AN ABSTRACT OF THE THESIS OF

Patricia A. Lacy for the degree of Doctor of Education in Guidance and Counseling presented on August 11, 1986

Title: The Impact of Selected Experiences on Women During Mid-Life Transition: A Retrospective Study

Abstract approved: Dr. James L. Firth

The purpose of this study was to examine the mid-life period of women's lives. It attempted to determine if this time is generally one of crisis, or more commonly a period of smooth transition. Furthermore, it attempted to determine if there is a typical pattern of emotional concerns experienced by women during mid-life.

The sample comprised sixty five women between the ages of fifty five and sixty years of age. They were drawn from a population of one hundred who were enrolled in classes at Truckee Meadows Community College, in Reno, Nevada, during spring, 1983. One hundred questionnaires were mailed out, and the sample consisted of sixty five respondents.

Retrospective data were gathered using a questionnaire developed
by the researcher for purposes of this study. The questionnaire consisted of a series of 27 items, each with five parts, asking for the respondents' recollections of pre-selected emotional concerns during the mid-life period. Each person was asked to indicate the presence of concerns, their strength, and the age level at which they reached their peak intensity. The choice of items was based on a review of relevant literature, and the items were submitted to a jury panel for validation. The items were compiled into five major categories: Mortality, Marriage & Sex, Health, Children & Parent, Life's Expectations & Satisfactions.

The findings of the study support the view that for most women, mid-life is a time of gradual transition, rather than an abrupt crisis. Nearly half the women reported that they had not experienced any concern in one or more of the categories of concern during the mid-life years. The overall trend showed little change or a slight reduction in intensity of concern with increasing age. Other patterns which occurred were a decrease in the proportion of respondents experiencing concern in the category of Children & Parent with increased age. An increase in the proportion experiencing concern in the two categories of Mortality and Health with increasing age was also present.

Assumptions made in the study were that those responding would accurately remember back to age thirty, and that they would
report these recollections honestly. An apparent limitation of the questionnaire occurred. A comparison of the responses of subjects on interviews following the same protocol as the questionnaire revealed some discrepancies between interview and questionnaire responses. This raises questions as to the validity of the questionnaire data, particularly of those respondents indicating no concerns.

Recommendations were made for the use of the data and questionnaire, particularly for counselors working with women during their mid-life transition. It was also recommended that the study be replicated using different populations, and involving the use of interviews to augment the questionnaire. A further suggestion was for the use of more longitudinal research methods to study women's patterns of normal psycho-social development and aging.
The Impact of Selected Experiences on Women During Mid-Life Transition: a Retrospective Study

by

Patricia A. Lacy

A THESIS

submitted to

Oregon State University

in partial fulfillment of the requirements for the degree of Doctor Of Education

Completed August 11, 1986
Commencement, June 1987
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Focus of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>7</td>
</tr>
<tr>
<td>Delimitations</td>
<td>8</td>
</tr>
<tr>
<td>Assumptions</td>
<td>9</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td>Summary</td>
<td>12</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE</td>
<td>14</td>
</tr>
<tr>
<td>III. PROCEDURES</td>
<td>31</td>
</tr>
<tr>
<td>IV. FINDINGS</td>
<td>38</td>
</tr>
<tr>
<td>Demographics of the Mid-Life Questionnaire Respondents</td>
<td>38</td>
</tr>
<tr>
<td>Statistical Analysis of Research Hypotheses</td>
<td>40</td>
</tr>
<tr>
<td>V. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>63</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>69</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>81</td>
</tr>
<tr>
<td>Appendix A: Letter to the Jury Panel</td>
<td>82</td>
</tr>
<tr>
<td>Appendix B: The Mid-Life Questionnaire to be Validated by Jury Panel</td>
<td>84</td>
</tr>
<tr>
<td>Appendix C: The Jury Panel</td>
<td>90</td>
</tr>
<tr>
<td>Appendix D: Memorandum to be sent to Truckee Meadows Community College</td>
<td>92</td>
</tr>
<tr>
<td>Appendix E: Letter to Subjects in the Questionnaire Development Preliminary Study</td>
<td>94</td>
</tr>
<tr>
<td>Appendix F: Questionnaire Development</td>
<td>96</td>
</tr>
<tr>
<td>Appendix G: Information Sent to the Survey Respondents</td>
<td>114</td>
</tr>
<tr>
<td>Appendix H: Mid-Life Questionnaire</td>
<td>118</td>
</tr>
<tr>
<td>Appendix I: Post-Hoc Pairwise Comparison of Cell Means: (Tukey HSD)</td>
<td>133</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mean Peak Intensity of Concern by Age level</td>
<td>56</td>
</tr>
<tr>
<td>2.</td>
<td>Trends in Mean Peak Intensity of Concern by Age Level</td>
<td>57</td>
</tr>
<tr>
<td>3.</td>
<td>Percentage of Respondents Experiencing Peak Intensity of Concerns by Age Level</td>
<td>60</td>
</tr>
<tr>
<td>4.</td>
<td>Trends in Percentage of Respondents Experiencing Peak Intensity by Age Level</td>
<td>61</td>
</tr>
<tr>
<td>5.</td>
<td>Correlation Between the Questionnaire and Interview on the Dimension of MORTALITY</td>
<td>100</td>
</tr>
<tr>
<td>6.</td>
<td>Correlation Between the Questionnaire and Interview on the Dimension of MARRIAGE/SEX</td>
<td>102</td>
</tr>
<tr>
<td>7.</td>
<td>Correlation Between the Questionnaire and Interview on the Dimension of HEALTH</td>
<td>104</td>
</tr>
<tr>
<td>8.</td>
<td>Correlation Between the Questionnaire and Interview on the Dimension of CHILDREN/PARENT</td>
<td>106</td>
</tr>
<tr>
<td>9.</td>
<td>Correlation Between the Questionnaire and Interview on the Dimension of LIFE'S EXPECTATIONS &amp; SATISFACTIONS</td>
<td>108</td>
</tr>
<tr>
<td>10.</td>
<td>Correlation Between the Questionnaire and Interview on Average Concern Across all Questions</td>
<td>110</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Questions Comprising the Five Categories of Concern on the Mid-Life Questionnaire</td>
<td>33</td>
</tr>
<tr>
<td>2.</td>
<td>Respondent Demographics: Number of Marriages</td>
<td>39</td>
</tr>
<tr>
<td>3.</td>
<td>Respondent Demographics: Number of Children</td>
<td>39</td>
</tr>
<tr>
<td>4.</td>
<td>Respondent Demographics: Education</td>
<td>40</td>
</tr>
<tr>
<td>5.</td>
<td>Intensity of Concern Across All Categories of Concern: Kolmogorov-Smirnov Test of Expection of Distribution</td>
<td>42</td>
</tr>
<tr>
<td>6.</td>
<td>Intensity of Peak Concern vs. Category of Concern: Chi Square Test of Independence</td>
<td>44</td>
</tr>
<tr>
<td>7.</td>
<td>Peak Intensity of Concern: Category of Concern vs. Age Level (Analysis of Variance)</td>
<td>46</td>
</tr>
<tr>
<td>8.</td>
<td>Proportion of Responses Expressing Concern About Each of the Five Categories on the Questionnaire</td>
<td>49</td>
</tr>
<tr>
<td>9.</td>
<td>Average Intensity of Concern on the Five Categories of the Questionnaire Grouped by The Age of Reported Peak Concern</td>
<td>53</td>
</tr>
<tr>
<td>10.</td>
<td>Rank of Intensity of Concern About Each Category by Age Level of Peak Concern</td>
<td>54</td>
</tr>
<tr>
<td>11.</td>
<td>Rank of Proportion of Peak Concern by Age Level of Peak Concern</td>
<td>58</td>
</tr>
<tr>
<td>12.</td>
<td>Comparison Between Responses During the Interview and the Responses to the Questionnaire: Average Concern and Correlation for Each Category</td>
<td>99</td>
</tr>
<tr>
<td>13.</td>
<td>Individual Subjects' Average Level of Concern Expressed on the Questionnaire vs. Their Concern Expressed During the Interview</td>
<td>112</td>
</tr>
</tbody>
</table>
The Impact of Selected Experiences on Women During Mid-life Transition: A Retrospective Study

CHAPTER I

INTRODUCTION

The adult years, in the study of human psychological development, have traditionally been neglected as an area of investigation while the periods of childhood, adolescence, and old age have been subject to considerable research. The middle years have only recently come under study.

The suggestion that psychological change occurs during adult years as one grows older and as one's life circumstances alter is supported by observations of the lives of others. The change in attitudes and values that sometimes appear in a person reaching his or her late thirties and early forties can be observed everyday. Frequently, adults whom one has not seen for some years are found to be quite changed in personality when met again. The mid-life transition period is a largely unexplored phase of the human life cycle, receiving relatively little attention from researchers. As Neugarten has pointed out, "We lack a developmental psychology of adulthood in the sense that we have a developmental psychology of childhood" (97:236).

There is little research or even speculation on human psychological development before the nineteenth century. However, the Bible as well as early Greek and Roman authors often used mid-life development and the second half of life as themes (8,14,24). These themes were generally "below" the primary theme, offering a second dimen-
The Biblical parable of the Prodigal Son provides a good example of underlying mid-life themes. Bridges argues that the parable of the Prodigal Son uses the long and circular journey as a metaphor for life. This pathway carries an individual out and away from himself only to turn mid way and return again to within himself, only now at a different level of understanding. This Biblical story speaks of the need to leave in order to develop. Viewed symbolically, each character embodies an aspect of the father, the central person. The prodigal son is the father's own dynamic and growthful nature, which the father celebrates. The other son represents the father's resistance to growth, change and development. It is a tale of a person following a vague inner restlessness. It can also be considered a metaphor for a cyclic movement toward closure. It symbolically depicts the universal experience of people returning to their essential selves (14,26).

Homer's story, The Iliad, is overtly concerned with preparations for and the conduct of the Trojan War. It is a tale of individuals struggling for mastery, testing competence, and being preoccupied with self-image. The Odyssey follows the seemingly endless journey of one of the Greek heroes, Odysseus, who is trying to get home after the Trojan War's end. Literally, the tale is most unlikely: Odysseus' three-week trip takes ten years. On a deeper level, the story deals with another kind of home-ward journey, an inward turning that brings Odysseus home after a season of doing the world's business. He returns to his former life, but as a person vastly changed by his experiences. It is his struggle to regain the inner source of power from which his early adulthood's quests started (14).

During this journey, Odysseus discovers he has
The worst of it all is that intelligent and cultivated people live their lives without even knowing of the possibility of such transformations; wholly unprepared, they embark upon the second half of life (58:16).

The same lesson is repeatedly offered Odysseus as he journeys toward home. It is significant that in each of Odysseus' trials his help comes from a woman. This epic is totally unlike *The Iliad*, where all the mentors were men (14,19). According to Bridges (14), it is no accident that Homer had Odysseus journey toward Penelope, who was waiting patiently at home: his ultimate destination is a reunion with his own feminine side (14:20). Throughout Odysseus' long journey home, he was confronted by one distraction after another, each of which has its meaning in the context of the mid-life experience. In *The Odyssey*, as in the second half of life's journey, Odysseus must turn to his feminine side to find the way.

Bridges states there are countless chronicles of both men and women finding their lives going stale or falling apart sometime between thirty-five and fifty years of age (14:48). Dante, for example, was thirty-seven when he was ostracized by the city of Florence and began to write the great *Divine Comedy*. The poem opens with the lines:
Midway in life's journey I was made 'ware
That I had strayed into a dark forest
And the right path appeared not anywhere (24:3).

The importance of the mid-life transitional period has been apparent in the lives of many famous people. Their lives seemed insignificant until mid-life, when their lives took on a new direction. George Bernard Shaw, who wrote his first piece of literature after forty years of age could have endorsed these opening lines of Dante's poem. Winston S. Churchill, popularly considered in his earlier political life a failure in politics and a drunk, later led England successfully through its darkest and finest hours after he was forty. Abraham Lincoln, who was considered a failure in politics, became one of our greatest presidents after he was forty. These men could have also endorsed those first lines of Dante's poem. There are women as well as men whose life experiences support the lines of this poem. Mother Theresa was thirty-nine and a nun for more than half her years when her whole life was reoriented and renewed by a vision (14:49). Pearl S. Buck, a woman known to the literary world, received both the Pulitzer Prize and the Nobel Prize after she turned forty (102).

Despite personal observation or experience of mid-life transitions, literary interest in it as a theme, and popular preoccupation with mid-life problems in an "aging" America, there has been virtually no scientific research on this subject. Behavioral science, in the past, has assumed that psychological development, which is described as being so dynamic in adolescence, ceases in adulthood, or at least goes through no orderly change for fifty years until the decay of senescence begins (42,60,64,88,96). Contrary to this view, the Social
Science Research Committee's progress report on Work and Personality in the Middle Years suggested that adulthood may encompass major life challenges and may be, for many, a time of sweeping personality changes (117). Gould noted that biological change takes place in a predictable cycle over the entire life span, not just in adolescence and old age (41). He asked why there should not be corresponding systematic psychological changes also taking place throughout life.

Levinson, who has published his study of male adult development and who is presently completing an extensive study of female adult development, has commented on the "tremendous neglect of development and socialization in the main adult years, roughly [between ages] twenty-sixty-five, [their] psychology, psychiatry, sociology, and so on" (70:244). Horrocks and Mussman agree with Levinson that developmental consideration of early and middle maturity has been essentially lacking (52).

There is agreement among these authorities that a basic description is needed of the psychological development that takes place during the middle years. Data must be accumulated on what people are feeling and experiencing to seek evidence of orderly patterns of psychological change in mid-life comparable to those found in adolescence and old age.

Focus of the Study

The subject of adult psychological development between the years of twenty and sixty encompasses some four decades of human life and an enormous variety of human behavior. Both the broad topic and the lengthy chronological span were beyond the scopes of this study; however, within the span of life from adolescence to old age, the mid-point occurs at about age forty. This age
marks a significant time in the life span, a point of transition from younger to older adulthood.

The forties are the years when the first visible signs of physical decline appear. They take such forms as wrinkling of the skin and sagging of the muscles (11:359). Decrease in physical energy also becomes apparent (121:360, 14:4). The forties are also a time of transition in the social role for most adults, from being parents at home with children to being alone with their spouse again (89). Perhaps the most universal experience is a growing awareness of death as a personal reality as one reaches the forties (93, 53, 64).

