observed by the low values in the multiple Rs. The variables explained 15.3% of the variance in the PIL in the black group, 32.8% in the hispanics, and 40.4% in the white anglo-saxon group.

The variables that were the best predictors of the PIL total score for each of the groups are demonstrated in Table 34. The Outcome appraisal variable was the best and only predictor for the PIL score for the black group. Outcome was also the best predictor for the hispanic group along with the Effective Coping variable. While Effective Coping was the best predictor for the White group, this

group also had Challenge appraisal and Control appraisal as predictive variables for the PIL.

Table 34

Sets of Beta Weights for the Cognitive Appraisal Variables that Entered in Each Step of Regression Analysis by Ethnic Group

Ethnic Group	Step	Variable Entered	Beta Weight
Black	1	Outcome	.391*
Hispanic	1	Outcome	.526**
	2	Effectiveness	.524**
White	1	Effectiveness	.475*
Anglo-Saxon	2	Challenge	.502*
	3	Control	.284*

* $p < .01$; ** $p < .001$

These findings suggest that, although the PIL test score and the Cognitive Appraisal variables were found to be statistically related in all three groups, these relationships were the result of relationships between few and different combinations of cognitive appraisal variables in each group. For the black group, expectation about how good the outcome of the pregnancy

situation would be seemed to influence the PIL test score slightly. The predictive relationship between PIL scores and Cognitive Appraisal variables in the hispanic group was stronger. In this group, the PIL score was most related to expectation about how good the outcome would be and to their evaluation of how effective they were dealing with the pregnancy.

The highest predictive relationship between the PIL and the Cognitive Appraisal variables was identified in subjects belonging to the white group. The combination of appraisal regarding effectiveness in dealing with the pregnancy, the extent of challenge perceived, and the amount of control perceived in the situation, would be successful in predicting more than a third of the variability in the PIL scores.

Hypothesis Five

Hypothesis five stated: There is no significant relationship between PIL Test scores and the Coping Behaviors Inventory (CBI) subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents. The research question addressed was: To what extent is the acquired sense of purpose in life related to coping

behaviors among black, hispanic, and white anglo-saxon pregnant adolescents?

Hypothesis 5 was tested by means of three subhypotheses as follows:

5.1. There is no significant relationship between PIL scores and the CBI subscale scores in black pregnant adolescents.

5.2. There is no significant relationship between PIL scores and the CBI subscale scores in hispanic pregnant adolescents.

5.3. There is no significant relationship between PIL scores and the CBI subscale scores in white anglo-saxon pregnant adolescents.

To assess the relationship between the 9 subscale scores and the PIL total score among the three ethnic groups, three multiple correlations were obtained, using stepwise regression analysis. The PIL Total score was used as the Dependent Variable.

The correlation coefficients between the CBI subscales and the PIL total score per ethnic group are shown in Appendix K. Table 35 shows the regression coefficients, multiple correlations, R^2 s, and adjusted R for the CBI subscales on the PIL.

As noted on Table 35, the multiple correlation coefficients (R_s) between the PIL total score and the 9 CBI subscales were small but statistically significant for all three groups. Subhypotheses 5.1, 5.2, and 5.3 that states there is no relationship between the PIL and the CBI scales among black, hispanic, and white pregnant adolescents were therefore not accepted. It was concluded that there is a significant relationship between Cognitive Appraisal and the PIL in all three groups, with the white group having the strongest correlation.

Only the Optimistic Thinking subscale contributed to the PIL total score for black subjects. The R^2 indicates that 11% of the variability in the PIL score could be predicted by the Optimistic Thinking subscale.

In the hispanic group, three of the 9 CBI subscales contributed significantly to the PIL total score. These subscales were: Optimistic Thinking, Wishful Thinking, and Religion. The proportion of variability in the PIL score predictable by the three subscale scores was 22%.

The CBI subscales making a significant contribution in the white group were Wishful Thinking and Change Self and Environment. The variability in the PIL Test scores explained by these three subscales was 30%.

Table 35

Multiple Regression of CBI Subscales on PIL Total Scores
per Ethnic Group of Pregnant Adolescents

Variables	B	Beta	Intercept	R	R	Ad R
<u>Black Group</u>						
Optimistic Thinking	.561*	.324	81.95	.324*	.105	.090
<u>Hispanic Group</u>						
Optimistic Thinking	.525*	.275	88.09	.473*	.224	.196
Wishful Thinking	-1.102*	-.412				
Religion	.869*	.269				
<u>White Anglo-Saxon Group</u>						
Wishful Thinking	-1.339*	-.516	94.80	.548*	.300	.273
Change Slf and Environ	.692*	.384				

* $p < .05$

It is further concluded that there is a significant correlation between coping behaviors and the PIL scores in all three groups. However, it appears that the

relationship in each group is a result of relationships between the PIL score and different types of coping behaviors. For the black group, emotional mechanisms that denote optimistic thinking seemed to influence the PIL score to a small extent. In the hispanic group, a combination of emotional mechanisms that denoted optimistic thinking, wishful thinking, and reliance on religion tended to influence the PIL with greater predictability. The white group was found to have the highest predictability of the PIL based on coping behaviors. For this group, coping behaviors that denoted wishful thinking and efforts to change self or the environment combined to predict approximately one third of the variability in the PIL score.

Hypothesis Six

Hypothesis 6 stated: There is no significant relationship between the Cognitive Appraisal scores and the CBI subscale scores in black, hispanic, and white anglo-saxon pregnant adolescents. The research question addressed was: What is the relationship between the Cognitive Appraisal variable scores and the CBI subscale

scores in black, hispanic, and white anglo-saxon pregnant adolescents?

Hypothesis six was tested by means of three subhypotheses as follows:

6.1. There is no significant relationship between the Cognitive Appraisal scores and the CBI subscale scores in black pregnant adolescents.

6.2. There is no significant relationship between the Cognitive Appraisal scores and the CBI subscale scores in hispanic pregnant adolescents.

6.3. There is no significant relationship between the Cognitive Appraisal scores and the CBI subscale scores in white anglo-saxon pregnant adolescents.

A canonical correlation analysis was performed between the set of Cognitive Appraisal scores and the set of CBI subscale scores for each ethnic group. The analyses were conducted using the SPSSx MANOVA procedure.

The Covariate set was composed of the scores on the Cognitive Appraisal Questionnaire as follows: Control, Importance, Desirability, Outcome, Urgency, Difficulty, Challenge, Threat, and Stress. The Dependent set was composed of the CBI subscale scores computed through summation of the scores on the corresponding items; and

they were as follows: Evaluation and Problem Solving, Optimistic Thinking, Seeking Information, Change Self and Environment, Social Support, Wishful Thinking, Denial and Avoidance, Religion, and Minimizing Importance.

High scores in the Cognitive appraisal variables indicate that the individual evaluates the pregnancy situation strongly on the dimension. High scores on the CBI subscales indicate that the individual utilizes the type of coping behaviors to a great extent. Correlation coefficients between the two sets of variables and descriptive statistics are found in Appendix L.

Findings Relative to Subhypothesis 6.1

The canonical analysis for the black group of subjects identified 9 canonical variates between the Cognitive Appraisal Variables and the CBI Subscales. Evaluation of significance tests for all variates indicated that only the first canonical variate was statistically significant ($F = 1.27$, $df = 295.15$, $p = .067$). Subhypothesis 6.1 was not accepted.

The canonical correlation (R_c) for the first canonical variate was .70, representing 50% of the variance between the CA and CBI sets of variables. The redundancy for the

canonical variate was 6.4 %. Redundancy is an important relationship to establish between the two sets of variables because it represents the percent of variance that the canonical variate from one set extracts from the other set of variables (Tabachnick & Fidell, 1983). Analysis of the canonical variate for the black group of subjects is presented in Table 36.

Variables with correlation of .30 or higher on the canonical variate were considered for interpretation. As can be observed in Table 36, the cognitive appraisal variables relevant to the canonical variate were: Importance, Desirability, Goodness of Outcome, Challenge, and Effectiveness. The coping behavior variable with a .30 loading relevant to the canonical variate was Optimistic Thinking.

When considered together these canonical variates seem to suggest that for black subjects in this study, appraisal of the pregnancy situation as important, desirable, challenging, with expectations of a good outcome, and perceived effectiveness of the way they were handling the situation, was related to an underlying dimension of optimistic thinking in their coping behaviors.

Findings Relative to Subhypothesis 6.2

The canonical correlation analysis identified 9 canonical variates between the Cognitive Appraisal Variables and the CBI subscales. However, none of the canonical variates were statistically significant. Subhypothesis 6.2 was therefore accepted. Interpretation of the canonical variates was not conducted in view of the negative findings.

Findings Relative to Subhypothesis 6.3

The canonical analysis for the white group identified 9 canonical variates between the CA and the CBI sets of variables. Only the first canonical variate was statistically significant ($F = 1.46$, $df = 396.00$, $p = .01$). Subhypothesis 6.3 was therefore not accepted.

