VARIABLES AFFECTING LIFESTYLE BALANCE IN WOMEN

A DISSERTATION

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To the Associate Vice President for Research and Dean of the Graduate School:

I am submitting herewith a dissertation written by Carol Elaine Evans entitled "Variables Affecting Lifestyle Balance in Women." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirement for the degree of Doctor of Philosophy, with a major in Nursing.

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Dr. Patsy Keyser,
Major Professor

We have read this dissertation and recommend its acceptance:

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Accepted

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Associate Vice President
for Research and Dean of
the Graduate School

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DEDICATION

This dissertation is dedicated in memory of my husband, Mack Evans, with whom I enjoyed 26 years of marriage. Mack had a special interest in and understanding of women's issues. Although he was physically disabled due to multiple sclerosis, he purposefully dedicated much of his adult life to foster my development as well as the development of each of our daughters. His death on November 23, 1994, occurred in the middle of the data collection phase of this project. I do not believe I could have ever finished this project if I had not experienced the intelligence, caring, enduring love, and devotion of this man.

This dissertation is also dedicated to my daughters, Shannon and Ashley, who did not always understand my choices but never the less supported and loved me. It would have been much more difficult to complete the project if I had not had their abiding care. I will never forget their assistance especially since their father's death. My hope for my daughters and grandchildren is that each of you will strive for the self-awareness to know what specifically a balanced life is for you, the

communication and listening skills to articulate this awareness to others, and the courage to lead a balanced life. May your daily lives be full, rich, and deeply textured.

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ABSTRACT

VARIABLES AFFECTING LIFESTYLE BALANCE IN WOMEN

Elaine Evans

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The primary purpose of this descriptive study was to clarify the lifestyle balance phenomenon in women. A cross-sectional descriptive design was used to explore multiple concepts in a sample of women from an 11-county rural area of central Texas. To clarify the phenomenon of lifestyle balance, 18 variables were operationalized through a 5-part investigator-developed instrument: lifestyle balance, health, roles, complexity, strain, life pattern orientation, beliefs about lifestyle balance and demographic data. Three of these variables were subdivided: five roles, six beliefs, and the two demographics of age and educational level. Content related evidence of validity and evidence of reliability of the belief about lifestyle balance subscales was demonstrated.

A systematic stratified random sampling technique was used to select 560 participants from the population of 7,186 registered voters in one rural county and 1,524

female registered nurses in 11 counties in central Texas. Within 2 months of the first mailing, 256 or 45.7% of the questionnaires were completed to the extent necessary to be included in the data analysis. The average age of the participants was 45 years, with the youngest participant being 21 years old, and the oldest participant being 79 years old. The typical participant was in the Era of Transition age category (age 29-48), white, married, held full-time employment, and had a least attended college.

An innovative exploratory data analysis approach was used to determine what the data revealed about the lifestyle balance phenomenon. Visual and numeric displays --histogram, box-and-whiskers plots, stem-and-leaf displays, median hinge number summaries, scatterplots, and strip box-and-whiskers plots--were used to examine single variables and the relationship between pairs of variables. These displays revealed that: lifestyle balance is positively related to health, mastery, and connectedness: lifestyle balance is negatively related to role strain; lifestyle balance can occur when women have various life pattern orientations and educational levels; and high levels of role complexity and lifestyle

balance can coexist. Correlation coefficients confirmed the same direction and strength of the relationship between variables that had been illustrated in the scatterplots.

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CHAPTER I

INTRODUCTION

Lifestyle balance is the accumulation and management of multiple roles in such a way that an ongoing sense of mastery and connectedness is achieved. The terms mastery and connectedness are synonymous with the terms work and love, respectively. It is often not easy for a woman to engage in roles that provide opportunities to achieve mastery and connectedness. Work (mastery) and love (connectedness) in America were predominantly compartmentalized into separate spheres in the early 1800s. The occupational-bureaucratic complex shaped the sphere for most work activities of society. The home and family became the preferred sphere for the cultivation and expression of love and the Victorian family of the 19th century symbolized this division of work and love by gender. The workplace was the male domain and the family was the female domain. Although this model did not fit all women, it was the socially desired and predominate model for most American women until the 1960s (Smelser & Erikson, 1980).

Many of the theoretical perspectives on adult development formulated by psychologists and sociologists during the 1960s and 1970s were based on inherent differences between men and women. The male model of successful development was based on autonomy and achievement or work. The female model of successful development was based on interpersonal and intergenerational connection or love (Hulbert, 1993; Schuster, 1993). However, scholars in the relatively new field of women's studies discovered that work and love, Freud's twin themes of healthy development, are as important for the well-being of women as they are for men (Bardwick, 1979; Baruch, Barnett, & Rivers, 1983; Friedan, 1981; Hulbert, 1993; Smelser & Erikson, 1980). "The human self defines itself and grows through love and work" (Friedan, 1981, p. 67).

Women's involvement in both work and higher education shows a gradual increase over the past 100 years (Bianchi & Spain, 1986; Schuster, 1993). During the 1960s and 1970s, women increasingly joined the workforce. Women's workforce participation began to resemble the inverted U-shaped pattern of continuous employment over the life cycle which had here to fore been common to men (Bianchi & Spain, 1986). However, trends in options and status

for women show an undulating pattern of change over the past 100 years rather than a pattern of steady improvement. Thus, social and economic changes at various periods during the 20th century have both widened and limited the options open to women as well as improved and harmed the status of women. According to Faludi (1991), women are currently experiencing a backlash phenomenon or a retreat from the "small and hard-won gains that the feminist movement did manage to win for women" (p. xviii). Recession, rising unemployment, and the rhetoric of the conservative right concerning families and what this means to women will undoubtedly influence women's choices about their life roles.

Problem of the Study

This study examined the relationships among roles, life pattern orientation, age, educational level, and women's lifestyle balance. The study also examined the relationship between role complexity, lifestyle balance, and health.

Rationale of the Study

Psychologist Daniel Levinson (1978), in writing about men's development, stated that "a life structure

is satisfactory to the extent that it is viable in society and suitable for the self" (p. 47). I believe this statement is very applicable for women's lives and their well-being. What is suitable for the self and viable in society changes over time. The roles of wife, mother, and other relationships have traditionally been salient for women and thus important in accomplishing a sense of worth or being suitable for the self. However, we live in a society that values economic success and achievement over involvement with others.

Women's traditional roles alone may no longer meet the criteria for being viable in our society. Barnett and Baruch (1980) write that:

> our failure to prepare women for occupational competence results in a developmental disability that eventually culminates for many women in difficulty coping with the circumstances of their lives, leaving them vulnerable to and at high risk for poverty, psychiatric symptomatology and diminished well-being. Thus we shall point to a major discontinuity that threatens women both economically and psychologically, namely the divergence between socialization of the female role and requirements of the role of economic provider or breadwinner. (p. 69)

Changes have occurred in ideology, the economy, and in career and educational opportunities. As a result of these changes, many women as young adults thoroughly consider what life roles to adopt. Women are expected to adopt the more assertive, self-actualizing,

independent, and achieving behaviors usually associated with the male role. However, societal support is often unavailable for the choice of high levels of commitment to both career and family roles. Additionally, women receive conflicting messages about what their lives should be like and traditional roles remain central to most women's identity. If young women internalize this culture's definition of the female role, it is much harder to envision a possible self that is centered on career achievement as "career achievement and family responsibilities are perceived as largely incompatible" (Hulbert, 1993, p. 431). According to Kane (1993), a clinical nurse specialist, "The conservative voice warns of the breakdown in family life as women attempt to balance the conflicting roles of housework and employment, while feminists offer the argument that employment enhances both physical and mental health, as well as providing independence and a sense of self-worth" (p. 17).

Lifestyle balance provides an important perspective to study women's lives. In the future, integrated--balance of a sense of mastery and connectedness--rather than either-or approaches for living are expected to be better suited in our society

(Bateson, 1989). The assessment of multiple roles in terms of whether they provide the opportunity to accomplish an ongoing, continuous sense of mastery and pleasure may have greater benefit for women than a benefits or burdens approach to assessing the impact of multiple roles. A limited body of data or knowledge exists on the phenomenon of lifestyle balance. Balance in one's life is mentioned often in lay and professional literature. Although balance is identified as desirable, there seems to be little description of what balance is and no research is reported. This study provided a description of the concepts related to the lifestyle balance phenomenon. I developed the survey that generated the data.

Theoretical Framework

The theoretical foundation for this study is based on role theory with a special emphasis on the concepts of mastery and pleasure by psychologists Baruch and Barnett (Baruch et al., 1983) and role commitment and energy levels by sociologist Marks (1977). One of the most influential studies on women's involvement in multiple roles was done by psychologists Rosalind Barnett and Grace Baruch with women of the Era of Limitations

(those born between 1926 and 1945). These authors have written many articles in professional publications relating to this study (Barnett & Baruch, 1985) and in association with journalist Caryl Rivers wrote a book titled Lifeprints (1983) for the general public. Baruch and Barnett used Marks' theoretical formulations on energy levels in their work.

Lifestyle balance is the accumulation and management of multiple roles in such a way that an ongoing sense of mastery and connectedness is achieved. Lifestyle balance is believed to be a quality of life issue which leads to enhanced self-esteem and feelings of fulfillment. A sense of mastery comes from involvement in the work of one's society and is associated with self-esteem, sense of control, and low levels of depression and anxiety (Baruch et al., 1983). Characteristics of mastery include goal-directed activity; a future orientation; a sense of boundaries, structure, and order; product generation; the presence of external standards and feedback of performance; a sense that one's effort is valued by others and a sense of doing and achieving. A sense of connectedness comes from intimate relationships with others and is associated with satisfaction, happiness, and optimism (Baruch et al., 1983). Characteristics

of connectedness include non-goal directed activity; an orientation to the present, a sense of boundlessness, expansion, and freedom; a focus on process rather than product; a lack of external standards and feedback of performance; a sense that activities are usually less valued by others and an attachment to others.

Each role a woman adopts has aspects of mastery and connectedness. However, some roles lend themselves to one of these components more readily than to the other. For example, it is easier to achieve mastery in the role of paid worker than it would be in the role of homemaker. Although the homemaker role is certainly work and a woman can achieve a sense of satisfaction from this work, the work is never-ending and undervalued by our society. There are few external standards and feedback is not well circumscribed. No paycheck is given as a reward for accomplishment of tasks. On the other hand, workers who have monotonous jobs and few rewards still experience many of the characteristics of mastery. Paid work usually has structure and order and external standards, and the worker receives a paycheck which is valued by society. In addition, the role of worker has many characteristics of connectedness; however, mastery and connectedness most often come from different sources in our culture.

How many roles must a woman adopt to accomplish lifestyle balance? The more roles one adopts, the more potential sources are available to achieve a sense of mastery and connectedness and thus lifestyle balance. In other words, the more sources for mastery--manager of household, paid employment, social ties (volunteer and community activities) and student--and sources for connectedness--marriage, motherhood, family of origin, and friends--a woman engages in, the greater the opportunity to achieve both mastery and connectedness. When people have too few role commitments, or role underload, they are less likely to accomplish lifestyle balance. This is the "eggs-in-one-basket" phenomenon. Although Marks did not describe role underload directly, he described the production and consumption of adenosine triphosphate or ATP and quoted Durkheim's description of the energy-producing element of social activity. Marks stated that as with ATP, "the process of production of human energy is inseparably a part of the consumption of energy. Activity is thus necessary to stabilize the production of human energy, and even while we are spending it we are also converting more of it for later use" (p. 926). Involvement in multiple roles often enriches and vitalizes individuals rather than spending or draining

energy. Thus, one's involvement with others may produce energy to use for other activities. Multiple roles offer "multiple sources of social support, skills that transfer from one role to another and an increased sense of meaning and purpose" (Barnett & Baruch, 1985, p. 135).

Role strain is felt difficulty in meeting one's role obligations (Goode, 1960) and is caused by role conflict and overload (Hardy & Conway, 1988). "Role conflict arises when the demands of two or more roles are such that adequate performance in one jeopardizes adequate performance of the others" (Barnett & Baruch, 1985, p. 136). Role overload is defined as "so many demands related to one's role(s) that satisfactory performance is improbable" (Barnett & Baruch, 1985, p. 136). There are competing demands and a feeling of need to juggle responsibilities. Can lifestyle balance and role strain coexist? Or will people still experience role strain if they have achieved lifestyle balance? According to Marks (1977), time and energy are separate concepts and are outcomes or products of our role bargains. For example, individuals are in a better position to bargain if their roles are culturally valued such as employment in a high status occupation. Time and energy are not available in preset amounts even in

our modern culture but "are flexible, waxing abundant or scarce, slow or fast, expanded or contracted, depending upon very particular socio-cultural and personal circumstances" (p. 929). Commitment is viewed by Marks as the determining factor in whether or not some form of role strain will be experienced.

Commitment, as used here, is the state of devoting oneself to a cluster or group of roles. Commitment involves the investment of attention, time, energy and passion, to the obligations and partners associated with adopted roles. Inherent in lifestyle balance is the choice to adopt some roles over others and commitment to various roles. However, commitments are culturally patterned by specific groups, classes, sexes, and social categories within societies. Therefore, women continue to be constrained in forming commitments to certain roles and activities. Marks describes four principal reasons a person forms commitments to certain roles and activities: (1) spontaneous enjoyment of the roles or activities; (2) spontaneous loyalty to one or more role partners who want or would be pleased if an activity or role is performed; (3) "anticipation of perceived reward, such as wealth, power, prestige, sympathy, approval, favorable self-image, etc." (p. 929) if the

role or activity is performed; and (4) "avoidance of perceived punishment, such as stigma, disapproval, status-loss, loss of rewards, etc." (p. 929) if the role or activity is performed. Presence of one of these reasons may generate commitment at times. At times more than one of these reasons is needed to form a commitment to a role.

We feel energized after having done some things and find little energy or feel spent when we do things for which we have little commitment (Marks, 1977). However, it is insufficient to look at commitments or undercommitments alone but necessary to "study the individual's total range of commitments as a system . . . . The shape of this commitment system may take three forms" (Marks, 1977, p. 930): Type I, a system of equally positive commitments; Type II, a system of equally negative commitments, and Type III, a system of over- and under-commitments. The Type I system is a system in which anything one does is seen as just as important as anything else one does. Marks stated that a certain amount of affluence is probably needed for the Type I system. In the Type II system, there is an absence of any interest held to be worthy, apathy exists, and time and energy produced are for the sake of rejection

and despair. The Type III system "is a system of over- and under-commitments, in which one or more typical activities and roles are seen as better, more important, more worthy of one's efforts, etc., than any of one's other typical activity-clusters and roles" (Marks, 1977, p. 930).

A woman may experience lifestyle balance with both the Type I and III systems of commitments. However, those with a Type I system of commitment may be more likely to experience lifestyle balance without role strain than those with a Type III system of commitment. The Type III system is the predominate form of commitment in our culture; thus, many multiple role players in our culture often experience role conflict, role overload, scarcity of time and energy, and exhaustion. Even if women value their under-committed interests, the time and energy for them are always constrained by the over-committed interests.

Assumptions

The theoretical assumptions of this study are as follows:

1. Doing and achieving (mastery) are at least as important to the lives of women as are relationship and

feelings (connectedness). If mastery is neglected, a woman's self-esteem is endangered. If connectedness is neglected, achieving a full, rich life is neglected (Baruch et al., 1983).

2. Roles are not good or bad but each has costs and benefits (Baruch et al., 1983).

3. No one combination of roles or role repertoire guarantees lifestyle balance (Baruch et al., 1983).

The research assumptions of this study are as follows:

1. Self-reports of balance and health status are reliable.

2. To be ideal participants in the study, women are able to read and comprehend at least at a 10th-grade level and are in relatively good mental and physical health.

3. Women are able to describe their attitudes about lifestyle balance even if they are not presently experiencing lifestyle balance.

Research Questions

In order to clarify the lifestyle balance phenomenon for women, answers were sought for the following questions:

1. What are the relationships between and among a woman's age cohort, educational level, role combinations, primary and complementary roles, role commitment, life pattern orientation, and perceived level of lifestyle balance?

2. What are the relationships between and among a woman's perceived level of lifestyle balance, mastery, connectedness, role complexity, role strain, and health?

3. What do women believe lifestyle balance means for their lives?

Definition of Terms

Variables in the study will be measured using an investigator-developed instrument titled the Lifestyle Balance Questionnaire. The following are the conceptual definitions of the variables used in this study:

Lifestyle Balance--the accumulation and management of multiple roles in such a way that an ongoing sense of mastery and connectedness is achieved. Lifestyle

balance is believed to be a quality of life issue which leads to enhanced self-esteem and feelings of fulfillment.

Mastery--a sense of mastery comes from involvement in the work of one's society and is associated with self-esteem, sense of control, and low levels of depression and anxiety (Baruch et al., 1983). Characteristics of mastery include goal-directed activity; a future orientation; a sense of boundaries, structure and order; product generation; the presence of external standards and feedback of performance; a sense that one's effort is valued by others; and a sense of doing and achieving (Baruch et al., 1983; Bernard, 1987; Fanning & Fanning, 1979; Peck, 1978; Rohrlich, 1980).

Connectedness--a sense of connectedness comes from intimate relationships with others and is associated with satisfaction, happiness, and optimism (Baruch et al., 1983). Characteristics of connectedness include non-goal-directed activity; an orientation to the present, a sense of boundlessness, expansion, and freedom; a focus on process rather than product; a lack of external standards and feedback of performance; and a sense that activities are usually less valued by society; and an attachment to others (Baruch et al., 1983; Bernard, 1987; Fanning & Fanning, 1979; Peck, 1978; Rohrlich, 1980).

Health--a dynamic state of physical, psychological, social, and spiritual well-being. In a state of health an individual is able to cope with the environment, feels in peak condition, has a sense of worth, and a peaceful attitude.

Roles--are positions held in a social structure, or the various functions a person performs (Hardy & Conway, 1988). Roles can be categorized as primary and complementary. Primary roles are those roles people invest most of their commitment, energy and time to, and which strongly influence other aspects of life. Complementary roles are less important to the individual than are primary roles and are easier to detach and change (Levinson, 1978). Role combinations in this study include seven categories: (1) partner (wife or partner); (2) worker; (3) parent; (4) member of intergenerational connection (friend, daughter, and/or sibling); (5) caregiver (disabled or ill child, partner, parent, and/or friend); (6) enthusiast (religious, social, cultural/ethnic, health/fitness, and/or leisure enthusiast); and (7) other role (student, manager of household, and citizen).

Role commitment--the state of devoting oneself to a cluster or group of roles. Commitment involves the

investment of attention, time, energy, and passion to the obligations and partners associated with adopted roles. Inherent in lifestyle balance is the choice to adopt some roles over others and commitment to various roles. However, commitments are culturally patterned by specific groups, classes, sexes, and social categories within societies (Marks, 1977; Rubin, 1979).

Life Pattern Orientation--the choice of a certain design for life after cognitively examining, through a combination of unconscious and conscious processes, a repertoire of possible selves. The life pattern orientation shapes a woman's choice of the roles she adopts and the degree of emphasis or commitment given to these adopted roles (Hulbert, 1993; Sheehy, 1976).

Role Complexity--a combination of role pressure --"external sources of potential difficulty for the individual" (MacKinnon, 1978)--and role demand-- the woman's perception that her combination of roles is highly demanding of her time, energy, and concern (Amatea & Fong, 1991).

Role Strain--a felt difficulty in meeting one's role obligations (Goode, 1960) and is caused from role conflict and overload (Hardy & Conway, 1988). "Role conflict arises when the demands from two or more roles

are such that adequate performance of one jeopardizes adequate performance of the other(s)" . . . . Role overload is defined as "so many demands related to one's role(s) that satisfactory performance is improbable (Barnett & Baruch, 1985, p. 136).

Age--"refers to the chronological age of the individual and to such developmental stages as childhood, adolescence, middle age, and old age" (Giele, 1993, p. 33). A "cohort is a group of people, born at the same time, who travel through life together experiencing the same historical events at the same stage of life" (Giele, p. 33). Era Cohort refers to women delineated chronologically into four groups "according to shifts in cultural values that affected women's life-style decisions over the course of a century" (Schuster, 1993, p. 18). Within this study, the Era Cohort is defined as one of four categories based on a woman's year of birth: Vanguard Era (women born in the year 1925 or before), Era of Limitations (women born in years 1926 to 1945), Era of Transition (women born in years 1946 to 1965), and Era of Liberation (women born in the year 1966 or after).

Limitations

The population, questionnaire, and procedure for collection of data may influence the results of this study. The data was collected from individuals who reside in a rural region of central Texas. Therefore, conclusions and generalizations may be applicable only to this population. The questionnaire used for this study needs further validity and reliability testing. Because data was collected through the use of a mailed survey, this investigator had no control over where and under what conditions the questionnaires were completed. Furthermore, with the possibility of a low return rate with a mailed survey, participants may not be representative of the population and generalizations may not be made.

Delimitations

The study was limited to females who are age 18 or older. The participants in this study were also on at least one of two prelists: a list of registered voters obtained from the tax assessor-collector office in one rural county and a list of registered nurses from a nine-county rural area of central Texas obtained from the

Texas Board of Nurse Examiners. In addition, women who participated in the pilot study were not used for this study.

Summary

Chapter I has demonstrated the importance of investigating the lifestyle balance phenomenon. Clarification of lifestyle balance was accomplished by describing certain variables and the relationship of these variables: roles, role complexity, life pattern orientation, age and educational level, lifestyle balance and health. The theoretical foundation for this study is based on role theory with a special emphasis on the concepts of mastery and pleasure by psychologists Baruch and Barnett (1983), and role commitment and energy levels by sociologist Marks (1977). Results of this study provided information to develop research questions and hypotheses for future study.

CHAPTER II

REVIEW OF LITERATURE

According to Bateson (1988), to successfully compose a life adults must engage in purposeful, organized mastery of their world and mutually gratifying attachments to other individuals. Several terms are used to denote this organized mastery and attachments: love and work (Freud, cited in Smelser, 1980) and mastery and pleasure (Baruch et al., 1983). I have used the terms mastery and connectedness in this study. General agreement exists that a sense of mastery and connectedness or work and love are important to well-being (Baruch et al., 1983; Friedan, 1963; Gibbs, 1990; Hulbert, 1993; Miller, 1986). Balanced lives are viewed as positive and mentioned often in publications for the general public as well as professional literature (Bianchi & Spain, 1986; Curley, Ladar, Siegler, Greengold, Stevens, & Matthews, 1981; Inglehart, Brown, & Malanchuk, 1993; Rohrlich, 1980). Although balance is identified as desirable, there seems to be little description of what balance is and no research is reported. This study was undertaken to gain a greater understanding of lifestyle balance. I developed

the Lifestyle Balance Questionnaire used in this descriptive study through a process of reviewing many different types of books and articles on women's lives. Thus, the literature review has been an ongoing process over the last several years. The structured literature review described here is limited to women's history in the 20th century, census monographs, research articles on women's involvement in multiple roles, and adult developmental literature. I have focused this structured literature review on four major areas: (1) work/home segregation and gender role socialization; (2) changes in life pattern orientation among age cohorts; (3) roles of wife, mother, homemaker; and (4) the impact of multiple roles on women's lives.

Work/Home Segregation and Gender Role Socialization

At one time in our history, work, family, and even leisure spheres of life were not so widely separated as they are today, and it was much easier to participate in all of these spheres. Prior to the industrial revolution the home was the center of production of goods as well as the place for consumption of goods. While the men set the direction for society, made the decisions, and performed the more physically demanding tasks, the

women filled an economic role and raised a family (Miller, 1986). In agricultural communities men and women had separate tasks based somewhat on physical strength. However, these tasks were visibly complimentary and familiar to both. "The family was a cooperative economic and relational unit" (Hulbert, 1993, p. 423). The home was a place of production. For example, women in the home provided health care, childhood education and they produced goods such as clothing and food items. Work and family roles became widely segregated as the result of industrialization and urbanization. Women lost their economic function in terms of production; the home primarily became a place of consumption of goods. Men became involved in the workplace doing paid work, and women became involved doing unpaid work in the home. Male and female roles were no longer visibly complimentary. The family was no longer a cooperative economic and relational unit.

The work and home segregation became even more entrenched following World War II as a result of postwar prosperity. Professional and technical occupations and employing organizations became more specialized. The family became more specialized as well. The wife/mother tasks within the nuclear family focused on that of

nurturer, caretaker, and helpmate, and the weaver of relationships (Giele, 1980; Gilligan, 1982). Social scientists created an ideology of role differentiation for men and women or what Friedan called the "functional freeze" (1963, p. 126). Healthy psychological adjustment included adaptation to socially defined gender roles and norms (Hulbert, 1993, p. 423). Women were to perform expressive functions of being caretakers of the home, the children, and their husbands. Men's contribution to their families was in terms of performing the instrumental function of earning a living. Women's primary economic contribution to the family was within their roles of wife, mother, and homemaker (Friedan, 1963; Giele, 1993; Hewlett, 1986; Myrdal & Klein, 1968).

Beginning with the women's movement in the 1960s, women were expected to adopt the more assertive, self-actualizing, independent, and achieving behaviors usually associated with the male role. Although social acceptance of broader roles for women was evident, socialization to the traditional female role remained a salient factor in women's lives. These traditional roles are central to most women's identity. Therefore, for women to view their performance in the roles of wife and mother as successful, high levels of involvement are required

(Eccles, 1994). Women have difficulty developing a sense of identity through activities in pursuit of their own goals (Miller, 1986). In terms of development from childhood through young adulthood, identity and intimacy become separate for males but remain fused for females (Gilligan, 1982). Women define their sense of self or judge their worth through being able to develop and "then to maintain affiliations and relationships . . . . Affiliation is valued as highly as, or more highly than, self-enhancement" (Miller, p. 83). Therefore, women gain a sense of self-worth more easily from activities defined as taking care of or giving to others rather than for activities done in pursuit of personal goals. In addition, there may be gender differences in achievement. Men measure achievement in terms of their own merit and by societal standards. Women are more likely to feel personal accomplishment from the achievement of their husbands and children (Eccles, 1994).