Increasing numbers of people are retiring early, changing to second careers, and obtaining an education in mid-life (112:2). Increasing numbers of women are entering or re-entering school or the labor market in the middle years (112). While it is clearly much too early to delineate many protocols for social intervention, a better understanding of the mid-life transition years may well suggest certain interventions in various occupational groups to facilitate personal and organizational goals. Conceivably these interventions might include shifts in the distribution of income and security levels in the career trajectory, and provisions for occupational sabbaticals to provide opportunities for further education for women.

The statistical, clinical and anecdotal evidence suggests that the special stresses of the middle years take their toll, as well as produce growth, and that education is significantly involved in that growth process for women (112). There is, however, considerable disagreement about the characteristics of mid-life transition, its causes, and how widespread an occurrence it is (91). A crucial theoretical issue is the degree to which mid-life personality changes are stimulated by
specific, external environmental experiences (93:14).

The mid-life transitional period is the focus of this study. In addition to contributing in general to the growing body of knowledge of the mid-life transitional process, this study specifically attempts to determine if a typical middle-aged transition has more the character of crisis or of gradual and smooth change. This study also attempts to identify the sequence in which concerns about mid-life problems occur and to ascertain if some concerns occur with greater intensity or frequency than others.

A survey taken by Dr. Nancy K. Schlossberg and Dr. Elinor B. Waters of nineteen women's centers offering counseling revealed that there is a broad range of problems confronting women during mid-life (127). Among the most severe concerns are lack of confidence in themselves and a lack of knowledge about the major mid-life changes they are facing (99,127).

Counseling centers that help mid-life women have proliferated over the last decade and a half (127). They link adults with resources for learning, earning and emotional support. However, one questions how well these centers can provide counseling services when so little is actually known about the prevalence, intensity and time course of their clients' mid life concerns. Mid-life women need empathy and assurance that other adults have similar concerns and uncertainties. The counseling centers need to reach out to these women with understanding of their concerns (99,127).

Statement of the Problem

This study investigated the impact of selected developmental life experiences on women during mid-life transition. A retrospective approach is utilized.
The study attempted to answer the question:
Is there a typical pattern of experiences
characteristic of women during mid-life transition?

It was the purpose of the study to:
1. Determine if middle age transition in women has
   more character of crisis or of a gradual smooth
   change.
2. Define and enumerate the concerns experienced
   in the middle age by women.
3. Compare the frequency and intensity of women's
   concerns for possibility of predictable
   patterns.
4. Identify the sequence in which concerns occur.

The findings gathered by this investigation will con-
tribute to the identification and understanding of the
issues and tasks experienced during mid-life transition.

The basic questions posed in this study were answered
through a series of null hypotheses.

Hypothesis 1: There will be no significant differences
among the four levels of intensity of con-
cern across all categories of concern.

Hypothesis 2: There will be no significant differences in
peak intensity of concern for each of the
categories of concern.

Hypothesis 3: There will be no significant interaction
between the intensity of concern and the
age level at which the concern occurred.

A priori probability level of \( p \leq .05 \) was set as a
reasonable decision level for this study.

Delimitations

1. This study was limited to women between the
   ages of fifty and sixty.
2. The subjects attended Truckee Meadows Community College in Reno, Nevada, 1983, Spring Term.

3. The study includes only those items on the Mid-life Questionnaire validated by a jury panel of experts in the field of human development.

Assumptions

The following assumptions are essential to this study:

1. Memories and recollections of the subjects are valid representations of earlier life experiences and their time and sequence of occurrence.

2. Subjects in the study completed the questionnaire honestly, without intent to bias or mislead.

Definition of Terms

The following definition of terms are used in this study:

MID-LIFE: For operational purposes in this study, will be an age range bounded by the lower limit of thirty years of age and fifty-five years of age as the upper limit.

RE-ENTRY: For the purposes of this study, re-entry will mean women who have returned to school to further their education.

TRANSITION: A time span between one stage of life and another. It is a time when one is not completely out of one stage and not completely into a new stage. It is a
point in the life course which may occasion considerable turmoil, confusion and struggle with the environment and within the self, or may involve nothing more than quiet reassessment and intensification of effort. It clearly is marked by important changes in structure and internal commitments which presage the next stage of development.

MID-LIFE QUESTIONNAIRE: This is a tool designed to assess the respondents' view as they reached maturity (age 55 - 60) as to the relative satisfaction or dissatisfaction with their coping skills during transitional periods. For example one pattern described in the literature, (55,58,88,99) indicates an adult's deep concern with his/her own morality occurs at approximately age forty. The Mid-Life questionnaire, contains four different opportunities for respondents to address this specific issue. Each term in the Mid-Life Questionnaire was used to designate a specific focus in the subject's life process. The terms may not represent discrete categories as one may see the overlapping of life and family developmental patterns, however, the categories do highlight the most dominant affective responses when such issues were presented. The five categories used in this study are as follows:

MORTALITY: The term mortality refers to the subject's concern about her own life and death. The subject reflects her awareness of her own probability of dying, its cause, and the effects of her death on others. The respondent is asked to indicate at what point she has become aware that her life will end and she will separate from her loved ones.

MARRIAGE/SEX: The questions in this category assess the respondent's views of her sexuality, particularly as it relates to happiness or satisfaction in marriage or long-
term partnerships. For subjects who remained unmarried or partnerless throughout their lives, responses were elicited in terms of how such an absence was regarded and if the respondent felt she missed out on a key life experience. Respondents were also asked to evaluate their views of the changes in their sexual practices, and to reflect on their views of their own sexuality as changing as they approached mid-life.

HEALTH: This category contains items which address issues about physical changes which subjects undergo as maturation occurs. These include natural biological occurrences, as well as the onset of illnesses often associated with the aging process. The subsequent physical limitations often suggest psychological consequences, such as depression or loss of self-esteem, or such as described by Erikson's theory of stagnation.

CHILDREN/PARENT: This area includes the subjects' focus on her role as a mother and her changing status when her children reach adulthood and loosen or sever close ties. The subject is asked about her emotions as she faces what she can do with her life, once she's not playing a vital role as a parent. Also, subjects who failed to parent are asked how they feel about their having missed such an opportunity.

LIFE'S EXPECTATIONS AND SATISFACTIONS: The investigation in this category is focused on the respondents view of her feeling of satisfaction with her life. She is asked if her transitions were easy or difficult and if she regards herself at present with high or low esteem. The subject is asked to reveal whether she retained her identity as she pursued her goals. In essence, the focus of this category suggests the question "Was it all worth it?".
Summary

The need for more understanding of the human developmental process during adult life is greater today than ever before in history. The life expectancy of Americans has increased from the forties in 1900 to nearly eighty at the present. Today at forty a person can expect to live another thirty to forty years longer and in relatively good health.

A greater understanding of the emotional concerns which are experienced in the mid-life transition period would allow the helping professions to assist people in negotiating this difficult period of their lives.

In addition to contributing in a general way to the existing knowledge of the mid-life transition period for women, this study specifically provides, at least for the population under study, an indication of whether the life stage negotiated in middle age has more of the character of a crisis or that of a gradual transition. This study defines and enumerates the emotional concerns experienced in mid-life. It also examines the predominance of certain emotional concerns over others in their frequency or intensity. An inventory of such emotional experiences would have diagnostic and research utility in the area of counseling and human services. The knowledge obtained from this survey can help counselors to become aware of the kinds of experiences the women they counsel will face at mid-life. It can help the counselor give mid-life women empathy and assurance that other adults have the same concerns and uncertainties as they do.
The next chapter reviews the relevant literature and studies in the area of adult mid-life development.
CHAPTER II

REVIEW OF LITERATURE

This chapter reviews theoretical and empirical work in the area of adult mid-life development.

The following descriptors were utilized in conducting the literature review: conflict, interpersonal, mid-life, middle age, young adult, mid-life crisis, mid-life transition and career change in women. A computer search, using LIRS (Library Information Retrieval System) at Oregon State University yielded fifty-six pages of appropriate references dating back to 1965. This chapter reviews this work in chronological order.

The mid-life transition is more than another time of reassessment; it is a turning point between life's two halves, a time of reorientation from the tasks of the first half to those of the second.

Recent research in the area of adult development has added to the foundation of this knowledge. However, the majority of human development research focuses on childhood, adolescence and elderly years. Furthermore, most of the studies done on adult development have primarily used male populations. Theories dealing with the mid-life transition in women were found to be rare (92).

Discussions of the broader subject of psychological development in the middle years are few in number when compared to the amount of writing on the psychological changes occurring in adolescence and senescence. Current studies are beginning to confirm that adults experience conflicts, hopes, dreams, disappointments and urges just like any other age cohort. However, since the research is new and emerging, adults in mid-life transition can draw little comfort from it. Rather, they must continue feel-
ing their urges and impulses are theirs alone; they believe that they must be unique in a negative sense and that they are not fully grown if they seek to share their complicated feelings with others. As a result, many individuals are faced with special challenges from the emerging recognition of the nature of adult needs. On the one hand, there is the need to understand the process of change which adults experience. On the other, there is the need to develop appropriate strategies to help adults find solutions to dilemmas which may become magnified in later life because of the constraints of time which add a heightened urgency to their lives.

The developmental theory presented by Freud gained wide acceptance during the early twentieth century. This theory was incomplete in that it covered early childhood development but stopped short of adulthood. Freud's theory stressed early childhood development.

Carl G. Jung, an early follower of Freud, extended his theory to encompass the developmental progression into young, middle and old adulthood. Jung's commentaries on the psychology of middle life were published in various forms in the early 1900s. He postulated problems that humans meet at different life stages. Jung traced the origins of these problems to the existence of civilization. Primitive man, Jung contended, was free from such psychological concerns during development because he acted purely from the unconscious or from instinct. Problems exist for civilized man because he acts from his conscious state: he reflects, doubts, experiments and makes decisions, thus turning away from simple instinctive action (59). Middle life and its attendant psychic problems, Jung declared, begin for the individual between the ages of thirty-five and forty. He reported a rise in frequency of mental depression in men about age forty (56). The
neurotic difficulties in women generally began somewhat earlier. In this phase of life, between thirty-five and forty, an important change in the human psyche occurs.

Jung believed neurotic disturbances of the middle years were all rooted in a common tendency to enter later life with what he termed the "psychic disposition of youth" (58:17). He described man as shrinking back from the last half of his life, not because of a fear of death, which is still relatively distant, but because of a deep rooted and peculiar change in the psyche. Jung compared man's life to the course of the sun, rising and following its course to an unforeseen zenith: unique for every individual. The descent from the zenith is a contradictory reversal of the ideals and values which were important during the ascending period (57).

Middle life to Jung is a time of enormous psychological importance: instead of looking forward, people involuntarily look backwards most of the time, and begin to see how their lives have developed up to this point. These insights do not come easily; they are gained only through the severest shocks (57). Even people with high intelligence, Jung found, come upon the upheavals of the middle years totally unexpectedly:

Thoroughly unprepared we take the step into the afternoon of life; worse still, we take this step with the false preposition that our truths and ideals will serve us as hitherto. But we cannot live the afternoon of life according to the programme of life's morning, for what was great in the morning will be little at evening, and what in the morning was true will at evening have become a lie (58:17).
Closely following the publication of Jung's lectures, an authoritative description of the patterns of development and change across the adult years was presented by Charlotte Buhler in Austria in 1932. From an analysis of over three hundred biographies of males and females in psychosocial and psychobiological terms, Buhler identified three phases which she described as expansion, stabilization and restriction. These parallel the biological curve of life (20).

Many biologists divide the life span into three growth phases. The first, lasting until about twenty-five years of age, is called progressive growth. The second phase, lasting until almost forty-five, is called stability of growth and the third phase is called decline or regressive growth. Other biologists divide the biological development on the basis of reproductive capacity, designating also three periods marked by the acquisition, the possession, and the loss of reproductive ability (34).

Buhler concluded that despite the individual irregularities there is a regular sequence in the events, experiences and attainments in life. In the first part of life, human beings are concerned with enlargement of opportunities, positions and activities as well as with the increase of their knowledge, abilities, pleasures and diversions. Buhler characterized the middle years of the life cycle as being occupied with the process of maintenance. This process is carried out through a predominant tendency present in mankind during mid-life, a tendency toward "restoring inner order" (19:407). To accomplish this restoration, the mid-life adult is described as engaging in extensive assessment of his past life and of himself.

Buhler concluded that while physical factors such as strength and beauty are emphasized in early life, spiritual factors are stressed in the later part of life. She
described a phase paralleling the mid-life transition as beginning about age thirty. "At about thirty years of age a change occurs with amazing coordination: we find in all correspondents of this age expressions of a need for that which is infinite: the 'right' definite possession or the 'right wife'" (19:409).

A student of Buhler's, Else Frenkel-Brunswik, extended Buhler's work to a biological curve of life with five parts. Frenkel-Brunswik calls her curve of life the "General Biological Curve of Life." (34) She suggested that five major psychological phases can be identified and that a psychological curve of life parallels the biological curve, but is somewhat retarded when compared with the biological curve.

Frenkel-Brunswik suggests that, just as in the biological structure, the psychological structure of the life curve can be divided into phases which are clearly demarcated from one another at certain turning points. She divides Buhler's first period into two phases. Phase one begins at birth and continues until about the age of fifteen years. It centers around a narrow group of interests focusing on the individual, school and family. Phase two begins between the years of sixteen and twenty, the average age being seventeen. It is characterized by the individual's entrance into a self-chosen and independent activity and by the first independently acquired personal relationships. Frequently, this turning point is accented by the youth leaving home (34). Phase three is similar to Buhler's phase two. It begins between twenty-six and thirty years of age, paralleling an equivalent phase in the biological curve. During this long stable phase the individual makes a definite choice of vocation. This is usually the most fruitful period in professional and cre-
ative work. Frenkel-Brunswik agrees with Buhler that this phase is also occupied with the process of maintenance (19). Frenkel-Brunswik divides Buhler's final phase into her phases four and five. She found the average age for phase four is around forty-eight years. In this phase, the individual begins to notice a decrease in the amount of activity and "negative dimensions" begin to appear. Bodily strength begins to decline. The individual is also strongly affected by losses of personal and economic nature. The transition to phase four is marked by psychological crisis, renewal of unrest, inclination toward day dreaming, loneliness, and tendency toward retrospection; philanthropic activities begin for the first time and there seems to be a decrease in participation in athletic events (34). This parallels the biological crisis (menopause) which appears in women in this phase.

The turning point for phase five is usually either retirement from one's profession or sickness leading to death. According to Frenkel-Brunswik, in this phase there is a decrease in the factual and social dimensions and hobbies increase in frequency. Retrospection, the writing of memoirs and the death cult are all very characteristic of this period (34). Analogous to the first phase, which seems to stand on the periphery of life but does not yet take place in it, the fifth phase finds the individual more or less "after" life, in that the person has loosened the ties and has given up the plan of life which he has been built up for himself (34).