The canonical correlation (R_C) for the first canonical variate was .83, representing 68% of the variance between the CA and CBI variables. Redundancy of the canonical variate on the Cognitive Appraisal variables was 18.7%, and on the CBI variables 11.7%. Analysis of the canonical variate for the white group of subjects is presented in Table 36.

Table 36

Correlations, Standardized Coefficients, Canonical
Correlations, Percents of Variance, and Redundancies
Between CA and CBI Variables, and the Canonical Variate
for Black and for White Pregnant Adolescents

Variable	Blacks		Whites	
	Canonical Variate 1		Canonical Variate 1	
	r	Stand Coeff	r	Stand Coeff
CA set				
Control	.05	.01	-.02	.29
Importnce	.66	.17	-.21	.01
Desirability	.55	.26	-.65	-.07
Outcome	.82	.67	-.68	-.35
Urgency	.24	-.09	-.07	.10
Difficulty	-.19	-.10	.62	.09
Challenge	.49	.54	-.12	-.27
Threat	-.17	.03	.79	.41
Stress	-.10	-.07	.59	.17
Effctvness	.58	-.22	-.61	-.31
Percent of variance	19.59		27.14	
Redundancy	9.82		18.71	
CBI set				
Eval PS	.08	-.27	.12	-.19
Op Think	.30	.89	-.54	-.70
SeekInfo	-.45	-.60	.07	.12
ChngeSelf	-.17	.01	.19	.29
SocSupport	-.39	-.19	.22	-.24
WishThink	-.37	-.31	.72	-.29
DenAvoid	-.59	-.38	.53	-.35
Religion	.06	.40	-.09	-.18
MinImport	-.38	-.07	.55	.17
Percent of variance	12.77		17.06	
Redundancy	6.40		11.75	
Canonical Correlation	.71		.83	
R _C Square	.50		.69	

The cognitive appraisal variables with loadings of .30 or higher on the canonical variate were: Difficulty, Threat, and Stress. The CBI variables with substantial correlations on the canonical variable were: Wishful Thinking, Denial and Avoidance, and Minimizing Importance.

Taken together these pair of canonical variates seem to suggest that in white adolescents appraisal of the pregnancy situation as difficult, threatening, and stressful, denoted the tendency to use more emotion based coping behaviors such as wishful thinking, denying or avoiding thinking about it, and minimizing its importance.

Summary

Analyses of the data were reported in this chapter. The findings of this study were:

1. There was no statistically significant difference among black, hispanic, and white anglo-saxon pregnant adolescents on the Purpose in Life Test total scores. And, no statistically significant difference was found among the groups on the Purpose in Life subscale scores.
2. There was a statistically significant difference among black, hispanic, and white anglo-saxon pregnant

adolescents on the Cognitive Appraisal variable scores. The groups differed among themselves on two underlying dimensions of appraisal: (1) evaluation of the pregnancy situation as a difficult situation needing resolution, and (2) goodness or desirability of the pregnancy situation. Discriminating function 1 identified the black and hispanic pregnant adolescents as appraising the pregnancy as a somewhat difficult situation needing to be resolved, with the hispanics more pronounced on this appraisal. The white group tended not to view the pregnancy situation as difficult and therefore not one that needed to be resolved. Discriminating function 2 identified the black group of pregnant adolescents as appraising their pregnancy situation not as good as desirable as the white and hispanic groups. The groups differed more along the first dimension than on the second.

3. There was a statistically significant difference among black, hispanic, and white pregnant adolescents on the coping behaviors used in dealing with the pregnancy situation. The groups differed among themselves on two underlying discriminant functions of coping behaviors: (1) emotion-based coping efforts, and (2) problem solving, or action based, coping efforts. Black subjects tended

to use emotion-based coping more than the other two groups, and action-based coping also more than the other two groups. Hispanics also tended to use more emotion-based coping than action-based efforts but less so than black subjects. White subjects tended to be in a more intermediate position using both types of coping efforts equally.

4. There was a statistically significant relationship between the cognitive appraisal variables and the PIL total score in black, hispanic, and pregnant adolescents. In black adolescents the PIL was predicted by the appraisal of goodness of the outcome of the pregnancy situation. In hispanics, the appraisal variables with the most predictive ability were expected goodness of outcome and perceived effectiveness. In white subjects the PIL score was predicted by the appraisal variables of perceived effectiveness, perceived challenge, and perceived control.

5. There was a statistically significant relationship between the CBI subscales and the PIL total score in black, hispanic, and white anglo-saxon pregnant adolescents. In blacks, the PIL total score was predicted by Optimistic Thinking. In hispanics, the PIL score was

best predicted by Optimistic Thinking and Wishful Thinking. Subscales Wishful Thinking and Changing Self and Environment were predictive of the PIL total score in the white group of subjects.

6. A statistically significant relationship between Cognitive Appraisal variable scores and CBI subscale scores was identified in the group of black pregnant adolescents ($R_c = .70$), and also in the group of white pregnant adolescents ($R_c = .83$). No statistically significant relationship was identified in the group of hispanic pregnant adolescents. In the black group of subjects, canonical analysis linked the cognitive appraisal variables Importance, Desirability, Outcome, Challenge, and Effectiveness, with the CBI subscale Optimistic Thinking. In the white group of subjects, the appraisal variables of Difficulty, Threat, and Stress were linked to the CBI subscales that indicated emotional mechanisms of coping: Wishful Thinking, Denial and Avoidance, and Minimizing Importance.

CHAPTER 5

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

A summary of the study is presented in this chapter. The results of the data analysis are briefly presented, and the findings and conclusions are discussed. The chapter concludes with a discussion of the implications for nursing practice and the recommendations for further study.

Summary

The purpose of this descriptive correlational study was to identify differences and similarities in preceptions of life purpose, appraisal of the pregnancy situation, and coping behaviors among black, hispanic, and white anglo-saxon pregnant adolescents. Additionally, the study proposed to describe the interrelationships among life purpose, appraisal, and coping behaviors in black, hispanic, and white anglo-saxon pregnant adolescents. The hypotheses were:

1. There is no significant difference in Purpose in Life Test (Crumbaugh & Maholick, 1964) scores among black, hispanic, and white anglo-saxon pregnant adolescents.

2. There is no significant difference in the cognitive appraisal of the pregnancy situation as measured by the Cognitive Appraisal Questionnaire (Kaus, 1986) among black, hispanic, and white anglo-saxon pregnant adolescents.

3. There is no significant difference in the Coping Behaviors Inventory (Kaus, 1986) subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents.

4. There is no significant relationship between the Purpose in Life (PIL) Test scores and the Cognitive Appraisal Questionnaire scores in (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

5. There is no significant relationship between the Purpose in Life (PIL) Test scores and the Coping Behaviors Inventory (CBI) subscale scores in (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

6. There is no significant relationship between the Cognitive Appraisal Questionnaire and the Coping Behaviors

Inventory (CBI) subscale scores in (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

The propositions that guided the study were derived from a theoretical model that aims to explain the relationship between ethnic identity as a cultural factor, and coping with stressful situations among individuals. Investigation of this phenomenon in pregnant adolescents was substantiated by documented evidence of early childbearing as a major social concern, and by the theoretical and empirical literature that suggest the existence of cultural differences among ethnic groups in the perception of and coping with pregnancy during adolescence.

The study was conducted in a large metropolitan area in the southwestern United States. Five health agencies that serviced pregnant adolescents participated in the study. A nonprobability sample was used and group size by ethnicity was determined by stratification and quota sampling procedures. A total of 207 pregnant young women ages 13 to 25 participated in the study; 63 were black, 89 were hispanic, and 55 were white anglo-saxon.

Subjects completed four questionnaires: (1) the General Information Form designed by the researcher, (2)

the Purpose in Life Test (PIL) developed by Crumbaugh and Maholick (1964), (3) the Cognitive Appraisal Questionnaire (Kaus, 1986), and (4) the Coping Behaviors Inventory (CBI) developed by Kaus (1986). The reliability of the PIL has been documented in a number of studies through split half and alpha reliability coefficients in the high 80's. Reliability of the Cognitive Appraisal Questionnaire has not been reported. The CBI is composed of nine subscales that have been reported with coefficient alphas ranging from .62 to .90 (Kaus, 1986).

The alpha coefficient for the PIL was estimated at .83 in this study. Alpha coefficient estimates for the CBI subscales ranged from .53 to .85.

Hypothesis 1. There is no significant difference in PIL scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Null hypothesis one was accepted. No significant difference in PIL scores was found among black, hispanic, and white anglo-saxon pregnant adolescents in this study. Factor analysis of the PIL yielded four factors. Analysis of variance on the mean scores for the subscales revealed no significant difference among the three groups.