Miller (1986) and Bateson (1989) advocate the feminist values of self-actualization and equality for women and celebrate the strengths inherent in the traditional female role. Women's psychological characteristics--human feelings of vulnerability, weakness, and helplessness; participation in the

development of others; and cooperation--developed as a result of socialization to the traditional female role can lead to subservience. However, "these same characteristics represent potentials that can provide a new framework, one which would have to be inevitably different from that of the dominate male society" (Miller, p. 27). The following excerpts from Composing a Life (Bateson, 1989) illustrate the weakness and strengths of women's psychological characteristics:

> I believe the issue of female inferiority still arises for virtually every women growing up in this society. I grew up in an environment where no one told me females were inferior or that significant achievement would necessarily be beyond my reach, but the belief was all around me . . . . As a young women, I never questioned the assumption that when I married what I could do would take second place to what my husband could do. Twenty-five years later, I have slighted my own value so often that it is hard to learn to take it seriously. Instead, I get things done by finding rationales for valuing the task and then sacrificing myself for it . . . . If women were brought up to be more centered on themselves, many of the conflicts and discontinuities that disrupt their lives would be irrelevant, peripheral to the central definition of self. They could move from context to context without a painful sense of contingency, but to do so might involve a loss of awareness, a narrowing of attention. (pp. 39-41)

> Women today, trying to compose lives that will honor all their commitments and still express all their potentials with a certain unitary grace, do not have an easy task. (p. 232)

> Perhaps what women have to offer in the world today . . . lies in the rejection of forced choices: work or home, strength or vulnerability, caring or competition, trust or questioning. (p. 233)

Therefore, in the future, an interdependent stance of living as opposed to either the dependent or independent stance is expected to be better suited for both men and women in our society. The model of an ordinary successful life often held up for young people--one of early decision and commitment and often to educational preparation that launches a single rising trajectory--has not been valid for women or even for most men. In the future, the assumptions associated with this model such as permanence in job and family structure will become increasingly appropriate (Bateson, 1989). Women's lives now and in the past provide positive examples for men and women.

Life Pattern Orientation

The life pattern orientation as used in the Lifestyle Balance Questionnaire was adapted from Hulbert's (1993) description of the formation of a life-style orientation in young women and life pattern categories were adapted from the pattern categories described by Sheehy (1976). Life pattern orientation has been substituted for life-style orientation. Sheehy identified five life pattern

orientations: caregiver, either/or-nurturer who defers achievement and achiever who defers nurturing; integrators; never-married' and transients. The patterns I identified differ from Sheehy in several respects--I used the either/or category to describe the caregiver and androcentric patterns, the sequencer pattern describes the nurturer who defers achievement and achiever who defers nurturing, the never-married category is included in the androcentric patterns, and I did not use the transient pattern. I also do not adhere to some of Sheehy's assumptions. For example, Sheehy agrees with Levinson (1978) who postulated that individuals must concentrate on one or two primary roles until they accomplish their sense of identity; they cannot reconcile polarities such as autonomy and interdependence until their late thirties. Sheehy writes that "it is rarely possible for a woman to integrate marriage, career, and motherhood in her twenties . . . . It is quite possible to do so at 30 and decidedly possible at 35, but before then, the personal integration necessary as a ballast simply hasn't had a chance to develop" (p. 277). Therefore, Sheehy does not seem to believe that integration, as I use it, is possible in young adulthood.

As a result of these changes in ideology, the changes in the economy, increased education, and increased career opportunities beginning in the 1960s, women have had to "think consciously about their roles, values, priorities, and options" (Hulbert, 1993, p. 429). During transition to adulthood, young women appear to consciously choose a life pattern orientation as the foundation for creating an adult life structure. The life pattern orientation, formed through a combination of unconscious and conscious processes, is established in late adolescence to early adulthood. The young woman cognitively examines a repertoire of possible selves and then chooses one of these possible selves as a life pattern orientation. Basic values and attitudes about her gender role derived primarily from her family, teachers, and peers and influenced by the norms operating during a particular historical period determine and constrain the range of possible selves the young woman envisions. The life pattern orientation shapes a woman's choices of the roles she engages in and the degree of emphasis or commitment to her various roles. Decisions are both conscious and unconscious, not necessarily dichotomous, not irreversible, not always of her own choosing, weighed according to current roles, and once

made shape subsequent options. This life pattern orientation, once established, remains relatively stable. However, changes in the orientation may occur as a result of historical events, broad social or cultural trends, or changes unique to each woman's life such as marrying or remaining single, having or not having children, becoming a widow or being divorced.

Three major life pattern orientation categories exist: either/or, sequencer, and integrator. First, the either/or orientation is the traditional female model (caregiver) or the traditional male model (androcentric). As a caregiver the women's primary roles are usually partner, mother, and homemaker. The caregiver may be involved in other roles but these roles are complimentary rather than primary. For example, the caregiver may have a job but it is a job rather than a career and serves as a complementary role. The caregiver is less committed to the complimentary roles. The woman with an androcentric orientation chooses a career as her primary role with her other roles being complimentary. Women with an androcentric orientation are usually single. Second, the sequencer orientation is one in which the woman plans commitment to career and family over her lifespan. However, the commitment and involvement with

these roles will be changed over time. For example, the woman focuses on educational preparation for a career in her early twenties and establishing herself in a marriage. The woman reduces commitment and involvement in her career when she has children. As the children reach school age, she resumes a primary commitment to her career. Third, the integrator orientation is one in which the woman plans continuous involvement in and primary commitment to both career and family across the lifespan. This type of orientation is described in Composing a Life (Bateson, 1986). Women can accomplish mastery and connectedness in each of the life pattern orientation categories. However, because of the home/work segregation and socialization to the female role, accomplishing mastery and connectedness in the caregiver and androcentric categories is more difficult.

Differences in Life Pattern Orientation Categories among Cohorts

As a result of historical events and economic and ideological changes, the predominate life pattern orientation categories have changed for women of various era cohorts. The range of possible selves available as possibilities to young women has changed dramatically

during the 20th century. The either/or life pattern orientation was prevalent in the Vanguard Era (women born from 1860 to 1925), Era of Limitations (women born between 1926 and 1945), and Era of Transition women born between 1946 to 1965). However, a different emphasis existed in these eras regarding the caregiver or androcentric orientations. The caregiver orientation has been the most prevalent category in each era cohort. However, almost all women of the Era of Limitations cohort chose the caregiver orientation in their twenties. Although only a minority of women choose the androcentric orientation, it was a more common orientation in the Vanguard Era and Era of Transitions than the other two cohort categories.

Vanguard Era (Women Born from 1860 to 1925)

Women of the Vanguard Era were either caregivers or careerists. Most women did marry and the societal assumption at the time was that the woman's place was in the home after marriage. However, approximately 10% of those born in the late 1800s or early 1900s remained single. These women were more likely to be better educated than the general female population and many were involved in the reform movement evident at the turn of the century. Nursing, social work, and teaching became

professionalized. Lillian Wald, a nurse born in 1867, is an example of the single woman of this period who concentrated on a career of service to mankind rather than to a family (Backer, 1993). However, she may have classified herself as a caregiver rather careerist. Many of the first generation of Progressive Reformers (born prior to 1880s) saw their efforts in terms of their place in the family rather than as a worker (Dubois, 1991). Anthropologist Margaret Mead is an example of someone in this era cohort with an androcentric orientation as a young adult.

Era of Limitations (Women Born between 1926 to 1945)

Women in this age cohort had two prevalent role models from the Vanguard Era: the traditional caregiver and that of single career women. Most did not process a vision as a young adult that career and family could be combined. Therefore, women of this era cohort overwhelmingly held the caregiver orientation. These women were born during the depression or World War II and were young adults during the postwar era. The post World War II period was a deviation from the progress women had made during the prior decades. Following the war, people desired home and family. Women were expected to marry and have several children. Suburban housing

developments sprang up surrounding cities. There was a concern for femininity rather than feminism. The ideology at the time was the "feminine mystique" (Friedan, 1963), "ultradomesticity or return to hearth and home" (Hewlett, 1986, p. 231), and the "rise of the cult of motherhood" (p. 262).

However, the life pattern orientations of sequencing and integration also occurred with young women of this cohort. A few women, especially those whose mothers worked, chose an integrated approach, combining work and family. Mary Catherine Bateson, born in 1939, author of Composing a Life and daughter of famous anthropologist Margaret Mead, is an example of one of these women (Bateson, 1989; Giele, 1993). Bateson also describes four other women in Composing a Life who should probably be described as integrators. In addition, many women of this cohort changed their life pattern orientations from that of caregiver to integrator in their 30s and 40s as new career opportunities developed. Multiple role research conducted in the 1970s and 1980s used women of this age cohort (Baruch et al., 1983; Helson, Elliott, & Leigh, 1990).

Era of Transition (Women Born between 1946 to 1965)

Most women of this cohort grew up in families with traditional values and with mothers who held to the traditional female role. As the "baby boom" cohort, these women became young adults during a time when young adults were not supposed to passively accept tradition. They were children during the aberrant 1950s or turbulent 1960s and were exposed to civil rights movement, the Vietnam war and antiwar movement, substance abuse and the sexual revolution, concern over environment and zero population growth, and the second wave of the women's movement. Non-traditional careers opened up to these women as young adults. Therefore, the women of this cohort "had both the reality and illusion of choice" (Bardwick, 1980, p. 48).

Compared to other cohorts, this era had the largest percentage of women who were androcentric oriented as young adults (Bardwick, 1980; Bianchi & Spain, 1986; Friedan, 1981). Friedan wrote that many women of this age cohort felt they had to make an either/or choice between family and work. Educated women of this age cohort desired careers in non-traditional fields and delayed marriage and children. In 1980, 10.6% of those born from 1946 to 1950 had never married (Bianchi & Spain,

1986). For those who had families, work patterns were less likely to be interrupted during childbearing years. Twenty-one percent of women born between 1946 and 1955 finished college, while 24% of women born between 1956 to 1965 finished college. Of those completing college, 75% to 80% were in the labor force in 1980 (Bianchi & Spain, 1986).

The sequence and integrator orientation patterns were also evident for women in this age cohort. Many women who held the integrator life pattern orientation functioned as "superwomen" and experienced "feminist fatigue" (Friedan, 1981, p. 73). Economist Sylvia Ann Hewlett, born in 1946, who wrote A Lesser Life (1986), was a member of this age cohort. She describes the difficulties women faced when combining a family and career with almost no societal support and with the same high expectations for childrearing that were present in the 1950s.

Era of Liberation (Women Born from 1966 to Present)

Women of this age cohort have grown up with feminist values rather than traditional female role values. Women of this age cohort are more likely than women of past cohorts to envision the possibility of success in the sequencer or integrator life pattern orientation. In

a special issue of Time Magazine (1990), a 20-year-old college student stated that women in the 1950s were family oriented, in the 1980s women were career oriented, but women in the 1990s want balance. When asked about their futures, female college students stated "they want good careers, good marriages and two or three kids, and they don't want their children raised by strangers" (Gibbs, 1990, p. 12). However, young women of this age cohort may be influenced in making life choices because of the rhetoric of the backlash phenomenon that is occurring (Faludi, 1991).

Roles of Wife, Mother, and Homemaker

Accomplishing mastery and connectedness is not easy for women in either the traditional home environment (family sphere) or work environment (work sphere) alone. Even when women are involved in paid work and have a family, accomplishing mastery and connectedness may be difficult. There are three major reasons for difficulty in accomplishing mastery and connectedness in the traditional role or the careerist role alone and even in a combination of these roles: segregation of home and work, gender role socialization, and the devalued status of the traditional female roles. I described

the issues of segregation of work and home and gender role socialization earlier in this chapter. The issue of the devalued status of the traditional female roles is described in this section. The current status of the traditional female roles of wife, mother, and homemaker will also be described in this section.

The stay-at-home mother and housewife roles are no longer normative patterns for women. The housewife role came under attack during the 1960s and 1970s (Friedan, 1963; Myrdal & Klein, 1968; Rossi, 1969). These authors viewed the idea of a woman functioning solely in the home as unnecessary and nonproductive for reasons such as: (a) reduction in the size of the family, (b) modern household conveniences, (c) social changes which lead to a devaluation of work at home, and (d) increased life expectancy and fewer children which left many productive years available after childrearing. Friedan described in The Feminine Mystique (1963) how housework expands to fill the time available.

Feminist authors drew attention to the ideology that developed in the late 19th century and expanded in the 1940s, that explained the changes in the economic structure of family relationships caused by industrialization and urbanization. This ideology

described the female role in the home as one of piety, purity, and submission and the fulfillment of a woman's femininity is through domesticity (Primeau, 1992). Thus, the housewife role was largely a middle-class phonomenon created by industralization and urbanization (Baruch et al., 1983; Primeau, 1992). Most so-called women's work, helping other's development rather than self-enhancement, is not recognized as real activity. Real activity defined in male terms as activity that is "done in open pursuit of their own goals" (Miller, 1986, p. 54). As capitalism became entrenched, time, discipline, and control favored the workplace and leisure and the family emerged as separate realms. Consequently, the home became the female realm and activities delegated to women were essential but culturally defined as inferior. Women cared for bodily comforts of children, the elderly or sick, and the man when he came home tired at night (Miller, 1986). Thus, the roles involved in the family sphere are not as valued by society as paid work. It is hard to gain a sense of mastery from something that is not valued by others. No one expects men to find their identity or accomplish mastery in marriage, children, and the home.

However, managing a home remains a primary role for most women. The homemaker role encompasses both housework (i.e., cleaning, cooking, and clothing care), child care tasks, and meeting the emotional and developmental needs of children and husband. During the 1970s and 1980s, when women were encouraged to add jobs or careers to their group of roles, standards of child care and home maintenance remained high. The work in the home may be less physically strenuous than in the past but the work has never been more complex. "Homemaking in our modern industrial society includes the management of extensive relationships with stores, banks, schools, hospitals, and government offices as well as housekeeping and child care. It involves seeing that thousands of personal needs are met" (Hewlett, 1986, p. 88). Women, even when they are in the labor force, are still responsible for the most of the unpaid work at home. This work at home was named the "second shift" (Primeau, 1992, p. 982).

The family roles of spouse and parent have also historically been primary roles for most women. These roles continue to be primary roles for most women. At least 90% of women marry at some point in their lives. However, women are now marrying at a later age. The

median age at first marriage for women was 20.3 years in 1960 and 23.3 years in 1990 (Bianchi & Spain, 1986; Costello & Stone, 1994). Although the age when 25% of woman marry has not changed since the early 1960s (remains age 19 or 20), the age by which 75% of women have married increased from 23 to 27 years between 1963 and 1982, and from 80% to 90% will be mothers. Approximately 80% of women born from 1900 to 1925 (Vanguard Era) had children by age 44 while 90% of women born from 1926 to 1945 (Era of Limitations) had children. The percentage of women of the baby boom cohort (born from 1946 to 1965) who remain childless is expected to be similar or to exceed that of the Vanguard Era (Bianchi & Spain, 1986).

Psychologists Rosalind Barnett and Grace Baruch (Baruch et al., 1983) conducted an influential study on women's involvement in multiple roles. They collected data from 1979 to 1980 on women age 35 to 55, who were born between 1924 to 1944 (Era of Limitations). Barnett and Baruch collected data for this cross-sectional study by personal interviews using their investigator-developed survey. They developed the survey in the first phase of the project with the help of indepth personnel interviews of 60 women using the snowball sampling technique. A voter registration list of 6,000 women's

names was used as the population of the study for the second phase of the project. The researchers used a stratified random sampling technique to evenly select women for six subgroups: (a) employed, married, and without children; (b) employed, married, and with children; (c) employed and never married; (d) employed, divorced, and with children; (e) not employed, married, and with children; and (f) not employed, married, and without children. Of those women eligible, 76% agreed to participate, and all educational and income levels were included. However, the average educational level of the sample was 14 years when the average educational level of general female population in the United States was approximately 11 years (Giele, 1993). The authors defined employment as a minimum of 17½ hours per week of paid work for at least 3 months prior to the researcher's contact. One of the major strengths of the study was that women were asked about the rewards and concerns of three domains--work or homemaking; being married, single or divorced; having a child or being childless--rather than just occupancy of these roles.

The authors concluded that no one lifeprint or one combination of roles guarantees well-being or misery. Each combination of roles has benefits and burdens.

The authors also concluded that for well-being, women need a sense of self-esteem, control, and intimacy. The authors discovered that marriage, children, and homemaking impact mastery and connectedness in the following ways:

1. Marriage can have a positive effect on pleasure (connectedness) but has little effect on mastery. Marriage cannot guarantee self-esteem, make a woman feel in control of her life or insulate her from depression.

2. Marriage and children do offer chances for meaningful close relationships that might otherwise be hard to find. Marriage can give a woman an opportunity for intimacy, sharing, added richness and warmth. These are important areas for connectedness.

3. Children cannot guarantee happiness but can add richness and variety to life. Children are not critical to well-being. Motherhood can be wonderful and fulfilling but also painful, stressful, and frustrating. Basing a person's self-esteem on someone else is shaky ground.

4. Workers were higher on mastery than non-workers.

5. Mastery in the homemaker role was tied to the husband's approval and support of the women staying home.

6. In terms of well-being, the woman needs a strong sense of identity to be a homemaker. The woman should stay home because she wants to rather than out of a sense of duty or fear that she is not capable of paid work. The stay-at-home woman "should plan to get involved in activities that will allow her to accomplish things in which she can take pride. The nature of these activities is critical; some volunteer activities involve only caring for others with no opportunities for feedback from peers or objective standards--they're too much an extension of home responsibilities" (Baruch et al. 1983, p. 156).

7. The rewards of homemaking for women are being free to make their own schedule, pursue interests, having the time and energy to enjoy their husband and children, and liking the work. Of the positive aspects of homemaking, only "liking the work" had a positive effect on mastery. Being emotionally available to her husband and children positively impacted the pleasure (connectedness) component of well-being.

8. The negative aspects of homemaking are boredom and isolation, not earning money and having to justify not having a job.

Role of Worker

Since the 1960s, paid work has become much more central to women's lives. For the educated women, the dilemma is "how to live up to one's intellect and education, and how to fulfill society's roles and expectations for women" (Hulbert, 1994, pp. 425-426). In 1989, 86% of women age 25 to 54 had finished high school and 24.2% of women age 25 to 34 finish college (Costello & Stone, 1994). For women without a college education, the dilemma is how to fulfill their roles as wives and mothers while functioning in a society where the script has changed. Work outside the home has become socially acceptable due to political and economic circumstances, and for many women work outside the home has also become a necessity. Women's labor force participation has increased in each decade since 1900: 18.1% in 1900, 29.6% in 1950, and 57.5% in 1990 (Bianchi & Spain, 1989; Costello & Stone, 1994). Married women also increased their labor force participation: 11.7% in 1930, 24.8% in 1950, and 57.8% in 1990 (Giele, 1993). The percent of mothers working with children under 6 years of age increased from 11.9% of mothers in 1950 to 18.6% in 1960 to 30.3% in 1970 to 45.3% in 1980 to 58.4% in 1990 (Giele, 1993).

Even more instructive than the percentage of labor force participation is the pattern of labor force participation. With women of the "Era of Transition" or "baby boom" cohort (born between 1946 and 1965) the labor force participation pattern has become almost identical to the male pattern of participation. The male pattern resembles an arch or inverted U as men enter the labor force in their 20s and remain there until late 50s or 60s. For women born prior to 1890 "women's participation rates peaked about age 20 and then declined and remained relatively flat throughout the rest of their lives. But for cohorts born in 1890 and 1900, there was a surge in participation which coincided with World War II (that is, a surge just after age 50 for women born in 1890 and just after age 40 with women born in 1900). These cohorts of women remained in the labor force as they aged, and hence their age profiles of labor force participation exhibit a double peak or U-shape. Thus, the first appearance of the U-shaped pattern actually came with the war and continued to characterize women's employment until only recently" (Bianchi & Spain, 1986, p. 148). Women born around the turn of the century composed most of the increase in female labor force participation during World War II. Conversely, young

women with young children did not participate in the labor force in large numbers during World War II. The female or U-shaped pattern existed because a woman entered the labor force in her early 20s, left when she had children, and entered the work force again as the children entered school. Beginning with women born during 1946, there was no longer the drop in labor force participation during the childbearing years; many women of this cohort remained in the labor force continuously. Thus, the pattern resembles the male pattern of participation. Women born since 1946 are more likely than previous cohorts of women to continue in the labor force after marriage and as they are raising their children (Bianchi & Spain, 1986).

The continuous labor pattern of cohorts of women born since 1946 is further demonstrated by several facts. In 1990, 75% of women age 25-44 and 58.4% of mothers who had children under 6 were in the labor force. The average number of years that women work over their lifetime is lower than the number for men, but the women's work-life expectancy increased from 32% of men's in 1940 to 59% in 1970 to 76% in 1980 (Bianchi & Spain, 1986). Furthermore, women's labor force participation is expected to continue to increase. By the year 2005, 63% of women

are expected to be part of the labor force. Even more striking is that 80% of women age 25-44 and 85% of women age 35-44 are expected to be labor force participants (Costello & Stone, 1994).

There has also been an increase in the percentage of female workers who worked full-time, year-round from 36.8% in 1950 to 52.5% in 1990. Initially, I was surprised that a higher percentage of women are not considered full-time, year-round workers. However, the percentage of men fitting the full-time, year-round category is only approximately 65%. According to Bianchi and Spain, the Bureau of Labor Statistics defines full-time, year-round workers as those who "work 35 or more hours per week during at least 50 weeks of the year" (1986, p. 156). By this definition, women and men who work as teachers would usually be classified as full-time, part-year workers rather than full-time, year-round workers as they usually work for 9 to 10 months of the year. In 1983, 47.7% of women worked full-time, year-round; 19% worked full-time for only part of the year (a decline from 37% in 1950); 13% worked part-time, year-round; and 20% worked part-time for part of the year. Therefore, 66.7% of women workers are full-time. The reason for the decline of full-time, part-year workers

from 1950 to 1983 is probably due to greater career opportunities for women with college degrees. Many women with college degrees in the 1950s were teachers.

For women age 25-34, the higher the educational level attained the more likely that a woman will be in the labor force. The percentage of labor force participation has increased for all educational groups between 1960 and 1980, for those who are not high school graduates from 33% to 49%, for high school graduates from 34% to 62%, for those with 1 to 3 years of college from 36% to 70%, for those with 4 years of college from 42% to 75%, and for those with 5 or more years of college from 59% to 80%. Percentages for women working full-time, year-round more than doubled between 1960 and 1980 for women with 1 to 3 years of college, and for those who were college graduates. The increase in full-time, year-round work also increased between 1960 to 1980 by 35% to 45% for the other three groups.

Beginning in the 1970s, women increased their representation among most occupational categories including the male-dominated professions of medicine, law, and management. The percentage of degrees in medicine granted to women increased from 5.5 in 1960 to 33.6 in 1990. The percentage of degrees in law granted

to women increased from 2.5 in 1960 to 41.9 in 1990 (Bianchi & Spain, 1986; Costello & Stone, 1994). Degrees granted to women in physical sciences, biological sciences, math, and business also increased dramatically. By 1980, women received half of the bachelor's and master's degrees awarded and 30% of the doctoral degrees. Most of master's and doctoral degrees for women were awarded in education and nursing (Bianchi & Spain, 1986). Between 1970 and 1980, women increased their representation in the administrative and managerial job category from 18.5% to 30.5% (Bianchi & Spain). In 1992, the percentage of employed women in occupations were as follows: 17.5% in administrative support which includes clerical; 17.6% in service occupations; 16% in professional specialties which includes teaching, nursing, law, medicine; 12.4% in sales; 12.4% in the technician and related support category; 11.4% in the executive, management and managerial specialties; and 10% in blue collar occupations such as machine operators and handlers and laborers (Costello & Stone, 1994).

Impact of Involvement in Multiple Roles on Women's Lives

Because of their gender role socialization, the changes in societal expectations for women and the home and work segregation, women have used flexibility and adaptability to resolve conflicts between their commitments to family and work roles. Many women resolve these conflicts in ways that appear to benefit both their physical health and the quality of their lives (Amatea & Fong, 1991; Baruch et al., 1983; Rosen, Ickovics, & Mogahadam, 1990).

However, women pay a cost in resolving conflicts between their commitments to family and work roles by lower wages, lack of career advancement, and tradeoffs in terms of fulfillment in their work or family roles. For most women a network of relationships is central to their identity. If a young woman internalizes this culture's definition of the female role, it is much harder to envision a possible self that is centered on career achievement as "career achievement and family responsibilities are perceived as largely incompatible" (Hulbert, 1993, p. 431). Support for women's awareness of potential conflicts between relationships and achievement is provided by Eccles' (1994) work on

occupational and educational achievement-related choices in adolescents and young adults. Eccles and her colleagues developed a theoretical model of achievement-related choices and have used this model to explain why women choose particular occupations. According to Eccles, achievement-related choices are based on expectation of success, one's interest and enjoyment of the choice, whether the choice is consistent with one's self-image, whether the choice will facilitate the accomplishment of one's long-term goals or immediate or long-range rewards, and the perceived cost or benefit of the choice. The cost and whether the choice is consistent with one's self-image are most salient for women. Thus, despite intellectual ability and increased educational and work opportunities, women are under-represented in many high-status occupations or at least within sub-categories of certain occupations (Bianchi & Spain, 1986).

Although labor force participation has increased and continuity of participation has increased, "women's participation in the labor force over the life course still remains more discontinuous than men's, as women continue to exit and re-enter the labor force more times than men (Bianchi & Spain, 1986, p. 153). Most women earn less than men in comparable occupations and

occupational differences between men and women continue to exist. Although women have made gains in the last 30 years, there remains a segregation by sex among occupational categories as well as a sex differentiation in jobs within a category.