Erikson's developmental theory encompasses the evolutionary development of the entire human life span. He proposed that eight stages of ego development occur during a life time. These stages are based on Freudian ego psychology and influenced by social reality. Erikson's theory constitutes the nuclear conflict of crisis for the
ego at each developmental stage. Through clinical observation, Erikson noted each life stage unfolds in sequence. Each is triggered by a turning point of increased personal vulnerability and potentiality, and each confronts the individual with central issues demanding resolution. Each stage represents a choice or crisis for the expanding ego.

The central issues confronting the mid-life person are those of the seventh stage, called "generativity" vs. "stagnation." Erikson described generativity as including procreativity, productivity and creativity (29:267). He further defined it as broadening of ego interest away from the self of toward creating a new world for the young of the next generation (29,33). The other choice, stagnation, suggests an arresting of ego development and a regression to an earlier stage of obsession with self. Generativity is an essential stage on the psychosexual level as well as on the psychosocial level. If this enrichment fails, regression to an obsessive need for pseudo intimacy takes place, often with a pervading sense of stagnation and personal impoverishment. Individuals often begin to indulge themselves as if they were "...their own - or one another's - one and only child" (28:267). If the deep seated human desire for continual personal growth becomes the primary concern, it can result in self absorption, stagnation and incomplete transfer. At this point in the life cycle that a struggle results between growth of the ego and stagnation ensues. The resolution of these two forces, Erikson maintained, is the essential job of the adult. This conflict contributes to a crisis in mid-life (11).

Jung and Erikson share a view of mid-life as a time of deep change in the individual. Jung saw an essential change in psychic disposition taking place; Erikson described changes in ego interest away from oneself toward
a concern for the welfare of the next generation (28:57). Buhler disagrees with the notion of mid-life as a time of change, characterizing it instead as a period of maintenance. However, the process of restoring inner order that she also presents implies change in one's psychic disposition (19). These theorists clearly agree that taking stock or looking back over one's life and appraising it is characteristic of the mid-life change.

Dr. Bernice L. Neugarten of the University of Chicago Psychology Department posits that age is not a meaningful marker of the mid-life transition (94). She focuses on the timing of events in the lives of individuals. Neugarten states the rhythm of the life cycle is being altered in America, that is, biological timing as well as the social timing is changing. She further suggests that factors of timing are central to an individual's self concept, especially to the person approaching mid-life transition (97). The individual, Neugarten contends, passes through a socially regulated cycle from birth to death as inexorably as he or she passes through the biological cycle (92). The cycle consists of succession of socially delegated age-statuses, each with its recognized rights, duties and obligations. The individual's life is punctuated with marker events: first day at school, high school graduation, either college or first job, marriage, first child, first child going to school, launching children from the home, reaching the peak of one's occupational career, the climacteric, grandparenthood, retirement, the onset of chronic illness, and widowhood (96). While these marker events tend to occur in a roughly predictable sequence, they occur at very different ages to different people. Neugarten contends the marker events during mid-life transition are launching children from the home, reaching the peak of one's occupational career and
possibly the beginning of serious health problems (96). Her investigations of persons aged forty to seventy years of age, from varied walks of life, revealed an emphasis upon introspection and stock-taking, and upon conscious reappraisal of self (98).

In another of her studies, using one hundred highly placed men and women, such as university graduates, businessmen, professional and artistic leaders, Neugarten concluded that the subjects found life restructured in terms of time left to live, rather than time since birth and concluded that this is characteristic of mid-life transition. The subjects became aware that time is finite, aware of aging, aware of themselves as well as the need to nurture others, and aware of their need to act as their own mentors. They felt a sense of new freedom, a personalization of death, along with new pleasures of sexuality and awareness of body monitoring (98). The person in mid-life transition used these new found awarenesses for primary cues in clocking self rather than relying on chronological age. Neugarten calls this time in one's life "sponsoring issue" or "the creations of social heir" (98:890). Erikson calls it "generativity" (30). Neugarten focuses on this time of life as a major turning period in the life cycle.

Daniel Levinson developed a theory based on a ten year longitudinal study of men from ten to forty-five years of age. His theory deals with the development of the individual life in the broadest sense (70). Levinson's adult development theory grows out of the intellectual tradition of Freud, Jung and Erikson. He believes the life cycle evolves through a sequence of eras, each lasting roughly twenty-five years. The eras are partially overlapping, so a new one is getting under way as the previous one is being terminated. The sequence is as follows: 1) child-
hood: birth through twenty-two years, 2) early adulthood: seventeen years through forty-five years, 3) middle adulthood: forty through sixty-five years, and 4) late adulthood: sixty until death (70). According to Levinson, an era is a "time of life" in the broadest sense. The primary concept is individual life structure. Levinson's life structure has three parts: 1) nature of man's sociocultural world, 2) man's participation in this world and 3) man's aspects of self. Man focuses on the patterning of the three aspects of life structure and gives them equal weight in his development (66:100).

Adult development is the evolution of the life structure, Levinson suggests. It goes through a sequence of alternating stable periods and unstable transitional periods. Stable periods last typically six to eight years (67). Levinson's theory does not predict events (70). He argues the meaning of an event and its impact on the individual will depend on the developmental period and the life structure in which it occurs.

The mid-life transition period is perhaps the major life transition in Levinson's theory. It usually lasts four to six years and begins around age forty. The end of this transition serves as a bridge between two eras in the life cycle: early adulthood and middle adulthood (67). During this major life transition the life structure comes into question and cannot be taken for granted. Such questions as this are asked: "What have I done with my life?", "Where am I?" and "Where am I going?". A person questions his desires, values, talents and aspirations. Levinson argues it is important to recognize that one is working on normal mid-life transitional tasks during this time. The compulsion to question the desire to enrich one's life stems from the most healthy part of the self. The person must learn to listen to the voices from inside himself and
then decide what parts these voices will have in his life. At this time he is more able to look at himself and to deal with illusions about himself (70).

During the mid-life transition, Levinson found, men feel trapped without clear direction. They are pulled in opposite ways from without themselves and are full of conflict and despair from within. Levinson shows his connection with both Jung and Erikson when he asserts that to change and not become stagnant, one must engage in the process of mid-life individuation. Steering a course somewhere between the primary emphasis of Erikson and the tremendously complex approach of Jung, Levinson suggests four tasks must be confronted and re-integrated as one progresses through the mid-life transition (70). One must confront and re-integrate the great polarities that need to be re-evaluated in every developmental transition. One must be able to see oneself neither young nor old, to accept one's feminine as well as one's masculine side, to acknowledge his destructiveness and his creativeness, and to see his attachments versus one's separateness (67,70).

The key developmental task of mid-life transition, according to Levinson, is to outgrow some of the immaturities and illusions of youth and build a fuller, more balanced life (70).

Although most studies of mid-life transition discussed so far have focused on men, Dr. Levinson disclosed in correspondence with this researcher in May, 1983, that he is currently working on a book which will summarize the findings of a ten year longitudinal study of women. Others too have begun to study adult development in women. For example, during a study for her dissertation in clinical psychology at Teachers College, Columbia University in 1976, Wendy A. Stewart found that women in their mid-thirties go through similar developmental periods as do
men. Stewart noted some of the specific issues were different, in particular, the issue of personal identity, which may have been set aside by the young woman while she tended to her children's and her husband's needs (71).

Few studies have attempted to rank the importance of the various concerns of people in mid-life transition. Through anecdotes, written questionnaires and personal histories, Dr. Roger Gould studied almost a thousand subjects. His studies have convinced him most problems of adult crisis and change are age related. He found that adults reaching the mid-life transition begin to feel a sense of urgency as their lives seem to speed by. The dynamics of change, Gould believes, can be satisfying or devastating to the individual. Understanding the often painful path one follows can help one make the right choices for oneself. Gould argues that an adult must understand that for every adult step he takes away from childhood consciousness, for example, leave-taking, marriage, career, birth and death, there is also a normal and natural period of mourning and discomfort (41). Each step one takes and tries to understand helps shed the assumptions, rules and irrationalities one establishes in childhood. For instance, Gould found many women wondering why they were so "foolish" in their twenties to live by rules that were seen as unimportant in their forties (39).

In his research, Gould sought to establish the presence of developmental stages in adults between nineteen and sixty years of age. Male and female participants in his investigation were assigned to one of six age groups. This dissertation is concerned with two of Gould's age groups: thirty-five to forty-three years of age, and forty-three to fifty years of age. In the age group thirty-five to forty-three years of age, adults in Gould's sample increased their questioning of their identity, their values and the meaning of life. This group was characterized
as asking, "Have I done the right thing?" and "Is there time to change?" (42). In contrast, the group forty-three to fifty years of age demonstrated a resignation to the passing of time and displayed increased self-acceptance, even though they were aware that little time remained.

Dr. Marjorie Fiske Lowenthal and her associates in the Human Development program at the University of California in San Francisco focused on major transitional periods of adult life. The subjects of these studies were mainly middle to lower-middle class (78). One of their most comprehensive studies was published in 1975. This study encompassed the period of life from adolescence, sixteen to eighteen years of age, to a mean age of sixty for the pre-retirees. Four groups of male and female participants were studied in a cross-sectional approach. The four groups were: 1) seniors in high school, 2) newly married couples, 3) middle-aged parents whose children were beginning to leave home and 4) couples in their pre-retirement years. Although, the study did not focus exclusively on the mid-life transitional period (78), nevertheless, the psychological stresses experienced by the groups in this study confirm and enlarge on those experiences reported in other studies that did focus on the mid-life transitional period.

One of the conclusions drawn from Lowenthal's study was the recognition that orientation toward youth in mainstream American culture produces emotional stress in mid-life persons. Realizing they were aging, mid-life persons suffered a loss of self-esteem. The mid-life male saw himself as cautious or orderly, as plodding along, feeling that something was missing from his life (78). Lowenthal noted that in the mid-life transition one is in a period of staggering and unprecedented social change (79). She further commented that the latter half of life seems to involve confronting a series of identity crisis.
Adults become more diversified as they age, and are more influenced by society, history, culture and natural environments. Perhaps most importantly, in mid-life people become capable of re-thinking their past, assessing the present and anticipating what their future will be like. This critical transitional period may or may not generate energy for new growth. Thus, Lowenthal points out, many frustrated adults seek out passive solutions or escapes like burying themselves in television. They accept bits and pieces of the world as others see it, rather than selecting for themselves and creating their own new lifestyle (79). She continues by pointing out this confrontation is not unlike the situation faced by adolescents in their struggle for maturity.

A Harvard psychiatrist, George Vallaint, published a report on the Grant Study which was conducted over a thirty-five year period. It was a study of a group of ninety-eight men from the classes of 1942, 1943, and 1944, from an unnamed college (121). The subjects were the elite of white males. The Grant Study provides one of the few thorough histories of the life cycle of specific individuals, a long view of the maturational processes of men who were among the nation's best and brightest (122). This study is about strategies of coping and of ego development. It reveals how some men reacted ingeniously to life's challenges and succeeded, while others remained locked into patterns of defeat. Vallaint's main interests were: 1) how people coped in various stages, 2) how their values and commitments changed from early to middle adulthood and 3) the kinds of problems men in their early fifties encountered. He concentrated on the inner strengths and weaknesses of the individuals.

Vallaint did not link growth to particular ages of life stages, nor did he find there are tasks and crises common to any particular periods of the life cycle. He
found patterns and rhythms in a man's life cycle, and that the lives of the men in the Grant Study fit the model outlined by Erikson's eight stages of life.

The Grant's Study offers hope that social scientists may make sense from apparent ambiguities in the troubled lives of mid-life people. Even though the subjects were male, some of the concerns they faced throughout the study are common concerns researchers have found troubling women. The confrontation with one's mortality, introspection during the mid-life transition and becoming one's own person are all concerns the men of the Grant Study faced. They are also concerns women face as they enter into the mid-life transition (55,60,81,93).

Sheehy researched the life stories of one hundred and fifteen middle class American men and women, ages eighteen through fifty-five. Her purposes were to 1) trace inner change in her subjects, 2) compare the developmental patterns of men and women, and 3) examine the predictable crises for couples (112). She concluded that men and women continue "growing-up adult" from eighteen to fifty years of age (113). She argues the passage for men and women is the same but the development rhythms are not (112). For example, they begin to struggle against the constraints of their particular gender roles. Many troubled men find themselves wanting to learn how to be more responsive. After all the years spent on building a career, they often turn back to their family and home. Their tenderness begins to flow just when their children are demanding distance or have already left home (112). Women find themselves no longer satisfied to be home with their children or to be the silent carriers of the dream.
that formerly made them feel safe. They are being confronted with a surge of initiating or aggressive behavior (111).

Summary

As the individual enters the mid-life transition he or she is confronted with a period of intense introspection (55, 58, 67) and a variety of mysterious physical changes (14, 93, 98, 117). There is a need to reaffirm the meaning of life (29, 55, 58). Thinking now in terms of time left to live, the individual begins to search for reasons either to continue life as it is or to find a new life style (55, 93).

A review of the research on the mid-life transition period reveals some common findings. The most general finding is that the span of years between the late thirties and forties is a time of relatively high emotional stress which subsides in the fifties. The manifestations of that stress are in the form of a variety of emotional concerns appearing during the middle years. Among the most frequently cited concerns are those pertaining to aging and its concomitant physical decline. A general dissatisfaction with life is also commonly found, together with more specific dissatisfactions in the areas of feelings of mortality and the marital relationship. The evidence is also clear that mid-life is a time of stock-taking or self-appraisal, and consequently often a period of lowered self-esteem. Some events the individual experiences during mid-life transition were reiterated throughout the literature and studies reviewed. As an example, changing roles for both men and women have been documented in many studies and observations (70, 72, 100, 101). However, a careful review revealed no
studies specifically enumerating or refining the experiences confronted by women.

Chapter three deals with the procedures used by the investigator for analyzing the surveyed data results.
CHAPTER III

PROCEDURES

This chapter describes the procedures used by the investigator for analyzing the surveyed data. The investigation concerns the impact of selected experiences on women during mid-life transition.

One hundred women between fifty-five to sixty years of age those enrolled in Spring, 1983 at Truckee Meadows Community College were studied.

Population

The study was limited to women between the ages of fifty-five and sixty years of age who had returned to school to further their education. The sample consisted of sixty five subjects who completed and returned the survey questionnaire from an original mailing of one hundred questionnaires. These subjects attended Truckee Meadows Community College in Reno, Nevada, during Spring Term, 1983.