Hypothesis 2. There is no significant difference in Cognitive Appraisal scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Null hypothesis two was not accepted. A statistically significant difference was found on the Cognitive Appraisal scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Two statistically significant discriminant functions were identified that maximized the differences among the groups in the appraisal of the pregnancy situation: (1) Appraisal of need for resolution of a difficult pregnancy situation, and (2) Appraisal of goodness, or desirability, of the pregnancy situation and outcome. Group differences on appraisal of the pregnancy situation were most pronounced on the resolution dimension ($R_C = .48$) than on the desirability dimension ($R_C = .31$). White anglo subjects, as a group, tended not to appraise the pregnancy situation as difficult and needing resolution, as compared to the hispanic group who tended to view the pregnancy as urgent for resolution, and the black group that was found to have an intermediate position on this dimension. Regarding appraisal of desirability, the black group

tended to view the pregnancy situation as slightly undesirable, while the white and hispanic groups tended to appraise it as slightly more positive.

Hypothesis 3. There is no significant difference in Coping Behaviors Inventory (CBI) subscale scores among black, hispanic, and white anglo-saxon pregnant adolescents.

Null hypothesis three was not accepted. A statistically significant difference in CBI subscale scores was found among black, hispanic, and white anglo-saxon pregnant adolescents.

Two statistically significant discriminant functions that maximized the differences among the three groups on the CBI subscale scores were identified: (1) Emotion-based coping and (2) Activity-based coping. Group differences in the use of coping behaviors were more pronounced on the emotion-based coping dimension ($R_C = .44$), than on the action-based coping dimension ($R_C = .24$). The black group tended to use more emotion-based coping efforts, whereas the white anglo-saxon group tended not to use these behaviors. Hispanics assumed an intermediate position on this dimension. Subjects in the

white group tended to use more action-based than emotion-based coping.

Hypothesis 4. There is no significant relationship between the PIL scores and the Cognitive Appraisal scores among (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

Null hypothesis four was tested by means of three subhypotheses, one for each ethnic group. Subhypotheses 1, 2, and 3 were not accepted.

A statistically significant relationship was found between the PIL score and the Cognitive Appraisal scores in black, hispanic, and white anglo-saxon pregnant adolescents. The PIL total score for the black group was predicted by the Outcome variable score ($R^2 = .15$). The Outcome and the Effectiveness appraisal scores were predictive ($R^2 = .33$) of the PIL score in the hispanic group. For the white anglo-saxon group, the predictive appraisal variables were Effectiveness, Challenge, and Control ($R^2 = .23$).

Hypothesis 5. There is no significant relationship between the PIL score and the Coping Behaviors Inventory (CBI)

subscale scores in (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

Null hypothesis five was tested by means of three subhypotheses, one for each ethnic group. Subhypotheses 1, 2, and 3 were not accepted.

A statistically significant relationship was found between the PIL total score and the CBI subscale scores in black, hispanic, and white anglo-saxon pregnant adolescents. The Optimistic Thinking subscale score was predictive ($R^2 = .11$) of the PIL score in the black subjects. Optimistic Thinking, Wishful Thinking, and Religion subscale scores were predictive ($R^2 = .22$) of the PIL score in the group of hispanic subjects. And, both Wishful Thinking and Changing Self and Environment subscale scores were predictive ($R^2 = .16$) of the PIL scores in the white anglo-saxon group.

Hypothesis 6. There is no significant relationship between the Cognitive Appraisal variable scores and the CBI subscale scores in (a) black, (b) hispanic, and (c) white anglo-saxon pregnant adolescents.

Null hypothesis six was tested by means of three subhypotheses, one for each ethnic group. Subhypothesis

1 was not accepted. A statistically significant canonical variate ($R_C = .71$) that explained 50% of the variance between the sets of variables was identified in the black group. The canonical variate combined appraisal variables that denoted a positive outlook with coping behaviors representing optimistic thinking.

Subhypothesis 2 was accepted. No statistically significant canonical variate was identified in the hispanic group of subjects.

Subhypothesis 3 was not accepted. A statistically significant canonical variate ($R_C = .83$) that explained 69% of the variance between the two sets of variables was identified for the white anglo-saxon pregnant group. The canonical variate combined appraisal variables that denoted perception of the pregnancy situation as problematic with coping behaviors that represent avoidance mechanisms.

Discussion of the Findings

The findings of the study are discussed in relation to the hypotheses tested and to the research questions addressed.

Differences on the sense of purpose in life among pregnant adolescents based on ethnicity

Hypothesis one investigated the differences in PIL test scores among pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity. The corresponding research question sought to identify the extent to which black, hispanic, and white anglo-saxon pregnant adolescents differ on the acquired sense of purpose in life.

No significant difference on degree of acquired sense of purpose in life, as measured by the PIL (Crumbaugh & Maholick, 1964) was found among the groups in this study. The PIL mean scores of the three groups ranged from 102 to 104. These values are within the uncertainty range of 90 to 112 of the PIL norms established by Crumbaugh & Maholick (1969). That is, the pregnant adolescents in this study were not found to be in the high or low ranges of the PIL. Similar PIL values for healthy and ill adolescents have been reported in the literature (Dougherty, 1983; Meier & Edwards, 1974; Phillips, Watkins, & Noll, 1974).

It appears then, that the pregnant adolescents in this study, irrespective of ethnic identity, were relatively

homogeneous regarding the sense of purpose in life, and had acquired some goals in life. Furthermore, they were similar to other adolescents in this regard.

Comparison of the PIL means in this study with those of other groups that are ethnically similar, or with pregnant populations of the same age, was not possible because of the lack of similar data in the literature. However, the findings of this study do not appear to support the notion that life purpose, or goal direction in life, is related to ethnic identity. It is also possible that the pregnancy status may have altered the subjects' feelings toward life's goals and the future, as has been suggested by some researchers. Barth, Schinke, & Maxwell (1983) reported higher levels of contentment with life, or feelings of well-being, among pregnant adolescents in comparison with nonpregnant teen mothers. Greene (1987) found that social context and life experiences were more meaningful to the adolescent in achieving higher levels of future-time perspective, than was cognitive development acquired with age.

Measurement inadequacy might also account for the findings of no difference in life purpose among the groups. Although the PIL was found to have a goal

accomplishment factor, it is possible that the life goal dimension might not be strongly identified through the PIL. In addition, ethnic identity as a dimensional category, as suggested by Clinton (1981) may be better in identifying perceptual differences in cultural values and commitment among individuals, than is self ascription to an ethnic group.

Differences on appraisal of the pregnancy situation among pregnant adolescents based on ethnicity

Hypothesis two investigated the difference on the Cognitive Appraisal variable scores among pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity. The corresponding research question sought to identify to what extent black, hispanic, and white anglo-saxon pregnant adolescents differ on appraisal of the pregnant situation.

The identification of appraisal differences among the groups supports the proposition that there is a relationship between ethnicity and cognitive appraisal in these subjects. The differences among the groups, however, were not of great magnitude. Although the differentiating ability of these two underlying dimensions

was not too powerful, they were able to separate the groups in a meaningful way and therefore merited interpretation. Findings relative to the cognitive appraisal are interpreted with caution, however, because of the limited information regarding the cognitive appraisal instrument used in this study.

The importance of desirability and general contentment with the pregnancy as an appraisal variable is supported in the literature. Davis & Compas (1986) found that desirability is a salient feature in cognitive appraisal of stressful major events for early adolescents, and, desirability and impact of the pregnancy on future events was most important for older adolescents.

In general, the pregnant adolescents in this study tended to view the pregnancy situation positively, as evidenced by the lack of extreme negative scores on the discriminating dimensions. The groups differed on appraisal of the situation as one needing resolution, and to a lesser degree on appraisal of the pregnancy situation as a desirable one. While the black and hispanic subjects appraised the situation as one needing resolution, white anglo-saxon subjects tended not to view it as problematic. Similar findings for appraisal of the pregnancy by

hispanic subjects were reported by Becerra & de Anda (1984), and Speraw (1987).

Regarding appraisal of desirability, hispanic subjects in this study tended to view the pregnancy as desirable, with positive expectations of outcome, more so than the other two groups. Black subjects did not appraise the pregnancy as positive.

These findings differ from those reported by other investigators. In a study of 53 white middle class couples and 17 black adolescents regarding timing of parenthood, Gabriel & McAnarney (1983) reported that blacks perceived early parenting as a desirable woman's role in order to confirm adult status. White subjects tended to emphasize stability and future goals prior to pregnancy.

Differences on coping behaviors among pregnant adolescents based on ethnicity

Hypothesis three investigated the differences on the CBI subscale scores among pregnant adolescents based on ethnicity. The corresponding research question sought to determine to what extent black, hispanic, and white anglo-

saxon pregnant adolescents differed on the type of behaviors used in coping with the pregnancy situation.