However, women's conscious choice to favor family roles over expending time and money to gain the education and experience necessary for high status careers is only part of the reason for occupational segregation. Other reasons for the segregation include discrimination (Bergmann, 1990). Several examples exist of the segregation by sex among occupational categories. In 1992, the percentage of employed men in occupations was similar to women except fewer men worked in blue collar jobs. Only 6% of employed men and 27.5% of employed women worked in jobs titled as administrative support category, 7.4% of men work in jobs categorized as other service occupations while 15.6% of women worked in these categories, and 38.8% of men work in blue collar occupations while 10% of women work in these occupations (Costello & Stone, 1994). Women with a high school diploma are most likely to work in administrative support occupations and service occupations while men with equal education are in blue collar jobs which pay higher wages.

Even with some college, a high percentage of women have administrative support jobs. Women with bachelor's and master's degrees are most likely to work in a professional specialty (38% and 60% respectively). Men with bachelor's degrees are most likely to work in management, a professional specialty, and sales (34.3%, 21.4%, and 16.2% respectively). Men with master's degrees are most likely to work in a professional specialty or management (51.3% and 26.7% respectively). Although many men and women with college degrees are in professional specialties, the professions continue to be segregated by sex. Women comprised 8.6% of dentists, 21.4% of lawyers and judges, 37.9% of pharmacists, 20.4% of physicians, 55.6% of physician's assistants, 94.3% of registered nurses, 85.4% of elementary school teachers, 40.9% of college and university teachers, 79.5% of therapists, and 68.9% of social workers. Employed women are concentrated in occupations which offer lower wages and prestige (Costello & Stone, 1994).

The female-to-male earning ratios and the concentration of men and women in different job titles provides support that sex differentiation within a job category exists. The percentage of employed women and men in executive, administrative, and managerial category

is similar: as of 1992 11.4% of women and 13.5% of men are in this category (Costello & Stone, 1994). However, the female-to-male earning ratio in this category was 63.9% in 1984 and 66.2% in 1992 (Costello & Stone). As reported in Bergmann (1990) and Bianchi and Spain (1986), Biely and Baron found that men and women within managerial specialties in a sample of business and manufacturing establishments in California did not hold the same job titles within the organization. Biely and Baron reported that they encountered "instances of sex segregation of jobs leading to gender specific promotion lines: an orderly progression through jobs of successively greater authority and responsibility for men and dead-end careers for women" (cited in Bianchi & Spain, 1986, p. 165). Other examples of difference of job titles within categories and resultant low female-to-male earning ratios can be found in sales and the male-dominated professions of dentistry and medicine. Although the percentage of employed women and men in the sales occupational category were very similar, the female-to-male earning ratio was 59.8% in 1992 (Costello & Stone, 1994). Men and women are in very different types of sales positions. The female-to-male earning ratio was 53.9 for dentists in 1980 (Bianchi & Spain,

1986) and 72.2 for physicians in 1992 (Costello & Stone, 1994). Within the medical professions, women are more likely to go into specialties and work for organizations that are more compatible with their family situation. The good news is that the female-to-male earnings ratios are improving for more recent cohorts of women.

Summary

This review of literature focused on work/home segregation, gender role socialization, formation of a life pattern orientation, an historical overview of life pattern orientation among age cohorts, level of involvement in work and family roles, and the impact of multiple roles on women's lives. The review of literature focused on census monographs, research articles on women's involvement in multiple roles, adult developmental and historical literature.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This study utilized a cross-sectional descriptive design to explore multiple concepts in a sample of women from an 11 county rural area of central Texas. Concepts were operationalized through a 5-part investigator-developed survey. To clarify the phenomenon of lifestyle balance, I measured 18 variables, described each variable, described pairs and groups of variables and interpreted the meaning of the variables. Figure 1 illustrates the research design and depicts the variables in the study: lifestyle balance, health, roles, complexity, strain, life pattern orientation, beliefs about lifestyle balance, and demographic data. Three of these variables are subdivided: 5 roles, 6 beliefs, and 2 demographics.

Setting

Participants were recruited from 11 counties in central Texas. Female registered voters were recruited from one rural county with a population of 26,606. Women comprise 51% of the population of this county. The

ethnicity of the population is 92% white, 1% black, 5% Hispanic, and 2% listed as other (Bureau of State Health Data and Policy Analysis, 1995). The selected county contains a state-supported university, a regional hospital, and a research extension center of a major state university system. Nurses were recruited from nine rural counties and rural sections of two urban counties within a 60-mile radius of the university located in the rural county where the registered voters were recruited. The counties within this 11-county region have similarities as well as differences. The leading businesses within this region include agricultural, agribusiness, clothing and industrial manufacturing, and tourist enterprises. All of the counties in the region have water recreational facilities in the form of a river and/or lake. Two universities and four community colleges exist in this region. The predominate racial group in each county is white (84% to 97% of the total population). The questionnaires were mailed to each potential participant's home address. Therefore, I had no control over where and under what conditions the questionnaires were completed.

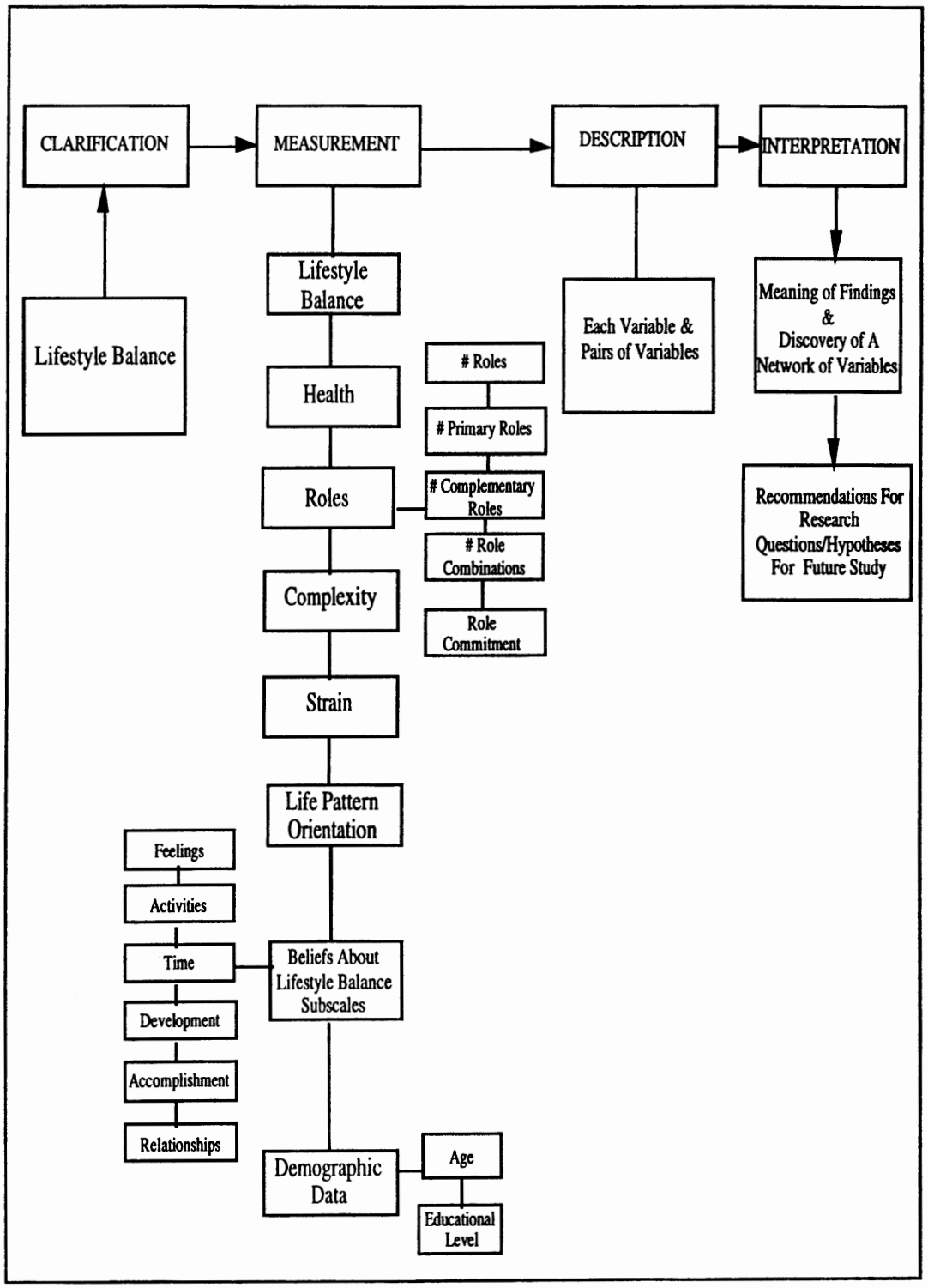


Figure 1. Descriptive Design Used To Study Lifestyle Balance.

Population and Sample

The population for the study consisted of all female registered voters in one rural county and currently licensed female registered nurses from nine rural counties and rural portions of two urban counties in central Texas. This population was available to the investigator and provided the opportunity to obtain data from women of various ages and educational levels and who had various role repertoires. Participants in the pilot study ranged from 19 to 74 years of age. There was a potential for individuals to be on more than one list and thus a greater possibility to be included in the study; some of the registered nurses could also be on the registered voter list. The investigator maintained a computerized data base of all survey participants so that individuals would not be counted as participants more than once. A list of registered voters was obtained from the county tax assessor-collector office and a list of registered nurses was obtained from the Texas Board of Nurse Examiners. Since these lists are public record, no agency permission was needed.

A systematic stratified random sampling technique was used to select 560 participants from the population of 7,186 female registered voters and 1,524 female

registered nurses. The population was divided into strata by the two prelists: voters and nurses. An equal number of cases were drawn at random from each of these prelists. A table of random numbers was used to locate the initial sampling point (a different sampling point was used for each list) followed by selection of every 38th name until 280 names were selected from the voter list and every 8th name until 280 names were selected from the list of nurses.

Protection of Human Subjects

I did not expect participants to be harmed physically or psychologically. However, participants might feel harassed by the mail questionnaire and follow-up letters. Participants might also be concerned about invasion of their privacy. Participants could be embarrassed if their responses were shared with others or reported in the study. However, I did not expect these risks to occur; thus, the risks did not constitute significant concerns. Several steps were taken to protect participants' rights and welfare.

Feelings of Harassment Due to Mail Questionnaire and Follow-up Letters

A list of the names and addresses was maintained of individuals who were sent a survey. A number was placed on the back flap of the return envelope so that I was able to note who returned the questionnaire. In an effort to increase the response rate, a follow-up postcard was mailed to all those not returning the questionnaire within 1 week of the initial mailing. A second letter with an additional copy of the questionnaire was mailed to all those not returning their questionnaire within 3 weeks of the initial mailing. Participants were informed via the cover letter of how their name was obtained for the study; voter registration list or list of registered nurses from the Board of Nurse Examiners. Participants were told that their participation in the study was voluntary and no penalty would result from their refusal to participate. In addition, participants were told that if they returned the questionnaire, even if unanswered, they would not be contacted again.

Concern about Public Embarrassment

In the cover letter I explained the methods in place to protect the participants' anonymity: responses to

be reported as group data rather than as data from individual participants; the questionnaires to be stored in a locked cabinet; no person other than the investigator to have access to the participant's completed questionnaire; the questionnaire to be shredded when the analysis of data is completed or not longer than 3 years; and no attempt to be made to match the name of the participant with the questionnaire responses via the number on the back flap of the return envelope. Participants were informed in the cover letter that there were no right or wrong answers to the questionnaire. I listed my business address and telephone number in the cover letter so participants could contact me if they had questions or concerns.

Informed Consent

Participants were informed via the cover letter that completion and return of the questionnaire constituted their informed consent to include their responses in a collective analysis with those of other participants in the study.

Method of Debriefing

In the cover letter, I provided participants with my business address and telephone number and asked them to contact me if they had questions, concerns, or

comments about the study. The telephone number of the Texas Woman's University Office of Research and Grants Administration was also included in the cover letter. I explained that the participants could contact the Research and Grants Administration office if they had any concerns about the way the research was being conducted.

Instrument

The Lifestyle Balance Questionnaire used in this study was an instrument I developed and included fixed-alternate, open-ended, and scale items. According to Kerlinger (1986), when participant's answers to carefully contrived questions are translated into measures of variables of the research rather than mere information-gathering devices, the questionnaire or schedule is subject to the same criteria of reliability and validity as other measuring instruments. The Lifestyle Balance Questionnaire was condensed and revised by several actions: subject matter and measurement experts review and feedback and results of a pilot study.

Content Related Evidence of Reliability

Evidence of content validity refers to the degree to which the instrument is representative of the

phenomenon of interest. Nunnally (1978) identified two standards in which to view content validity: "(1) a representative collection of items and (2) 'sensible' methods of test construction" (p. 92). Lynn (1986) identified a 2-stage development process that serves to provide evidence of content validity of an instrument; that ensures a representative collection of items: (1) stage one consists of identification of the dimensions of the phenomenon under study, generation of items for all dimensions of the phenomenon, placing the items in a usable form and (2) stage two consists of judgment or quantification of content validity of items and of the instrument. Nunnally identified that "rather than test the validity of measures after they are constructed, one should ensure validity by the plan and procedures of construction" (p. 42). The investigator developed the Lifestyle Balance Questionnaire by using Lynn's 2-stage process and submitted the instrument to subject and measurement experts.

Stage One. Popular books and magazine articles often mention the difficulty women have in leading a balanced life because of the engagement in multiple roles. However, there is little information about lifestyle balance as an entity in nursing, education, psychology,

or sociological professional literature. I found the items which from the Lifestyle Balance Questionnaire as a result of a literature review in several areas. Literature was reviewed in areas about women and work issues, work and family issues, adult lifespan development, and the historical view of women's roles in the United States, Canada, and Europe. The role literature was also reviewed: development; the symbolic interaction perspective versus the functional or structural perspective of role theory; role categories; and positive and negative benefits of multiple roles.

Stage Two. The Lifestyle Balance Questionnaire was sent to subject matter experts for evaluation of the relevancy to the phenomenon. Since there was no published research on lifestyle balance, I chose individuals to review the questionnaire because of their published work about or expertise in a related aspect of women's lives. Six individuals agreed to evaluate the instrument. A Subject Matter Expert Review Form was developed and mailed along with the Lifestyle Balance Questionnaire to the six individuals who agreed to participate. The subject matter experts were asked to rate each of the semantic differential word pairs using a 3-point scale: (1) bipolar descriptors are not relevant

to the section heading; (2) unable to assess relevance without item revision; and (3) bipolar descriptors are relevant to the section heading. As a result of the comments received from the experts, the bipolar word pairs were reduced in the semantic differential portion of the instrument. Any item rated "not relevant" by at least one judge was deleted and items rated "unable to assess relevance" were either revised or deleted. I also asked the experts to critique other parts of the questionnaire by specific criteria. For example, they were asked to respond to the items in terms of their representativeness, comprehensiveness, and appropriateness to the phenomenon and if any items should be deleted. I made revisions to the questionnaire based on their comments.

In addition to the subject matter experts, two experts in measurement were asked to critique the lifestyle Balance Questionnaire using specific criteria: clarity and readability of the items and techniques appropriate for intended use and population. Although neither Lynn (1986) or Nunnally (1978) mention having measurement experts review an instrument, Nunnally's standard of a "sensible" method of test construction and Lynn's process of placing the items in a usable form

are best judged by measurement experts. I used the measurement expert's suggestions for editing and simplifying the language of the directions to subjects and the items in revising each part of the instrument. I also asked five women friends, with similar characteristics of the study population, to review the questionnaire for clarity and readability; having these women review the items provided face validity for the questionnaire. Following the revision, the reading level of the instrument changed from 12th- to 10th-grade level. I revised the demographic data form as per input from the panel of experts.

Evidence of Reliability and Pilot Test

I conducted a pilot study using the questionnaire with a sample of 160 women selected with the same techniques from the same population used in the full scale study. The research questions for the pilot study were as follows:

1. Are the beliefs about balance portion of the Lifestyle Balance Questionnaire (semantic differential) reliable?

2. Are each of the subscales reliable?

3. Is the level of balance portion of the instrument (visual analog scales) reliable?

The pilot study provided the data to assess reliability of the semantic differential and the visual analog portions of the instrument. Internal consistency was assessed on the semantic differential portion of the instrument using the alpha statistic (see Table 1). The scales which elicited the beliefs about lifestyle balance had a coefficient alpha of .92 and three of the subscales had an alpha of .88 or better. The time subscale had the lowest alpha which was .53. These coefficients should be at least .70 for a new instrument (Burns & Grove, 1993). As a result of the pilot study, I made additional revisions to the instrument. For example, I arranged the subscales and questions differently to improve readability and appearance.

Table 1

Reliability Information on Beliefs about Lifestyle Balance

Scale	Number of Items	Alpha Coefficient	Test/Retest Pearson *r*	% Difference
Time Subscale	10	0.53	0.40	0.75
Activities Subscale	10	0.71	0.66	0.93
Capacity for Growth Subscale	10	0.88	0.64	0.73
Ability to Achieve Subscale	10	0.90	0.63	0.70
Feeling Subscale	10	0.90	0.66	0.73

I assessed both the semantic differential (beliefs about lifestyle balance subscales) and the visual analog (lifestyle balance) portions of the survey for stability using the test-retest method. I randomly selected 25 women who completed the questionnaire in the pilot study. I mailed these individuals a second questionnaire within 2 weeks following return of their questionnaire. After retesting, a correlational analysis was performed on the scores from the two measures using the Pearson Product Moment Correlation Coefficient statistic.

The test/retest results for the beliefs about lifestyle balance subscales are listed in Table 1. The test/retest correlation coefficient should be no lower than 2/10 or 67% of the alpha coefficient. The percentages of difference between the test/retest correlation for the subscales were all above 67% of the alpha coefficient (see Table 1). However, Nunnally (1978) does not recommend using test/retest as an estimate of reliability. Nunnally states that "coefficient alpha and correlations between alternate forms . . . are the basic estimates of reliability" (p. 232) and the "coefficient alpha sets an upper limit to the reliability of tests constructed in terms of the domain-sampling model" (p. 230).

The test/retest results for lifestyle balance are listed in Table 2. I expected the level of balance scales to be more stable over at least short periods of time. One reason for the low coefficients could be unclear directions. I did not include definitions of lifestyle balance and health in the questionnaire used in the pilot study. It is also possible that a woman's immediate situation influenced her answers. Lifestyle balance may not be stable over time. As a result of the pilot study, I made additional revisions to the instrument. For example, definitions of lifestyle balance and health were included in the questionnaire.

Table 2

Reliability Information on Visual Analog Portion of Lifestyle Balance Questionnaire

Scale	Number of Items	Test/Retest Pearson *r*
Past Lifestyle Balance	1	0.55
Present Lifestyle Balance	1	0.62
Future Lifestyle Balance	1	0.46

The Current Version of the Instrument

The current 5-part version of the survey instrument, Lifestyle Balance Questionnaire, was used to measure the multiple variables under investigation. This 10-page instrument has fixed-alternate and open-ended items, visual analog and semantic differential scale items, and a demographic data form. Table 3 shows the location of the items within the questionnaire. The instrument is included in Appendix B.

The following are the operational definitions of the variables in the study:

1. The number of roles, number of primary roles, and number of complementary roles are the total counts of roles, primary roles, and complementary roles the participant identifies in Part A of the questionnaire. The number of role combinations is a score of 1 to 7 on the basis of the participant identifying all roles she occupies and the investigator placing these identified roles into specific combinations: partner (wife or partner), worker, parent, member of intergenerational connection (friend, daughter, and sibling), caregiver (caretaker of disabled or ill parent, spouse, and/or partner), enthusiast (religious, social, cultural/ethnic,

Table 3

Source and Data in the Lifestyle Balance Questionnaire

Source	Type of Data Gathered and Variables Measured
Part A	
Question 1	Ordinal. Role Category Checklists - 18 categories to measure current roles, primary roles, and complimentary roles.
Question 2	Nominal. Dichotomous question to measure change in primary or complementary role with last 12 months.
Questions 3 to 5	Ordinal. Space to list roles to measure the number of primary and complementary role at age 20, 40, and 60.
Question 2	Text. Participant's explanation of primary or complementary role added or deleted within past 12 months.
Part B	
Question 1	Nominal. One question with forced response to five phrases or "other" category to measure life pattern orientation at age 20.
Question 2	Nominal. Dichotomous question to measure change in life pattern orientation from age 20 to present.
Question 3	Nominal. Dichotomous question to measure whether of current group of roles match their current life pattern orientation.

Table 3 (continued)

Source	Type of Data Gathered and Variables Measured
Questions 4 to 8	Interval. Seven visual analog scales to measure the following items: current level of lifestyle balance, mastery, and connectedness; level of what lifestyle balance at age 20 is/was, at age 40 is/will be/was, and age 60 is/will be/was; and current level of health.
Questions 10 to 11	Interval. One Likert scale response to measure importance of lifestyle balance to health and one to measure health to lifestyle balance.
Question 1-f	Text. Participant's description of life pattern orientation if different from those described in statements a through e.
Question 2	Text. Participant's description of change in their current life pattern orientation from that held at age 20.
Question 3	Text. Participant's comment on whether current group of roles match their current life pattern orientation.
Question 5	Text. Participant's explanation/comment if current level of lifestyle balance is different than that held at age 20.
Question 6	Text. Participant's explanation/comment if they identified a different level of lifestyle balance at age 40 than their current level.
Question 7	Text. Participant's explanation/comment if they identified a different level of lifestyle balance at age 60 than their current level.

Table 3 (continued)

Source	Type of Data Gathered and Variables Measured
Question 8	Text. Participant's explanation/comment about their current level of health.
Question 9	Text. Participant's description of any change in level of health within past 12 months.
Part C	Interval. Sixty semantic differential scales to measure beliefs about lifestyle balance (divided equally into 10 scales).
Part D	Interval. One Likert scale response to measure a portion of complexity (Question 1) and 4 Likert scale responses to measure role strain (Questions 2-5).
Part E	Demographic Data Form Interval. Age Ordinal. Educational Level

health/fitness, and/or leisure enthusiast), and other category (manager of household, student, and citizen).

2. Role commitment is based on the participant's response to the 17 role categories listed in Part A of the questionnaire as follows: daughter, sibling, student, worker, friend, wife or partner, parent, manager of household, caretaker of disabled or ill child, caretaker of disabled or ill spouse/partner, caretaker of disabled or ill parent, caretaker of disabled or ill friend, citizen, religious enthusiast, cultural/ethnic enthusiast,

health/fitness enthusiast, and leisure enthusiast. A value of 0, 1, or 2 was assigned for each of the roles. If the participant did not identify one of the role categories as a role, a value of 0 was assigned. A value of 1 was assigned if the participant identified a role category as complementary and 2 if she identified the role category as primary.

3. Life Pattern Orientation is the participant's response to the fixed-alternate statement with six possible responses: (a) caring for the home and family will be my primary role. Paid employment outside the home or community service activities (i.e., volunteer work in community, school, or church organizations) will serve as complementary roles for me; (b) my career will serve as a primary role for me. Involvement with my extended family and friends will fulfill my relationship needs. I do not need to be married or have children to be fulfilled; (c) in the future I plan to have a career, but, for now, I will concentrate on my marriage and family. I will concentrate on a career after my children are older. I don't believe a woman can "have it all" or at least not all at the same time; (d) in the future I plan to have children, but, for now, I will focus on my career. I will put off motherhood while

I complete my education and establish myself in a career. When I do become a mother, I will reduce or postpone my involvement with work until my children are older. I don't believe a woman can "have it all" or at least not all at the same time; (e) I will be continuously involved with marriage-family and career throughout my adult life. My husband and I will both fully participate in caring for our children and our home while remaining involved with our careers. I believe it is possible to "have it all"; and (f) other. Based on the participant's response on the questionnaire, the investigator places the participant's life pattern orientation in one of four categories: either/or (1), sequencer (2), integrator (3), and other (4).

4. Lifestyle Balance is self-rated by the participant using a visual analog scale with anchors of "Not Balanced At All" at the left end of a horizontal line and "Fully Balanced" at the right end of the horizontal line. Lifestyle balance (current and at age 20, 40, and 60) is operationalized as the number of centimeters from the left end of a horizontal line to the mark made by the participant multiplied by 10. The maximum possible score for each visual analog scale is 100, and the least possible score is zero.

5. Mastery is self-rated by the participant using a visual analog scale with anchors of "Low" at the left end of a horizontal line and "High" at the right end of the horizontal line. Mastery is operationalized as the number of centimeters from the left end of a horizontal line to the mark made by the participant multiplied by 10. The maximum possible score for each visual analog scale is 100, and the least possible score is zero.

6. Connectedness is self-rated by the participant using a visual analog scale with anchors of "Low" at the left end of a horizontal line and "High" at the right end of the horizontal line. Connectedness is operationalized as the number of centimeters from the left end of a horizontal line to the mark made by the participant multiplied by 10. The maximum possible score for each visual analog scale is 100, and the least possible score is zero.

7. Health is self-rated by the participant using a visual analog scale with anchors of "Extremely Poor" at the left end of a horizontal line and "Excellent" at the right end of the horizontal line. Health is the number of centimeters from the left end of a horizontal line to the mark made by the participant multiplied

by 10. The maximum possible score for each visual analog scale is 100 and the least possible score is zero.

8. The beliefs about lifestyle balance are the scores of the six subscales. The scales are 60 word pairs, designed using the semantic differential technique. The scales are evenly divided into the six areas as follows: (a) how they feel when lifestyle balance is present, (2) how they accomplished activities when lifestyle balance is present, (3) how they assess time when lifestyle balance is present, (4) their capacity for development when lifestyle balance is present, (5) their capacity for accomplishment/gaining peak performance in any one area of life when lifestyle balance is present, and (6) their ability to form/maintain/enhance relationships when lifestyle balance is present. The word pairs are rated on a 7-point continuum with 1 representing the least favorable and 7 representing the most favorable response. Some of the scores were reversed to prevent response set. The scores for each scale are summed by subsections. Possible scores ranged from 7 to 70 for each subsection or subscale.