The age range was selected because the data collected involve retrospective reporting. The sample had to be past the age of the assumed transitional years in order to recall the events of those years. Most of the literature places the boundaries on the transitional period from thirty-five to forty-five years of age (42,52,69). It is likely, therefore, that by age fifty-five the majority of subjects are past the critical period of emotional stress and are in a position to recall their experiences.
Method of Gathering Data

The data were retrospective in nature and were collected by questionnaires sent through the mail. One hundred questionnaires were distributed, and sixty-five were returned and usable yielding a 65% response rate. Vallaint supported the uses of the retrospective method for gathering data (112). He noted that participants in the Berkeley Study, when in adolescence, described their childhood relationship with their mothers in a manner which correlated highly with the observations of the relationship made by investigators at the time.

The precedents for using retrospective data are authoritative. Charlotte Buhler's School of Developmental Research, which she started in Austria approximately seventy-five years ago, depended heavily on biographical and retrospective data. Social research at the University of Chicago, led by Bernice Neugarten, continued to use this approach in addition to the favored, but-time consuming, longitudinal method (93). The field of psychiatry has used retrospective data almost exclusively where the techniques of psychoanalysis have depended on the individual's recall of past experiences.

This researcher acknowledges that people differ in ability to recall. However, despite this limitation the researcher decided that the retrospective approach was appropriate for this study.

Mid-life Questionnaire

The research instrument developed for this survey is a Mid-life Questionnaire (Appendix H). The instrument has twenty-seven items, each with five possible responses. The instrument gathered data to answer the question: Is there a pattern of experiences characteristic of women during
mid-life transition? A complete description of the development of the questionnaire may be found in Appendix F.

Twenty-seven questions were developed by the researcher, based on significant theoretical factors identified during the review of literature. The literature suggests that emotional experiences play the most significant role for individuals during their mid-life transitional period (30, 42, 55, 93, 112). Therefore the questionnaire asked respondents to evaluate the intensity of their emotional response (concern) to five categories of mid-life issues. The five categories represent a necessary consolidation of items for the purposes of statistical analyses. They are theoretically based, rather than empirically validated. Each item was assigned to a category based on its face validity as representative of the categorized dimension. No attempt was made to factor analyze the items to verify that they do, in fact, represent five discreet variables (Table 1).

TABLE 1: Questions Comprising the Five Categories of Concern on the Mid-Life Questionnaire

<table>
<thead>
<tr>
<th>Category</th>
<th>Question Numbers</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORTALITY</td>
<td>1, 2, 3, 20, 24</td>
<td>5</td>
</tr>
<tr>
<td>MARRIAGE/SEX</td>
<td>6, 7, 8, 9, 16, 17, 18, 19</td>
<td>8</td>
</tr>
<tr>
<td>HEALTH</td>
<td>11, 12, 14, 27</td>
<td>4</td>
</tr>
<tr>
<td>CHILDREN/PARENT</td>
<td>4, 5, 23, 25, 26</td>
<td>5</td>
</tr>
<tr>
<td>LIFE'S EXPECTATIONS AND SATISFACTIONS</td>
<td>10, 13, 15, 21, 22</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL: 27

After the questionnaire was devised and refined it was submitted to a jury panel of twelve for review (see Appendices A, B and C). This panel of experts was asked to
determine whether the items in the instrument were very appropriate, appropriate or inappropriate to this study.

Each member of the panel was sent a letter requesting evaluation of the instrument. One hundred per cent of those questioned returned their evaluation. All responded favorably to the items in the instrument. Four panelists judged one item each to be inappropriate. No single item was judged inappropriate by more than one expert. None of the panelists advised that any item be definitely excluded. The investigator concluded that the weight of the jury's opinion favored all items.

From the hundred women in the study population, ten were randomly selected for the initial testing and validation of the mid-life questionnaire. The methods and findings of this preliminary study are presented in Appendix F, "Questionnaire Development."

After the preliminary study determined the instrument's adequacy, the mid-life questionnaire was mailed to the other ninety women in the study. Two weeks later there was a second identical mailing to those who had not yet returned the questionnaire.

The responses to the Mid-Life Questionnaire were tabulated and analyzed to answer the questions posed in the statement of the problem.

The questionnaire method was adopted as an alternative to individual interviews. The researcher was concerned that the questionnaire have concurrent validity. To evaluate this the Pearson product moment correlations (r) were computed between the responses to the questionnaires for all of the respondents in the preliminary study. All responses of the ten subjects were pooled for this analysis.

Individual questions in the questionnaire were grouped by content into categories of MORTALITY, MARRIAGE/SEX,
HEALTH, CHILDREN/PARENT, AND LIFE'S EXPECTATIONS & SATISFACTIONS. Pearson product moment correlations were computed for each of these categories between the interview and questionnaire responses.

For each of the ten respondents, Student's paired t-test was applied to the respondents from the interview and questionnaire. This was to test whether individual subjects answered differently to the questions in the interview setting than on the questionnaire.

Content validity was also a concern to the researcher. The researcher determined that the instrument as having adequate validity by using a jury panel of experts in the field of adult development.

Based on these tests of validity the researcher decided the instrument to be adequate for purposes of the study.

No attempt was made to assess the reliability of the instrument. The researcher evaluated the effect of the questionnaire in sensitizing the subjects to the content. This was done by administering the questionnaire, prior to the interview with half the sample, and following the interview with the other half of the sample. No consistent pattern was found which would indicate the questionnaire was biasing subjects' responses.

Operational Hypotheses

Hypothesis 1: There will be no significant differences among the four levels of intensity of concern across all categories of concern.

Hypothesis 2: There will be no significant differences in peak intensity of concern for each of the categories of concern.
Hypothesis 3: There is be no significant interaction between the intensity of concern and the age level at which the concern occurred.

A priori probability level of $p \leq .05$ was set as a reasonable decision level for this study.

Procedures for Statistical Analysis

The following statistical procedures were used:

(63,109,129)

1. Individual questions in the questionnaire were grouped by content into categories of: MORTALITY, MARRIAGE/SEX, HEALTH, CHILDREN/PARENT and LIFE'S EXPECTATIONS AND SATISFACTIONS (see Table 1).

2. The first tabulation dichotomized the subjects' responses between those which expressed some intensity of concern about issue specified by the question, and those which expressed no concern about the issue.

3. The Kolmogorov-Smirnov test of goodness of fit (129:473) was applied to determine whether or not the observed proportion (expressed in frequencies) conforms to the expected proportions.

4. The Chi Square Test of Independence was used to test where the rank distribution of intensity was independent of the category of concern. i.e., MORTALITY, MARRIAGE/SEX, HEALTH, CHILDREN/PARENT and LIFE'S EXPECTATIONS AND SATISFACTIONS.

5. A two way analysis of variance (ANOVA) was conducted to determine the effect of category of concern and age of peak concern on intensity of concern.
6. Since the ANOVA test was significant, a multicomparison test was used to determine which of the various combinations of cell means were significantly different. The Tukey HSD (Honesty Significantly Different) technique was applied.

Summary

This chapter described the research method proposed to answer the question: Is there a typical pattern of experiences characteristic of women during mid-life transition? It further discussed the sample, the development of the instrument, and the statistical procedures used to analyze the data.

Chapter IV will describe the findings for this study accompanied by tables and graphs of the results.
CHAPTER IV

FINDINGS

The findings for the study are herein described, accompanied by tables and graphs of the results. The investigation concerns the impact of selected experiences of women during mid-life transition. A retrospective approach was utilized.

The chapter presents a demographic description of the subjects. The statistical analyses of the research hypotheses follows. Finally additional descriptive analyses are included.

Demographics Of The Mid-Life Questionnaire Respondents

A summary of personal data about the Mid-Life Questionnaire respondents follows.

It is evident the sixty-five subjects of the Mid-Life Questionnaire may be categorized as being traditional in their marriages (Table 2). Forty-four of the sixty-five respondents are still in their first and only marriage or have remained single after having been widowed. The mean number of marriages of the respondents is 1.38. There were fifteen respondents who had been married twice, and one respondent had been married four times.
TABLE 2: Respondent Demographics: Number of Times Married

<table>
<thead>
<tr>
<th>NUMBER OF RESPONDENTS</th>
<th>NUMBER OF TIMES MARRIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>44</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

N = 65 \quad \bar{x} = 1.38

Most of the respondents had at least one child (Table 3, including natural and adoptive children). Only five had no children. Most (54/65) respondents had one to four children. The mean number of children for the total sample was 2.6. Two respondents had six children each, the highest number.

TABLE 3: Respondent Demographics: Number of Children

<table>
<thead>
<tr>
<th>NUMBER OF RESPONDENTS</th>
<th>NUMBER OF CHILDREN</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

N = 65 \quad \bar{x} = 2.6

As a group the subjects had a high degree of education, as shown in Table 4. The highest educational level was the Masters level (4 of respondents). Most respondents (63) had at least a high school or equivalent education and the majority had at least one year of college.
TABLE 4: Respondent Demographics: Education

<table>
<thead>
<tr>
<th>NUMBER OF RESPONDENTS</th>
<th>HIGHEST YEAR IN SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Less than high school</td>
</tr>
<tr>
<td>10</td>
<td>High School or equivalent</td>
</tr>
<tr>
<td>8</td>
<td>1 year of college</td>
</tr>
<tr>
<td>16</td>
<td>2 years of college</td>
</tr>
<tr>
<td>7</td>
<td>Associate of Arts Degree</td>
</tr>
<tr>
<td>17</td>
<td>Bachelor's Degree (BA,BS)</td>
</tr>
<tr>
<td>4</td>
<td>Master's Degree (MA,MS)</td>
</tr>
<tr>
<td>1</td>
<td>Not Reported by Respondent</td>
</tr>
</tbody>
</table>

As a whole the respondents had a high status of employment. The average number of work years for the total population of sixty-five subjects was 24.23 years. Two respondents worked forty-one and forty-five years, respectively.

In summary, the research subjects appear to be a relatively homogeneous group. They have traditional marriages, most have medium-sized families, they are well educated and have been employed for many years. The fact that the population for this study was taken from the spring term enrollment of a community college may partially account for these demographic characteristics.

Statistical Analysis of Research Hypotheses

Hypothesis 1: There will be no significant differences among the four levels of intensity of concern across all categories of concern.

As a preliminary analysis of the responses to the questionnaire, the Kolmogorov-Smirnov test was used to test whether subjects had an equal probability of indicat-
ing any of the four level of concern or, alternatively, whether they preferentially indicated particular level(s) of concern. In this analysis, all questions from all categories were pooled and there was no classification by age level. The Kolmogorov-Smirnov test requires only that the levels of concern be ordered. In Table 5, levels of concern were ranked as follows: None as 0, Slight as 1, Strong as 2 and Very Strong as 3. The theoretical cumulative frequencies under $H_0$ assume equal probability of response in each intensity of concern. The analysis reveal a highly significant ($p < 0.01$) deviation of the observed responses from the theoretical (equal probability) distribution. The greatest discrepancy difference between the observed and theoretical distributions was in the no concern (None) responses.

Hypothesis 1 was rejected.
TABLE 5: Intensity of Concern Across All Categories of Concern: Kolmogorov-Smirnov Test of Expectation of Distribution.

<table>
<thead>
<tr>
<th>INTENSITY OF CONCERN</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>F = observed number of responses</td>
<td>862</td>
<td>221</td>
<td>360</td>
<td>312</td>
<td>1755</td>
</tr>
<tr>
<td>$S_{1755}(X)$ = observed cumulative relative frequency</td>
<td>0.491</td>
<td>0.616</td>
<td>0.822</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>$F_o(X)$ = theoretical cumulative relative frequency under $H_0$</td>
<td>0.250</td>
<td>0.500</td>
<td>0.750</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>$d_i = F_o(X) - S_{1755}(X)$</td>
<td>0.241</td>
<td>0.117</td>
<td>0.072</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>D = maximum $d_i$</td>
<td>0.241</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(significant $p \leq .01$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 2: There will be no significant differences in peak intensity of concern for each of the categories of concern.

Approximately half the responses indicated at least some concern about the mid-life issue addressed by the question and also estimated the intensity of concern. These responses were tabulated by category of concern.
(Table 6). The null hypothesis is that the proportion of responses in each of the levels of intensity is independent of the category of concern. The alternative is that the intensity of concern differs from category to category. The null hypothesis was rejected at $p < 0.05$ by the Chi-Square test (Table 6). Therefore, it is concluded that the subjects showed differing intensities of concern about the five categories of mid-life issues.

Hypothesis 2 was rejected.
TABLE 6: Intensity of Peak Concern vs. Category of Concern: Chi-Square Test of Independence. (Responses of No Concern were not included in the analysis. Expected values under $H_0$ are shown in parentheses.)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>INTENSITY OF CONCERN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td>MORTALITY</td>
<td>53</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>(45.78)</td>
<td>(74.58)</td>
</tr>
<tr>
<td>MARRIAGE/SEX</td>
<td>49</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>(52.96)</td>
<td>(86.72)</td>
</tr>
<tr>
<td>HEALTH</td>
<td>42</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>(38.61)</td>
<td>(62.89)</td>
</tr>
<tr>
<td>CHILDREN/PARENT</td>
<td>30</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>(42.07)</td>
<td>(68.53)</td>
</tr>
<tr>
<td>LIFE'S EXPECTATIONS &amp;</td>
<td>47</td>
<td>54</td>
</tr>
<tr>
<td>SATISFACTIONS</td>
<td>(41.58)</td>
<td>(67.73)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>22</td>
<td>360</td>
</tr>
</tbody>
</table>

Chi-Square = 22.06 (significant $p \leq .05$)

Hypothesis 3: There will be no significant interaction between the intensity of concern and the age levels at which the concern occurred.

As was shown in Table 8, the average intensity of concern about each category of concern varied at different age levels. The data in this table are grouped by two factors: category of concern and age level of peak con-
cern. To determine whether these factors affected the distribution of average intensity of concern, and to determine whether there was a significant interaction between these factors, two-way factorial analysis of variance (ANOVA) was performed on the dependent variable, average intensity of concern. The analysis assumes that the ordinal scale of concern (None, Slight, Strong, Very Strong) on the mid-life questionnaire represents an underlying continuous ratio scale of intensity. It furthermore assumes that if intensity of concern could be measured on a ratio scale, it would be normally distributed.

The results of the ANOVA (Table 7) show a significant ($p < 0.05$) effect of age level on intensity of concern, a significant ($p < 0.01$) interaction between age level and category of concern, but no significant effect of category of concern alone. Therefore the intensity of concern over all categories of concern varied according to the age level. The significant interaction suggests that the effect of age varies from one category of concern to another. Across all age levels, there was no difference between categories in the intensity of concern. This researcher concludes that no individual concern was predominant throughout the mid-life period. Rather, both the intensity of concern and the particular concerns changed from interval to interval during the mid-life period.