The two discriminant functions identified significant differences among the three groups on coping behaviors. Interestingly, the dimensions were indicative of the two types of coping efforts mentioned repeatedly in the theoretical and empirical literature, namely emotion-focused coping efforts and problem-solving coping efforts (Lazarus & Folkman, 1984).

Black subjects in this study tended to use more emotion-focused coping, such as wishful thinking, minimizing importance, and religion, than problem solving coping efforts. Hispanics also tended to use more emotion behaviors than action behaviors. White subjects tended to use more action, or problem solving, behaviors than emotion-based coping.

These findings do not seem to coincide with the literature which reports that, in general, pregnant adolescents cope with the stress of pregnancy primarily through their social and emotion support networks (Colletta, Hadler, & Gregg, 1981; Crawford, 1980; Martinez, 1981; Presser, 1980; Tilden, 1983). The social support coping behavior subscale did not appear to

contribute significantly to the coping behavior dimensions identified in any of the groups. These findings do support the propositions of coping theory, however, that state that individuals use both types of coping when dealing with a stressful situation.

It was interesting to note, for example, that the black subjects as a group tended to have the highest mean scores on both functions. That is, the black group used more of both types of behaviors than the other two groups. This may mean that the black subjects in this study, while tending to deal with the pregnancy more at an emotional, or fantasizing level, found themselves solving their difficulties by doing something about themselves.

An important consideration to make regarding these findings is the fact that the subjects were recruited from health agencies. Their presence in such a setting could be interpreted as a form of problem solving, or action-based coping behavior, thereby biasing the findings to some extent. Additionally, the extent of use of social support systems might not be totally represented by the social support subscale score.

The relationship between the PIL total score and the
Cognitive Appraisal variable scores among pregnant
adolescents by ethnicity

Hypothesis four investigated the relationship between the PIL and the Cognitive Appraisal variables in pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity. The research question sought to describe the relationship between life purpose and appraisal of the pregnancy situation in black, hispanic, and white anglo-saxon pregnant adolescents. A cautionary note is made regarding interpretation of the findings relative to this hypothesis because of the limited information regarding the reliability of the cognitive appraisal instrument.

The finding of a statistically significant predictive relationship between some of the cognitive appraisal variables and the PIL total score is very encouraging, however. The variables with most predictive value on the PIL for the three groups were: appraisal of outcome, perceived effectiveness of coping, challenge, and perceived control. These variables suggest a positive evaluation of the event. The variance in the PIL total score explained by the cognitive appraisal variables in the three groups ranged from 15% to 40%. These findings

suggest that, in this population, a positive outlook of life and life purpose goes in hand with positive expectations of the outcome of pregnancy, and with the adolescents' perception of the way they are dealing with their situation.

This relationship between life purpose and positive appraisal of pregnancy is alluded to by Barth, Schinke, and Maxwell (1983). In a study of 63 pregnant adolescents, the authors found that pregnant teens were more content with life than their nonpregnant counterparts, and they also had more acceptable self esteem scores. Subjects in the pregnant group saw themselves as having the broadest and most helpful support network, and demonstrated a higher score of perceived well-being than the nonpregnant group (Barth, Schinke, & Maxwell (1983).

The relationship between PIL and the CBI subscale scores among pregnant adolescents based on ethnicity

Hypothesis five investigated the relationship between the PIL total score and the CBI subscale scores in pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity. The research question sought to describe

the relationship between the PIL total score and the coping behaviors in black, hispanic, and white anglo-saxon pregnant adolescents.

The significant relationship identified between the PIL and the CBI subscales in all three groups were weaker in strength than that between the PIL and the cognitive appraisal variables. The variance explained by the CBI subscales in the equation of each group ranged from 11% to 30%. Three subscales denoting emotion-based behaviors and one scale indicating problem-solving were predictive of the PIL total score: Optimistic Thinking, Wishful Thinking, Religion, and Changing Self and Environment.

Because the variance in the PIL explained by the CBI subscales is minimal, the need to study the relationship between the PIL and other variables in the pregnant adolescent is indicated. Other factors not investigated in this study may be associated with feelings of life purpose in pregnant adolescents. The objective of the inquiry relative to the relationship between the PIL and the CBI subscales was achieved however, with the determination of the subscales that contributed to the relationship in each group of subjects.

The relationship between the Cognitive Appraisal variable scores and the CBI subscale scores in pregnant adolescents based on ethnicity

Hypothesis six investigated the relationship between cognitive appraisal and coping behaviors among pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity. The research question sought to describe the relationship between the set of cognitive appraisal variables and the set of coping behavior subscales in black, hispanic, and white anglo-saxon pregnant adolescents.

The identification of a statistically significant and meaningful canonical variate for the black and for the white anglo-saxon groups, and not for the hispanic group leaves the investigator with some question as to the linearity of the data. Additionally, Tabachnick & Fidell (1983) point out that canonical analysis is best used as a descriptive tool rather than a hypothesis testing procedure because of the difficulty in its interpretation. Thus, the results of a statistically significant relationship between the two sets of variables in the two groups are offered with a precautionary note. The

findings are helpful, however, in further elucidating the characteristics of the subjects in this study.

The findings relative to the appraisal variables identified in each canonical variate for the black, and the white subjects, were found to be different from those identified by Kaus (1986). Using regression analyses, Kaus identified Urgency as the best predictor of situation-focused coping, and less important were Stress and Challenge appraisal variables. In this study, Difficulty, Threat, and Stress appraisal combined strongly with Emotion-focused coping rather than with situation-focused efforts. The subscales denoting situation-focused coping did not show significant correlations with the canonical variate in either group.

Conclusions

The following conclusions are made:

1. There was no significant relationship between purpose in life and ethnic identity among pregnant adolescents in this study.
2. Black and hispanic pregnant adolescents, more than white adolescents, appraised the pregnancy as a difficult situation needing to be resolved. Hispanics, more than

whites and blacks, appraised the pregnancy as good and desirable.

3. Black pregnant adolescents, more than hispanic and white pregnant adolescents, used emotion coping behaviors to deal with the pregnancy situation. Whites, more than hispanics and blacks, used action coping behaviors to deal with the pregnancy situation, although not to a great extent.

4. The degree of purpose in life in pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity is only partly predicted by appraisal of the pregnancy as to: its desirability, effectiveness in dealing with it, and amount of challenge and control perceived.

5. The degree of purpose in life in pregnant adolescents of black, hispanic, and white anglo-saxon ethnicity is only partly predicted by coping behaviors utilized in dealing with the pregnancy situation, specifically: optimistic and wishful thinking, religion, and changing self or environment.

6. There may a relationship between cognitive appraisal variables and coping behaviors in black pregnant adolescents and in white pregnant adolescents. A common

psychological, or emotional construct may underlie the relationship between appraisal and coping behaviors among pregnant adolescents in this study.

Implications

The results and conclusions regarding the theoretical propositions examined in this study suggest that the relationship between culture and ethnicity, life purpose, and coping needs further study. From a practical standpoint, more precise identification of the factors and relationships that determine the coping responses in pregnant adolescent clients with different ethnic backgrounds, would be helpful in delineating specific nursing interventions.

The adolescents in this study differed in their perceptions of the pregnancy situation and in their approaches in dealing with the situation. Although cultural generalizations cannot be made because adherence to cultural values and commitments may occur in a continuum rather than as a static homogeneous characteristic, it was determined that there is an interrelationship between ethnic identity, appraisal, and coping among adolescents in this study.

The major implication of the study is that nursing professionals must pay close attention to the cultural strong points that help the adolescent cope with the difficulties of pregnancy. In an effort to avoid generalizations of pregnancy in adolescence as a form of deviant behavior, it is important to consider the sociocultural factors first, and exercise caution in the nursing assessment of such clients. It would be helpful to include inquiries about her views of life, the pregnancy, and the way she deals with concerns. In planning education or clinical nursing interventions, the meaning of pregnancy to her as a member of her cultural group would also be helpful. This might be possible through simple questions during the assessment phase, or by means of a planned interview. Likewise, identification and support of coping behaviors that serve as strengthening factors the individual would be form of culturally relevant nursing actions.

An additional implication is that nurse professionals must make a sincere and concentrated effort to know and understand the cultural views and meanings expressed by clients. Going beyond a generalized knowledge requires

time, exposure to, and mutual relationship with individuals of different cultural backgrounds.

The inconclusive findings related to the sense of life purpose in pregnant adolescents based on ethnicity, suggests the need to continue exploration of the world view and the future in young pregnant women. Other methodological approaches may be more helpful in assessing differences in these concepts. For example, does ethnicity represent a continuum, as has been suggested by Clinton (1982). If so, how can it be measured effectively?

Questions related to the efficiency in measuring the meaning of the pregnancy arose as a result of the need for a valid and reliable instrument for cognitive appraisal as part of the coping process. And finally, since the investigation of meaning involves some consciousness evaluation, the question arises as to whether or not the meaning of the pregnancy situation might best be assessed through a phenomenological approach.