9. Role Complexity is the participant's response to one Likert scale measuring role demand plus the total number of role combinations. Role demand is measured

by participant's response to the question: "Given the state of your current group of roles, how demanding of your time, energy, and concern do you consider this group of roles to be?" Responses ranged from "not very demanding" (1) to "extremely demanding" (7). The number of role combinations were described in number one. Role combinations are used as the measure of role pressure. Possible scores ranged for role pressure from 1 to 7. Thus, the possible score for role complexity (combination of role demand and pressure) ranged from 2 to 14.

10. Role strain is the participant's summed response to two Likert scales measuring role conflict and two scales measuring role overload. Role conflict is the participant's response to the questions: "How often do you have to juggle different role obligations that conflict with one another and give you a pulled-apart feeling?" and "Some people feel they are not doing as good a job as they should in one or more of their roles. How often do you have this feeling?" Responses ranged from "never have to do this" (1) to "always have to do this" (7), and "never have this feeling" (1) to "always have this feeling" (7), respectively. Role overload is the participant's response to the questions: "How often do you feel you are involved in too many roles?"

and "How often do you feel the things you do to fulfill your role obligations add up to being too much?" Responses ranged from "never have this feeling" (1) to "always have this feeling" (7). The possible score for role strain ranged from 4 to 28.

11. Demographic variables, age and educational level, are variables in the study. Age is the year of birth. Within this study, age is used to designate an Era Cohort for each participant. The participant is placed into one of four categories based on her year of birth: Vanguard Era (women born in the year 1925 or before), Era of Limitations (women born in years 1926 to 1945), Era of Transition (women born in years 1946 to 1965), and Era of Liberation (women born in the year 1966 or after). Educational Level is operationalized by the participant checking one of eight educational categories that best described the highest formal educational level they have obtained. A value of 1 represents the category "less than high school" and a value of 8 represents the category "completed advance degree."

Data Collection

A cover letter was used to explain the purpose of the study and to outline the elements of informed consent. The letter was included in each Lifestyle Balance Questionnaire survey form mailed to the participants. A stamped, addressed envelope was included for the return of the questionnaire. Techniques to improve response rate included: using good quality, attractive paper and envelops and distinctive stamps; using the cover letter to stress the importance of the participant's participation; sending a follow-up postcard to those not responding within 1 week; and sending a letter with an additional questionnaire to those not responding within 3 weeks of the initial letter.

Treatment of Data

Several methods of data analysis were used to examine the phenomenon of lifestyle balance from a variety of angles. Descriptive statistics were used to describe the demographic characteristics of the sample. Qualitative data obtained through open-ended questions in portions of the questionnaire was analyzed for similarities and differences, categorized, and described. The scales located in two sections of the instrument

were analyzed for internal consistency. An exploratory data analysis approach was used to assess the research questions.

First, descriptive statistics such as group frequency and percentage distributions were used to describe the sample and in part to answer the research questions. Descriptive statistics allowed meaningful organization of the data associated with the demographic characteristics of the sample: age category, marital status, educational level, employment status, student status, work-pattern history, employment history, ethnicity, number of children in four age ranges, and family income adequacy. Frequencies and percentage distributions were used to examine life pattern orientation, congruency of life pattern orientation, and commitment to various roles by age cohort categories. Measures of central tendency such as the mean, median, and mode and measures of dispersion such as range were used to assess the relationship of some of the categorical and continuous data: life pattern orientation and balance, lifestyle balance, and beliefs about lifestyle balance subscales, and education level and attitude about lifestyle balance subscales.

Second, qualitative data obtained in three parts of the survey were analyzed. Participants were asked to comment in three sections of the survey: if a role has been added or deleted within the last 12 months; if the "other" category was checked on life pattern orientation; if life pattern orientation had changed since age 20; if current group of roles was not congruent with current life pattern orientation; if level of health had changed within the past 12 months; and if level of lifestyle balance was different at age 20, 40, or 60 than level at the present time. This textual data was entered, by the type of comment, into a computerized data base called Filemaker Pro. The participant's age, educational level, and case number was also entered. Therefore, the data base information could be sorted and retrieved as needed. This textual data was reviewed to understand women's responses to the concepts measured.

Third, the scales in two parts of the survey were assessed for internal consistency. Part C contains 60 word-pair scales to measure beliefs about lifestyle balance. These 60 scales were evenly divided into six subscales. Part D contains five Likert-type questions. Four of these questions form the role strain scale.

The reliability of these two portions of the questionnaire were assessed using the alpha statistic.

Finally, an exploratory data approach was used to clarify the lifestyle balance phenomenon. With an exploratory data analysis approach the question becomes, what can this data tell me about lifestyle balance? According to Hartwig and Dearing (1983), exploratory data analysis is an interactive way of thoroughly examining one's data. Burns and Grove (1993) state that exploratory data analysis "is designed to detect the unexpected in the data and to avoid overlooking crucial patterns that may exist" (p. 491). According to both groups of authors, researchers using this approach should possess flexibility, skepticism, and openness to unanticipated results. Hartwig and Dearing (1983) describe data as being equal to the smooth plus the rough as follows:

> The smooth is the underlying, simplified structure of a set of observations. It may be represented by a straight line describing the relationship between two variables or by a curve describing the distribution of a single variable . . . . It is the regularity or pattern in the data. Since the data will almost never conform exactly to the smooth, the smooth must be extracted from the data. What is left behind is the rough, the deviations from the smooth, the difference between the smooth and the observed data points. (pp. 10 - 11)

The rough may contain additional smooth which forms a basis to support alternative or additional explanations of the data; this is the hidden structure or unusual values that should be explored. Techniques used in exploratory data analysis include both numeric and visual displays and summaries. These techniques were used to focus primarily on exploring single variables and on some bivariate relationships associated with the lifestyle balance phenomenon. Networks of relationships discovered will serve as the basis for further research.

The single variables analyzed include: (1) number of roles, primary roles, complimentary roles, and role combinations; (2) perceived level of mastery, connectedness and lifestyle balance; (3) perceived level of health; (4) the six subscales of the beliefs about lifestyle balance; (5) perceived role strain; and (6) role complexity. I assessed the location, spread, and shape of the distribution of each variable through these techniques: (1) numeric displays such as frequencies and percentages; (2) numeric summaries such as mean, standard deviation, median, and quartile ranges; (3) visual displays such as the stem-and-leaf and histogram, and (4) visual summaries such as the box-and-whiskers plot. The shape of the distribution was assessed for

kurtosis, skewness, gaps, and modality. Cases identified as outliers were assessed for such things as incorrect data entry and characteristics that provided meaningful interpretation of their variance from the basic shape of the distribution. Data transformation was considered when variables were not normally distributed prior to inclusion in bivariate relationships.

The bivariate relationships examined included: (1) balance and health; (2) balance and mastery; (3) balance and connectedness; (4) balance and complexity; (5) balance and strain; (6) balance and roles; (7) roles and age; (8) roles and educational level; and (9) roles and life pattern orientation. I assessed the relationships between variables measured with scales at the interval level of measurement for shape, strength, and direction using scatterplots. Strip box-and-whiskers plots were used to assess the relationship between variables when at least one of the variables was measured with an item at the ordinal level of measurement. I completed a visual inspection of the scatterplots to determine the existence of one or more patterns and the presence of outliers and nonlinearity.

Further examination consisted of strip box-and-whiskers plots and residual analysis. According

to Hartwig and Dearing (1983), "the examination of relationships between pairs of variables should not be limited to an examination of the smooth, but should look at the rough as well by taking the deviations from the smooth (i.e., the residuals) and subjecting them to the same careful examinations given to the observed values" (p. 42). Residuals are the difference between an observed value and the smoothed value (Hartwig & Dearing) or the data minus the fit (Burns & Grove, 1993). An analysis of residuals was conducted to analyze outliers or unusual values and hidden structure among the relationships.

Summary

In this chapter the procedure, collection, and treatment of data used to explore the lifestyle balance phenomenon were presented. I randomly selected 560 women from a rural area of central Texas to be participants in the study. An investigator-developed instrument used to measure multiple concepts related to lifestyle balance was mailed to prospective participants. Content related evidence of reliability for the survey was demonstrated. An exploratory data analysis approach was used to analyze the data collected. This method of using visual displays

and resistant numeric summaries of the data provided a rich source of information about lifestyle balance.

CHAPTER IV

FINDINGS OF THE STUDY

My research objectives for this study were to explore the concepts related to the phenomenon of lifestyle balance and contribute to the understanding of women's lives. The data obtained through a survey I developed was examined from a variety of angles by using the process of exploratory data analysis. The analysis of the data has truly been a process rather than a product. The highlights of the process are presented in this chapter. First, the participant's demographic profile is described. Second, visual and numeric displays are used to illustrate the distribution of values for the concepts of the study which were measured with ordinal or interval level scales: number of roles; number of primary and complementary roles; number of role combinations; level of balance, mastery, connectedness, complexity and strain; and beliefs about lifestyle balance subscales. These distributions are described in terms of location, shape, and spread. Third, visual displays such as scatterplots are used to illustrate the relationships between two concepts when the measures yielded interval level data: lifestyle

balance with health, mastery, connectedness, complexity, and strain. The relationship is described in terms of shape, strength, and direction. Fourth, strip box-and-whiskers plots are used to illustrate the relationships between two concepts when the measures of at least one of the concepts yielded ordinal level data.

Description of the Participants

Questionnaires were mailed to 560 women. A systematic stratified random sampling technique was used to select 280 women from a registered voter list of one county and 180 women from a list of registered nurses living in 1 of 11 counties. Within 2 months of the first mailing 256 or 45.7% of the questionnaires were returned either completed (214 questionnaires) or partially completed (42 questionnaires); 70 questionnaires were returned unanswered; and 27 questionnaires were returned by the post office due to the wrong address.

Both the completed and partially completed questionnaires were used as data for this study. Most of the partially completed questionnaires had missing data in only a few areas. One woman failed to complete the checklist used to measure the number of roles. Four women did not identify their pattern orientation. Five

women did not complete the visual analogs used to measure balance, mastery, and connectedness. One woman did not complete the visual analog used to measure health. Seventeen women failed to complete one or more of the 60 scales used to measure beliefs about lifestyle balance. Four women did not complete the Likert scales used to measure strain and complexity. Twelve women did not complete the demographic information portion of the survey. Ten women failed to complete sections of the survey requesting explanation or comments. Women may have missing data on one or more of the above areas. I allowed the default option associated with the statistical program used for analysis of data to delete missing values. However, the value 4 was substituted for missing values on the beliefs about lifestyle balance scales. Directions of participants concerning these scales, identify the value 4 as "neutral, equally associated with both sides of the scales, or completely irrelevant." In addition, the age was estimated for all but four of the participants who failed to complete the demographic form. If the participant was a voter, her age was obtained from the voter registration list. The ages of two of the nurses were estimated from written comments on their survey.

In the remaining paragraphs of this section, the demographic characteristics of the entire sample will be described (see Table 4). The categories where there are differences between nurse and voter participants will also be described. Of the 256 questionnaires to be used for the analysis, 152 were submitted by registered nurses and 104 were submitted by voters. The population for the study consisted of women obtained through a voter registration list and from a list of registered nurses. This population was available to me and provided the opportunity to obtain data from women of various ages, educational levels, life pattern orientations, and employment histories. I expected women from these two sources to differ. Although I want to include nurses in the study, I also wanted women who were not nurses for this phase of exploring the lifestyle balance phenomenon. A significant difference ($\underline{p} < .01$) exists between women obtained from a registered nurse list and those obtained from a registered voter list on four of the demographic variables: age ($x^2 = 15.18$ $\underline{df} = 3$), educational level ($x^2 = 107.30$, $\underline{df} = 6$), employment status ($x^2 = 33.19$, $\underline{df} = 2$), employment pattern ($x^2 = 34.82$, $\underline{df} = 4$), and employment history ($x^2 = 26.67$, $\underline{df} = 2$).

Table 4

Demographic Characteristics of the Participants

Characteristic	Nurse f	Nurse %	Voter f	Voter %	All f	All %
Age Cohort						
Vanguard Era (>=age 69)	2	1.3	10	9.6	12	4.7
Era of Limitations (age 49-68)	47	30.9	34	32.7	81	31.6
Era of Transition (age 29-48)	90	59.2	44	42.3	134	52.3
Era of Liberation (<=age 28)	11	7.3	14	13.5	25	9.8
Missing Data	2	1.3	2	1.9	4	1.6
Marital Status						
Married	116	76.3	76	73.1	192	75.0
Widow	8	5.3	5	4.8	13	5.1
Never Married	4	2.6	6	5.8	10	3.9
Divorced or Separated	18	11.8	9	8.7	27	10.5
Missing Data	6	3.9	8	7.7	14	5.5
Highest Education Achieved						
Less than High School Graduation	--	--	7	6.7	7	2.8
High School Graduate	--	--	21	20.2	21	8.2
Some College	9	5.9	33	31.7	42	16.4
Associate Degree	86	56.6	9	8.7	95	37.1
Bachelors Degree	34	22.4	17	16.3	51	19.9
Graduate Studies	5	3.3	8	7.7	13	5.1
Advanced Degree	12	7.9	3	2.9	15	5.9
Missing Data	6	3.9	6	5.8	12	4.7
Employment Status						
Not Employed	16	10.5	40	38.5	56	21.9
Employed Part-time	21	13.8	14	13.5	35	13.7
Employed Full-time	109	71.7	43	41.3	152	59.4
Missing Data	6	3.9	7	6.8	13	5.1
Adult Employment Pattern						
Rarely or never engaged in paid job	1	0.7	7	6.7	8	3.1
Worked from time to time	3	2.0	16	15.4	19	7.4
Worked half of adult life	11	7.2	16	15.4	27	10.5
Worked more time than not	32	21.1	17	16.3	49	19.1
Always had a regular paid job	100	65.8	41	39.4	141	55.1
Missing Data	5	3.3	7	6.7	12	4.7

Table 4 (continued)

Characteristic	Nurse		Voter		All	
	f	%	f	%	f	%
Employment History						
Little Work History	4	2.6	23	22.1	27	10.5
Worked Mostly Part-time	16	10.5	8	7.7	24	9.4
Worked Mostly Full-time	126	82.9	64	61.5	190	74.2
Missing Data	6	3.9	9	8.7	15	5.9
Ethnicity						
Asian	1	0.7	1	1.0	2	0.8
Black	2	1.3	0	0.0	2	0.8
Caucasian	140	92.1	91	87.5	231	90.5
Hispanic	2	1.3	1	1.0	3	1.2
Native American	2	1.3	4	3.8	6	2.3
Missing Data	5	3.3	7	6.7	12	4.7
Family Income						
Very Inadequate	10	6.6	9	8.7	19	7.4
Inadequate	12	7.9	14	13.5	26	10.2
Adequate	103	67.8	61	58.7	164	64.1
More than enough	21	13.8	13	12.5	34	13.3
Missing Data	6	3.9	7	6.7	13	5.1
Presence of Children						
Ages 0 to 4 Years	23	15.1	19	18.3	42	16.4
Ages 5 to 12 Years	45	29.7	21	20.2	66	25.8
Ages 13 to 17 Years	38	21.5	15	14.4	53	20.7
Ages 18 Years or Older	81	53.3	58	55.8	139	54.2
Missing Data	5	3.3	6	5.8	11	4.3

Note: f = frequency

The average age of the participants was 45 years, with the youngest participant being 21 years old and the oldest participant being 79 years old. Table 4 shows the frequency and percentages of the demographic data categories listed in Part E of the questionnaire--age cohort, marital status, highest educational level obtained, employment status and history, race, number of children by age range, and adequacy of family income--for all participants, registered nurse participants, and registered voter participants (see Appendix B).

The largest number of participants (134 or 52.3%) were in the "Era of Transition" category. The second highest number of women (81 or 31.6%) were in the "Era of Limitations" category. The fewest participants were in the "Era of Liberation" (12 or 4.7%) and "Vanguard Era" (25 or 9.8%) categories. Differences existed between nurses and voters regarding the age cohort categories. Fifty-nine percent of nurses were in the "Era of Transition" category, while 42% of voters were in this category. Higher percentages of voters than nurses existed in two categories: 13.5% and 7.3%, respectively, in the "Era of Liberation" and 9.6% to 1.3%, respectively, in the "Vanguard Era."

Most of the participants were married (192 or 75%). The second highest number of participants (27 or 10.5%) listed their marital status classification as "divorced or separated." Less than 5% of the participants listed their marital status classification as "widow" (13 or 5.1%) or "never married" (10 or 3.9%). A higher percentage of nurses (11.8%) than voters (8.7%) listed their marital status classification as "separated or divorced." A higher percentage of voters (5.8%) than nurses (2.6%) listed their classification as "never married."

More than 80% of the participants reported that they attended college, while only 7 participants listed they had not completed high school. Twenty-one were high school graduates. Forty-two (16.4%) had some college completed. Ninety-five (37.1%) had completed an associate degree and 51 (19.9%) had a baccalaureate degree. Fifteen participants (5.9%) had advanced degrees. Because of the educational requirements for licensure, no nurse listed "less than high school graduate" or "high school graduate" as their highest educational level achieved. Therefore, a higher percentage of nurses (56.6% and 22.4%, respectively) than voters (8.7% and 16.3%, respectively) listed their educational level classification as

"associate degree" or "bachelor's degree." A higher percentage of voters (7.7%) than nurses (3.3%) listed "graduate studies" as the highest educational level obtained, while a higher percentage of nurses (7.9%) than voters (2.8%) listed "advance degree" as the highest educational level obtained.

More than 70% of the participants were currently employed (35 worked part-time and 152 worked full-time). The highest percentage (55.1%) listed their adult employment pattern category as "always had a regular paid job", while only 3% listed their category as "rarely or never had paid job." More than 74% listed their adult employment history category as "typically worked full-time." A higher percentage of nurses than voters currently work and have an employment history as "typically worked full-time" while 61.5% of voters listed this category. A higher percentage of nurses (21.1% and 65.8%, respectively) than voters (16.3% and 39.4%, respectively) listed their adult employment pattern as "worked more time than not" or "always had a regular paid job."

The participants were primarily white (231 or 90.5%) and most felt their family income was "adequate" (164 or 64.1%) or "more than enough" (34 or 13%). Three

participants were Hispanic, 2 were African-American, 2 were Asian, and 6 were Native American. A higher percentage of voters (13.5% and 8.7%, respectively) than nurses (7.9% and 6.6%, respectively) listed "inadequate" or "very inadequate" as their family income category.

The largest number of participants (139 or 54.2%) listed they had children in the age range category "ages 18 years or older." Participants were able to check more than one category on the demographic data form. The number of participants listing children in the other age range categories were similar: 66 or 25.8% listed "ages 5 to 12 years," and "ages 13 to 17 years."

Comparison of Participants and Non-Participants

The Lifestyle Balance Questionnaire had a 10th-grade reading level and was 10 pages in length. Therefore, I carefully compared the participants and non-participants with available data. Age and educational level of participants and non-participants were compared. A significant difference was not found among the age categories of voter participants and nonparticipants (x^2 = 1.64, df = 3). Because information on the educational levels of registered voters was not available, the educational level listed for registered voters in

Table 5

Percentage of Voter Participants and Population by Age and Educational Level Categories

Characteristic	Voter Participants	Registered Voters
Age[a]		
Vanguard Era	9.8	13.6
Era of Limitations	33.3	28.9
Era of Transition	43.2	41.4
Era of Liberation	13.7	16.1
Educational Level[b]		
Less than High School	6.7	25.2
High School Graduate	20.2	23.4
Some College	31.7	31.3
Associate Degree	8.7	3.2
Bachelor's Degree	24.0	10.6
Graduate Degree	2.9	6.2
Missing Data	5.8	---

Note. [a]This portion of the information for registered voters was obtained from the voter registration and represents the study sample.

[b]This portion of the information for registered voters was obtained from the Bureau of State Health Data and Policy Analysis (1995) and represents all residents of the county over age 18.

Table 5 was taken from 1990 census information on adults (male and female) in the county where the voter list was obtained. Therefore, I cannot be sure these educational categories reflect the population of female registered voters from which the sample was taken. However, from the data listed in Table 5 and reviewing the educational levels of those who responded to the questionnaire, I believe as a group women who responded to the questionnaire have reached higher educational levels than the women who did not respond to the questionnaire. A significant difference ($\underline{p} < .01$) exists for educational level between voter participants and adults over 18 years of age in one rural county ($x^2 = 46.21$, $\underline{df} = 5$).

The age categories and educational levels for the nurses who returned the questionnaire were similar to the age categories and educational levels for the population of registered nurses from which the sample was drawn (see Table 6). A significant difference was not found among the age ($x^2 = 1.50$, $\underline{df} = 2$) or educational ($x^2 = 1.05$, $\underline{df} = 2$) categories of nurse participants and non-participants.

Table 6

Percentage of RN Participants and Population by Age and Educational Level Categories

Characteristic	RN Participants	RNs in Eleven[a] Counties
Age		
Less than 34	17.1	20.0
35 - 54	65.8	66.1
Over 55	15.8	13.9
Missing	1.3	--
Educational Level		
Less than Baccalaureate Degree	62.5	64.9
Baccalaureate Degree	25.7	30.7
Completed Advance Degree	7.9	4.4
Missing Data	3.9	---

Note. [a]This portion of the table was obtained from the Board of Nurse Examiners for the State of Texas (1993) and represents currently employed RNs residing in an 11-county area of North Central Texas.

Analysis of Single Variables

In this section, I use visual and numeric displays to illustrate the distribution of values for the concepts of the study measured with ordinal or interval level scales: number of roles; number of primary and complementary roles; number of role combinations; level

of balance, mastery, connectedness, complexity and strain; and beliefs about lifestyle balance subscales. Primary and complementary commitment of roles and life pattern orientation are also presented in this section. Since these variables were measured with nominal level scales, frequency distributions were used to present information about these concepts.

The exploratory data approach provides a mechanism to obtain maximum information about the data. The distributions of the variables--roles, balance, mastery connectedness, complexity and strain--will be described in terms of location, shape, and spread. Locations and spread of the distribution of the variables are conveyed by resistant numeric summaries and either histograms or stem-and-leaf displays. The median hinge summary is more resistant to extreme cases within a distribution or outliers than the mean and standard deviation. The shape of the distributions will also be conveyed by the histogram or stem-and-leaf displays. Box-and-whiskers plots are used to provide information about the tails of the distribution and provide a visual representation of outliers or extreme values. With the figures in this section, the box is composed of two horizontal lines with an asterisk located within the box (see Figure 2).

The asterisk represents the median and the horizontal lines represent the upper and lower hinges of the distribution. The vertical dashed lines or whiskers extending from the hinges represent the distance to the most extreme values within one midspread from the hinge. The letters marked "O" and "E" represent outliers or values which lie outside the normal range of the data or bulk of the data. Cases beyond 1.0 midspreads from either hinge are identified as "O". Cases beyond 1.5 midspreads from either hinge are identified as "E". The numbers next to the letters "O" and "E" represent the number of cases at that particular location.

Number of Roles

Table 7 and Figure 2 provide numerical and visual displays of the location and shape of values in the role variable distributions. These role variables include number of roles, role combinations, primary roles, and complementary roles. The histograms in Figures 2 and 3 illustrate that the distributions are unimodal. Visual inspection of the histograms in Figures 2 and 3 and the Z scores listed in Table 7 provide evidence that two of the distributions--number of primary roles and number of complementary roles--are symmetrical while two of the distributions are not--number of roles and number

of role combinations. The number of roles distribution is negatively skewed while no excessive peakness or flatness of the distribution curve or kurtosis is present. The role combination distribution is both negatively skewed and has a peaked curve.

Table 7

Numeric Representation of the Location and Shape of Role Variable Distributions

Role Variable Categories	M	Mdn	Mode	Z Score Skewness	Z Score Kurtosis
Number of Roles	8.49	9.0	8.0	-4.74**	2.28
Number of Primary Roles	4.55	4.0	4.0	1.90	0.05
Number of Complementary Roles	3.94	4.0	3.0	0.88	-0.39
Number of Role Combinations	6.43	7.0	7.0	-8.41**	3.77**

N = 255
Missing = 1

Note. M = the mean of the distribution and Mdn = the median or middle of the distribution. The Z score was calculated from the value reported for skewness or kurtosis divided by the standard error for skewness or kurtosis, respectively. According to Tabachnick and Fidell (1989, p. 73), skewness or kurtosis is present if the Z score is significantly different than zero at the .01 or .001 alpha level (*$p < .01$ and **$p < .001$).