Hypothesis 3 was rejected.
TABLE 7: Peak Intensity of Concern: Category of Concern vs. Age Level (Analysis of Variance). (Rows are Age Level, columns are category of concern.)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
<th>F-RATIO</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Level</td>
<td>5</td>
<td>91.88</td>
<td>3.31</td>
<td>0.0105</td>
</tr>
<tr>
<td>Category of Concern</td>
<td>4</td>
<td>27.66</td>
<td>1.00</td>
<td>0.4210</td>
</tr>
<tr>
<td>Interaction</td>
<td>20</td>
<td>63.89</td>
<td>2.30</td>
<td>0.0070</td>
</tr>
<tr>
<td>Residual</td>
<td>60</td>
<td>27.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>89</td>
<td>39.47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-Hoc Comparisons Between Pairs of Cell Means
(Tukey Honestly Significant Different Test)

Because the ANOVA test revealed a significant effect of age level on intensity of concern and a significant interaction between age level and category of concern, post-hoc contrasts were performed to determine where significant differences occurred between the cell means (combinations of age level and category of concern). The Tukey "Honestly Significantly Different" (HSD) test was used. The results are shown in Appendix I.

The intensity of concern about MORTALITY (C1) in the age level 55+ years (R6C1) was significantly less than the intensity of concern about this category during any of the other age levels (R1C1-R5C1). This confirmed the decline in average intensity of concern about MORTALITY over the age levels seen in Table 9. However, as has been noted (Table 9), the proportion of responses indicating peak concern at age 55+ was very high (37.8%). Only 7% of responses indicated peak concern about MORTALITY at age
level 30-34 (Table 9); yet, the average intensity of concern was highest (2.77) at that age level. This suggests two patterns of concern about MORTALITY. Most commonly, concern about this issue develops late in mid-life transition (after age 50) but is Slight to Strong in intensity at the end of the mid-life period studied. Less frequently peak concern occurs early in mid-life but at a high (Strong to Very Strong) intensity.

Concern about MARRIAGE/SEX (C2) was greatest during the age level 30-34 (R1C2). Although it was not significantly greater than the concern about this issue at other age levels (R2C2 - R6C2), in this age level it was significantly greater than the intensity of concern about CHILDREN/PARENT and significantly less than the intensity of concern about HEALTH and MORTALITY. These results show that although category of concern was not a significant factor overall, it was important during the age level 30-34. This confirms the finding of a significant interaction between category of concern and age level in the ANOVA.

As with MORTALITY, the average intensity of concern about HEALTH decreased with increasing age level while the proportion of responses indicating peak concern at this age level increased (Table 9). The Tukey HSD test confirmed that concern about HEALTH at age 55+ (R6C3) was less than the concern about this category at ages 30-34 (R1C3) 35-39 (R2C3) and 45-49; the difference at other ages was not significant.

Referring to the Tukey HSD table of comparison, the following results also emerged:

The intensity of concern for category MORTALITY yielded the highest difference overall age levels in the 55 to present level. The MARRIAGE/SEX category reflects a Strong intensity of concern at age level 30-34. The
intensity declines somewhat at age level 35-39, however, the intensity remains significant. Age level 40-44 reflects an upsurge in intensity of concern in this category.

The Tukey HSD indicated that age level 45-49 scored high in intensity of concern across all age levels.

This table of comparisons agrees with Table 9, that the category of CHILDREN/PARENT has strong intensity of concern across all age levels.

Intensity of concern in the category LIFE'S EXPECTATIONS & SATISFACTIONS starts strong at age level 35-39 and continues to be strong throughout the age levels up to age level 55 to present.

Complete data from analysis are presented as Appendix I.

Supplementary Descriptive Analysis of Responses to Mid-life Questionnaire

The proportion of respondents showing at least some concern about the categories on the mid-life questionnaire is shown in Table 8. Responses were tabulated from response Category "a" of each question, in which the respondent was asked to affirm or deny having had concern about an issue at any time (see Appendix H). It is evident that except for the category of MARRIAGE/SEX, the majority of responses indicated at least some concern about these categories of mid-life issues. It should be noted that only when the response to part "a" of each question was "YES" (some concern) was the respondent asked for further information about the concern (its intensity and when it was strongest). Thus, the results in Table 6 indicate that this detailed information on mid-life concerns was available for about half the questions answered by the respondents.
TABLE 8: Proportion of Subjects Expressing Concern About Each of the Five Categories on the Mid-Life Questionnaire. (N = number of responses, P = proportion of responses)

<table>
<thead>
<tr>
<th>CATEGORY OF CONCERN</th>
<th>CONCERN MORTALITY</th>
<th>MARRIAGE/ SEX</th>
<th>HEALTH CHILDREN/ LIFE'S EXPECTATIONS</th>
<th>PARENT &amp; SATISFACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>N = 140</td>
<td>306</td>
<td>104</td>
<td>155</td>
</tr>
<tr>
<td></td>
<td>P = 0.431</td>
<td>0.588</td>
<td>0.400</td>
<td>0.477</td>
</tr>
<tr>
<td>SOME</td>
<td>N = 185</td>
<td>214</td>
<td>156</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>P = 0.569</td>
<td>0.412</td>
<td>0.600</td>
<td>0.523</td>
</tr>
<tr>
<td>TOTAL N</td>
<td>325</td>
<td>520</td>
<td>260</td>
<td>325</td>
</tr>
</tbody>
</table>

N = number of questions answered by all respondents.
N_S = 1755 = grand total number of responses (27 questions x 65 respondents)

P_N = 0.4912 = grand total proportion of "No Concern"
P_S = 0.5088 = grand total proportion of "Some Concern"

The Intensity of Concern About Categories of Mid-Life Issues at Different Ages

Respondents that indicated at least some concern about the mid-life issue addressed by the question were asked not only to indicate the peak intensity of their concern, but also the age level at which their concern was greatest (see Appendix H). This information was used to determine the time course of concern about the various mid-life
issues. The average intensity of concern on the five categories of the questionnaire, grouped by the age of peak concern, is shown in Table 6. This table also shows the number and the proportion of responses indicating peak concern about the category at that age level. The number of responses is, of course, dependent on the number of questions asked about that category of concern (see Table 1), so the proportion of peak concern responses (p) is a better indicator of the time course of concern than is the number or responses (n).

In the category of MORTALITY, the proportion of responses of peak concern was greatest in the middle of the age range considered (40-44 years) and rose again at the end of age range (>50 years). More than a third of the responses indicated peak concern at age 55 to the present. These results can be interpreted as an increase in concern with the passage of time as the mid-life period progresses. However, the average intensity of concern did not rise during the age range studied; indeed, the greatest average intensity of concern was early (ages 30-34 and 35-39). Although only 17.8% of responses indicated peak concern with the passage of time between 30 - 39 years, those that did also had the most intense concern. These results illustrate the different meaning of the two measures, the proportion indicating peak intensity at an age level, and the average intensity of those indicating peak intensity at that age level.

In contrast to the category of MORTALITY, the proportion of responses indicating peak concern about issues of MARRIAGE/SEX declined over the middle period (Table 9). The average peak intensity of concern also dropped slightly, from Strong (> 2.0) to slightly less than Strong by 55+ years.

As with MORTALITY, peak concern about HEALTH (in terms
of proportion) occurred with greater frequency in the later age intervals (Table 9), except for a large (26.9%) percentage reporting peak concern between 40-44 years. In contrast the average peak intensity declined smoothly from nearly Very Strong (2.8) at 30-34 years to slightly less than Strong (1.837) at 55+ years. The average peak concerns about HEALTH during the period 30-34 years and 35-39 years were greater than the average concerns about any other category at any age level.

The majority of responses (58.9%) indicated peak concern about the category of CHILDREN/PARENT at age level 30-34 years (Table 9). The percentage dropped sharply after age 34 and declined steadily until age level 55+ years. Unlike the preceding categories, the average peak intensity of concern about CHILDREN/PARENT issues remained nearly constant throughout ages 30 - 55+ years.

The proportion of responses indicating peak concern about the category of LIFE'S EXPECTATIONS & SATISFACTIONS rose sharply and peaked between 35-39 years, then declined progressively in the subsequent age levels. As with the category of CHILDREN/PARENT, the average peak intensity of concern about life remained close to Strong (2.0) in all age levels.

Several patterns and features emerge from the data on proportion of peak concern responses in Table 9. First, concern about CHILDREN/PARENT issues was most evident in the earliest of the age levels under consideration (30-34 years) and dropped sharply, and remained constant in later years. Second, concerns about MORTALITY, MARRIAGE/SEX, HEALTH and LIFE'S EXPECTATIONS & SATISFACTIONS peaked at ages 40-44 years, then declined. Third, concerns about two of these categories, MORTALITY and HEALTH, again began to increase at the end of the middle age period (55+ years).
The patterns associated with the average peak intensity of concern will be discussed below.
TABLE 9: Average Intensity of Concern on the Five Categories of the Questionnaire, Grouped by the Age at Which the Respondent Reported Peak Concern. (N = number of item responses; X = average intensity of concern; P = percentage of responses in the category indicating peak concern at this age level)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>50-54</th>
<th>55+</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORTALITY N=</td>
<td>13</td>
<td>20</td>
<td>30</td>
<td>15</td>
<td>37</td>
<td>70</td>
</tr>
<tr>
<td>X=</td>
<td>2.770</td>
<td>2.200</td>
<td>1.933</td>
<td>1.800</td>
<td>1.919</td>
<td>1.770</td>
</tr>
<tr>
<td>P=</td>
<td>7%</td>
<td>10.8%</td>
<td>16.2%</td>
<td>8.1%</td>
<td>20.0%</td>
<td>37.8%</td>
</tr>
</tbody>
</table>

| MARRIAGE/SEX N=   | 50    | 40    | 43    | 30    | 25    | 21  |
| X=                | 2.260 | 2.125 | 2.333 | 1.967 | 1.640 | 1.810 |
| P=                | 23.4% | 18.7% | 22.4% | 14.0% | 11.7% | 9.8% |

| HEALTH N=         | 5     | 17    | 42    | 16    | 27    | 49  |
| X=                | 2.800 | 2.590 | 2.381 | 2.310 | 1.852 | 1.837 |
| P=                | 3.2%  | 10.9% | 26.9% | 10.3% | 17.3% | 31.4 |

| CHILDREN/PARENT N=| 10    | 32    | 39    | 34    | 30    | 25  |
| X=                | 2.200 | 2.250 | 2.256 | 2.147 | 2.333 | 2.080 |
| P=                | 58.9% | 18.8% | 22.9% | 20.0% | 17.6% | 14.7% |

| LIFE'S EXPECTATIONS & SATISFACTIONS N= | 22    | 40    | 35    | 26    | 21    | 24  |
| X=                                    | 2.045 | 2.275 | 2.228 | 1.855 | 2.143 | 2.000 |
| P=                                    | 13.1% | 23.9% | 20.8% | 15.5% | 12.5% | 14.3% |

Total number of questions = N<sub>g</sub> = 1755 (27 X 65):
The Time Course of Intensity of Concern About Individual Issues

To show the changing focus of concern over age levels, in Table 10 the categories are ranked in order of the average intensity of concern (see Table 8 for the exact values). The most intense concern was shown in the category of HEALTH at all levels except ages 50-54 and 55 to present. Intensity of concern about MORTALITY was less than intensity of concern about the other categories during most age levels. Intensity of concern about CHILDREN/PARENT generally increased with time, relative to the other categories.

These are graphically presented in Figure 1. An inspection of the figure reveals a clustering of scores within each age level group. The widest spread of scores present in the 30 - 34 age range. This also is where the most intense peaks of concern are reported to have occurred.

TABLE 10: Rank of Intensity of Concern About Each Category by Age Level of Peak Concern.

<table>
<thead>
<tr>
<th>AGE LEVEL</th>
<th>CATEGORIES RANKED BY INTENSITY OF CONCERN</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 - 34:</td>
<td>HEALTH, MORTALITY, MARRIAGE/SEX, CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS</td>
</tr>
<tr>
<td>35 - 39:</td>
<td>HEALTH, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, CHILDREN/PARENT, MORTALITY, MARRIAGE/SEX</td>
</tr>
<tr>
<td>40 - 44:</td>
<td>HEALTH, MARRIAGE/SEX, CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MORTALITY</td>
</tr>
<tr>
<td>45 - 49:</td>
<td>HEALTH, CHILDREN/PARENT, MARRIAGE/SEX, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MORTALITY</td>
</tr>
<tr>
<td>50 - 54:</td>
<td>CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MORTALITY, HEALTH, MARRIAGE/SEX</td>
</tr>
<tr>
<td>55 + :</td>
<td>CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, HEALTH, MARRIAGE/SEX, MORTALITY</td>
</tr>
</tbody>
</table>
The data were also inspected for any trends in the occurrence of peak concerns at different age levels. Figure 2, presents these findings. Inspection reveals a slight decline in the intensity of concern in the categories MORTALITY and HEALTH. The categories show moderately flat patterns reflecting no change in peak intensity over the age levels.
FIGURE 1: Mean Peak Intensity of Concern by Age Level
FIGURE 2: Trends in Mean Peak Intensity of Concern by Age Level
An alternative way of looking at the relative importance of concerns about the various categories is to rank them by proportion or percentage of respondents indicating peak concern about that category at each age level. This is done in Table 11 (See table 9 for the exact values). Viewed in this way, concern about HEALTH increases sharply at age 40-44 and again at the end of the mid-life period. Concern about MORTALITY also came to the forefront during the later part of mid-life. Concern about MARRIAGE/SEX dropped during this time. CHILDREN/PARENT concerns decreased only slightly during the mid-life period.

TABLE 11: Rank of Proportion of Peak Concern by Age Level of Peak Concern.