Recommendations for Further Research

Based on the conclusions and implications of the study, the following recommendations are made:

1. Further individual investigation of black, hispanic, and pregnant adolescents on areas of major importance for each group, such as: factors related to educational achievement and desirability of pregnancy in hispanics, factors related to utilization of emotion coping behaviors in blacks, and factors related to perceptions of difficulty and urgency of the pregnancy situation in whites.

2. Continue the exploration of the construct of goal direction and life purpose, as an influencing factor of coping in pregnant adolescents, and other variables with which it is associated.

3. Explore cognitive appraisal in pregnant adolescents of different ethnic groups using a qualitative approach.

4. Explore the concepts of life purpose, appraisal, and coping in pregnant adolescents of different ethnic groups using a longitudinal research design.

5. Continue to explore the interrelationships among life purpose, appraisal, and coping behaviors in different populations using control groups, and applying delimitations of age, marital status, and number of previous pregnancies.

6. Replicate the study in a different sociocultural setting.

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APPENDIX A

Explanation to Subjects

English Version

Spanish Version

Introduction

Hello,

My name is Bertha Cruz Enders. I am a nurse working on my doctoral degree in Nursing. I am conducting a study about the way that pregnant adolescents deal with their pregnancy and about their feelings toward the future. I would like to ask you to participate in the study. This will involve reading and answering four questionnaires, and it will take approximately 20 to 30 minutes of your time. This will not interfere with the services you receive in the clinic. If you get called for any service or activity, you may complete the questionnaires after you are through with the service or activity.

Your participation is strictly voluntary. And, your participation or refusal will not affect the services you receive or your enrollment in any program in this agency. Your participation is very important, however, because the information you give us will help us to improve nursing care to pregnant young women like yourself.

I want to assure you that all information you give us will be confidential. Your name will not be mentioned in the questionnaire or the study. Also, all information will be used for study purposes only.

In answering some of the questions you might experience some discomfort in feelings due to the nature of the information requested. If you do, I am available to talk with you about this, or to answer any questions. You may drop out, or discontinue the questionnaire at any time if you believe it is necessary to do so for any reason. Also, I will be here to answer any questions you might have about the study.

If you read English or Spanish, and would like to participate, please read the consent form that I am now handing out and sign it in the presence of a witness. The questionnaires are in the envelope that will be given to you.

Do you have any questions? Thank you very much.

Presentacion

Buenos dias (o buenas tardas),

Mi nombre es Bertha Cruz Enders. Yo soy enfermera actualmente cursando el doctorado en enfermeria. Estoy aqui haciendo un estudio con mujeres jovenes embarazadas para saber como enfrentan el embarazo y quales son sus sentimientos sobre el futuro. Quiero saber si usted gustaria participar en el estudio. Usted responderia unos cuestionarios en ingles o en espanol que tomarian aproximadamente 20 a 30 minutos de su tiempo. Su cita con el medico no sera interrumpida. Si acaso usted es llamada para consulta o alguna actividad, usted puede continuar respondiendo los cuestionarios despues de su consulta.

Su participacion seria voluntaria. Si usted no quiere participar, esto no afectara en ninguna manera los servicios que usted recibe en esta clinica. Su participacion en este estudio es muy importante porque las informaciones que obtengamos desta investigacion nos ayudara a conocer mejor la situacion de las mujeres jovenes como usted que se encuentran embarazadas. Al participar en este estudio usted estara ayudandonos a mejorar los cuidados de enfermeria a mujeres jovenes embarazadas.

Todas las informaciones seran confidenciales. Su nombre no sera mencionado y todas las informaciones seran usadas solamente para proposito de estudio.

Al responder las preguntas, tal vez usted se sienta un poco incomoda debido al tipo de informaciones solicitadas. Yo estare aqui en caso que usted quiera conversar conmigo sobre esto y para responder qualquier pregunta. Si por alguna razon usted necesita dejar de responder el cuestionario, puede hacerlo libremente.

Si usted quiere participar, por favor lea el formulario de consentimiento que le voy a dar y firmelo en la presencia de un testigo. Los cuestionarios se encuentran en el sobre que le sera dado.

Tiene alguna pregunta? Muchas gracias.

APPENDIX B
UTHSCD
Institutional Review Board Approval
Consent Form



INSTITUTIONAL REVIEW BOARD

SOUTHWESTERN MEDICAL SCHOOL
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES
SCHOOL OF ALLIED HEALTH SCIENCES

July 29, 1987

Lewis W. Mondy, Ph.D., and
Bertha C. Enders
Department of Obstetrics and Gynecology

RE: IRB FILE #0787 20100

Purpose in Life, Appraisal, and Coping Behaviors in White, Black, and
Hispanic Pregnant Adolescents

Dear Dr. Mondy and Ms. Enders:

On July 29, 1987, the Institutional Review Board considered the above-referenced study and approved the protocol and consent form as enclosed. Please use this approved consent form and destroy all other drafts or undated copies. The annual review of this study is scheduled for July, 1988.

University and Federal regulations require that written consent be obtained from all human subjects in your studies. The consent form should be kept on file for a period of three years past completion of the study. A copy of the consent form should be given to each participant in your study. Also, the University attorneys have asked us to remind investigators to put a copy of the consent form in the subject's medical record. Investigators should keep the original, executed copy of the consent form and file it with their records of the protocol.

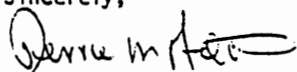
The HHS regulations require you to submit annual and terminal progress reports to our Institutional Review Board and to receive continuing review of your activity annually by this Board. You are also required to report to this Board any death or serious reactions resulting from your study. Failure to submit the above reports may result in severe sanctions being placed on the Health Science Center. Furthermore, if you require a modification to this protocol contact me in order that appropriate review and approval can be made prior to implementing the change.

Page 2

You are reminded that all grant applications and any solicitation of funds must be processed through the Office of Grants Management. Funds received as a result of an application having been submitted directly to a granting agency by a faculty member will not be accepted by the institution.

If you have any questions related to this protocol or to the Institutional Review Board please contact me at extension 2258, or call Pat Allan at extension 3060.

Sincerely,

A handwritten signature in dark ink, appearing to read "Perrie M. Adams", with a stylized flourish at the end.

Perrie M. Adams, Ph.D.
Associate Dean for Research
Chairman
Institutional Review Board

PMA:PWA

Enclosure

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS
SUBJECT CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF STUDY: Purpose in life, appraisal, and coping behaviors in White, Black, and Hispanic adolescents.

SPONSOR: Lewis W. Mondy, Ph.D. (688-2980)

INVESTIGATORS:	OFFICE PHONE #	NIGHT & WEEKEND #
1. Bertha C. Enders, M.S.	688-2980	(817)566-6236
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

You are being asked to participate in a research study. Persons who participate in research are entitled to certain rights. These rights include but are not limited to the subject's right to:

1. Be informed of the nature and purpose of the research;
2. Be given an explanation of the procedures to be followed in the research, and any drug or device to be utilized;
3. Be given a description of any attendant discomforts and risks reasonably to be expected;
4. Be given an explanation of any benefits to the subject reasonably to be expected, if applicable;
5. Be given a disclosure of any appropriate alternatives, drugs, or devices that might be advantageous to the subject, their relative risks and benefits;
6. Be informed of the alternatives of medical treatment, if any, available to the subject during or after the experiment if complications arise;
7. Be given an opportunity to ask any questions concerning the research and the procedures involved;
8. Be instructed that consent to participate in the research may be withdrawn at any time, and the subject may discontinue participation without prejudice;
9. Be given a copy of the signed and dated consent form;
10. And be given the opportunity to decide to consent or not to consent to participate in research without the intervention of any element of force, fraud, deceit, duress, coercion or undue influence on the subject's decision.

Page 1 of 3 Pages

UTHSCD IRB FORM #4 (revised 2/87)

IRB File # 0787 20100
Date Approved JUL 29 1987

Page 2 of 3 Pages

TITLE OF STUDY: Purpose in life, appraisal, and coping behaviors in White, Black, and Hispanic pregnant adolescents.

You have the right to privacy. All information that is obtained in connection with this study that can be identified with you will remain confidential. Information gained from this study that can be identified with you will be released only to the investigators, and if appropriate, to your physician and the sponsors of the study. For studies regulated by the Food and Drug Administration (FDA), there is a possibility that the FDA may inspect your records. The results of this study may be published in scientific journals without identifying you by name.

In addition, the records of your participation in this study may be reviewed by members and staff of the Institutional Review Board, and you may be contacted by a representative of that Board for information about your experience with this study. If you wish, you may refuse to answer any questions the Board may ask of you. We also would like for you to understand that your record may be selected at random (as by drawing straws) for examination by the Board to insure that this research project is being conducted properly.