Figure 2. Box Plot and Histogram for Number of Roles and Role Combinations

Number of Roles

```
      14     I     O2
             I     X
   KEY       I     I     COUNT      VALUE    ONE SYMBOL EQUALS APPROXIMATELY  1.00 OCCURRENCE
---------- I     I
* MEDIAN    I     I        1         .00  *
- 25%, 75% I     I        3        1.00  ***
X HIGH/LOW I   +-+-+      4        2.00  :***
O OUTLIER  I   I * I      4        3.00  ***:
E EXTREME  I   I   I      5        4.00  *****
           I   I   I     11        5.00  ***********
           I   +-+-+     17        6.00  ****************
           I     I       26        7.00  *************************
           I     I       48        8.00  ****************************************:*******
           I     I       47        9.00  ****************************************:******
           I     I       40       10.00  ********************************:******
           I     I       30       11.00  **********************:******
           I     I       17       12.00  **************:**
           I     X        1       13.00  *
           I     O4       2       14.00  **
           I
           I     E4
       1   I     E3
```

Number of Role Combinations

```
       7   I     X
           I     I
   KEY     I     I
---------- I   +-+-+
* MEDIAN   I   I   I
- 25%, 75% I   I   I        COUNT      VALUE    ONE SYMBOL EQUALS APPROXIMATELY  4.00 OCCURRENCES
X HIGH/LOW I   +-*-+
O OUTLIER  I     I            3        1.00  *
E EXTREME  I     I            6        2.00  **
           I     I            5        3.00  *
           I     X           33        4.00  ********
           I                 84        5.00  ******************:
           I                105        6.00  ****************:********
           I                 18        7.00  *****
           I     E5
           I
           I
           I     E6
           I
           I
       1   I     E3
```

Figure 3. Box Plot and Histogram for Number of Primary and Complementary Roles

Number of Primary Roles

```
     10   I    O
          I
   KEY    I    X
---------- I    I
* MEDIAN   I    I
- 25%, 75% I    I
X HIGH/LOW I    I
O OUTLIER  I    I
E EXTREME  I  +-+-+
           I  I   I
           I  I   I
           I  I   I
           I  I   I
           I  I * I
           I  I   I
           I  +-+-+
           I    I
           I    I
           I    I
      1    I    X
```

```
COUNT      VALUE    ONE SYMBOL EQUALS APPROXIMATELY  1.50 OCCURRENCES
  10       1.00   ****:**
  18       2.00   ************
  41       3.00   ***************************:*
  66       4.00   ************************************:********
  46       5.00   ******************************
  43       6.00   ***************************:**
  16       7.00   ***********
  10       8.00   *****:*
```

Number of Complementary Roles

```
     10   I    E
          I
   KEY    I    E2
---------- I
* MEDIAN   I    O6
- 25%, 75% I
X HIGH/LOW I    X
O OUTLIER  I    I
E EXTREME  I    I
           I    I
           I  +-+-+
           I  I * I
           I  I   I
           I  +-+-+
           I    I
           I    I
           I    I
           I    X
           I
      0    I    O3
```

```
COUNT      VALUE    ONE SYMBOL EQUALS APPROXIMATELY  1.20 OCCURRENCES
   9        .00   *****:**
  22       1.00   *************:****
  23       2.00   ******************
  54       3.00   ************************************:******
  47       4.00   ************************************
  48       5.00   ************************************:***
  30       6.00   ************************:
  13       7.00   ***********
   6       8.00   ****:
   2       9.00   *:
   1      10.00   *
```

Table 8 and Figures 2 and 3 provide numerical and visual displays of the spread or dispersion of the values in the role variable distributions. As shown in the box-and-whiskers plot in Figures 2 and 3, the median is off-center for all four distributions. The lower hinge, median, and upper hinge values found in Table 8 provide additional evidence that the role distributions are not symmetrical. The median is closer to the lower values in the distribution for the number of primary roles and closer to the upper values in the distribution for the number of roles. The spread of values within the box or half of the values is lower for number of role combinations and complementary roles than for number of primary roles and roles (see midspread on Table 8). As also shown in Table 8, values in the lower half of the distribution (lowspread) are more dispersed than values in the upper half of the distribution (highspread) for the number of roles and role combinations, while the opposite is true for number of primary roles and complementary roles.

Table 8

Numerical Summary of the Spread of Role Variable Distributions

Role Variable Categories	LS	MS	HS	LH	MD	UH
Number of Roles	8	3	3	7	9	10
Number of Primary Roles	3	3	6	3	4	6
Number of Complementary Roles	2	2	6	3	4	5
Number of Role Combinations	3	1	0	6	7	7

Note. LS = lowspread or range of the lower one-half of the data; MS = midspread or range of that half of data that falls within the middle of the distribution; HS = highspread or the range of the highest one-half of the data; LH = lower hinge or that point above which three-fourths and below which one-fourth of the values lie; MD = median or middle of the distribution; and UH = upper hinge or that point above which one-fourth of the values lie and below which lie the other three-fourths.

The box-and-whiskers plots in Figure 2 and 3 provide a visual representation of outliers or extreme values in the distributions. There are 13 outliers for number of roles--two outliers are at the upper end of the distribution and 11 are at the lower end. Fourteen outliers are present at the lower end of the number of

role combination distribution. Eighteen outliers are present in the number of complimentary role distribution --9 are at the upper end of the distribution and 9 are at the lower end. Thirteen cases were considered outliers in both number of roles and role combinations distributions and 7 of these cases were outliers in number of roles, complementary roles, and role combinations distributions. Data from women identified as outliers were diverse in terms of age and levels of balance. Five women with low numbers of roles had high balance scores while five women had low and three women had moderate values. These women were of various ages. The women with a low number of role combinations and high balance scores were women of older age cohort categories. One woman with several roles and a low balance score, was a caretaker of a disabled friend. These outlier cases remained part of the data base.

Role Commitment

As shown in Table 9, more than half of the participants reported a primary or complementary commitment to 9 of the 17 role categories--partner, parent, worker, friend, daughter, sister, religious enthusiast, manager of household, and citizen. A large percentage of the participants reported a primary

Table 9

Participants' Commitment to Roles

Role Category	Primary Role		Complementary Role		Not a Role	
	f	%	f	%	f	%
Partner	208	81.3	8	3.1	39	15.2
Parent	181	70.7	34	13.3	40	15.6
Worker	162	63.3	29	11.3	63	24.6
Intergenerational Connection						
Friend	87	34.0	140	54.7	28	10.9
Daughter	70	27.3	114	44.5	71	27.7
Sibling	36	14.1	152	59.4	67	26.2
Enthusiast						
Religious	77	30.1	72	28.1	106	41.4
Health	20	7.8	81	31.6	154	60.2
Cultural	7	2.7	35	13.7	213	83.2
Leisure	17	6.6	90	35.2	148	57.8
Caretaker						
Child	6	2.3	2	0.8	247	96.9
Partner	17	6.6	2	0.8	236	92.5
Parent	12	4.7	12	4.7	231	90.2
Friend	0	0.0	1	0.4	254	99.2
Other Involvement						
Manager - Household	168	65.6	36	14.1	51	19.9
Student	17	6.6	21	8.2	217	84.8
Citizen	61	23.8	166	64.8	28	10.9

Note. f = frequency

commitment to the role categories of partner (81.3%), parent (70.7%), worker (63.3%), and manager of household (65.6%). A higher percentage of participants reported a complementary commitment rather than primary commitment to the role categories labeled intergenerational connection: friend (54.7 compared to 34%), daughter (44.5 compared to 27.3%), and sibling (59.4 compared to 14.1%). Of the 58.6% of the participants who reported the category of religious enthusiast as a role, approximately one-half listed the role as primary and one-half listed it as secondary. Fifty-eight participants reported involvement in the caregiver role categories --8 listed caregiver of child, 18 listed caregiver of partner, 24 listed caregiver of parent, and 1 listed caregiver of friend. Only 38 participants listed commitment to the student role.

Participants reported their primary and complementary commitment to roles in four time periods: at the time of the survey (current) and at age 20, 40, and 60. Participants were asked to determine their roles either prospectively or retrospectively. For example, participants in the "Era of Liberation" category listed what they believe their roles will be at age 40 and 60, while participants in the "Vanguard Era" category listed

what they remembered their roles were at age 20, 40, and 60. As shown in Table 10, I compared four role categories--partner, parent, worker, and household manager--in four time periods by age cohort categories. A lower percentage of women in the younger age cohort categories (Era of Liberation and age 29 to 38) listed partner and parent as a primary role at age 20 than did women in the older age cohort categories. A lower percentage of women in the age 39 to 48 cohort and in the "Era of Limitations" cohort listed partner as a primary commitment at age 40 than did the other age categories. A lower percentage of women of the age 39 to 48 and 49 to 58 categories listed parent as a primary commitment at age 40 than the other categories. A larger percentage of the two younger age cohort categories reported primary commitment to work currently and at age 20 and 40 than the two older cohort categories. A low percentage of participants of the "Era of Liberation" cohort listed that they expect worker to be a primary commitment at age 60 (8.7%), while a larger percentage of participants (37.5%) in the "Vanguard Era" cohort listed that the role of worker was a primary commitment for them at age 60.

Table 10

Primary Commitment to Selected Roles by Age Cohorts (Percentages)

Role Category	Liberation Age < = 28	Transition 29-38	Transition 39-48	Limitations 49-58	Limitations 59-68	Vanguard > = 69
Partner						
Current	91.7	90.4	81.7	77.8	74.1	50.0
At Age 20	31.8	27.7	52.8	51.2	52.2	42.9
At Age 40	95.7	84.0	73.3	76.7	79.2	85.7
At Age 60	91.3	88.0	75.6	69.4	72.0	62.5
Parent						
Current	62.5	88.5	81.7	61.1	51.9	33.3
At Age 20	18.2	19.1	29.2	37.2	30.4	14.3
At Age 40	82.6	86.0	76.0	74.4	83.3	57.1
At Age 60	69.6	54.0	57.7	40.8	44.0	37.5
Worker						
Current	83.3	65.4	76.5	61.1	33.3	8.3
At Age 20	40.9	44.7	33.3	25.6	34.8	28.6
At Age 40	69.6	62.0	62.7	55.8	45.8	42.9
At Age 60	8.7	32.0	42.3	40.8	32.0	37.5
Manager of Household						
Current	50.0	71.2	65.9	64.8	70.4	58.3
At Age 20	18.2	17.0	19.4	25.6	34.8	14.3
At Age 40	34.8	52.0	49.3	48.8	54.2	28.6
At Age 60	30.4	50.0	47.3	49.0	44.0	37.5

Note. The numbers listed are column percentages obtained for each separate category (i.e., percentage of women of "Era of Transition" category who listed parent as "primary role" as opposed to listing it as "not a role" or as a "complementary role").

Life Pattern Orientation

Participants reported their life pattern orientation the time of the survey and at age 20. As shown in Table 11, I compared four life pattern orientation categories --either/or, sequencer, integrator, and other by age cohort categories. The life pattern orientation at age 20 for each age cohort was similar to that described in the review of literature. For example, less than 20% of women in the "Era of Liberation" cohort listed the "either/or" category as their life pattern orientation at age 20. With each age cohort, women's life pattern orientation changed from that held at age 20 to their orientation at the time of the survey. The percentage of women placed in the "other" category increased from that held at age 20. The primary reason of this increase was due to women describing their roles or situation but did not list their orientation pattern. For example, one woman wrote, "I am extremely self-confident, independent, and will no longer accept abusiveness from any man." Another woman wrote, "A woman at the current time doesn't have it all; it is forced upon her by finances." Another woman wrote, "I have been married

Table 11

Comparison of Percentages of Life Pattern Orientation among Age Cohorts

Category of Life Pattern Orientation	Liberation Age < = 28	Transition 29-38	Transition 39-48	Limitations 49-58	Limitations 59-68	Vanguard >=69
Life Pattern Orientation - Age 20						
Either/or	16.7	37.7	60.5	56.9	51.8	63.6
Sequencer	37.5	27.0	19.7	17.7	25.9	9.1
Integrator	29.2	30.8	13.6	21.6	18.5	27.3
Other	16.7	9.6	6.2	3.9	3.7	0
N	24	52	81	51	27	11
Life Pattern Orientation - At Time of Survey						
Either/or	12.5	9.8	29.2	31.4	33.3	54.6
Sequencer	29.2	25.4	16.4	11.8	22.2	0
Integrator	37.5	45.1	30.4	35.3	29.6	9.1
Other	20.8	19.6	24.1	21.6	14.8	36.4
N	24	51	79	51	27	11
Congruency of Orientation and Roles Held						
Yes	87.5	92.2	82.9	88.2	85.2	81.8
No	12.5	7.8	17.1	11.8	14.8	18.2
N	24	51	82	51	27	11

Note. The numbers listed for each category--"Life Pattern Orientation at Age 20", "Life Pattern Orientation - Current", and "Congruency of Orientation and Roles Held"--are column percentages and thus equal approximately 100%.

for 25 years and my husband and I have no children but when we were first married we expected to have kids."

Beliefs about Lifestyle Balance

Following the pilot study, the word-pair scales forming the subscales were revised and the order was changed. For example, the 10 scales forming the Time subscale was moved from the first to the third section of Part C of the questionnaire. The coefficient alpha increased for four of the beliefs about lifestyle balance subscales (see Table 12) from the pilot study to this full-scale study. A copy of the questionnaire is in Appendix B.

Table 12

Reliability of Beliefs about Lifestyle Balance Subscales --Alpha Coefficients

Subscale	Number of Scales	Pilot Study	Full Scale Study
Feeling	10	0.90	0.92
Activities	10	0.71	0.79
Time	10	0.53	0.61
Capacity for Growth	10	0.88	0.82
Ability to Achieve	10	0.90	0.92
Relationships	10	---	0.93

Note. The subscale "Relationships" was not included in the pilot study.

Table 13 lists the lower hinge, median and upper hinge values and the low spread, midspread, and high spread values for each of the 60 word-pair scales. The word-pairs are grouped by subscale. The scales with the largest dispersions are listed first in each of the subscale categories. The lower hinge is the point above which 75% of the values in the distribution lie. The lower hinge value is five or six for 38 of the 60 word pairs. Therefore, 75% of the participants marked the score of 5, 6, or 7 for these 38 scales. The values in Table 12 indicate that there is a smaller spread of values in the upper part of the distribution or high spread for 51 of the 60 scales. This is evidence of a negative skew.

Table 13

Numeric Summary of the Spread of Beliefs about Lifestyle Balance Scale Distributions

Beliefs about Lifestyle Balance Scales	LH	Median	UH	LS	MS	HS
How Women Feel						
Old/Young	4.0	6.0	7.0	5.0	3.0	1.0
Heavy/Light	5.0	6.0	7.0	5.0	2.0	1.0
Tense/Relaxed	6.0	6.0	7.0	5.0	1.0	1.0
Uneven/Even	6.0	6.0	7.0	5.0	1.0	1.0
Lethargic/ Energetic	6.0	6.0	7.0	5.0	1.0	1.0
Overwhelmed/ In Control	6.0	7.0	7.0	6.0	1.0	0.0
Part/Whole	6.0	7.0	7.0	6.0	1.0	0.0
Unpleasant/ Pleasant	6.0	7.0	7.0	6.0	1.0	0.0
Negative/ Positive	6.0	7.0	7.0	5.0	1.0	0.0
Sad/Happy	6.0	7.0	7.0	6.0	1.0	0.0
How Women Complete Activities						
Self Completed/ Completed with Others	4.0	4.0	6.0	3.0	2.0	3.0
Spontaneous/ Planned	4.0	5.0	6.0	4.0	2.0	2.0
Juggled/ Interlaced	4.0	5.0	6.0	4.0	2.0	2.0
Endless/ Completed	4.0	6.0	6.0	5.0	2.0	1.0
Viewed in Parts/Viewed as Whole	4.0	6.0	6.75	5.0	2.75	1.0

Table 13 (continued)

Beliefs about Lifestyle Balance Scales	LH	Median	UH	LS	MS	HS
Separated/ Integrated	5.0	6.0	7.0	5.0	2.0	1.0
Disordered/ Ordered	5.0	6.0	7.0	5.0	2.0	1.0
Passive/Active	5.0	6.0	7.0	5.0	2.0	1.0
Few/Many	5.0	6.0	7.0	5.0	2.0	1.0
Neglected/ Attended	5.0	6.0	7.0	5.0	2.0	1.0
How Women View Time						
Linear/ Circular	3.0	4.0	5.0	3.0	2.0	3.0
Scarce/ Abundant	3.0	4.0	6.0	3.0	3.0	3.0
Consumed/ Generated	3.0	4.0	6.0	3.0	3.0	3.0
Segmented/ Aggregated	4.0	4.0	6.0	3.0	2.0	3.0
Divided Equally among Roles/ Divided Unequally among Roles	4.0	4.0	6.0	3.0	2.0	3.0
Unscheduled/ Scheduled	4.0	5.0	6.0	4.0	2.0	2.0
Slowed/ Accelerated	4.0	5.0	6.0	4.0	2.0	2.0
Limited/ Boundless	4.0	5.0	6.0	4.0	2.0	2.0
Quantitative/ Qualitative	4.0	6.0	6.0	5.0	2.0	1.0
Inflexible/ Flexible	5.0	6.0	6.75	5.0	1.75	1.0

Table 13 (continued)

Beliefs about Lifestyle Balance Scales	LH	Median	UH	LS	MS	HS
Women's Capacity for Development						
Settled/ Changing	3.0	4.0	6.0	3.0	3.0	3.0
Complex/Simple	4.0	4.0	6.0	3.0	2.0	3.0
Unimpressive/ Impressive	4.0	5.0	6.0	4.0	2.0	2.0
Static/Dynamic	4.0	5.0	6.0	3.0	2.0	2.0
Uneven/Even	5.0	6.0	7.0	4.0	2.0	1.0
Relinquished/ Succeeded	5.0	6.0	7.0	5.0	2.0	1.0
Restricted/ Expanded	5.0	6.0	7.0	5.0	2.0	1.0
Neglected/ Attended	5.0	6.0	7.0	5.0	2.0	1.0
Unachievable/ Achievable	6.0	6.0	7.0	5.0	2.0	1.0
Devalued/ Valued	6.0	6.0	7.0	5.0	1.0	1.0
Women's Capacity to Accomplish/Gain Peak Performance						
Complex/ Simple	4.0	5.0	6.0	4.0	2.0	2.0
Uneven/Even	4.0	6.0	6.0	5.0	2.0	1.0
Relinquished/ Succeeded	5.0	6.0	6.0	5.0	1.0	1.0
Restricted/ Expanded	5.0	6.0	6.0	5.0	1.0	1.0
Unimpressive/ Impressive	5.0	6.0	6.0	5.0	1.0	1.0

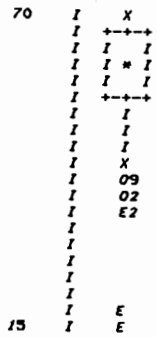
Table 13 (continued)

Beliefs about Lifestyle Balance Scales	LH	Median	UH	LS	MS	HS
Static/ Dynamic	5.0	6.0	6.0	5.0	1.0	1.0
Slowed/ Accelerated	5.0	6.0	6.0	4.0	1.0	1.0
Barren/ Flourishing	5.0	6.0	7.0	5.0	2.0	1.0
Devalued/ Valued	5.0	6.0	7.0	5.0	2.0	1.0
Unachievable/ Achievable	6.0	6.0	7.0	5.0	1.0	1.0
Women's Ability to Form/Maintain/Enhance Relationships						
Complex/ Simple	4.0	5.0	6.0	4.0	1.0	1.0
Unimpressive/ Impressive	5.0	6.0	6.0	5.0	1.0	1.0
Static/ Dynamic	5.0	6.0	6.0	5.0	1.0	1.0
Restricted/ Expanded	5.0	6.0	7.0	4.0	2.0	1.0
Neglected/ Attended	5.0	6.0	7.0	5.0	2.0	1.0
Uneven/Even	5.0	6.0	7.0	5.0	2.0	1.0
Slowed/ Accelerated	5.0	6.0	7.0	5.0	2.0	1.0
Devalued/ Valued	5.0	6.0	7.0	5.0	2.0	1.0
Barren/ Flourishing	5.0	6.0	7.0	5.0	2.0	1.0
Unachievable/ Achievable	6.0	6.0	7.0	5.0	1.0	1.0

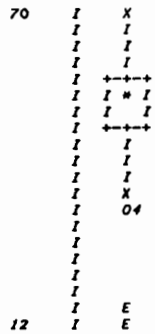
Note. LS = lowspread; MS = midspread; HS = highspread; LH = lower hinge; UH = upper hinge.

Box-and-whiskers plots for each subscale are shown in Figure 4. Box-and-whiskers plots illustrate the prominent features in the data such as asymmetry, spread, and outliers. The distribution of each of the subscales are asymmetrical in nature. The median is approximately central within the box for three of the four subscales--feelings, ability to achieve, and personal development--indicating that the middle portion of the data is symmetrical. The asymmetry is, therefore, primarily due to the tails of the distribution with an elongated tail at the lower end of the distribution and a truncated tail at the upper end of the distribution. The data appears to be negatively skewed in all of the subscales except the Use of Time subscale. Outliers exist only at the lower end of the distributions, while outliers exist at both the upper and lower ends of the Use of Time distribution.

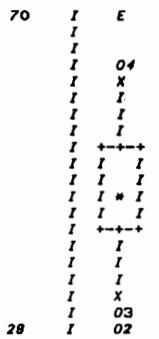
Figure 4. Box-And-Whiskers Plots of Beliefs About Lifestyle Balance Subscales



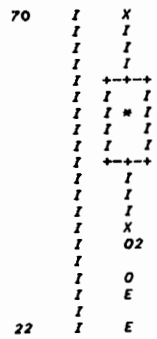
Feel When Balance Present



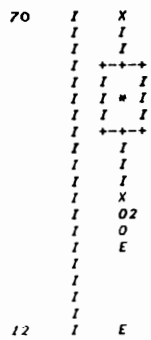
Performance of Activities



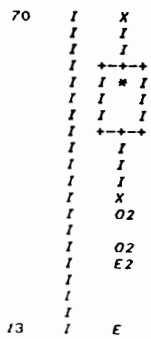
Use of Time



Personal Development



Ability to Achieve



Relationships

Level of Lifestyle Balance, Mastery, Connectedness, Health, Complexity, and Strain

A box-and-whiskers plot, stem-and-leaf display, and median hinge number summary for each of the variables --balance, mastery, connectedness, health, complexity, and strain--is shown in Figures 5 through 10. The location, shape, and spread of values for the lifestyle balance, health, mastery, and connectedness distributions are similar (see Figures 5 through 8). The medians for each of these are 66, 70, 70, and 70 respectively. When viewing the box-and-whiskers plots for distribution of values for these variables, the spread of the middle half of the data points appear symmetrical. For example, the median is located in the middle of the box in the box-and-whiskers plots. However, the median hinge number summary and the box-and-whiskers plots indicate that there is a smaller spread in the upper part of the distribution which is evidence of a negative skew.

The shape of the distributions indicated by stem-and-leaf displays shows gaps and plateaus in the data. For example, the lifestyle balance distribution in Figure 5 shows no scores between 40 and 44 and 58 and 60 and a plateau with 12 scores at 70. The data shows a concentration of scores at some points in the upper half

Figure 5. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Lifestyle Balance

Box-And-Whiskers Plot

```
     100   I     X
           I     I
   KEY     I     I
---------- I     I
* MEDIAN   I   +-+-+
- 25%, 75% I   I   I
X HIGH/LOW I   I   I
O OUTLIER  I   I * I
E EXTREME  I   I   I
           I   I   I
           I   I   I
           I   +-+-+
           I     I
           I     I
           I     I
           I     I
           I     I
           I     X
           I     O
       2   I     03
```

Stem-And-Leaf Display

```
10 | 00000
 9 | 55588
 9 | 0000012233
 8 | 5555555555677889
 8 | 000000000123344
 7 | 55555555677788888899
 7 | 00000000000011222222334444
 6 | 5555555556666677788888999999
 6 | 000000112222334444
 5 | 55567778
 5 | 00000122334
 4 | 55555555666677899
 4 | 00000004
 3 | 5555555567899
 3 | 0000223334
 2 | 55667
 2 | 11234
 1 | 555
 1 | 0014
 0 | 5
 0 | 244
```

Median Hinge Number Summary

2	46	66	78	100
(LE)	(LH)	(MD)	(UH)	(UE)

44	20	12	22
(LH-LE)	(MD-LH)	(UH-MD)	(UE-UH)

64	32	34
(LS)	(MS)	(HS)

Figure 6. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Health

Box-And-Whiskers Plot

```
     100     I     X
             I     I
   KEY       I     I
---------    I   +-+-+
* MEDIAN     I   I   I
- 25%, 75%   I   I   I
X HIGH/LOW   I   I * I
O OUTLIER    I   I   I
E EXTREME    I   I   I
             I   I   I
             I   +-+-+
             I     I
             I     I
             I     I
             I     I
             I     I
             I     I
             I     X
             I     O2
       0     I     O
```

Stem-And-Leaf Display

```
10 | 00000000000
 9 | 555555577889
 9 | 00000000112233334444
 8 | 5555555567888899
 8 | 000000000000222334
 7 | 55555556666777889
 7 | 0000000000011222234
 6 | 5555557777777888999
 6 | 000000001234
 5 | 555555568
 5 | 0000000022233444
 4 | 555556678889
 4 | 0000000112344
 3 | 555578
 3 | 0001234
 2 | 5567778
 2 | 012
 1 | 55789
 1 | 0
 0 | 5599
 0 | 1
```

Median Hinge Number Summary

0 (LE)	50 (LH)	70 (MD)	85 (UH)	100 (UE)

50 (LH-LE)	20 (MD-LH)	15 (UH-MD)	15 (UE-UH)

70 (LS)	35 (MS)	30 (HS)

Figure 7. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Mastery

Box-And-Whiskers Plot

```
     100     I     X
             I     I
   KEY       I     I
----------   I   +-+-+
* MEDIAN     I   I   I
- 25%, 75%   I   I   I
X HIGH/LOW   I   I * I
O OUTLIER    I   I   I
E EXTREME    I   I   I
             I   I   I
             I   +-+-+
             I     I
             I     I
             I     I
             I     I
             I     I
             I     I
             I     X
             I     OS
       1     I     O
```

Stem-And-Leaf Display

```
10 | 000000
 9 | 55678
 9 | 00000000000122344
 8 | 555555555777777888888999
 8 | 000000001222333344
 7 | 555555555555666677788888
 7 | 0000000011222223344 4
 6 | 555555555666677777888999
 6 | 000002222333444
 5 | 5556778888
 5 | 0000112
 4 | 5555556667788888
 4 | 000012222444
 3 | 55577788
 3 | 00223
 2 | 5799
 2 | 012223
 1 | 5
 1 | 00344
 0 | 5556
 0 | 14
```

Median Hinge Number Summary

1	48	70	83	100
(LE)	(LH)	(MD)	(UH)	(UE)

47	22	13	17
(LH-LE)	(MD-LH)	(UH-MD)	(UE-UH)

69	35	30
(LS)	(MS)	(HS)

Figure 8. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Connectedness

Box-And-Whiskers Plot

```
    100     I     X
            I     I
   KEY      I     I
---------- I   +-+-+
* MEDIAN   I   I     I
- 25%, 75% I   I     I
X HIGH/LOW I   I  *  I
O OUTLIER  I   I     I
E EXTREME  I   I     I
           I   I     I
           I   +-+-+
           I     I
           I     I
           I     I
           I     I
           I     I
           I     I
           I     X
           I     OE
      2    I     O
```

Stem-And-Leaf Display

```
10 | 0000000
 9 | 5555555556688899
 9 | 00000000000000022233344
 8 | 55555555555555777778888889999
 8 | 000000022223334444
 7 | 55555555677778888
 7 | 00000000022233444444
 6 | 5555555555666677888888899
 6 | 0023
 5 | 555555778899
 5 | 00000122334
 4 | 555555556678888
 4 | 000134
 3 | 5567888
 3 | 000044
 2 | 55777789
 2 | 022223
 1 | 55678
 1 | 0034
 0 | 555689
 0 | 2
```

Median Hinge Number Summary

2 (LE)	48 (LH)	70 (MD)	87 (UH)	100 (UE)

46 (LH-LE)	22 (MD-LH)	17 (UH-MD)	13 (UE-UH)

68 (LS)	39 (MS)	30 (HS)

of the distribution. For example, the mastery distribution in Figure 7 shows a concentration of scores between 66 and 69, 75 and 78, and 85 to 89. In attempting to understand the data, I tried techniques to improve the shape of the distribution. In transformed each of the continuous variables, first by square root and the by the base 10 logarithm. The transformed variables continued to appear skewed. Therefore, I did not use the transformed variables in subsequent data analysis of the relationships among variables.