<table>
<thead>
<tr>
<th>Age Level</th>
<th>Categories Ranked by Proportion of Peak Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 - 34:</td>
<td>CHILDREN/PARENT, MARRIAGE/SEX, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MORTALITY, HEALTH</td>
</tr>
<tr>
<td>35 - 39:</td>
<td>LIFE'S EXPECTATIONS &amp; SATISFACTIONS, CHILDREN/PARENT, MARRIAGE/SEX, HEALTH, MORTALITY</td>
</tr>
<tr>
<td>40 - 44:</td>
<td>HEALTH, CHILDREN/PARENT, MARRIAGE/SEX, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MORTALITY</td>
</tr>
<tr>
<td>45 - 49:</td>
<td>CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MARRIAGE/SEX, HEALTH, MORTALITY</td>
</tr>
<tr>
<td>50 - 54:</td>
<td>MORTALITY, CHILDREN/PARENT, HEALTH, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MARRIAGE/SEX</td>
</tr>
<tr>
<td>50 +:</td>
<td>MORTALITY, HEALTH, CHILDREN/PARENT, LIFE'S EXPECTATIONS &amp; SATISFACTIONS, MARRIAGE/SEX</td>
</tr>
</tbody>
</table>

The data on percentage of respondents experiencing peak concerns at various age levels appears as Figure 3. The data were subjected to trend analysis which is presented in Figure 4. This Figure graphically depicts a decreasing concern for CHILDREN/PARENT through various age levels. It also clearly illustrates rising concerns in the two areas, MORTALITY and HEALTH. MARRIAGE/SEX shows only a slight decline in the percent of respondents.
expressing concern at the various age levels. LIFE'S EXPECTATIONS & SATISFACTIONS remain uniformly flat across the levels of age.
FIGURE 3: Percentage of Respondents Experiencing Peak Intensity of Concerns by Age Level
FIGURE 4: Trends in Percentage of Respondents Experiencing Peak Intensity of Concerns by Age Level
Summary

This chapter has presented the findings of the various statistical analyses. The three research hypotheses were tested and rejected. The data were subject to further trend analyses and the trends were graphically presented. Also detailed were description's of the demographics of the research sample.

The next chapter will review the findings and discuss their implications.
CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate the impact of selected experiences on women during mid-life transition and to ascertain if a typical pattern of experiences characteristic of women during this stage of development could be discerned. The results of the study can be said to provide significant support for the body of existing theory which describes the age period of forties as a time of peak emotional stress encountered in adult life. A study by Brim (17) characterized the mid-life stage as a time of smooth and gradual transition rather than one of crisis. This study tentatively supports his theory. Brim found selected concerns to be elevated in the 40-44 age level.

If this were a time of extreme crisis one would expect concern to be expressed on the questionnaire. This is at odds with the data. Nearly half (forty percent or more) of the respondents reported no concern occurred in all categories.

There were concerns expressed by slightly more than half of the women who responded to the questionnaire. Clearly for some women the mid-life period was a time of some concern. This study found there to be concerns in all five of the categories MORTALITY, MARRIAGE/SEX, HEALTH, CHILDREN/PARENT, and LIFE'S EXPECTATIONS & SATISFACTIONS. Limitations exist on projecting a predictable pattern on concerns based on responses to a mid-life questionnaire given at only one time.

Two of the questions this study attempted to answer were to identify the time course of the intensity of concerns about each category and the sequence in which con-
cerns occur.

The percentage of respondents indicating peak concerns occurring during particular age levels would seem to be a good indicator of patterns among these subjects. The higher the percentage of respondents at a particular age level, the more typical the occurrence. Following this logic the emergent patterns are:

1. The highest percentage of concerns for CHILDREN/PARENT were during the 30 - 34 age range. This was also the highest percentage of concern at any age level. After thirty-five years of age the concern was present at a nearly constant level.

2. HEALTH and MORTALITY, at 30 - 34 years of age had the lowest percentage of occurrence in all categories. There was a general rising of percentages in these two categories. By the age 55+ range these two areas had become the highest of the five.

3. The categories of MARRIAGE/SEX and LIFE'S EXPECTATIONS & SATISFACTIONS remained fairly consistent over the age ranges.

It was noted earlier that about half of the subjects indicated some concerns during the mid-life time period. For those indicating concerns, the peak intensity of concern was generally high (Figure 1). During the age range of 30 -34, the average peak intensity of concern ranged from "Strong" concern ($\bar{x} = 2.0$) to slightly below "Very Strong" ($\bar{x} = 2.8$) for the five concern categories. The lowest peak concern calculated was slightly below the "Strong" category ($\bar{x} = 1.6$).

What then can be said of the pattern of these women experienced during their mid-life transitions? It is clear from the data that many women experience little or no concern in the five categories which have been sug-
gested in the literature. In this group subjects nearly half reported no concern.

The other half represents a contrasting picture. Those subjects indicting they had concerns, typically indicated the concerns were present at strong to very strong levels. Even the least intense concern was present at only slightly below a strong level of intensity. The levels of intensity varied little over the age ranges. The trend was for a slight decrease in intensity with increasing age. There is no indication of sudden discontinuities in the data. Sudden, radical shifts to high intensity from a lower level would clearly be indicative of a period of crisis. This was not observed. What was present was a smooth decreasing of intensity over time. This accompanied a shifting of focus of concern. The subjects most commonly reported CHILDREN/PARENT to be of peak concern during their early transitional years. During this time far less concern was common for MORTALITY and HEALTH issues. This was reversed by the time the subjects exceeded 55 years of age. Then MORTALITY and HEALTH had become the most common concerns.

Conclusions

Ability to help clients is often based on having accurate and meaningful information. Heretofore, little has been available to counselors in the area of Mid-Life Transition. Information provided by this study may increase the counselor's potential to assist individuals to lead more satisfying lives. Counselors now have at their disposal a more complete description of the mid-life transitional period than has existed heretofore. Additionally the Mid-Life Questionnaire that this researcher constructed and validated provides the counselor with a use-
ful tool to recognize the symptoms of this important life stage. The client can be helped to gain an understanding of her anxieties, conflicts and concerns as being developmental ones; as universal in our society, perhaps, as the concerns of adolescence.

This study sought to discover if mid-life transition is a generally smooth, continuous process, or is one filled with turbulence and discontinuities. The results support a view that this period for most women has more the characteristics of a smooth and gradual transition more than that of a crisis. Today women entering into the mid-life phase of life need to be educated as to what experiences they may encounter during this transition. Once the problem has been recognized, a knowledge base must be built so that patterns which make this period of life significant for women can be discovered and defined. The Mid-Life Questionnaire can help with this process. Counselors may make even more positive use of the results of this study by taking a preventative approach to the problems of the mid-life transition. Counselors and the clients as well as their general public can be taught to understand and anticipate the stress and specific concerns they may confront during mid-life before that period is reached. Clients can be instructed in life planning skills which may eliminate or at least reduce the intensity of concerns they will encounter.

Counseling centers that help mid-life women have proliferated over the last decade and a half. They offer services which link adults with resources for learning, earning and emotional support. However, they tend not to understand the changes taking place in mid-life women. The quality of their service varies widely without standards to ensure that the woman confronted with the issues of mid-life transition finds a qualified counselor who
understands her problems (127). The Mid-Life Questionnaire will enable the counselor and the client to confront these issues with some insight. The most general and the most important use the findings of this study may have is in the area of developmental counseling. From these results and previous research, as well as future research, women can be assisted in negotiating a difficult stage of life with greater ease. Continuing use of the Mid-Life Questionnaire may be valuable both for research and in the clinical counseling setting.

Recommendations

The results of this study and the experience gained in pursuing it suggest the following areas as fruitful for further investigation:

1. To identify the emotional concerns that are prevalent in a larger representative sample of our society and gather data in a longitudinal fashion.
2. To correlate the demographic characteristics of the individuals who are traversing the mid-life stage with the type and intensity of the concerns they experience in it.
3. To enlarge the number and nature of the indicators used to identify the mid-life transition period. A diagnostic and research tool consisting of a larger range of items may reveal other concerns which are present in the mid-life development stage and thereby extend our knowledge of that period.
4. To use the Mid-Life Questionnaire in a sample comprising additional racial, ethnic socio-economic subgroups of women.
5. To use the same criteria as this study with women of
the next generation.
BIBLIOGRAPHY


APPENDICES
APPENDIX A
Letter to the Jury Panel
Dear

You have been referred to me as an authority on the subject of *Women In Mid-life Transition: A Retrospective Analysis of Events Having Emotional Significance During the Middle Age*. I am selecting a jury of individuals nationwide to assist in developing a research instrument to study this field. The objectives of this study are to:

1. To determine if middle age transition has more character of crisis or gradual and smooth change.
2. To define and enumerate the concerns experienced in middle age by women.
3. To ascertain if some concerns occur with greater intensity of frequency than others.
4. To identify the sequence in which concerns occur.

I would appreciated your assistance by analyzing each of the following items by using this scale.

1. *very appropriate* item for study
2. *appropriate* item for study
3. *inappropriate* item for study

Thank your very much for your time and attention to this request.

Sincerely,

Patricia A. Lacy
APPENDIX B

The Mid-Life Questionnaire to be validated by Jury Panel
The results of this research instrument are to be used in writing my dissertation through Oregon State University. My Director of Dissertation is: Dr. James L. Firth. The Study is entitled, The Impact of Selected Experiences on Women During Mid-life Transition: A Retrospective Study. I have identified the following categories:

1. physical decline; 2. facing one's mortality; 3. loss of personal identity and role status; 4. emerging independence; 5. change in values and sexuality; and 6. ambivalence about marriage.

The following is the format I have developed for this instrument

a. NO ___________________ YES ____________________.
(If NO proceed to next question) (If YES continue on to b,c,d,e)

b. At what peak intensity would you say you experience the concern?
   Slight ________ Strong ________ Very Strong ________

c. At what age was this concern greatest?
   30-34 _____; 35 - 39 _____; 40 - 44 _____; 45 - 49 _____; 50 - 54 _____;
   55 or over _____;

d. Has this been a concern in your life during the past year?
   NO ___________________ YES ____________________

e. If so at what intensity: Slight _____ Strong _____ Very Strong _____

The specific questions are as follows:

1. Do you recall a concern stemming from an awareness that life is passing quickly?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

2. Do you recall a concern stemming from an awareness that life is very short?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study
3. Do you recall a concern stemming from an awareness that death is, in fact, inevitable?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

4. Do you recall a concern over the loss of role status as your children began to leave the nest?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

5. Do you recall a concern over the loss of never being a parent?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

6. Do you recall feeling trapped because of limits upon you stemming from your marriage?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

7. Do you recall being dissatisfied with your marriage?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

8. Do you recall being dissatisfied with your marriage partner?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

9. Do you recall being dissatisfied because you never married?
   _____ very appropriate item for study
   _____ appropriate item for study
   _____ inappropriate item for study

10. Do you recall feeling frustrated over being trapped by life's circumstances from doing what you really wanted to do?
    _____ very appropriate item for study
    _____ appropriate item for study
    _____ inappropriate item for study
11. Do you recall a concern over the decline in your physical vigor and stamina?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

12. Do you recall a concern over the decline of your general health?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

13. Do you recall feelings of frustration as you became aware of the difference between your early dreams and your actual achievements?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

14. Do you recall a concern over the decline of your personal physical attractiveness?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

15. Do you recall a feeling of self-worthlessness and a loss of value as a person?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

16. Do you recall a concern over your sexuality?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study

17. Do you recall feelings of your sexual inhibitions decreasing?
   ■ very appropriate item for study
   ■ appropriate item for study
   ■ inappropriate item for study
18. Do you recall feelings of your sexual inhibitions increasing?
   ___ very appropriate item for study
   ___ appropriate item for study
   ___ inappropriate item for study

19. Do you recall feelings of new sexual interest developing?
   ___ very appropriate item for study
   ___ appropriate item for study
   ___ inappropriate item for study

20. Do you recall a concern stemming from an awareness that time is running out?
    ___ very appropriate item for study
    ___ appropriate item for study
    ___ inappropriate item for study

21. Do you recall a concern stemming from a feeling of the loss of your personal identity?
    ___ very appropriate item for study
    ___ appropriate item for study
    ___ inappropriate item for study

22. Do you recall feeling dissatisfied over the meaning and purpose of your life?
    ___ very appropriate item for study
    ___ appropriate item for study
    ___ inappropriate item for study

23. Looking back on your life do you recall having confusion about the future?
    ___ very appropriate item for study
    ___ appropriate item for study
    ___ inappropriate item for study

24. Do you recall experiencing a concern stemming from an awareness that you are not immortal?
    ___ very appropriate item for study
    ___ appropriate item for study
    ___ inappropriate item for study
25. Do you recall a time when you had strong feelings about changing directions of your life?
   ___ very appropriate item for study
   ___ appropriate item for study
   ___ inappropriate item for study

26. Do you recall a feeling of your emerging independence?
   ___ very appropriate item for study
   ___ appropriate item for study
   ___ inappropriate item for study

27. Do you recall a feeling of a need for freedom to grow?
   ___ very appropriate item for study
   ___ appropriate item for study
   ___ inappropriate item for study
APPENDIX C
Jury Panel
Jury Panel

Jury members were selected on the basis of their expertise in the field of human development. Each works in the human development field as a researcher, a professor, a counselor, or a combination of these. The Jury Panel consisted of the following professionals:

Marjorie Fiske Lowenthal, Professor, University of California/San Francisco extension.
Roger L. Gould, Psychiatrist, University of California at Los Angeles Clinic
Rex Stockton, Professor, Indiana University Counseling Department
Gloria Smith, Professor, Michigan State University
Brenda Hawkins, Counselor, Fredonia State University College/New York
Maria Nieto Senour, Professor, California State University/San Bernardino
Jane O'Hern, Professor, Boston University
Sunny Hansen, Professor, University of Minnesota
Michele Thomas, Professor, University of Tennessee
Robert Cash, Professor, California State University/Long Beach
Nancy Scott, Professor, University of Colorado
Marceline Jeaques, Professor, State University of New York
APPENDIX D

Memorandum to be sent to Truckee Meadows Community College
MEMORANDUM

TO:

FROM: Patricia A. Lacy
SUBJECT: Research for Dissertation

I would like to request permission to use Truckee Meadows Community College students as subjects for my dissertation. The purpose of my study is to determine if there is a typical pattern of experiences characteristic of women during mid-life transition. One hundred women 55 to 60 years old who have returned to school to further their education will be invited to respond to the attached instrument. I would like to do a pilot study first with ten (10) women. Permission will be requested from the instructors. No names will be requested, in order to ensure confidentiality. Instructors and students have the option of refusing to participate.

______________________________
Patricia A. Lacy, Counselor

______________________________
Approved           Disapproved
APPENDIX E

Letter to Subjects in the Questionnaire Development
Preliminary Study
There is a considerable body of research concerning the developmental stages of adolescence and old age. During these stages people deal with common physical, psychological, and social concerns as well as dissatisfactions, frustrations, and conflicting feelings. Recent research suggests another stage in the life cycle is traversed in mid-life and it too can be identified by the common experiences of those passing through it. You can help expand existing knowledge of the mid-life stage by sharing some of your personal experiences and reactions to certain events which may have occurred in your life.