We will make every effort at preventing physical injury that could result from this research. Compensation for physical injuries incurred as a result of participating in the research is not available. The investigators are prepared to advise you about medical treatment in case of adverse effects of these procedures, which you should report to them promptly. Phone numbers where the investigators may be reached are listed in the heading of this form.

If you have any questions about the research or about your rights as a subject, we want you to ask us. If you have questions later, or if you wish to report a research-related injury (in addition to notifying the investigator), you may call the Chairman of the Institutional Review Board during office hours at (214) 688-2258.

Participation in this research study is entirely voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without affecting your status (as a patient, student, employee, etc.), or the medical care that you will receive.

Any significant new findings developed during the course of the research which may relate to your willingness to continue participation in this study will be provided to you.

YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP

UTHSCD IRB Form #4 (revised 2/87)

IRB # 0287 20100
DATE JUL 29 1987

CONSENT TO PARTICIPATE IN STUDY

Investigators: Bertha C. Enders, M.S. Tele: (817) 566-6236
 Lewis F. Mondy, Ph. D. 688-2938

You are invited to take part in the study called "Purpose in life, appraisal, and coping behaviors in white, black, and hispanic pregnant adolescents".

We hope to learn how pregnant adolescents view their pregnancy situation, the way they deal with their pregnancy concerns, and their views about the future and life. You were selected because you attend this clinic and you are 21 years or younger. If you choose to participate in this project, you will be asked to read and answer a questionnaire packet that contains four questionnaires. You may answer the questionnaires while you are waiting to be seen. This will not interfere with your clinic appointment in any way. If while you are answering the questionnaire, you get called in to see the doctor, you may go for your appointment and then return to complete the questionnaire after your visit.

All information you give us will be confidential. Your name will not be identified in any part of the questionnaire or in the final report.

Your participation is strictly voluntary. Your participation or refusal will not affect the services that you receive in this clinic. Your participation is very important, however, because the information you give us will assist in developing better nursing procedures to be used with pregnant adolescents in the future.

If you decide to take part, you might experience some discomfort due to the nature of the information being requested. If you would like to discuss this with me, please let me know and I will be glad to talk with you. You are free to stop answering the questionnaire at any time without affecting your status as a patient or the medical care you will receive.

You are making a decision whether or not to participate in this study. You should not sign until you understand all the information presented in the previous pages and until all your questions about the research have been answered to your satisfaction. Your signature indicates that you have decided to participate having read (or been read) the information provided above. You will be given a copy of this document to keep.

 Signature of Subject

Date _____

 Signature of Witness

 Signature of Investigator

IRB # C787 20102
 DATE JUL - 3 2001

APPENDIX C
TWU Human Subjects Review
Approval Letter
Study Consent Form

TEXAS WOMAN'S UNIVERSITY
Box 22939, TWU Station
RESEARCH AND GRANTS ADMINISTRATION
DENTON, TEXAS 76204

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Ms. Bertha Enders Center: Denton
Address: 1706 Village East Drive Date: June 18, 1987
No. 102
Denton, Texas

Dear Ms. Enders:

Your study entitled Purpose in life, appraisal, and coping
behaviors in white, black, and hispanic pregnant adolescents.

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

 Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

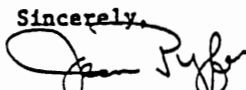
 Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

 The filing of signatures of subjects with the Human Subjects Review Committee is not required.

 Other:

 X No special provisions apply.

cc: Graduate School
Project Director
Director of School or
Chairman of Department

Sincerely,

Chairman, Human Subjects
Review Committee

Consent to Act as a Subject for Research and Investigation

I have received an oral description of the study, including an explanation of the procedures and purposes, of the type of information that will be obtained in the questionnaires, any discomforts or risks that may possibly ensue, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the information and that I am free to withdraw at any time.

Signature Date

Witness Date

Certification by Person Explaining the Study

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

Signature Date

Position Date

Witness Date

APPENDIX D
General Information Form

General Information Form

Instructions: The following questions will help me to know your situation better. Please answer all questions to the best of your ability.

1. How old are you? _____ years
2. What is your ethnic group? (Check one)
☐ Black
☐ Hispanic (such as Mexican-American or Latin American)
☐ White (Anglo-Saxon)
☐ Other, specify _____
3. Were your parents born in the United States?
☐ Yes
☐ No
If no, in what country were they born? _____
4. With whom do you live right now? (Check all that apply)
☐ Alone
☐ Mother
☐ Father
☐ Mother & Stepfather
☐ Father & Stepmother
☐ Boyfriend, or boyfriend's family
☐ Husband, or husband's family
☐ Relatives, specify _____
☐ Other, specify _____
5. What is the monthly income of all persons in your household?
☐ Less than \$1,000 a month
☐ Between \$1,000 and \$2,000 a month
☐ Between \$2,000 and \$3,000 a month
☐ Between \$3,000 and \$4,000 a month
☐ More than \$4,000 a month
☐ Do not know
6. Are you married?
☐ Yes
☐ No
If yes, how long have you been married? _____
7. Do you attend school now?
☐ Yes
☐ No
What is the highest grade you completed? _____
Country where you completed this grade _____
8. How many months or weeks pregnant are you? _____ months _____ weeks
9. Your present pregnancy was (check one)
☐ Unplanned
☐ Planned

10. What would you say was the reason you got pregnant?

(Check all that apply)

- ☐ To feel more like an adult
☐ To have someone (a child) to love
☐ To get away from my family
☐ Did not know I could get pregnant
☐ Felt it was time to have a baby
☐ To be like my friends who are, or have been, pregnant
☐ To obtain some welfare assistance
☐ To have my boyfriend love me, to make him happy
☐ To make up for something or someone I lost
☐ To get back at my parents
☐ Do not know, it just happened
☐ Other, please specify _____

11. Have you ever been pregnant before this time? (Check one)

- ☐ No, never
☐ Yes, once
☐ Yes, more than once

12. Getting emotional support from someone means that the person helps us by listening or talking with us about our concerns or worries when we need it.
How much emotional support with your pregnancy concerns do you feel you get from the following people? (Mark either A Lot, Some, or None for each person. If the person is not available or does not exist in your case, mark Does Not Apply)

	A Lot	Some	None	Does Not Apply
Mother	_____	_____	_____	_____
Father	_____	_____	_____	_____
Father of the Baby	_____	_____	_____	_____
Girlfriend	_____	_____	_____	_____
Sister(s)	_____	_____	_____	_____
Brother(s)	_____	_____	_____	_____
Grandparent(s)	_____	_____	_____	_____
Other relative(s)	_____	_____	_____	_____
Boyfriend's or husband's family	_____	_____	_____	_____
Others specify _____	_____	_____	_____	_____

13. What has been your decision about the baby? (Check one)

- ☐ Raise the baby myself
☐ The father and I will raise the baby
☐ My parents will raise the baby
☐ Relative(s) will raise the baby
☐ The father will raise the baby
☐ Place for adoption
☐ Do not know
☐ Other, specify _____

APPENDIX E

Cognitive Appraisal Questionnaire

Cognitive Appraisal Questionnaire (Kaus, 1986)

Instructions: Please think about the fact that you are now pregnant. While thinking of that situation, please respond to the following questions by circling the number that best represents how you think.

1. How much control do you have over affecting or changing the situation itself?

1	2	3	4	5	6
no control at all					a great deal of control

2. How important is this situation for you?

1	2	3	4	5	6
not important at all					very important

3. How good or desirable is this situation for you?

1	2	3	4	5	6
very bad					very good

4. How good do you think the outcome of this situation will be?

1	2	3	4	5	6
very bad					very good

5. How important is it for you to resolve this situation at the present time?

1	2	3	4	5	6
not important at all					very important

6. How difficult is it for you to deal with this situation?

1	2	3	4	5	6
very easy					very difficult

7. "Challenging" refers to viewing a situation as stimulating, or as a welcome test of one's capabilities. How challenging is this situation for you?

1	2	3	4	5	6
not challenging at all					very challenging

8. "Threatening" refers to viewing a situation as potentially dangerous or harmful to oneself, either physically or psychologically. How threatening is this situation to you?

1	2	3	4	5	6
not threatening at all					very threatening

9. "Stress" is defined as physical, mental, or emotional tension that can be felt as a result of the effort and energy needed to deal with situations. How stressful is this situation to you?

1	2	3	4	5	6
not stressful at all					very stressful

APPENDIX F
Coping Behaviors Inventory
Instrument
Permission

Coping Behaviors Inventory (Kaus, 1986)

Instructions: The following statements represent things we sometimes do to handle some of life's situations. Circle the number that best indicates the extent to which the following statements apply to the way you are dealing with your pregnancy. Please respond to every statement.