Three of the four cases who were outliers in the balance distribution were also outliers for two or three of the other three distributions. For example, one woman had low scores on balance, health, mastery, and connectedness. She wrote on the request for comments associated with the health measure, "smoke, fat, and lazy." Some of the women who had out-of-range scores were going through a life transition such as the death of a spouse, recent illness, or childbirth. Some women had low scores on one of the variables such as mastery but moderate scores on health and connectedness.

Box-and-whiskers plots, median hinge number summary, and stem-and-leaf displays are shown for the strain and for complexity distributions. The location, shape, and

spread of values for the strain distribution is shown in Figure 9. The distribution appears symmetrical. The lowspread and highspread in the median hinge number summary are similar. No outliers are shown with the box-and-whiskers plot. The location, shape, and spread of values for the complexity distribution is shown in Figure 10. This distribution has a plateau of scores at 11, 12, and 13 and no score of 3. The median hinge number summary and the box-and-whiskers plots indicate that there is a smaller spread in the upper part of the distribution which is evidence of a negative skew. Seventeen outliers are present due mainly to the peaked distribution of scores. Complexity was measured by using a combination of the participant's response to one Likert scale and the number of role combinations. The box-and-whiskers plot for the number of role combinations shows 14 outliers (see Figure 2).

Figure 9. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Strain

Box-And-Whiskers Plot

```
      28   I     X
           I     I
   KEY     I     I
----------I     I
* MEDIAN   I   +-+-+
- 25%, 75% I   I   I
X HIGH/LOW I   I   I
O OUTLIER  I   I   I
E EXTREME  I   I * I
           I   I   I
           I   I   I
           I   I   I
           I   +-+-+
           I     I
           I     I
           I     I
           I     I
           I     I
           I     I
       5   I     X
```

Stem-And-Leaf Display

```
28 | 0000000
27 | 000000
26 | 00000
25 | 0000000
24 | 000000000000000
23 | 00000000000000000000
22 | 0000000000
21 | 000000000000000000
20 | 000000000000000
19 | 000000000
18 | 00000000000000
17 | 0000000000000000
16 | 0000000000000
15 | 0000000000
14 | 0000000
13 | 00000000000
12 | 000000000
11 | 00000000
10 | 000000
 9 | 00000000000
 8 | 00000000000
 7 | 00000
 6 | 000
 5 | 0
```

Median Hinge Number Summary

5 (LE)	13 (LH)	18 (MD)	22 (UH)	28 (UE)

8 (LH-LE)	5 (MD-LH)	4 (UH-MD)	6 (UE-UH)

13 (LS)	9 (MS)	10 (HS)

Figure 10. Box Plot, Stem-And-Leaf and Numeric Summary For Level of Complexity

Box-And-Whiskers Plot

```
     14     I     X
            I     I
   KEY      I     I
----------  I   +-+-+
* MEDIAN    I   I     I
- 25%, 75%  I   I * I
X HIGH/LOW  I   +-+-+
O OUTLIER   I     I
E EXTREME   I     I
            I     I
            I     X
            I    O8
            I
            I    E4
            I    E3
            I
            I    E
            I
            I
      2     I    E
```

Stem-And-Leaf Display

```
15 |
14 | 00000000
13 | 0000000000000000000000000000000000000000+13
12 | 0000000000000000000000000000000000000000+20
11 | 0000000000000000000000000000000000000000+13
10 | 00000000000000000000000000
 9 | 0000000000000000000000000
 8 | 0000000000
 7 | 00000000
 6 | 0000
 5 | 000
 4 | 1
 3 |
 2 | 0
 1 |
 0 |
```

Median Hinge Number Summary

2	10	11	12	14
(LE)	(LH)	(MD)	(UH)	(UE)

8	1	1	2
(LH-LE)	(MD-LH)	(UH-MD)	(UE-UH)

9	2	3
(LS)	(MS)	(HS)

Analysis of Relationships among Variables

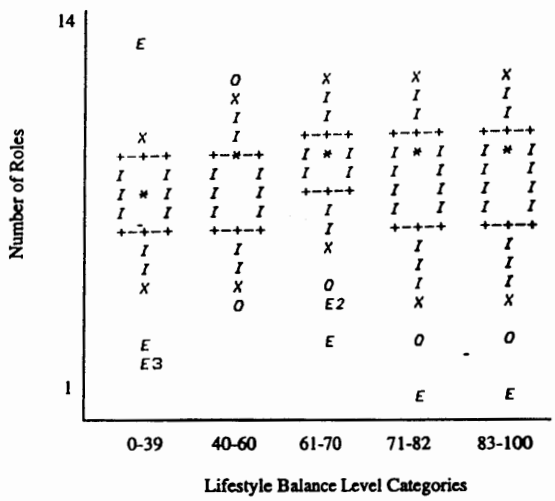
In this section, visual displays such as scatterplots and strip box-and-whiskers plots are included to illustrate the relationships between concepts. First, strip box-and-whiskers plots are used to illustrate the relationships between: (1) balance and roles--number of roles, primary roles, complementary roles, and role combinations; (2) age and number of roles and number of primary roles; (3) educational level and number of roles and number of primary roles; (4) life pattern orientation and number of roles and number of primary roles; and (5) balance and age, education, and life pattern orientation. Second, scatterplots are used to show each bivariate relationship measured with interval level scales: lifestyle balance with health, mastery, connectedness, complexity, and strain. Third, strip box-and-whiskers plots are used to illustrate further examination of the relationship between lifestyle balance and health, mastery, connectedness, complexity, and strain.

Relationships between Balance, Age, Roles, Educational Level, and Life Pattern Orientation

The relationships between balance, roles, educational level, and life pattern orientation are illustrated with strip box-and-whiskers plots. Scatterplots showing the paired relationships among these variables were not instructive. For example, there was an uneven rise or fall (nonlinear monotonic relationship) of number of roles, primary roles, complementary roles, and role combinations with level of balance. Strip box-and-whiskers plots are a refinement of the scatterplot. With strip box-and-whiskers plots, the scatterplot is divided into strips along the horizontal axis with each strip having an equal number of points. Box plots are constructed for each strip. The median and the lower and upper hinges can be compared for patterns of relationship among variables (Verran & Ferketich, 1987).

Figures 11 and 12 show the relationship between lifestyle balance and the number of roles in four categories--roles, primary roles, complementary roles, and role combinations. I recoded lifestyle balance into five score ranges. Thus, the balance score ranges of 0-30, 40-60, 61-70, 71-82, and 83-100 illustrate the

Figure 11. Box Plots of Number of Roles and Role Combinations and Balance



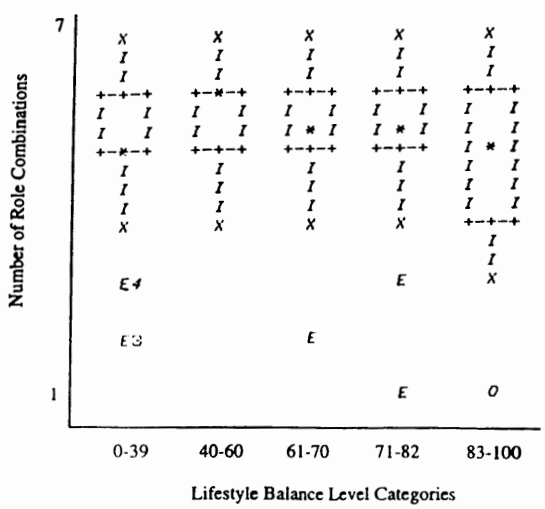
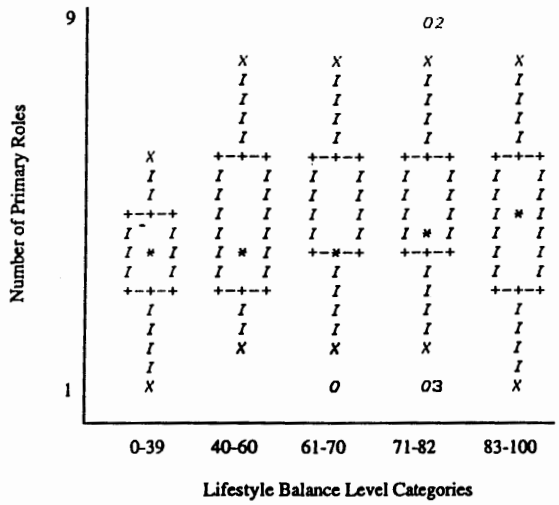
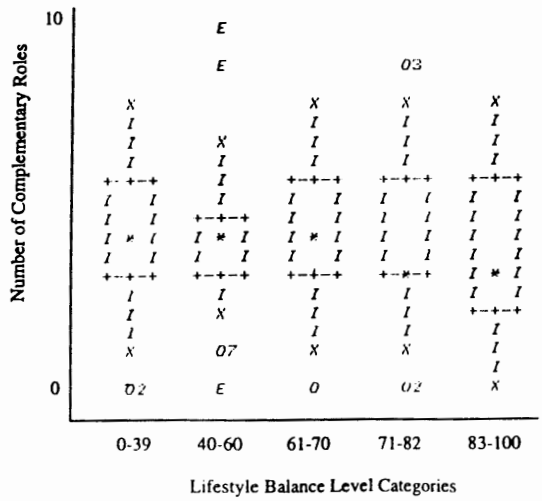


Figure 12. Box Plots of Number of Primary and Complementary Roles and Balance





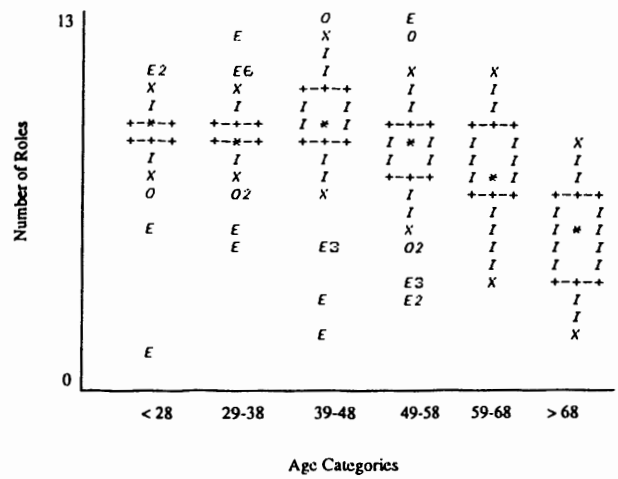
data points or the relationship between the balance score and role category score for 44, 50, 52, 47, and 40 participants, respectively. As shown in Figure 11, the medians for number of roles are higher with the higher balance score ranges than with the lower two score ranges. The lower hinge is equal in the first two and the last two balance score ranges. The upper hinge shows a rise at the third balance score range. The upper values of the number of role combinations remain the same in each balance score range while the median is higher in the second range than the first, drops from the second to the third range, remains the same in the fourth range as in the third, and drops slightly from the fourth to the fifth range.

Strip box-and-whiskers plots for balance and number of primary and complementary roles are shown in Figure 12. The medians for the number of primary roles are highest at the lowest and highest balance score ranges, while the upper hinge rises between the first and second range and then remains the same. The lower hinge values at the first, second, and fifth range are the same, while the values in the third and fourth ranges are the highest. The medians for the number of complementary roles remain the same across all the first three score ranges. The

values in the lower hinge are the same for the first four ranges, while the values drops at the fifth range. The upper hinge values are equal except with the second range where the values are dropped.

Figures 13 through 15 show number of roles and primary roles in relation to age, educational level, and life pattern categories. As shown in Figure 13, the median of the number of roles decreases with each age category, while the median of the number of primary roles also decreases from the "less than 28 age category" to the "age 29 to 38 category" but then remains the same for the next three categories and then drops at the "age greater than 68" category. As shown in Figure 14, the number of roles increases with each of the first four educational levels and then levels off for the last two. The median number of primary roles increases for the last two educational levels. As shown in Figure 15, the median of the number of roles shows a curvilinear relationship with the life pattern orientation categories, while nonmonotonic patterns exist between the number of primary roles and life pattern orientation categories. The "androcentric" and "integrator" life pattern orientation categories are associated with the highest number of primary roles.

Figure 13. Box Plots of Number of Roles and Primary Roles and Age Categories



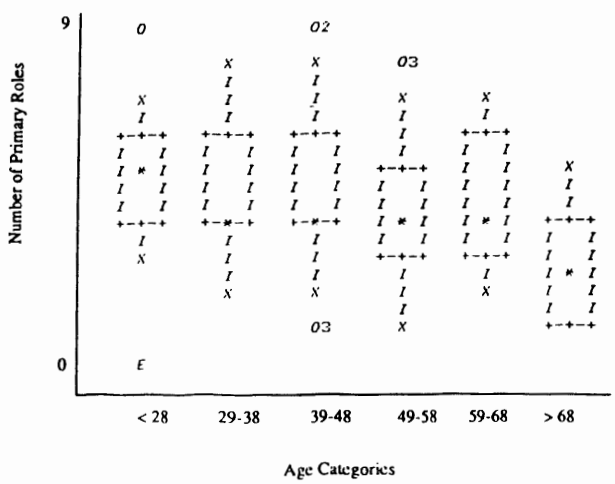
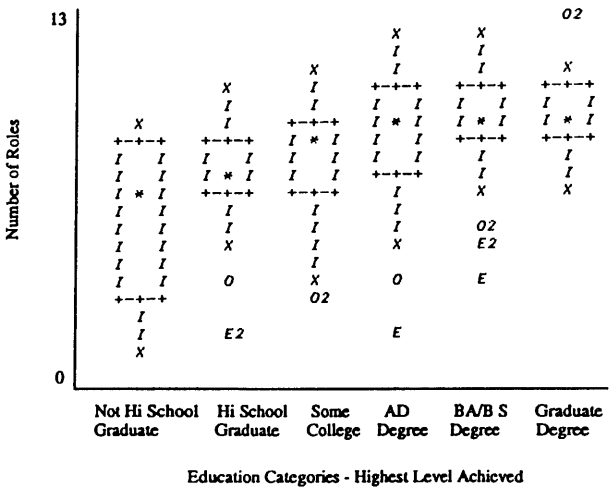


Figure 14. Box Plots of Number of Roles and Primary Roles and Education Categories



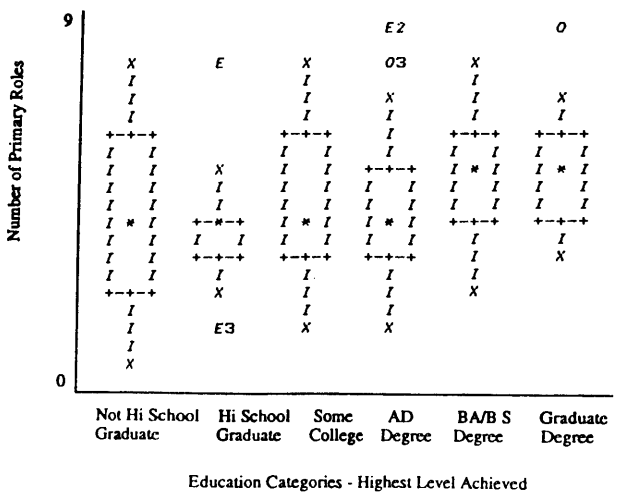
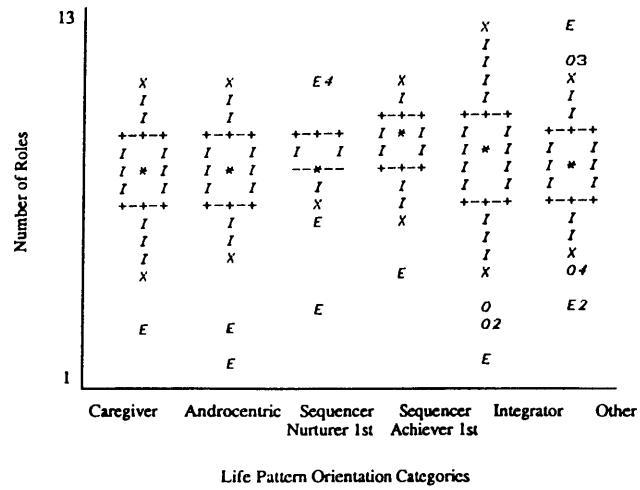
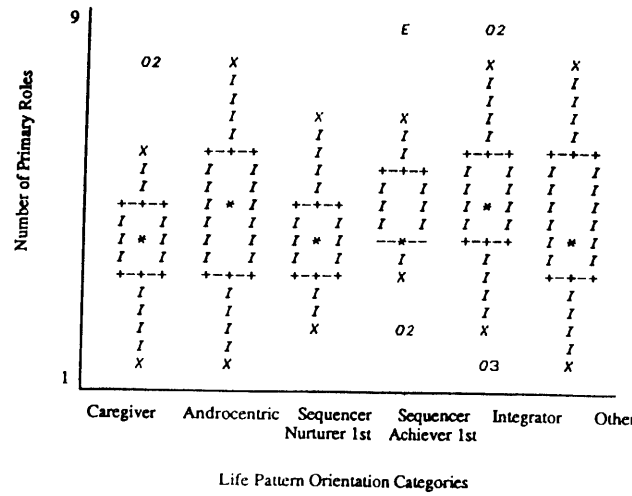


Figure 15. Box Plots of Number of Roles and Primary Roles and Life Span Orientation Categories





Relationships between Balance and Age, Educational Level, and Life Pattern Orientation

The relationships between balance, age, educational level, and life pattern orientation are illustrated with strip box-and-whiskers plots. Age, educational level, and life pattern orientation are shown in categories along the horizontal axis. Balance is located on the vertical axis (see Figures 16 and 17). The relationship between balance and age are also illustrated with a scatterplot (see Figure 16). Figure 16 shows that a positive, linear relationship exist between balance and age. However, where the medians are considered, the relationship of balance to age is similar and then increases slightly in the last three categories. Lifestyle balance and educational level and balance and life pattern orientation do not have a linear relationship (see Figure 17). These relationships are nonmonotonic. Those with "some college" and "BA/BS Degree" have the highest lifestyle balance with those without a high school diploma have the lowest level of lifestyle balance. Those with the "caregiver" and "integrator" lifestyle orientation have the highest levels of lifestyle balance, while those with the "other" and "sequence" categories have the lowest levels of lifestyle balance.

Figure 16. Scatterplot of Balance and Age and Box Plot of Age and Balance

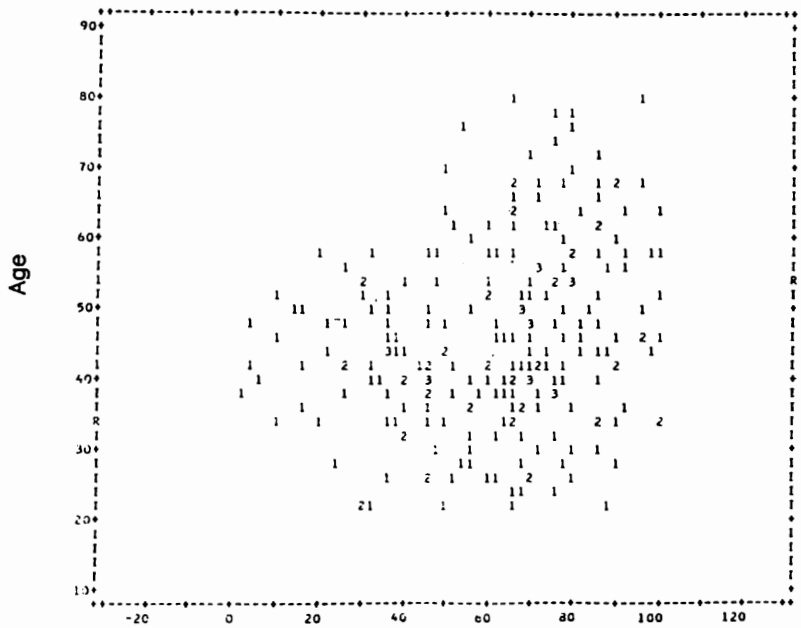
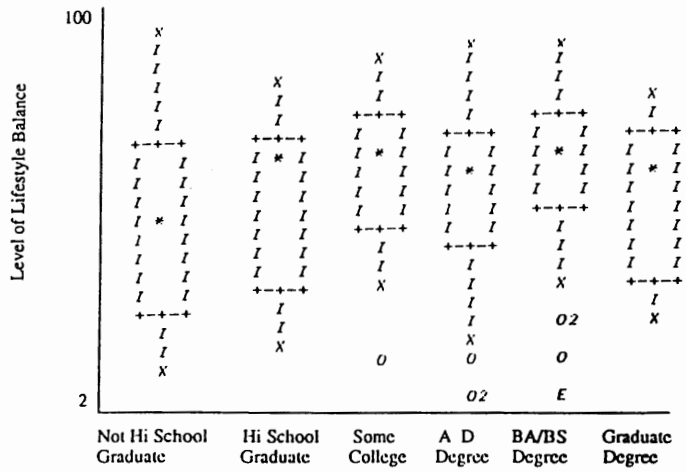
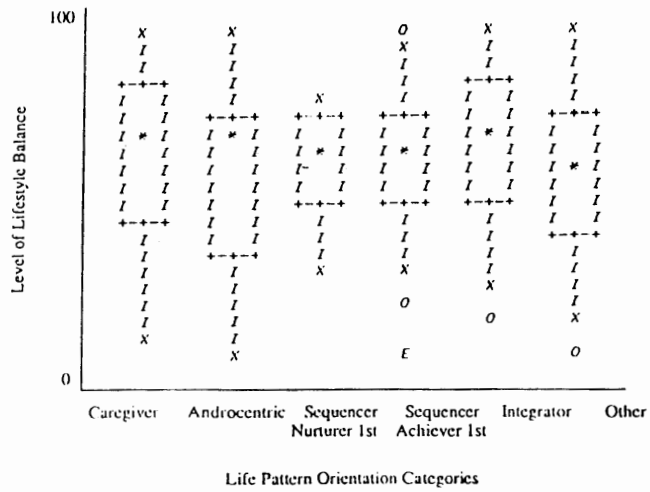


Figure 17. Box Plots of Balance and Education Categories and Balance and Life Pattern Orientation Categories





Relationships between Balance and Health, Mastery, Connectedness, Complexity, and Strain

The shape, direction, and strength of bivariate relationships can be shown with scatterplots. The scatterplot in Figure 18 shows that a positive, linear association exists between health and lifestyle balance. The scatterplot in Figure 19 shows that a positive, linear association exists between mastery and lifestyle balance. The scatterplot in Figure 20 shows that a positive, linear relationship exists between connectedness and balance. According to Hartwig and Dearing (1983), strength of the relationship, using exploratory the data analysis approach, refers how close the data points are to the smooth and the simplicity of the smooth. Thus, all three of these bivariate relationships exhibit a moderate relationship. However, the scatterplot in Figure 21 reveals a weak relationship between level of complexity and lifestyle balance. The direction of the relationship seems to be negative but does not appear linear. The relationship is not simple. High levels of complexity are present for women. However, level of balance is from low to high. Further refinement of the scatterplot is necessary to discover other patterns that may exist. The scatterplot in Figure 22 shows that a negative, linear