I am a professional counselor, researcher and a doctoral candidate in counseling at Oregon State University. I am bound to keep all information you give me confidential and additional steps will be taken to assure the complete anonymity of responses obtained. The results of the study will be available to you.

I will be contacting you by telephone within the next week. Your cooperation is invaluable and greatly appreciated for the successful completion of this study.

Thank You,

Patricia A. Lacy
Doctoral Candidate
APPENDIX F
Questionnaire Development
QUESTIONNAIRE DEVELOPMENT
Procedures

Ten women were randomly selected from the potential pool of respondents described in Chapter 3. The first five women selected for the preliminary study were interviewed individually and one week later were given the mid-life questionnaire. The questionnaire was given to the second set of women at the first meeting, with an interview following one week later. The interview consisted of asking the subject the same items as on the questionnaire in the same order in which they appeared on the questionnaire.

Responses to questions during the interviews and on the questionnaire were correlated to substantiate their equivalence. The Pearson product moment correlation was employed. The range of responses to each item was from zero (No concern) to 3.00 (Very Strong concern). An overall correlation and the correlation within each of the five categories (MORTALITY, MARRIAGE/SEX, HEALTH, CHILDREN/PARENT AND LIFE'S EXPECTATIONS & SATISFACTIONS) were done to determine if the interview and the questionnaire agreed.

The following statistical analysis were employed:

1. Pearson product moment correlations (r) were computed between the responses to questions in the interview and the responses to the questionnaires for all of the respondents in the preliminary study. All responses of the 10 subjects were pooled for this analysis.
2. Individual questions in the questionnaire were grouped by content into categories of MORTALITY, MARRIAGE/SEX, HEALTH, CHILDREN/PARENT AND LIFE'S EXPECTATIONS & SATISFACTIONS (see Table 1). Pearson product moment correlations were computed for each of these categories between the interview and questionnaire responses.

3. For each of the 10 respondents, Student's paired t test was applied to the respondents from the interview and questionnaire. This was to test whether individual subjects answered differently to the questions in the interview setting than on the questionnaire.

Findings

In most categories, the subjects expressed a greater intensity of concern during the interview than they did on the same question items on the written questionnaire (Table 12). The exception was the MORTALITY category, in which the responses to the question items were nearly the same in both settings and were highly correlated \( (r = 0.08, p < 0.01) \). Responses to questions in the category of LIFE'S EXPECTATIONS & SATISFACTIONS were also highly correlated \( (r = 0.64, p < 0.05) \). However, responses to the categories of CHILDREN/PARENT, MARRIAGE/SEX AND HEALTH were weakly and non-significantly correlated. The lack of agreement between interview and questionnaire responses in these categories reduced the correlation over all categories to 0.434, which is moderate but not significant.
Table 12: Comparison Between Responses During the Interview and the Responses to the Questionnaire: Average Concern and Correlation for Each Category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Concern Interview</th>
<th>Average Concern Questionnaire</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORTALITY</td>
<td>1.54</td>
<td>1.60</td>
<td>0.80</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>MARRIAGE/SEX</td>
<td>1.31</td>
<td>1.00</td>
<td>0.61</td>
<td>&lt;0.30</td>
</tr>
<tr>
<td>HEALTH</td>
<td>1.95</td>
<td>1.45</td>
<td>0.04</td>
<td>&lt;0.40</td>
</tr>
<tr>
<td>CHILDREN/PARENT</td>
<td>1.35</td>
<td>1.24</td>
<td>0.38</td>
<td>&lt;0.14</td>
</tr>
<tr>
<td>LIFE'S EXPECTATIONS &amp; SATIS - TIONS</td>
<td>1.60</td>
<td>1.40</td>
<td>0.64</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>All Questions</td>
<td></td>
<td></td>
<td>0.43</td>
<td>&lt;0.11</td>
</tr>
</tbody>
</table>

The correlations between interviews and questionnaires for each category and across all questions are shown graphically in Figures 6-10 and 11 respectively. In all of these figures, each point represents the average response of an individual respondent to all the questions in the category (Figures 6-10) or to all the questions in the instrument (Figure 10). These figures therefore illustrate the consistency of each subject's response to the questionnaire material in the two settings, the verbal interview and the written questionnaire.

Figure 5 shows the correlation between the intensity of concern about the category of MORTALITY on the questionnaire and the intensity of concern expressed during the interview. In this and the following four figures, each point represents a single subject's responses. The abscissa and ordinate values are the average of the intensity of concern (0-3) of the 4 to 8 questions in the category. There is strong agreement between the interview and the questionnaire in this category (Pearson's r = 0.80, significant at p < 0.01). Despite this high correlation, two subjects showed much higher concern during the interview than on the questionnaire.
FIGURE 5: Correlation Between The Questionnaire and Interview on the Dimension of MORTALITY. ($r = 0.80$, significant at $p < 0.01$)
In contrast, there was almost no correlation between the intensity of concern about the category of MARRIAGE/SEX during the interview and that on the questionnaire (Figure 6). The Pearson Product-Moment Correlation was only 0.16 (p < 0.30, not significant). The majority of respondents expressed greater concern during the interview than they did on the questionnaire.
Figure 6: Correlation Between the Questionnaire and Interview on the Dimension of MARRIAGE/SEX. \((r = 0.16, p < 0.30, \text{not significant})\)
Similarly, in the category of HEALTH there was no correlation between the intensity of concern expressed during the interview and that expressed on the questionnaire (Figure 7). Pearson's correlation coefficient was 0.04 (p < 0.40, not significant). Unlike the MARRIAGE/SEX category, there was no clear trend toward greater expressions of concern during the interview.
Figure 7: Correlation Between the Questionnaire and the Interview on the Dimension of HEALTH. (r = 0.04, p < 0.40, not significant)
In the CHILDREN/PARENT category, there was a stronger but still not significant correlation between the intensity of concern expressed during the interview and on the questionnaire (Figure 8). The correlation was 0.37 (p < 0.14, not significant). As in the category of HEALTH, there was no clear trend toward greater expressions of concern during the interview.
FIGURE 8: Correlation Between the Questionnaire and Interview on the Dimension of CHILDREN/PARENT. \( r = 0.27, \ p < 0.14, \) not significant
As with MORTALITY, there was strong and significant correlation (Pearson's $r = 0.64$, $p < 0.05$) between the intensity of concern expressed on the category of LIFE'S EXPECTATIONS & SATISFACTIONS during the interview and on the questionnaire (Figure 9). There was a tendency for subjects to express more concern during the interview than on the questionnaire.
FIGURE 9: Correlation Between the Questionnaire and Interview on the Dimension of LIFE’S EXPECTATIONS & SATISFACTIONS. (r = 0.64, significant at p < 0.05)
As a measure of over-all intensity of concern about mid-life issues, the intensity of concern in all five categories was averaged for each subject. Figure 10 shows the correlation between the questionnaire and the interview with respect to this average concern. The correlation is moderate (Pearson's $r = 0.4343$) but not significant ($p = 0.104$). Over all, most subjects expressed a similar intensity of concern on the questionnaire as during the interview, though three subjects appeared to express much greater concern on the questionnaire than during the interview.
FIGURE 10: Correlation Between the Questionnaire and Interview on Average Concern Across All Questions. ($r = 0.4343 \quad p < 0.11$, not significant)
To further investigate the differences in responses to the questionnaire and the interview, Student's paired t-test was used to compare, for each subject, the average intensity of concern expressed in the two settings. The purpose of this test was to identify the subjects that responded differently depending on the setting. The average responses of the subject to questions in each of the five categories were themselves averaged, giving n = 5 for each comparison. The appropriateness of this test rests on two assumptions. First, the ordinal scale of response on the questionnaire (0-3, No concern to Strong concern) represents a simplification of a continuously graded intensity of concern which ideally could be measured on a ratio scale. Second, the equal weighting of the question items in each category (implied by taking their average) results in a valid estimate of intensity of concern on that category. The results are shown in Table 13.

The majority of the subjects expressed a greater overall concern in the interview setting than on the questionnaire (Table 12). Four of the ten subjects (1, 2, 9, and 10) responded significantly differently (p < 0.05) to the same questions in the two settings. Two other subjects' (4 and 7) responses were not quite significantly different in the two settings (p < 0.10 and p < 0.09, respectively). The other four subjects' responses did not differ significantly. These findings underscore the poor correlation between responses on the questionnaire and interview for most categories of concern except MORTALITY and LIFE'S EXPECTATIONS & SATISFACTIONS. This indicates, to this researcher, that many subjects felt that it was acceptable to talk about their concerns in these categories in a friendly interview setting, but that it was difficult to express the same intensity of concern in writing on a questionnaire.
TABLE 13: Individual Subject's Average Level of Concern the Questionnaire vs. Their Concern Expressed During the Interview. (The values are the average of the averaged response to the questions in five categories, thus n = 5.)

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>INTERVIEW MEAN</th>
<th>INTERVIEW SD</th>
<th>INTERVIEW N</th>
<th>QUESTIONNAIRE MEAN</th>
<th>QUESTIONNAIRE SD</th>
<th>QUESTIONNAIRE N</th>
<th>DIFFERENCE BETWEEN MEANS</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.336</td>
<td>0.852</td>
<td>5</td>
<td>0.426</td>
<td>0.355</td>
<td>5</td>
<td>-0.910</td>
<td>-2.733</td>
<td>0.035*</td>
</tr>
<tr>
<td>2</td>
<td>1.496</td>
<td>0.362</td>
<td>5</td>
<td>0.846</td>
<td>0.377</td>
<td>5</td>
<td>-0.650</td>
<td>-2.759</td>
<td>0.034*</td>
</tr>
<tr>
<td>3</td>
<td>1.820</td>
<td>0.671</td>
<td>5</td>
<td>1.926</td>
<td>0.696</td>
<td>5</td>
<td>0.106</td>
<td>0.446</td>
<td>0.342</td>
</tr>
<tr>
<td>4</td>
<td>0.920</td>
<td>0.729</td>
<td>5</td>
<td>0.506</td>
<td>0.216</td>
<td>5</td>
<td>-0.414</td>
<td>-1.630</td>
<td>0.101</td>
</tr>
<tr>
<td>5</td>
<td>1.476</td>
<td>0.733</td>
<td>5</td>
<td>1.430</td>
<td>0.716</td>
<td>5</td>
<td>-0.046</td>
<td>-1.193</td>
<td>0.426</td>
</tr>
<tr>
<td>6</td>
<td>1.286</td>
<td>0.854</td>
<td>5</td>
<td>1.596</td>
<td>0.450</td>
<td>5</td>
<td>0.310</td>
<td>0.814</td>
<td>0.239</td>
</tr>
<tr>
<td>7</td>
<td>0.810</td>
<td>0.413</td>
<td>5</td>
<td>1.056</td>
<td>0.452</td>
<td>5</td>
<td>0.246</td>
<td>1.730</td>
<td>0.0908</td>
</tr>
<tr>
<td>8</td>
<td>1.710</td>
<td>0.478</td>
<td>5</td>
<td>2.156</td>
<td>0.538</td>
<td>5</td>
<td>0.446</td>
<td>1.973</td>
<td>0.0713</td>
</tr>
<tr>
<td>9</td>
<td>1.460</td>
<td>0.631</td>
<td>5</td>
<td>1.436</td>
<td>0.385</td>
<td>5</td>
<td>-0.024</td>
<td>-0.110</td>
<td>0.458*</td>
</tr>
<tr>
<td>10</td>
<td>2.560</td>
<td>0.434</td>
<td>5</td>
<td>1.160</td>
<td>0.262</td>
<td>5</td>
<td>-1.400</td>
<td>-10.659</td>
<td>0.0007*</td>
</tr>
</tbody>
</table>

Summary and Conclusions

An unexpected finding during the questionnaire development was that responses on the written questionnaire and in the interview were highly correlated for only two categories, MORTALITY, and LIFE'S EXPECTATIONS & SATISFACTIONS. On the other categories, and on the overall concern, subjects expressed a greater concern in the interview setting than on the written questionnaire, and the responses were poorly or uncorrelated. This does not invalidate the questionnaire, but rather underscores the influence of the interviewer's technique or manner in presenting the questions. Although this study did not address the issue by comparing responses to questions given by several interviewers, it is likely that responses vary widely depending on the interviewer's technique and
manner. If so, the written Mid-Life Questionnaire is a more reliable instrument.
APPENDIX G

Information Sent to the Survey Respondents
Dear Survey Respondent:

I am a professional counselor, researcher and a doctoral candidate in counseling at Oregon State University. I am bound to keep all information you give me confidential and additional steps will be taken to assure the complete anonymity of responses obtained. The results of the study will be available to you.

There is a considerable body of research concerning the developmental stages of adolescence and old age. During these stages people deal with common physical, psychological and social concerns as well as dissatisfactions, frustrations and conflicting feelings. Recent research suggests another stage in the life cycle is traversed in mid-life and it too can be identified by the common experiences of those passing through it. You can help expand existing knowledge of the mid-life stage by sharing some of your personal experiences and reactions to certain events which may have occurred in your life.

Your cooperation is invaluable and greatly appreciated for the successful completion of this study.

Thank You,

Patricia A. Lacy
Doctoral Candidate
Birth Date________________

Take a few moments and think back over your life, to when you were in your early twenties, and recall the changes you have experienced since then. What kind of a person were you in your twenties? Recall how you differed in your thirties and forties from your twenties, and how you differ now. As you reflect on these changes, what stands out as important in the alterations that have taken place in your values, attitudes, and interests?

What important modifications have occurred over the years in your attitude to life in general: to your work; family; children; marriage; and your attitude to yourself? What personal concerns, dissatisfactions, frustrations and conflicting feelings have you experienced during your adult life?

The following set of questions will help you recall some of these experiences. You will note each question has five parts, "a" through "e." In each question five parts, "a" through "e." In each question part "a" will always be answered either YES or NO in response to whether you remember experiencing a particular concern, dissatisfaction, frustration or conflicting feeling. If your response is NO, parts b,c,d and e, are not answered and you will go on to the next question. Please answer each question from age thirty years on to the present, disregarding experiences which occurred prior to your thirtieth birthday. Some of your feelings may have begun prior to that age but consider how they manifested them.