	Applies very little or not at all					Applies very much or strongly
	1	2	3	4	5	6
1. I'm seeking more comfort from my family or friends.	1	2	3	4	5	6
2. I'm getting advice from someone knowledgeable.	1	2	3	4	5	6
3. I'm looking on the bright side of things.	1	2	3	4	5	6
4. I'm planning what I'm going to do next.	1	2	3	4	5	6
5. I'm managing my time differently.	1	2	3	4	5	6
6. I'm joking about this situation.	1	2	3	4	5	6
7. I'm deciding when I should take certain actions.	1	2	3	4	5	6
8. I'm trying to imagine myself in a different place or time.	1	2	3	4	5	6
9. I'm spending more time in church.	1	2	3	4	5	6
10. I'm trying to change something about myself (e.g., routines, habits, behaviors, attitudes) to affect this situation.	1	2	3	4	5	6
11. I'm pretending that this situation has never come about.	1	2	3	4	5	6
12. I'm trusting that something good will come from this situation.	1	2	3	4	5	6
13. I'm identifying potential barriers to my actions.	1	2	3	4	5	6
14. I'm drinking alcohol more than usual.	1	2	3	4	5	6
15. I'm trying to find out more about this situation.	1	2	3	4	5	6
16. I'm lessening the demands in other areas of my life to attend to this situation.	1	2	3	4	5	6
17. I'm trying to forget the whole thing.	1	2	3	4	5	6

	Applies very little or not at all					Applies very much or strongly
	1	2	3	4	5	6
18. I'm finding someone special like a friend to lean on.	1	2	3	4	5	6
19. I'm daydreaming about how I'd like things to happen even though I know they won't happen that way.	1	2	3	4	5	6
20. I'm considering how effective my particular thoughts or actions are.	1	2	3	4	5	6
21. I'm laughing about this situation or trying to see its lighter side.	1	2	3	4	5	6
22. I'm talking with someone who can do something about this situation.	1	2	3	4	5	6
23. I'm forcing or pushing myself to do something about this situation.	1	2	3	4	5	6
24. I'm spending more time with my hobbies.	1	2	3	4	5	6
25. I'm praying to God.	1	2	3	4	5	6
26. I'm concentrating on what I have to do next, the next step.	1	2	3	4	5	6
27. I'm changing something about my surroundings or environment to affect the situation.	1	2	3	4	5	6
28. I'm changing my actions based on information about their effectiveness.	1	2	3	4	5	6
29. I'm talking to someone who might help me feel better.	1	2	3	4	5	6
30. I'm wishing I was a different person.	1	2	3	4	5	6
31. I'm talking with other people who are (were) in similar positions in order to find out how they are handling (or have handled) them.	1	2	3	4	5	6
32. I'm thinking that experiencing this situation might be good for me in some way.	1	2	3	4	5	6
33. I'm thinking about all the good qualities I have.	1	2	3	4	5	6
34. I'm figuring out new ways to deal with this situation.	1	2	3	4	5	6
51. I'm spending time discussing this situation with someone I respect or trust in order to hear new perspectives.	1	2	3	4	5	6

	Applies very little or not at all					Applies very much or strongly
	1	2	3	4	5	6
35. I'm becoming more interested in the religious or spiritual aspects of life.	1	2	3	4	5	6
36. I'm deciding what my responsibilities are in this situation.	1	2	3	4	5	6
37. I'm hoping a miracle will happen.	1	2	3	4	5	6
38. I'm figuring out what the most important things are in this situation.	1	2	3	4	5	6
39. I'm trying to remove or avoid obstacles that would prevent me from dealing with this situation.	1	2	3	4	5	6
40. I'm reminding myself that this situation is not that big a deal.	1	2	3	4	5	6
41. I'm taking drugs more than usual.	1	2	3	4	5	6
42. I'm spending more time engaging in leisure activities such as music, TV, theater, reading or cultural events.	1	2	3	4	5	6
43. I'm making a plan of action.	1	2	3	4	5	6
44. I'm accepting sympathy and understanding from someone.	1	2	3	4	5	6
45. I'm reading something about this situation.	1	2	3	4	5	6
46. I'm thinking of this situation as something potentially good, exciting, or challenging.	1	2	3	4	5	6
47. I'm determining both the short and long term consequences of anything I may do.	1	2	3	4	5	6
48. I'm coming up with a couple of different solutions to this situation.	1	2	3	4	5	6
49. I'm relying on my religion or faith in God.	1	2	3	4	5	6
52. I'm reminding myself how important I am.	1	2	3	4	5	6
53. I'm changing something about my living circumstances to affect this situation.	1	2	3	4	5	6
54. I'm seeing this situation as part of my development.	1	2	3	4	5	6
50. I'm trying to notice the benefits that could come out of this situation.	1	2	3	4	5	6

	Applies very little or not at all					Applies very much or strongly
	1	2	3	4	5	6
55. I'm cutting down on obligations in order to attend to this situation.	1	2	3	4	5	6
56. When this situation comes to mind, I usually try to switch my thoughts to something else.	1	2	3	4	5	6
57. I'm trying to deal with this situation bit by bit.	1	2	3	4	5	6
58. I'm looking for reassurance from someone.	1	2	3	4	5	6
59. I'm getting professional help with this situation.	1	2	3	4	5	6
60. I'm reminding myself that my life does not depend on this one situation.	1	2	3	4	5	6
61. I'm figuring out what resources I have to affect this situation.	1	2	3	4	5	6
62. I'm focusing more on food and eating.	1	2	3	4	5	6
63. I'm thinking about wonderful, out of the ordinary things (like finding a million dollars) that would help me with this situation.	1	2	3	4	5	6
64. I'm gathering information needed to affect this situation.	1	2	3	4	5	6
65. I'm remembering that my worth or happiness as a person does not depend on this one situation.	1	2	3	4	5	6

How effectively do you think you are dealing with your present situation, being pregnant?

1	2	3	4	5	6
not effectively at all					very effectively



State University
of New York
at Oswego

Oswego, New York 13126

May 20, 1987

To the doctoral committee of Bertha C. Enders, M.S., R.N.:

Ms. Enders has contacted me to request using the Coping Behaviors Inventory (CBI), a coping assessment scale I have developed. This letter is to permit her usage of this instrument for her doctoral dissertation. Until it is published, the correct citation of this instrument is as follows:

Kaus, C. R. (1986, August). The measurement of coping: A cross-validation of factor invariance. Paper presented at the annual meeting of the American Psychological Association, Washington, D. C.

Sincerely,

Cheryl R. Kaus

Cheryl R. Kaus, Ph.D.
Assistant Professor of Psychology

APPENDIX G

The Purpose in Life Test (PIL)

The PIL is a copyrighted instrument and may be obtained from:

Psychometric Associates
Box 807
Murfreesboro, Tennessee 37133

APPENDIX H
Correlation Matrix for PIL Items

Factor Correlation Matrix for PIL Items

[illegible]

APPENDIX I

Mean and Standard Deviation for
CA Variables and CBI Subscales by Ethnic Group

Mean and Standard Deviation for CA Variables and CBI Subscales by Ethnic Group

Variable	Blacks (n=63)				Hispanics (n=89)				White Anglo-Saxon (n=55)			
	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
Cognitive Apprsl												
Control	4.667	1.636	1	6	4.629	1.465	1	6	4.764	1.232	1	6
Importance	5.794	.786	1	6	5.865	.375	4	6	5.745	.645	3	6
Desirability	4.746	1.356	1	6	5.477	.802	2	6	4.982	1.178	1	6
Outcome	4.889	1.259	1	6	5.236	1.012	1	6	5.345	.844	3	6
Urgency	5.129	1.248	1	6	5.449	1.055	1	6	4.236	1.875	1	6
Difficulty	2.952	1.674	1	6	3.247	1.805	1	6	2.473	1.538	1	6
Challenge	4.508	1.354	1	6	4.337	1.609	1	6	4.836	1.273	1	6
Threat	3.063	1.712	1	6	2.955	1.681	1	6	2.455	1.438	1	6
Stress	3.349	1.806	1	6	3.640	1.639	1	6	3.527	1.550	1	6
Effectiveness	5.270	1.285	1	6	5.000	1.225	1	6	5.000	1.401	1	6
CBI Subscales												
Eval & P Solv	57.619	14.470	13	80	51.854	11.830	22	75	53.545	11.871	22	75
Optim Thinkg	37.254	9.381	12	51	36.989	8.409	15	51	39.382	6.654	19	51
Seekng Inform	22.095	7.411	6	36	21.303	6.906	6	36	21.091	6.916	6	36
Chnge Self Env	36.063	9.418	11	52	32.382	9.006	11	53	33.091	9.095	11	48
Wishful Thinkg	18.000	6.592	5	33	14.888	5.997	5	30	11.382	6.317	5	29
Denial Avoidnce	19.143	6.458	8	39	19.090	5.726	8	36	16.855	4.908	8	28
Religion	16.635	5.826	4	24	15.708	4.959	4	24	13.255	5.988	4	24
Minim Importnce	15.365	5.169	5	28	15.645	5.531	5	27	11.764	4.978	5	22