Figure 18. Scatterplot of Balance and Health

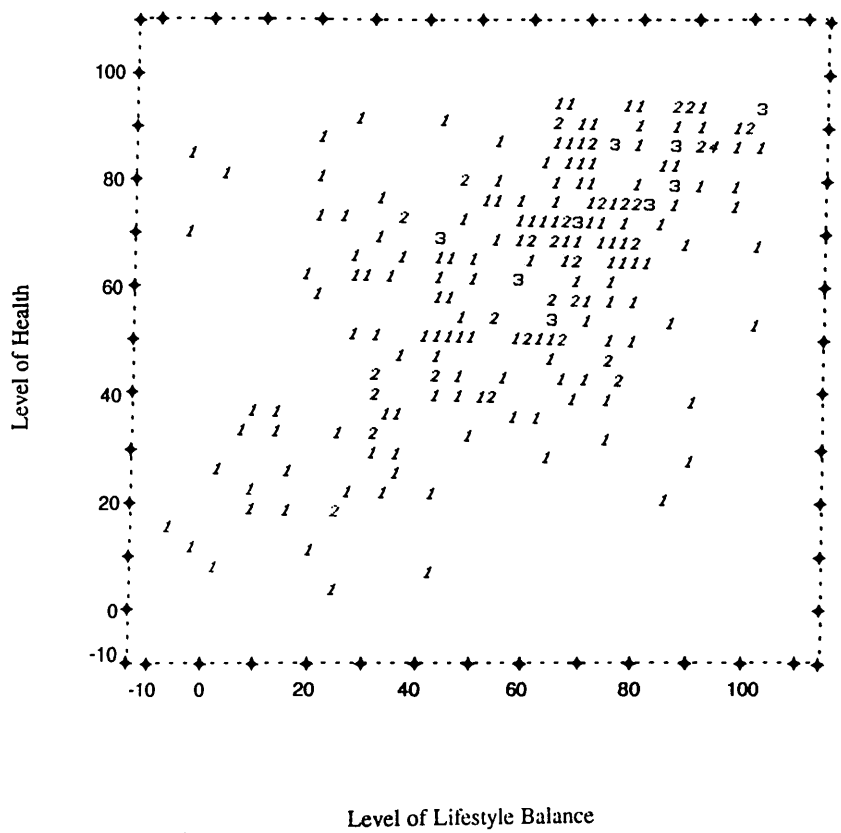


Figure 19. Scatterplot of Balance and Mastery

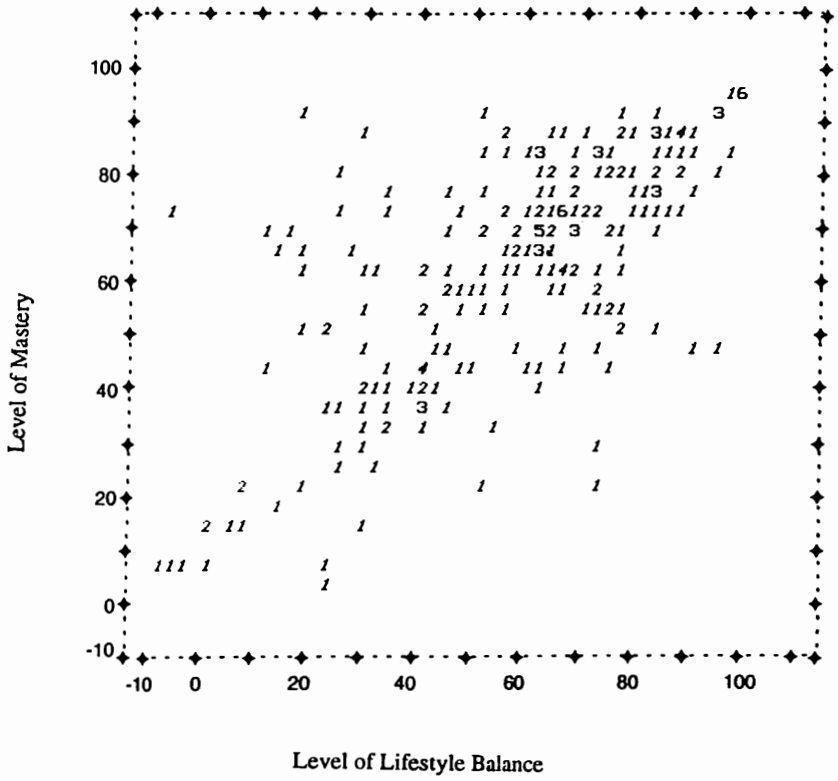
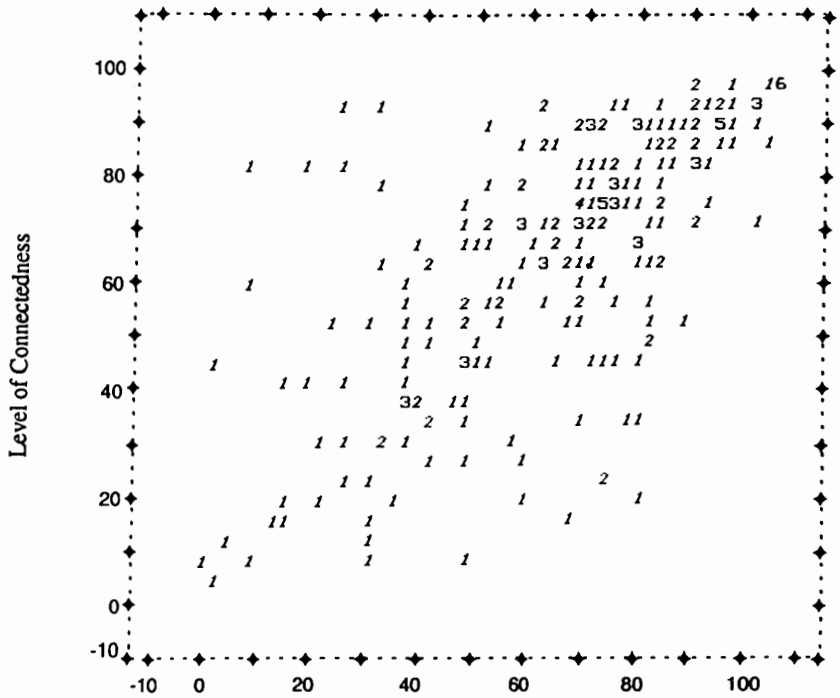


Figure 20. Scatterplot of Balance and Connectedness



Level of Lifestyle Balance

Figure 21. Scatterplot of Balance and Complexity

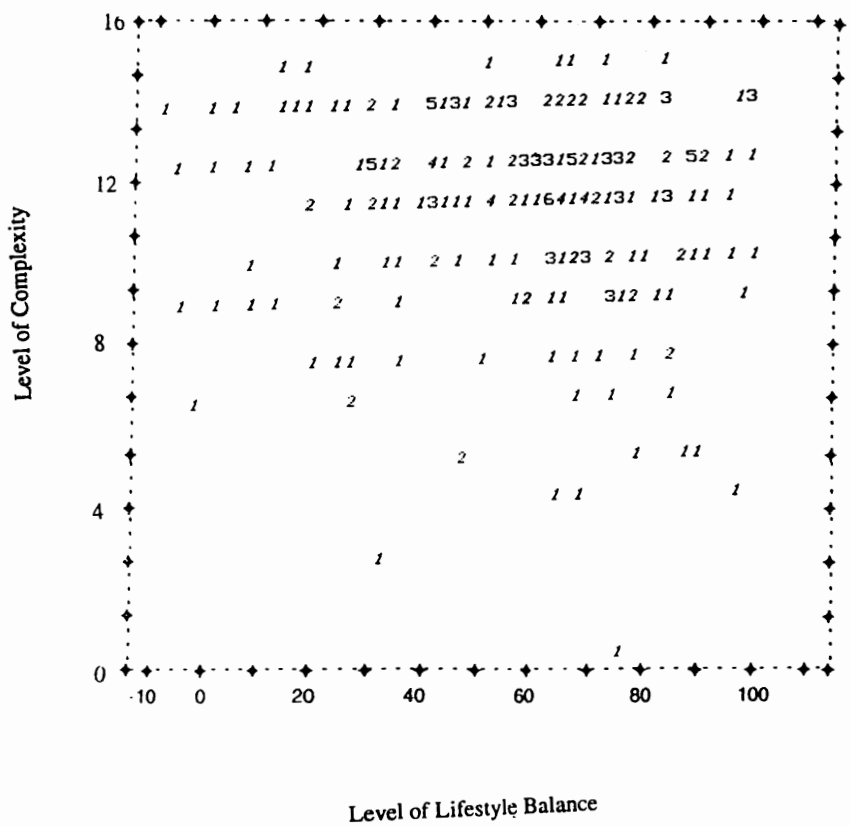
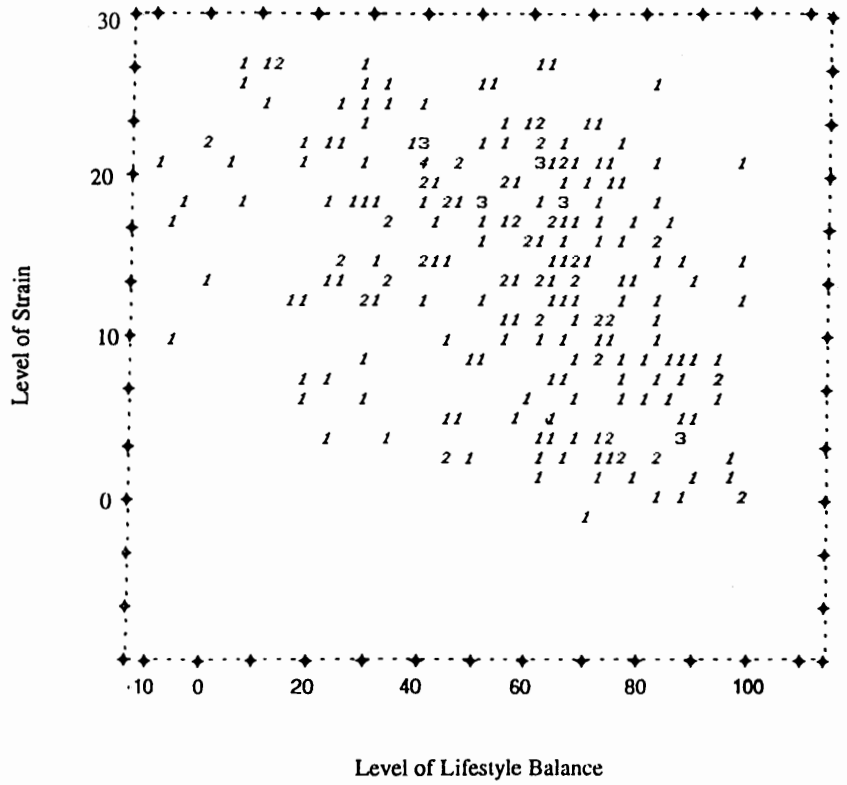


Figure 22. Scatterplot of Balance and Strain



relationship exists between level of strain and balance. The strength of the relationship between strain and balance is less than with the relationships shown in Figures 18, 19, and 20.

Further smoothing of the data or examining the data for other patterns can be achieved by dividing lifestyle balance into strips having an equal number of points. As shown in Figures 23 through 25, I recoded lifestyle balance into five score ranges and examined each of the relationships using box-and-whiskers plots. When examining the upper and lower hinges as well as the median in the boxplot shown in Figure 23, it is evident that the positive relationship between health and balance exists for each balance score range. The relationship between balance and mastery and connectedness also exist across each score range (see Figure 24). However, there is a high spread of the scores for mastery associated with a level of balance between 0 to 39. A greater number of outliers exists for both mastery and connectedness at the higher balance score ranges. When examining the upper hinges as well as the medians in the strip boxplot shown in Figure 25, a negative relationship exists between balance and strain. The level of strain falls more sharply at the highest two balance score ranges when

Figure 23. Strip Box Plots of Health and Balance Categories

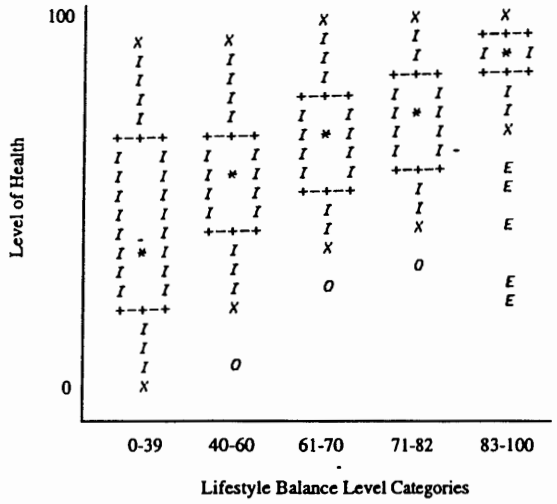
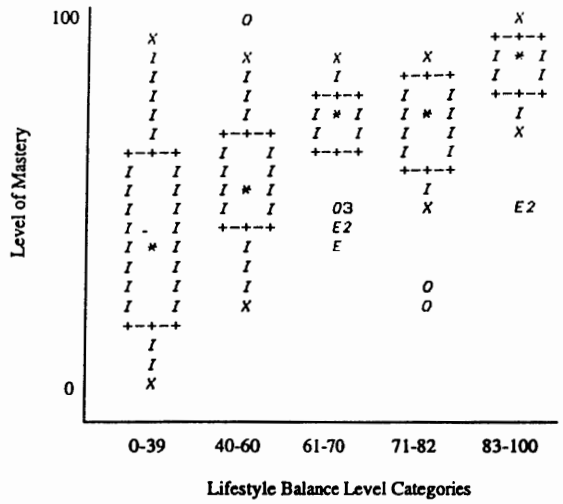


Figure 24. Strip Box Plots of Mastery and Balance Categories and Connectedness and Balance Categories



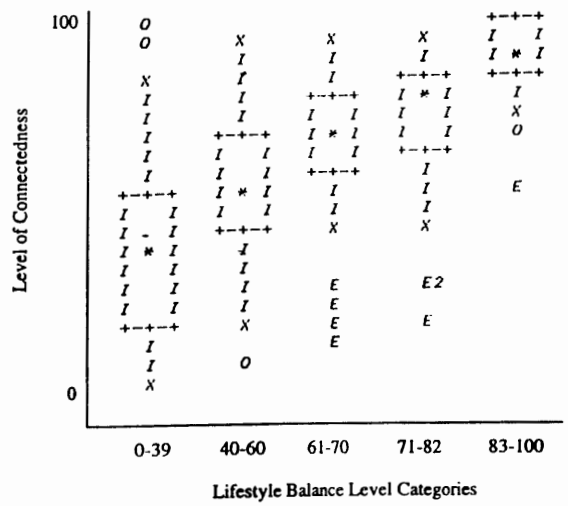
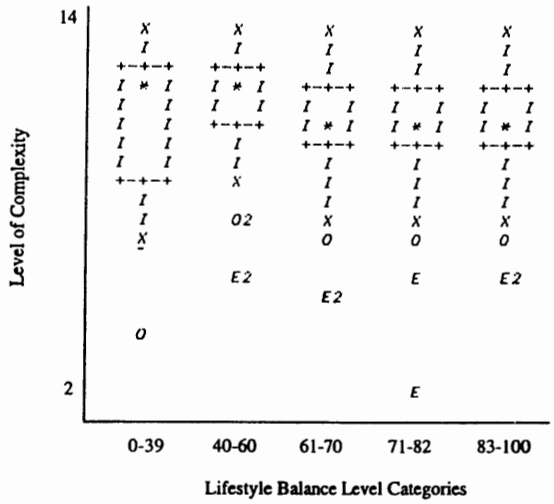
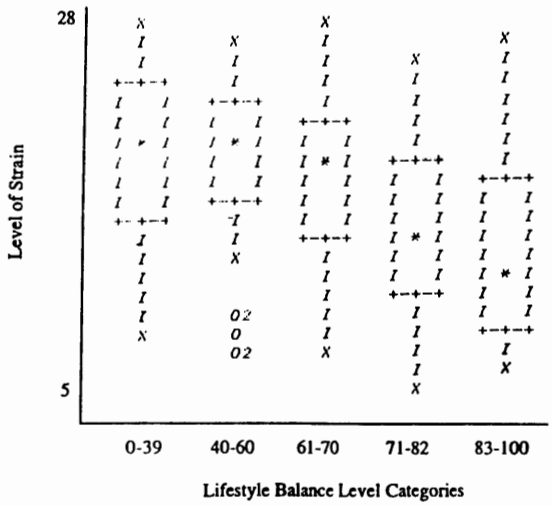


Figure 25. Strip Box Plots of Complexity and Balance Categories and Strain and Balance Categories





compared to the first three categories. The box-and-whiskers plot in Figure 25 shows that at every level of balance there is a high level of complexity. The medians and upper hinge values are the highest in the two lowest balance score ranges. The box-and-whiskers plots are identical in the highest three balance score ranges.

Summary

The exploratory analysis of data revealed information about women's lives and relationships among the concepts of lifestyle balance. A high number of participants were involved in multiple roles and reported a primary commitment to the roles of worker, partner, and parent. However, primary commitment to the role of worker varies among women of different life pattern orientations. Women's life pattern orientation is more likely to be that of sequencer or integrator than either/or. However, life pattern orientation varies among age cohorts. Relationships among several concepts were evident. A positive linear relationship existed among balance and health, balance and mastery, balance, and connectedness. A negative linear relationship existed among balance and strain.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A descriptive study was conducted to clarify the lifestyle balance phenomenon in women. The primary purpose of measuring multiple variables through a five-part investigator-developed survey was to obtain more information about lifestyle balance. I used an exploratory data analysis approach to examine single variables and pairs of variables. The exploratory data analysis approach used in this study was innovative in that it differed from the usual sequence of using "descriptive statistics to characterize the sample followed by confirmatory analysis using inferential techniques to test predetermined hypothesis" (Ferketich & Verran, 1986, p. 464). When exploratory data analysis techniques are used in quantitative studies, they are most commonly used for data screening prior to using inferential techniques (Tabachnick & Fidell, 1989). The visual displays and numeric summaries used in Chapter IV are "often degraded and considered less scientific and less objective than other methods" (Ferketich & Verran, 1986, p. 465). However, the visual displays

used in exploratory data analysis allow detecting the unexpected in the data and organization of data into meaningful patterns. "In nursing, identification and explanation of patterns is considered critical to both theory and practice" (Burns & Grove, 1993, p. 481). The outcome of exploratory data analysis may be theory generation, developing hypotheses and planning the appropriate confirmatory statistic for a future study, or discovering information about a phenomenon where little information is available such as that of lifestyle balance. In this chapter I will discuss the meanings of the findings and describe a network of variables to be used for future study.

Discussion of Findings

Before the study was initiated, I defined lifestyle balance as the accumulation and management of multiple roles in such a way that an ongoing sense of mastery and connectedness is achieved. I had the following research questions regarding the relationships among various concepts believed to be important in understanding lifestyle balance:

1. I questioned if a relationship existed between lifestyle balance and roles. I asked participants to

identify their primary and complementary commitments to roles. I measured the number of roles, the number of primary roles, the number of complementary roles, and the number of role combinations. I also measured role complexity and role strain.

2. I questioned if relationships existed between lifestyle balance and age, lifestyle balance and educational level, and lifestyle balance and life pattern orientation. I also assessed if relationships existed between the number of primary and complementary roles and age, educational level, and life pattern orientation.

3. I questioned if relationships existed between lifestyle balance and mastery, connectedness, and health.

4. I investigated what women believe lifestyle balance means for their lives in terms of how they feel, how they accomplished activities, how they assess time, their capacity for development, their capacity for accomplishing/gaining peak performance in any one area of their lives, and their ability to form/maintain/enhance relationships.

Lifestyle Balance and Roles

The number of role combinations decreased with higher levels of balance, while the number of roles increased at higher levels of balance. The number of primary and

complementary roles did not have a linear positive or negative association with lifestyle balance. In fact, women who had the highest number of primary roles had either low or high levels of balance. Clearly other factors contribute to the effects of roles on balance rather than just the number of roles. The two most important findings regarding the relationship of roles and balance was in terms of complexity and strain. First, women experienced high levels of complexity without having lower levels of balance. Role complexity concerned the participant's response to one Likert scale measuring role demand and the number of role combinations. Many women in the study experienced high levels of role complexity. Second, women with lower levels of strain had higher levels of balance. The relationship between strain and balance was a linear negative relationship. Women with progressively lower levels of strain had progressively higher levels of balance. Role strain concerned the participant's summed response to Likert scales measuring role conflict and role overload. As identified in the section describing the theoretical framework, women with Type III system of commitment--some committed roles are seen as more important or worthy of one's efforts than other roles (Marks, 1977)--are

likely to experience role conflict and overload. Because of socialization to traditional roles and the work/home segregation, women are more likely to have a Type III system of commitment rather than a Type I system where the individual has equal commitments to all roles. I anticipated that women would experience strain. However, I was not sure, until completing the study, of therelationship between balance and strain.

Lifestyle Balance, Age, Educational Level, Life Pattern Orientation, and Roles

A positive nonlinear monotonic relationship exists between balance and age for the participants in this study. As a group, older women seem to experience higher levels of lifestyle balance than younger women. However, a greater spread of values existed for lifestyle balance for women at ages 29 through 58 than at lower or higher ages. An interesting finding is that although lifestyle balance increases with age, the number of roles and number of primary roles women are engaged in shows a decrease with age. Educational level and balance and life pattern orientation and balance showed a nonmonotonic relationship. Women experienced balance with various life pattern orientations and educational levels. As a group, women who were not high school graduates

experienced the lowest levels of balance, while women with some college and a baccalaureate degree experienced the highest levels of balance. As a group, women with a life pattern orientation of caregiver or integrator had the highest levels of balance. The number of roles increased with educational level. The most important finding is that women with a variety of educational levels and life pattern orientations can have lifestyle balance. However, this study included women of various ages. The review of literature demonstrated that some life pattern orientations are more common with certain age cohorts. Therefore, further exploration of life pattern orientation and balance is needed with a more homogeneous age group. The study of life pattern orientation with the issue of commitment to certain roles and the relationship to lifestyle balance is an important issue for further study.

Relationships between Lifestyle Balance, Mastery, Connectedness, and Health

The relationship between balance and health, mastery and connectedness were positive, linear, and moderate to strong. Table 14 shows the correlations among these

variables. These correlations confirm what the visual displays illustrated about these relationships in Chapter IV.

Table 14

Correlations between Balance, Mastery, Connectedness, Health, Complexity, and Strain

	1	2	3	4	5	6
1 Balance	1.0					
2 Mastery	**.69	1.0				
3 Connectedness	**.68	**.68	1.0			
4 Health	**.56	**.55	**.55	1.0		
5 Complexity	-.07	.06	-.03	-.00	1.0	
6 Strain	**-.42	**-.31	**-.38	**-.37	**.39	1.0

*$p < .05$ **$p < .01$

Women who experience high levels of health also experience high levels of balance. Upon assessing outliers, I found that women who had high balance levels but low levels of health, reported physical illness. Mastery and connectedness are components of lifestyle balance. Therefore, I expected the relationship between balance and mastery and connectedness to be linear, positive, and strong. I studied these relationships to determine if women with unequal levels of mastery and connectedness would experience a high level of balance. I performed a residual analysis of three

relationships--balance and, balance and connectedness, and mastery and connectedness--and studied the 10 cases from each group with the highest residual values. There were 5 women who reported high levels of mastery and connectedness but low levels of balance. Ten women reported moderate to high levels of mastery and low levels of connectedness. Five of these 10 women reported low levels of balance and 5 reported balance levels from 55 to 70. These women were primarily committed to the role of worker but were either unmarried or reported unsatisfying relationships. Eight women reported moderate to high levels of connectedness but low levels of mastery. Of these 8 women, 3 women reported high levels of balance. These 3 women were ages 64 to 79. Most women in the study reported similar levels of mastery, connectedness, and balance. However, the women who reported differences in these three levels show this is an area for further exploration. Due to life circumstances, these women are higher on mastery or connectedness but still feel that their lives are balanced. Those few women who were high on mastery and pleasure but low on balance show that another component to balance should be considered.

As described in Chapter IV, participants obtained from voter registration lists of one county and list

of registered nurses from 11 counties were significantly different on four of the demographic variables: age, educational level, employment status, employment pattern, and employment history. A higher percentage of registered nurses than voters were in the "Era of Transition" age category. A higher percentage of registered nurses than voters were associate degree graduates. A higher percentage of registered nurses than voters were currently working and had an employment history of working. To assess whether these differences in age, educational level, employment status, pattern, and history impacts the relationships among variables, correlations between variables were assessed for each group (see Table 15). Correlations between balance, mastery, connectedness, health, and strain were significant at the $p < .01$ level for each group as they had been for the entire sample (see Table 14). An interesting finding was discovered about complexity and balance, mastery, connectedness and health. The correlation was not significant for the entire sample (see Table 14). The correlation between complexity and balance, connectedness and health was significant for nurses, while the correlation between complexity and mastery, connectedness and health was significant for voters. However, the relationship between

Table 15

Correlations between Balance, Mastery, Connectedness, Health, Complexity, and Strain for Registered Nurses and Voters

	1	2	3	4	5	6
	Registered Nurses (n = 145)					
1 Balance	1.0					
2 Mastery	**.67	1.0				
3 Connectedness	**.61	**.69	1.0			
4 Health	**.47	**.53	**.49	1.0		
5 Complexity	*-.17	-.12	**-.21	*-.15	1.0	
6 Strain	**-.41	**-.34	**-.43	**-.36	**.52	1.0
	Voters (n = 100)					
1 Balance	1.0					
2 Mastery	**.72	1.0				
3 Connectedness	**.77	**.69	1.0			
4 Health	**.70	**.58	**.63	1.0		
5 Complexity	.10	*.20	*.19	*.18		
6 Strain	**-.42	**-.29	**-.31	**-.37	**.34	1.0

*$p < .05$ **$p < .01$

complexity and the variables was negative for nurses--higher levels of complexity were associated with lower levels of balance, connectedness, and health--and positive for voters--higher levels of complexity were associated with higher levels of mastery, connectedness, and health. These differences in direction of the

relationships for registered nurses may be related to their work history.

Women's Belief about Lifestyle Balance

Women in the study viewed lifestyle balance in positive terms. The 60 scales forming the scales on beliefs about lifestyle balance were polar adjective pairs anchoring scale points ranging from 1 to 7. A favorable, potent or active word was placed at one end of the scale points and the logical opposite of the word was placed at the opposite end of the scale. The word-pairs were arranged so that the favorable, potent, or active end of the scale was randomly placed in the right or left position to avoid habit in the response pattern. The 60 scales, evenly divided, form six subscales. As shown in Table 13, little difference exists in the lower hinge, median, and upper hinge values for most of the scales. When scales are used with a lower hinge, median, and upper hinge values of at least 5, 6, and 7 respectively, women believe when lifestyle balance is present they: (1 feel light, relaxed, even, energetic, in control, whole, pleasant, positive, and happy; (2) their activities are integrated, ordered, active, many, and attended; (3) their time is flexible; (4) their capacity for development is even, succeeded,

expanded, attended, achievable, and valued; (5) their capacity to accomplish/gain peak performance is flourishing, valued and achievable; and (6) their ability to form/maintain/enhance relationships is expanded, attended, even accelerated, valued, flourishing, and achievable. I included the beliefs about lifestyle balance scales because I thought more diversity among women's responses would occur especially among the scales forming three of the subscales: the capacity for personal development and to accomplish/gain peak performance and their ability to form/maintain/enhance relationships. Because of my personal background, I felt that if women were balanced, "tradeoffs" in some areas might occur in terms of personal achievement, growth, and even relationships. I am part of the "Era of Transition" cohort and was influenced by the turbulent 1960s and the second wave of the women's movement and a work ethic that emphasizes individualistic achievement. At the same time, I was raised in a traditional family where my mother stayed home and my father made the living. Participants seem to be saying that lifestyle balance does not decrease one's chances of personal development, gaining peak performance of forming relationships.