APPENDIX J
CBI Subscales and Reliability Alphas

Cronbach's Alpha Estimates for CBI Subscales in
Black, Hispanic, and White Pregnant Adolescents

<u>Subscale</u>	<u>Items</u>	<u>Alpha</u>
Evaluation & Problem Solving	4, 7, 13, 20, 26, 34, 36, 38, 43, 47, 48, 61	.85
Optimistic Thinking	3, 12, 32, 46, 50, 52, 54	.81
Seeking Info	2, 15, 22, 45, 59, 64	.70
Change Self & Environment	5, 10, 16, 23, 27, 28, 39, 53, 55	.76
Social Support	1, 18, 29, 31, 44, 51, 58	.75
Wishful Thinking	8, 19, 30, 37, 63	.76
Denial & Avoidance	11, 14, 17, 24, 41, 42, 56, 62	.53
Religion	9, 25, 35, 49	.80
Minimizing Importance	6, 21, 40, 60, 65	.61

APPENDIX K
Correlation Coefficients
PIL and CA Variables
PIL and CBI Variables

Pearson Correlation Coefficients for the CBI Subscales and
the PIL Total Score per Ethnic Group

Variable	PIL Total Score		
	Black r	Hispanic r	White r
Eval Problem Solving	.28	.12	.15
Optimistic Thinking	.32*	.27*	.25
Seeking Information	.22	.11	.14
Change Self or Env	.15	-.01	.23
Social Support	.16	.07	.07
Wishful Thinking	-.03	-.23	-.41*
Denial and Avoidance	-.03	-.07	-.22
Religion	.18	.19	-.19
Minimizing Importance	.01	-.04	-.06

* $p < .01$

Pearson Correlation Coefficients of Cognitive Appraisal
Variables and PIL Total Score per Ethnic Group

Variable	PIL Total Score		
	Black r	Hispanic r	Black r
Control	.16	.33**	.41*
Importance	.16	.31*	.01
Desirability	.39**	.41**	.22
Outcome	.37*	.50**	.21
Urgency	.07	.18	.10
Difficulty	-.21	-.16	-.09
Challenge	-.17	-.07	-.28
Threat	-.22	-.34**	-.33*
Stress	-.13	.03	-.32*
Effectiveness	.25	.26*	-.46**

* $p < .01$

** $p < .001$

APPENDIX L

Correlation Coefficients

of CA Variables and CBI Subscales

(Black, Hispanic, and White Pregnant Adolescents)

Pearson Correlation Coefficients of the CA Variables
and CBI Subscale Scores for Black Pregnant Adolescents

CA Variables	CBI Subscale				
	EvalPs r	OpThnk r	SeekInfo r	Change r	SocSupp r
Control	.18	.12	.07	.17	-.06
Importance	.19	.18	-.13	-.02	-.14
Desirability	.07	.22	-.12	-.10	-.14
Outcome	.05	.17	-.23	-.13	-.14
Urgency	.07	.02	.05	.01	-.10
Difficulty	-.03	.12	.12	.06	-.04
Challenge	-.05	.14	-.10	.01	-.14
Threat	.20	-.14	-.07	.02	-.13
Stress	.10	.03	.02	.25	.08
Effectiveness	.25	.29*	.07	.11	.01

(Table Continues)

CA Variables	CBI Subscale			
	WishThnk r	DenAvoid r	Religion r	MinImp r
Control	.11	-.04	-.11	.07
Importance	.17	-.34*	.13	-.06
Desirability	-.03	-.15	.00	.01
Outcome	-.22	-.38**	.06	-.27
Urgency	-.10	-.40**	-.02	-.02
Difficulty	-.04	.14	-.01	.13
Challenge	-.14	-.20	.06	-.03
Threat	.03	.11	-.06	.17
Stress	.17	.08	.11	.15
Effectiveness	-.01	-.16	.15	.16

* p < .01, ** p < .001

Pearson Correlation Coefficients of the CA Variables
and CBI Subscale Scores for Hispanic Pregnant Adolescents

CA Variables	CBI Subscale				
	EvalPs	OpThnk	SeekInfo	Change	SocSupp
	r	r	r	r	r
Control	.06	.10	.01	.06	.05
Importance	.09	.20	.00	-.02	-.01
Desirability	.01	.16	-.01	.07	.09
Outcome	-.02	.19	.02	.09	.01
Urgency	.22	.27*	.13	.15	-.04
Difficulty	-.09	-.25*	-.11	.02	-.03
Challenge	-.18	.01	.16	.14	.12
Threat	.07	-.15	.09	-.02	.11
Stress	.02	-.11	.02	-.03	.04
Effectiveness	.05	.14	.21	.06	.07

(Table Continues)

CA Variables	CBI Subscale			
	WishThnk	DenAvoid	Religion	MinImp
	r	r	r	r
Control	.08	-.02	.00	.05
Importance	-.04	.05	.07	-.06
Desirability	-.14	.03	.08	.00
Outcome	-.14	-.12	.09	-.13
Urgency	-.03	-.10	-.05	.04
Difficulty	-.03	.00	.14	.08
Challenge	-.03	.03	.00	-.02
Threat	.17	.11	-.10	.14
Stress	.03	-.01	.16	.02
Effectiveness	-.10	.05	.06	-.07

* $p < .01$

Pearson Correlation Coefficients of the CA Variables
and CBI Subscale Scores for White Pregnant Adolescents

CA Variables	CBI Subscale				
	EvalPs r	OpThnk r	SeekInfo r	Change r	SocSupp r
Control	.01	.23	.03	.14	.14
Importance	-.13	.00	-.10	-.07	-.11
Desirability	-.20	.40	.02	-.14	-.13
Outcome	-.10	.40	-.04	-.09	-.18
Urgency	-.04	.12	-.12	.00	.06
Difficulty	.22	-.26	.05	.27	.17
Challenge	.26	.32*	.18	.26	.38*
Threat	.09	-.29	.10	.17	.24
Stress	.32*	-.06	.27	.31	.28
Effectiveness	-.03	.36*	-.01	.00	.01

(Table Continues)

CA Variables	CBI Subscale			
	WishThnk r	DenAvoid r	Religion r	MinImp r
Control	-.12	.13	-.09	.23
Importance	-.08	-.19	.06	-.20
Desirability	-.49**	-.09	.00	-.24
Outcome	.42**	-.12	.05	-.26
Urgency	-.09	.16	.00	-.04
Difficulty	-.52**	.23	.15	.20
Challenge	-.08	-.02	.20	.00
Threat	.48**	.40*	.05	.42**
Stress	.57**	.30	.09	.29
Effectiveness	-.43**	-.26	.08	-.16

* $p < .01$, ** $p < .001$

APPENDIX M

Agency Permissions for Conducting Study

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE DEVON COUNTY M.I.D. PROGRAM

GRANTS TO Bertha Cruz Enders

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

Purpose in life, appraisal, and coping behaviors in white, black, and hispanic pregnant adolescents.

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other _____

Date: 6.12.2/87

[Signature]
Signature of Agency Personnel

Bertha C. Enders
Signature of student

[Signature]
Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows:
Original - Student; First Copy - Agency; Second Copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Life Planning/Health Services, Inc.

GRANTS TO Bertha Cruz Enders

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

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2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other _____

Date: 7 July 1987

Walt Osting
Signature of Agency Personnel

Bertha C. Enders
Signature of student

Margaret M. Johnson
Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows:
Original - Student: First Copy - Agency; Second Copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Los Barrios Unidos Community Clinic

GRANTS TO Bertha Cruz Enders

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

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The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other _____

Date: 6/30/87

[Signature]
Signature of Agency Personnel

Bertha C. Enders
Signature of student

Margie N. Johnson
Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows:
Original - Student: First Copy - Agency; Second Copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Division of Maternal Health & Family Planning
University of Texas Health Science Center at Dallas
GRANTS TO Bertha C. Enders

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

Purpose in life, appraisal, and coping behaviors in white, black, and hispanic pregnant adolescents

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other This research must be approved by the
Institutional Review Board of the
U.T. H.S.C.A.

Date: 7-17-87

Stephen R. Hartwell
Signature of Agency Personnel

Bertha C. Enders
Signature of student

Marque N. Johnson
Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows:
Original - Student: First Copy - Agency; Second Copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE _____

GRANTS TO Bertha Cruz Enders

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

Purpose in life, appraisal, and coping behaviors in black, white, and hispanic pregnant adolescents.

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other _____

Date: 7-22-87

Signature of Agency Personnel

Bertha C. Enders
Signature of student

Marque N. Johnson
Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows:
Original - Student: First Copy - Agency; Second Copy - TWU College of Nursing.