Conclusions

Most participants in this study were committed to several roles. For example, greater than 60% of women in this study had primary commitments to parent, partner, and worker roles. However, primary commitment to the role of worker varied among participants of different life pattern orientations. The life pattern orientation of participants was most likely to be that of sequencer or integrator than either/or. However, life pattern orientation varied among age cohorts.

A clearer understanding and a more accurate description of lifestyle balance exists as a result of this study. Lifestyle balance is positively related to health, mastery, and connectedness. Lifestyle balance is negatively related to role strain. Lifestyle balance can occur when women have various life pattern orientations and educational levels. High levels of role complexity and lifestyle balance can coexist.

Practice Implications

Health promotion has become increasingly important in recent years. According to Smith (1981), the eudaemonistic model extends the meaning of health to well-being and self-realization. I believe lifestyle

balance is an important aspect for well-being. Lifestyle balance offers an alternative assessment for well-being over merely viewing the effects of multiple role involvement for women. The roles of wife, mother, and other relationships have traditionally been salient for women and thus important in accomplishing a sense of worth. However, with the economic uncertainty, marital instability, and other risks of modern life, most young women today must learn to function competently in the role of worker as well as spouse and parent. Lifestyle balance is a perspective that offers differing degrees of commitment and involvement in roles at different times. The harmony of mastery and connectedness in one's group of roles is what is important for well-being.

Although further research is needed to more clearly define lifestyle balance for women, I believe sufficient information exists to explore women's work and family roles in terms of offering opportunities for lifestyle balance. As a nursing faculty member, I have the opportunity to impact women in two ways. I can assist nursing students to gain knowledge about lifestyle balance to benefit their own lives and I can also help students to gain information and develop strategies to explore the concept of lifestyle balance with their patients/

clients. It is also important to impart to women that one set of roles (i.e., worker, parent, and partner) is not requisite for lifestyle balance. This would be an either/or approach and not in keeping with the tenants of interdependence and composing a life (Bateson, 1989). However, the advantages and disadvantages of various roles should be explored.

Information about lifestyle balance should not only be presented to individuals but to institutions and communities as well. Society may approve of women working but norms and institutions do not support lifestyle balance for women. Policy changes in the work environments and more support for childcare are necessary. Nurses can be involved at the local, state, and national level to impact policies for flexible work hours; quality, affordable, and available childcare; comparable wages; and for work within the home being equally divided. These changes would allow women a greater opportunity to engage in roles that enhance their ability to accomplish lifestyle balance.

Recommendations for Research

Several recommendations for further study have been identified based upon the conclusions and implications of this study:

1. Further analysis should be done with the data obtained in this study.

2. Repeated study on lifestyle balance using a revised version of the Lifestyle Balance Questionnaire should be conducted with a more homogeneous group in terms of age. A study using women ages 20 to 38 should be conducted. The Lifestyle Balance Questionnaire should be simplified to include only current roles, mastery, connectedness, balance, health, and life pattern orientation. The beliefs about lifestyle balance scales should be deleted. The life pattern orientation categories should be revised to reduce the number of "other" responses.

3. A longitudinal study on lifestyle balance should be conducted. Measures of well-being, social support, and life transition should also be included. The questions of whether balance increases well-being, whether multiple roles or particular roles increase chances of balance, and if particular life pattern orientation

enhances balance are questions more fitting to longitudinal study.

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APPENDICES

APPENDIX A

Prospectus Approval Letter

Human Subjects Review Committee Approval Letter

TEXAS WOMAN'S
UNIVERSITY
DENTON/DALLAS/HOUSTON

THE GRADUATE SCHOOL
P.O. Box 22479
Denton, TX 76204-0479
Phone: 817/898-3400
Fax: 817/898-3412

November 4, 1994

Ms. Carol Elaine Evans
Route 2, Box A 11
Glen Rose, TX 76043

Dear Ms. Evans:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Leslie M Thompson

Leslie M. Thompson
Associate Vice President for Research
and Dean of the Graduate School

ai

cc Dr. Patsy Keyser
Dr. Carolyn Gunning

TEXAS WOMAN'S
UNIVERSITY
DENTON / DALLAS / HOUSTON

HUMAN SUBJECTS
REVIEW COMMITTEE
P.O. BOX 22939
Denton, TX 76204-0939
Phone: 817/898-3377

September 7, 1994

Elaine Evans
507 East Elm Street
Glen Rose, Texas 76043

Dear Elaine Evans:

Social Security #: 466-96-1631

Your study entitled "The Effects of the Number of Primary and Complimentary Roles, Primary Role Repertoire, Lifestyle Complexity, Age and Educational Level on Meaning and Level of Lifestyle Balance in Women" has been reviewed by a committee of the Human Subjects Review Committee and appears to meet our requirements in regard to protection of individuals' rights.

Be reminded that both the University and the Department of Health and Human Services (HHS) regulations typically require that agency approval letters and signatures indicating informed consent be obtained from all human subjects in your study. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. This approval is valid one year from the date of this letter. Furthermore, according to HHS regulations, another review by the Committee is required if your project changes.

Special provisions pertaining to your study are noted below:

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

___ Other:

_X_ No special provisions apply.

Sincerely,

Patti Hamilton

Chair
Human Subjects Review Committee - Denton

cc: Graduate School
Dr. Patsy Keyser, Nursing
Dr. Carolyn Gunning, Nursing

APPENDIX B

Lifestyle Balance Questionnaire

LIFESTYLE BALANCE QUESTIONNAIRE

PART A

Definitions:

Roles can be defined as positions held in society or as various functions a person performs. Roles can be classified into two main categories: primary and complementary.

Primary roles are those roles in which you invest most of your commitment, energy, and time.

Complementary roles, although important, are those roles you are less committed to and/or which take a less dominant place in your life.

1. **What are your current primary and complementary roles?**

   Directions:

   First, which of the roles listed in the column titled Role Categories represent your current roles? Show the answer to this question by placing a check in the blank of the column titled Section A to the right of each role category.

   Second, do you consider the roles you checked in the column titled Section A primary or complementary roles? Show the answer to this question by placing a check under either the primary or complementary heading in the column titled Section B for each role you checked in Section A.

Role Categories	Section A	Section B	
	Roles	Primary Roles	Complementary Roles
1. Daughter			
2. Sibling			
3. Student			
4. Worker - Paid Employment			
5. Friend			
6. Wife or Partner			
7. Parent			
8. Manager of Household			
9. Caretaker of disabled or ill child			
10. Caretaker of disabled or ill spouse/partner			
11. Caretaker of disabled or ill parent			
12. Caretaker of disabled or ill friend			
13. Citizen			
14. Religious Enthusiast			
15. Cultural/Ethnic Enthusiast			
16. Health/Fitness Enthusiast			
17. Leisure Enthusiast			
18. Other (please name)			

2. **Have you added or deleted a primary or complementary role within the last twelve months? Yes_____No____**

   If yes, please explain: _____

   _____.

3. **Which of the role categories listed in #1 do you feel were/will be primary and complementary at the age of 20?**

   Primary _____.

   Complementary _____.

4. **Which of the role categories listed in #1 do you feel were/will be primary and complementary at the age of 40?**

   Primary _____.

   Complementary _____.

5. **Which of the role categories listed in #1 do you feel were/will be primary and complementary at the age of 60?**

   Primary _____.

   Complementary _____.

PART B
Life Pattern Orientation
During her twenties a woman desires a certain design for her life; she desires a certain combination of roles. This desire is called a life pattern orientation. Due to circumstances, a woman's actual combination of roles may not reflect her life pattern orientation. A woman's life pattern orientation may change.

1. **Please circle the letter (a, b, c, d, e or f) that contains the statement which is/was most descriptive of your life pattern orientation at the age of 20.**

   a. Caring for the home and family will be my primary role. Paid employment outside the home or community service activities (i.e., volunteer work in community, school or church organizations) will serve as complementary roles for me.

   b. My career will serve as a primary role for me. Involvement with my extended family and friends will fulfill my relationship needs. I do not need to be married or have children to be fulfilled.

   c. In the future I plan to have a career, but, for now, I will concentrate on my marriage and family. I will concentrate on a career after my children are older. I don't believe a woman can "have it all" or at least not all at the same time.

   d. In the future I plan to have children, but, for now, I will focus on my career. I will put off motherhood while I complete my education and establish myself in a career. When I do become a mother, I will reduce or postpone my involvement with work until my children are older. I don't believe a woman can "have it all" or at least not all at the same time.

   e. I will be continuously involved with marriage-family and career throughout my adult life. My husband and I will both fully participate in caring for our children and our home while remaining involved with our careers. I believe it is possible to "have it all".

   f. If your life pattern orientation is different from those describe in a, b, c, d, or e, please describe:

2. **Has your life pattern orientation changed from the orientation you held at the age of 20?**

   Yes ____ No ____ NA, I am currently age 20____

   If yes, please describe the change(s):

3. **Does your current group of roles match your current life pattern orientation?**

   Yes ____ No ____

   Please explain/comment:

Lifestyle Balance
Definition: Lifestyle balance is the accumulation and management of multiple roles in such a way that an ongoing sense of mastery and connectedness is achieved.

Mastery is associated with the doing side of life - behaviors you do that are valued by our society, are goal-oriented. Associated with self-esteem, sense of control, and low levels of depression and anxiety.

Connectedness is the feeling and relationship side of life - feeling lovingly connected with others. Associated with satisfaction, happiness and optimism.

Directions: Using the definition above, show your level of lifestyle balance in three time periods. Place a vertical mark at the point on the horizontal line (scale) below each statement that best reflects what you believe about the statement.

Example:
My current level of discomfort is:

Extremely Low _____|_____ Extremely High

4. My lifestyle is currently:

Not Balanced At All _____ Fully Balanced

My sense of mastery is currently:

Low _____ High

My sense of connectedness is currently:

Low _____ High

5. My lifestyle at the age of 20 is/was:

Not Balanced At All _____ Fully Balanced

If have identified a different level of lifestyle balance at the age of 20 than your current level, please explain/comment:

6. My lifestyle at the age of 40 is/will be/was:

Not Balanced At All _____ Fully Balanced

If have identified a different level of lifestyle balance at the age of 40 than your current level, please explain/comment:

7. My lifestyle at the age of 60 is/will be/was:

Not Balanced At All _____ Fully Balanced

If have identified a different level of lifestyle balance at the age of 60 than your current level, please explain/comment:

Level of Health & Lifestyle Balance

Definition: Health is a dynamic state of physical, psychological, social and spiritual well-being. The individual is able to cope with the environment, feels in peak condition, has a sense of worth and a peaceful attitude.

8. Using the above definition, my health is currently:

Extremely Poor _____ Excellent

Please explain/comment:

9. Has your health changed within the past twelve months?

Yes ____ No ____

If yes, please describe the change(s):

Directions: The following two statements about lifestyle balance and health have seven possible answers with numbers 1 and 7 being the extreme answers. If the words under 1 best represents your feelings about the statement, circle 1; if the words under 7 best represents your feelings about the statement, circle 7. If you feel differently, circle the number which best expresses your feelings about the statements between the two extremes. Circle only one number for each statement.

10. Lifestyle balance is:

1	2	3	4	5	6	7
Not At All Important In Maintaining Health						**Very Important In Maintaining Health**

11. Health is:

1	2	3	4	5	6	7
Not At All Important In Achieving Lifestyle Balance						**Very Important In Achieving Lifestyle Balance**

PART C

Directions: In the six sections of Part C you will find a statement about Lifestyle Balance to be judged and beneath it several word pairs. Select the one point between each word pair that best represents what you believe about the statement at the top of each section.

If you believe that the statement is very closely related to one end of the scale, you should place an x as follows:

big _x_ : ___ : ___ : ___ : ___ : ___ : ___ small

OR

big ___ : ___ : ___ : ___ : ___ : ___ : _x_ small

If you believe that the statement is quite closely related to one end of the scale, you should place an x as follows:

big ___ : _x_ : ___ : ___ : ___ : ___ : ___ small

OR

big ___ : ___ : ___ : ___ : ___ : _x_ : ___ small

If you believe that the statement is only slightly related to one side as opposed to the other side, you should place an x as follows:

big ___ : ___ : _x_ : ___ : ___ : ___ : ___ small

OR

big ___ : ___ : ___ : ___ : _x_ : ___ : ___ small

If you believe that the statement is neutral, equally associated with both sides of the scale, or is completely irrelevant, you should place an x as follows:

big ___ : ___ : ___ : _x_ : ___ : ___ : ___ small

Section 1 - When Lifestyle Balance Is Present, I Feel:

negative ___ : ___ : ___ : ___ : ___ : ___ : ___ positive
light ___ : ___ : ___ : ___ : ___ : ___ : ___ heavy
in control ___ : ___ : ___ : ___ : ___ : ___ : ___ overwhelmed
whole ___ : ___ : ___ : ___ : ___ : ___ : ___ part
pleasant ___ : ___ : ___ : ___ : ___ : ___ : ___ unpleasant

tense ___ : ___ : ___ : ___ : ___ : ___ : ___ relaxed
even ___ : ___ : ___ : ___ : ___ : ___ : ___ uneven
happy ___ : ___ : ___ : ___ : ___ : ___ : ___ sad
young ___ : ___ : ___ : ___ : ___ : ___ : ___ old
energetic ___ : ___ : ___ : ___ : ___ : ___ : ___ lethargic

Section 2 - When Lifestyle Balance Is Present, My Activities Are:

integrated	___	___	___	___	___	___	___	separated
ordered	___	___	___	___	___	___	___	disordered
active	___	___	___	___	___	___	___	passive
completed with others	___	___	___	___	___	___	___	self completed
planned	___	___	___	___	___	___	___	spontaneous
viewed as a whole	___	___	___	___	___	___	___	viewed in parts
completed	___	___	___	___	___	___	___	endless
many	___	___	___	___	___	___	___	few
attended	___	___	___	___	___	___	___	neglected
juggled	___	___	___	___	___	___	___	interlaced

Section 3 - When Lifestyle Balance Is Present, My Time Is:

abundant	___	___	___	___	___	___	___	scarce
consumed	___	___	___	___	___	___	___	generated
scheduled	___	___	___	___	___	___	___	unscheduled
linear	___	___	___	___	___	___	___	circular
aggregated	___	___	___	___	___	___	___	segmented
flexible	___	___	___	___	___	___	___	inflexible
accelerated	___	___	___	___	___	___	___	slowed
boundless	___	___	___	___	___	___	___	limited
qualitative	___	___	___	___	___	___	___	quantitative
divided equally among roles	___	___	___	___	___	___	___	divided unequally among roles

Section 4 - When Lifestyle Balance Is Present, My Capacity For Development (Emotional, Social, Spiritual) Is:

achievable	___	___	___	___	___	___	___	unachievable
even	___	___	___	___	___	___	___	uneven
changing	___	___	___	___	___	___	___	settled
succeeded	___	___	___	___	___	___	___	relinquished
expanded	___	___	___	___	___	___	___	restricted
attended	___	___	___	___	___	___	___	neglected
simple	___	___	___	___	___	___	___	complex
impressive	___	___	___	___	___	___	___	unimpressive
static	___	___	___	___	___	___	___	dynamic
devalued	___	___	___	___	___	___	___	valued

Section 5 - When Lifestyle Balance Is Present, My Ability To Accomplis/Gain Peak Performance In Any One Area Of Life Is:

simple	___	___	___	___	___	___	___	complex
succeeded	___	___	___	___	___	___	___	relinquished
achievable	___	___	___	___	___	___	___	unachievable
expanded	___	___	___	___	___	___	___	restricted
impressive	___	___	___	___	___	___	___	unimpressive
barren	___	___	___	___	___	___	___	flourishing
dynamic	___	___	___	___	___	___	___	static
valued	___	___	___	___	___	___	___	devalued
accelerated	___	___	___	___	___	___	___	slowed
even	___	___	___	___	___	___	___	uneven

Section 6 - When Lifestyle Balance Is Present, My Ability To Form/Maintain/Enhance Relationships With Others Is:

expanded	___	___	___	___	___	___	___	restricted
attended	___	___	___	___	___	___	___	neglected
even	___	___	___	___	___	___	___	uneven
accelerated	___	___	___	___	___	___	___	slowed
achievable	___	___	___	___	___	___	___	unachievable
impressive	___	___	___	___	___	___	___	unimpressive
dynamic	___	___	___	___	___	___	___	static
simple	___	___	___	___	___	___	___	complex
devalued	___	___	___	___	___	___	___	valued
barren	___	___	___	___	___	___	___	flourishing

PART D

Directions: The following questions about your roles have seven possible answers with numbers 1 and 7 being the extreme answers. If the words under 1 best represents your feelings about the question, circle 1; if the words under 7 best represents your feelings about the question, circle 7. If you feel differently, circle the number which best expresses your feelings about the question between the two extremes. Circle only one number for each question.

1. **Given the state of your current group of roles, how demanding of your time, energy, and concern do you consider these roles to be?**

1	2	3	4	5	6	7
Not Very Demanding						Extremely Demanding

2. **How often do you have to juggle different role obligations that conflict with one another and give you a pulled-apart feeling?**

1	2	3	4	5	6	7
Never Have To Do This						Always Have To Do This

3. **How often do you feel you are involved in too many roles?**

1	2	3	4	5	6	7
Never Have This Feeling						Always Have This Feeling

4. **How often do you feel the things you do to fulfill your role obligations add up to being too much?**

1	2	3	4	5	6	7
Never Have This Feeling						Always Have This Feeling

5. **Some people feel they are not doing as good a job as they should in one or more of their roles. How often do you have this feeling?**

1	2	3	4	5	6	7
Never Have This Feeling						Always Have This Feeling

PART E. DEMOGRAPHIC DATA

Please complete the following background questions about yourself by filling in the blanks or placing a check in the blank that is most representative of your current situation:

1. Year of birth: 19___

2. County/State in which you currently live:
County: _____ State: _____

3. Marital Status (choose one only):
_____ a. Married
_____ b. Single, widowed
_____ c. Single, never married
_____ d. Single, divorced or separated

4. Sex:
_____ Male
_____ Female

5. Education Level - Highest formal educational level you have reached (choose one only):
_____ a. less than high school
_____ b. some high school
_____ c. high school graduation or equivalent
_____ d. some college
_____ e. college graduate (associate)
_____ f. college graduate (bachelor)
_____ g. graduate studies
_____ h. completed advanced degree
If yes, list degree _____

6. Employment Status/History:
a. Are your currently employed? Yes ____ No ____
If employed, how many hours do you work for pay in a typical week? _____

b. Are you currently attending college or a vocational program? Yes ____ No _____
If yes, how many hours do you attend classes in a typical week? _____

c. Which of the following statements most accurately describes your adult employment pattern? Please choose one only.
_____ 1) I have rarely or never had a regular paid job.
_____ 2) I have worked from time-to-time.
_____ 3) I have worked about half the time.
_____ 4) I have had a paid job more of the time than not.
_____ 5) I have almost always had a regular paid job.

If you answered employment pattern #3, 4, or 5, have your typically worked full- or part-time? Full-time ____ Part-time ____

7. Race: ___ a. Asian ___ b. Black ___ c. Caucasian ___ d. Hispanic ___ e. Native American

8. How many children do you have in the following age ranges? Please place a check in the blanks to the right of the age ranges.

Age Ranges	Number of Children				
	0	1	2	3	4+
0 - 4 years	___	___	___	___	___
5 - 12 years	___	___	___	___	___
13 - 17 years	___	___	___	___	___
18 years or older	___	___	___	___	___

9. Family Income - Which of the following categories is most descriptive of the adequacy of your family income in meeting your family's financial needs?
_____ a. More than enough
_____ b. Adequate
_____ c. Inadequate
_____ d. Very inadequate

APPENDIX C

Cover Letter

Follow-up Postcard

Follow-up Letter

ELAINE EVANS
DIVISION OF NURSING
MAIL-STOP T0500
STEPHENVILLE, TEXAS 76402

November 1, 1994

Dear Participant:

My name is Elaine Evans. I am the director of the nursing program at Tarleton State University. As a doctoral student in the College of Nursing at Texas Woman's University, I am currently conducting research for my dissertation. You have been selected at random from one of three lists to participate in this study. The purpose of this study is to examine the relationships among roles, life pattern orientation, age, educational level and women's lifestyle balance. I will also examine the relationships among role complexity, lifestyle balance and health.

Lifestyle balance has been a topic of interest to me for several years. Although balance is often described in magazines and books as desirable, there has been little description of what balance is and no research has been reported. In an effort to gain understanding about this topic from a variety of women, I randomly selected 186 women's names from each of three lists to participate in this study: registered voters obtained from the Erath County tax assessor-collector's office, a list of currently enrolled students obtained from registrar's office of Tarleton State University and a list of registered nurses residing in a nine county area of rural central Texas obtained from the Texas Board of Nurse Examiners. Your completion of the questionnaire will be extremely valuable to this study.

You are asked to complete the enclosed Lifestyle Balance Questionnaire and return it in the stamped self-addressed envelope provided. Although the questionnaire is several pages long, it can be completed in a short period of time. Most of the questions can be completed by circling a letter or number or checking or filling in blanks. There are no right or wrong answers. Completion and return of the enclosed questionnaire will constitute your informed consent to include your responses in a collective analysis with those of other participants in the study. To ensure your anonymity, no individual questionnaire responses will be used; all information will be reported as grouped data. The questionnaires will be locked in a cabinet in my office and no person other than myself will have access to your completed questionnaire. The questionnaires will be shredded when the analyses of the data is completed or no later than three years from now.

The return stamped addressed envelope provided has a number written on the back flap for the purpose of determining who has returned the questionnaire. Your questionnaire will be separated from the envelope and no attempt will be made to match your name with your questionnaire. I will mail you a follow-up postcard if I have not received your completed questionnaire within two weeks. However, if you do not wish to participate, simply return the unanswered questionnaire in the envelope provided and I will not send you the follow-up postcard or attempt to contact you in any way. Your participation in this study is completely voluntary; no penalty will result from your refusal to participate.

I would be happy to answer your questions and discuss comments, concerns or suggestions you may have about this study. I can be contacted at the address at the top of this letter or at (817/897-9717). If you have any concerns about the way this research is being conducted, you may contact the Texas Woman's University Office of Research and Grants Administration at (817/898-3375).

Please mail the questionnaire in the envelope provided by November 12, 1994. I appreciate your participation in this research study.

Respectfully,

Elaine Evans

Elaine Evans, RN, MSN

Information Listed On Postcard

Dear Participant:

Please help! I mailed a Lifestyle Balance Questionnaire to you about a week ago. Each woman's response is extremely important in gaining an understanding of this important topic. Upon completing the questionnaire, many women write such comments as: "the information, statements and questions are interesting and thoughtfully done" and "completing the questionnaire helped me gain a better understanding of what's important to me".

I have extended the deadline for returning the questionnaire so that more women will have time to respond. I realize women lead very busy lives these days. Please mail the questionnaire in the envelope provided by November 16, 1994. If you do not wish to participate, simply return the unanswered questionnaire in the envelope provided and I will not attempt to contact you again. Thank you in advance for your participation in this research study.

Respectfully,

Elaine Evans, RN, MSN

ELAINE EVANS
DIVISION OF NURSING
MAIL-STOP T0500
STEPHENVILLE, TEXAS 76402

November 23, 1994

Dear Participant:

Approximately three weeks ago, I mailed questionnaires to 560 women. As one of these women, you were selected from either a list of registered voters in Erath county or registered nurses from one of eleven counties in central Texas. I am currently conducting research for my dissertation. I will examine relationships among roles, life pattern orientation, age, educational level, health and balance to gain a better understanding about the characteristics of lifestyle balance. If you have already returned your questionnaire, please discard this with my sincere thanks. If you have not responded, please reconsider. I have enclosed a second copy of the Lifestyle Balance Questionnaire for your convenience.

The two lists combined- registered voters and nurses- hold over 10,000 names. It isn't possible to send questionnaires to all of the 10,000 women. Therefore, I selected 560 women's names from these lists following a random selection procedure I learned in school. Because of the procedure used, the 560 women selected are considered to represent the group of 10,000 women. For research of this type to be valid, most of the 560 women selected must complete and return the questionnaire. To date, 245 questionnaires have been returned to me and 193 of these have been completed. I am very grateful for all those who have completed the questionnaire. However, it is my hope that at least 450 women will complete the questionnaire.

While I recognize the inconvenience of being asked to complete a lengthy questionnaire, your opinions are important in addressing this significant issue. Each person adds very important information to the study. The questionnaire can be completed in a short period of time. Most of the questions can be completed by circling a letter or number or checking or filling in blanks. There are no right or wrong answers. Many women report that they personally benefit from completing the questionnaire.

I have extended the deadline for returning the questionnaire so that more women will have time to respond. I realize this is a busy time of the year. A stamped self-addressed envelope is provided for you to return the questionnaire. To protect your privacy, no individual questionnaire responses will be used in the study report; all information will be reported as grouped data. No person other than myself will have access to your completed questionnaire. The questionnaires will be shredded when the analyses of the data is completed.

The return stamped addressed envelope provided has a number written on the back flap for the purpose of determining who has returned the questionnaire. Your questionnaire will be separated from the envelope and no attempt will be made to match your name with your questionnaire. If you do not wish to participate, simply return the unanswered questionnaire in the envelope provided and I will not attempt to contact you again. I would be happy to answer your questions and discuss comments, concerns or suggestions you may have about this study. I can be contacted at the address at the top of this letter or at (817/968-9717).

Please mail the questionnaire in the envelope provided by December 5, 1994. Thank you in advance for your participation in this research study.

Respectfully,

Elaine Evans

Elaine Evans, RN, MSN