Please take time to recall each experience.
DEMOGRAPHIC INFORMATION

Birthdate__________________
Married________ Number of times________
Single (Never Married)____ Divorced____ Widowed____
Children: NO________ YES_______ Number________
Your age at birth of first child______________
Your age at birth of last child______________
Age range between the age of first child and last child____
Children live at home: NO________ YES________
Number of children at home_____________________
Number of children living away from home_________
How long since your last child left home_________
Age when you returned to your education_________
State your highest year in school_________________
Please state your work history:
Years of work during age period: 20 yrs - 30 yrs______; 30-40 yrs______; 40-50 yrs______; 50 yrs and up______;
Example: if you worked 5 years between ages 20 and 30, then write 5 in the appropriate space.
APPENDIX H
Mid-Life Questionnaire
1. Do you recall a concern stemming from an awareness that life is passing quickly?
   a. NO____________________ YES____________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_______ Strong________ Very Strong________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight_______ Strong________ Very Strong________

2. Do you recall a concern stemming from an awareness that life is very short?
   a. NO____________________ YES____________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_______ Strong________ Very Strong________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight_______ Strong________ Very Strong________
3. Do you recall a concern stemming from an awareness that death is in fact, inevitable?
   a. NO____________________ YES____________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight________ Strong______ Very Strong_______

4. Do you recall a concern over the loss of role status as your children began to leave the nest?
   a. NO____________________ YES____________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight________ Strong______ Very Strong_______
5. Do you recall a concern over the loss over never being a parent?
   a. NO____________________ YES____________________
      (If NO proceed to next question) (If YES continue on to
         b,c,d,e)
   b. At what peak intensity would you say you experienced the
      concern?
      Slight_______ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past
      year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight_______ Strong_______ Very Strong_______

6. Do you recall feeling trapped because of limits upon you
   stemming from your marriage?
   a. NO____________________ YES____________________
      (If NO proceed to next question) (If YES continue on to
         b,c,d,e)
   b. At what peak intensity would you say you experienced the
      concern?
      Slight_______ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past
      year?
      NO____________________ YES____________________
   e. If so at what intensity:
      Slight_______ Strong_______ Very Strong_______
7. Do you recall being dissatisfied with your marriage?
   a. NO___________________  YES___________________
      (If NO proceed to next question)(If YES continue on to
       b,c,d,e)
   b. At what peak intensity would you say you experienced the
      concern?
      Slight______  Strong______  Very Strong______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past
      year?
      NO___________________  YES___________________
   e. If so at what intensity:
      Slight______  Strong______  Very Strong______

8. Do you recall being dissatisfied with your marriage partner?
   a. NO___________________  YES___________________
      (If NO proceed to next question)(If YES continue on to
       b,c,d,e)
   b. At what peak intensity would you say you experienced the
      concern?
      Slight______  Strong______  Very Strong______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past
      year?
      NO___________________  YES___________________
   e. If so at what intensity:
      Slight______  Strong______  Very Strong______
9. Do you recall being dissatisfied because you never married?
   a. NO ___________________ YES ___________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight ________ Strong ________ Very Strong ________
   c. At what age was this concern the greatest?
      30-34 ___; 35-39 ___; 40-44 ___; 45-49 ___; 50-55 ___
      55 or over ___
   d. Has this been a concern in your life during the past year?
      NO ___________________ YES ___________________
   e. If so at what intensity:
      Slight ________ Strong ________ Very Strong ________

10. Do you recall feeling frustrated over being trapped by life's circumstances from doing what your really wanted to do?
    a. NO ___________________ YES ___________________
       (If NO proceed to next question)(If YES continue on to b,c,d,e)
    b. At what peak intensity would you say you experienced the concern?
       Slight ________ Strong ________ Very Strong ________
    c. At what age was this concern the greatest?
       30-34 ___; 35-39 ___; 40-44 ___; 45-49 ___; 50-55 ___
       55 or over ___
    d. Has this been a concern in your life during the past year?
       NO ___________________ YES ___________________
    e. If so at what intensity:
       Slight ________ Strong ________ Very Strong ________
11. Do you recall a concern over the decline in your physical vigor and stamina?
   a. NO__________________ YES__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO__________________ YES__________________
   e. If so at what intensity:
      Slight________ Strong_______ Very Strong_______

12. Do you recall a concern over the decline of your general health?
   a. NO__________________ YES__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO__________________ YES__________________
   e. If so at what intensity:
      Slight________ Strong_______ Very Strong_______
13. Do you recall feelings of frustration as you became aware of the difference between your early dreams and your actual achievements?
   a. **NO**__________________ **YES**__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong________ Very Strong________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      **NO**__________________ **YES**__________________
   e. If so at what intensity:
      Slight________ Strong________ Very Strong________

14. Do you recall a concern over the decline of your personal physical attractiveness?
   a. **NO**__________________ **YES**__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight________ Strong________ Very Strong________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      **NO**__________________ **YES**__________________
   e. If so at what intensity:
      Slight________ Strong________ Very Strong________
15. Do you recall a feeling of self-worthlessness and a loss of value as a person?
   a. NO_________________ YES_________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
b. At what peak intensity would you say you experienced the concern?
      Slight_________ Strong_________ Very Strong_________
c. At what age was this concern the greatest?
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___
      55 or over_____
d. Has this been a concern in your life during the past year?
      NO_________________ YES_________________
e. If so at what intensity:
      Slight_________ Strong_________ Very Strong_________

16. Do you recall a concern over your sexuality?
   a. NO_________________ YES_________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
b. At what peak intensity would you say you experienced the concern?
      Slight_________ Strong_________ Very Strong_________
c. At what age was this concern the greatest?
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___
      55 or over_____
d. Has this been a concern in your life during the past year?
      NO_________________ YES_________________
e. If so at what intensity:
      Slight_________ Strong_________ Very Strong_________
17. Do you recall feelings of your sexual inhibitions decreasing?
a. NO________________________ YES________________________
   (If NO proceed to next question)(If YES continue on to
   b,c,d,e)
b. At what peak intensity would you say you experienced the
   concern?
   Slight_______ Strong________ Very Strong_______
c. At what age was this concern the greatest?
   30-34___; 35-39___; 40-44___; 45-49___; 50-55___
   55 or over____
d. Has this been a concern in your life during the past
   year?
   NO________________________ YES________________________
e. If so at what intensity:
   Slight_______ Strong________ Very Strong_______

18. Do you recall feelings of your sexual inhibitions increasing?
a. NO________________________ YES________________________
   (If NO proceed to next question)(If YES continue on to
   b,c,d,e)
b. At what peak intensity would you say you experienced the
   concern?
   Slight_______ Strong________ Very Strong_______
c. At what age was this concern the greatest?
   30-34___; 35-39___; 40-44___; 45-49___; 50-55___
   55 or over____
d. Has this been a concern in your life during the past
   year?
   NO________________________ YES________________________
e. If so at what intensity:
   Slight_______ Strong________ Very Strong_______
19. Do you recall feelings of new sexual interest developing?
   a. NO___________________ YES___________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_______ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO___________________ YES___________________
   e. If so at what intensity:
      Slight_______ Strong_______ Very Strong_______

20. Do you recall a concern stemming from an awareness that time is running out?
   a. NO___________________ YES___________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_______ Strong_______ Very Strong_______
   c. At what age was this concern the greatest?
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO___________________ YES___________________
   e. If so at what intensity:
      Slight_______ Strong_______ Very Strong_______
21. Do you recall a concern stemming from a feeling of the loss of your personal identity?  
   a. NO_________________ YES_________________  
      (If NO proceed to next question)(If YES continue on to  
      b,c,d,e)  
   b. At what peak intensity would you say you experienced the concern?  
      Slight_________ Strong_________ Very Strong_________  
   c. At what age was this concern the greatest?  
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___; 55 or over___  
   d. Has this been a concern in your life during the past year?  
      NO_________________ YES_________________  
   e. If so at what intensity:  
      Slight_________ Strong_________ Very Strong_________  

22. Do you recall feeling dissatisfied over the meaning and purpose  
   a. NO_________________ YES_________________  
      (If NO proceed to next question)(If YES continue on to  
      b,c,d,e)  
   b. At what peak intensity would you say you experienced the concern?  
      Slight_________ Strong_________ Very Strong_________  
   c. At what age was this concern the greatest?  
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___; 55 or over___  
   d. Has this been a concern in your life during the past year?  
      NO_________________ YES_________________  
   e. If so at what intensity:  
      Slight_________ Strong_________ Very Strong_________
23. Looking back on your life do you recall having confusion about the future?
   a. NO_________________ YES__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_________ Strong_________ Very Strong_________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO_________________ YES________________
   e. If so at what intensity:
      Slight_________ Strong_________ Very Strong_________

24. Do you recall experiencing a concern stemming from an awareness that you are not immortal?
   a. NO_________________ YES__________________
      (If NO proceed to next question)(If YES continue on to b,c,d,e)
   b. At what peak intensity would you say you experienced the concern?
      Slight_________ Strong_________ Very Strong_________
   c. At what age was this concern the greatest?
      30-34____; 35-39____; 40-44____; 45-49____; 50-55____
      55 or over____
   d. Has this been a concern in your life during the past year?
      NO_________________ YES________________
   e. If so at what intensity:
      Slight_________ Strong_________ Very Strong_________
25. Do you recall a time when you had strong feeling about changing directions of your life?
a. NO_________________ YES_________________
   (If NO proceed to next question)(If YES continue on to b,c,d,e)
b. At what peak intensity would you say you experienced the concern?
   Slight_______ Strong_______ Very Strong_______
c. At what age was this concern the greatest?
   30-34_____; 35-39_____; 40-44_____; 45-49_____; 50-55____;
   55 or over____
d. Has this been a concern in your life during the past year?
   NO_________________ YES_________________
e. If so at what intensity:
   Slight_______ Strong_______ Very Strong_______

26. Do you recall a feeling of emerging independence?
a. NO_________________ YES_________________
   (If NO proceed to next question)(If YES continue on to b,c,d,e)
b. At what peak intensity would you say you experienced the concern?
   Slight_______ Strong_______ Very Strong_______
c. At what age was this concern the greatest?
   30-34_____; 35-39_____; 40-44_____; 45-49_____; 50-55____;
   55 or over____
d. Has this been a concern in your life during the past year?
   NO_________________ YES_________________
e. If so at what intensity:
   Slight_______ Strong_______ Very Strong_______
27. Do you recall a feeling of a need for freedom to grow?
   a. NO_________________________ YES_________________________
      (If NO proceed to next question)(If YES continue on to
      b,c,d,e)
   b. At what peak intensity would you say you experienced the
      concern?
      Slight________ Strong________ Very Strong________
   c. At what age was this concern the greatest?
      30-34___; 35-39___; 40-44___; 45-49___; 50-55___
      55 or over___
   d. Has this been a concern in your life during the past
      year?
      NO_________________________ YES_________________________
   e. If so at what intensity:
      Slight________ Strong________ Very Strong________
APPENDIX I

Post-Hoc Pairwise Comparison of Cell Means:
(Tukey HSD)
Post-Hoc Pairwise Comparisons of Cell Means: Category of Concern vs. Age Level (Tukey HSD). (R₁ - R₆ represent age level and C₁ - C₆ represent category of concern. The cells contain differences between cell means, ranked from the smallest to the largest difference. Significant differences (p < 0.05) are asterisked. The table is divided in three across its width and continued over three pages.)

<table>
<thead>
<tr>
<th>R₁</th>
<th>R₂</th>
<th>R₃</th>
<th>R₄</th>
<th>R₅</th>
<th>R₆</th>
<th>C₁</th>
<th>C₂</th>
<th>C₃</th>
<th>C₄</th>
<th>C₅</th>
<th>C₆</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
<td><strong>D</strong></td>
<td><strong>E</strong></td>
<td><strong>F</strong></td>
</tr>
</tbody>
</table>

*Significant differences (p < 0.05) are asterisked.*
Post-Hoc Pairwise Comparisons of Cell Means: Category of Concern vs. Age Level (Tukey HSD)

<table>
<thead>
<tr>
<th>R2C3</th>
<th>R1C4</th>
<th>R1C3</th>
<th>R4C1</th>
<th>R4C3</th>
<th>R2C3</th>
<th>R2C1</th>
<th>R5C5</th>
<th>R6C2</th>
<th>R1C5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.67</td>
<td>3.33</td>
<td>4.33</td>
<td>5.00</td>
<td>5.33</td>
<td>5.67</td>
<td>6.67</td>
<td>7.00</td>
<td>7.00</td>
<td>7.33</td>
</tr>
<tr>
<td>R1C3</td>
<td>2.80</td>
<td>0.00</td>
<td>1.66</td>
<td>2.66</td>
<td>3.33</td>
<td>3.66</td>
<td>4.00</td>
<td>5.00</td>
<td>5.33</td>
</tr>
<tr>
<td>R1C4</td>
<td>3.33</td>
<td>1.00</td>
<td>1.67</td>
<td>2.00</td>
<td>2.34</td>
<td>3.34</td>
<td>3.67</td>
<td>3.67</td>
<td>4.00</td>
</tr>
<tr>
<td>R4C1</td>
<td>5.00</td>
<td>0.33</td>
<td>0.67</td>
<td>1.67</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td></td>
</tr>
<tr>
<td>R4C3</td>
<td>5.33</td>
<td>0.34</td>
<td>1.34</td>
<td>1.67</td>
<td>1.67</td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C3</td>
<td>5.67</td>
<td>1.00</td>
<td>1.33</td>
<td>1.33</td>
<td>1.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C1</td>
<td>6.67</td>
<td>0.33</td>
<td>0.33</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5C5</td>
<td>7.00</td>
<td>0.00</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C2</td>
<td>7.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1C5</td>
<td>7.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C5</td>
<td>8.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C4</td>
<td>8.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5C2</td>
<td>8.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4C5</td>
<td>8.67</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5C3</td>
<td>9.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4C2</td>
<td>10.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5C4</td>
<td>10.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C1</td>
<td>10.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C4</td>
<td>10.67</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4C4</td>
<td>11.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C5</td>
<td>11.67</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C1</td>
<td>12.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C4</td>
<td>13.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C5</td>
<td>13.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C2</td>
<td>13.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C3</td>
<td>14.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3C2</td>
<td>16.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C3</td>
<td>16.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1C2</td>
<td>16.67</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C1</td>
<td>23.33</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Post-Hoc Pairwise Comparisons of Cell Means: Category of Concern vs. Age Level (Tukey HSD) (continued)

<table>
<thead>
<tr>
<th></th>
<th>R₆C₅</th>
<th>R₆C₄</th>
<th>R₅C₂</th>
<th>R₄C₅</th>
<th>R₅C₃</th>
<th>R₄C₂</th>
<th>R₅C₄</th>
<th>R₈C₁</th>
<th>R₂C₄</th>
<th>R₄C₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>R₁C₃</td>
<td>2.80</td>
<td>6.33</td>
<td>6.66</td>
<td>6.66</td>
<td>7.00</td>
<td>7.33</td>
<td>8.33</td>
<td>8.33</td>
<td>8.33</td>
<td>9.00</td>
</tr>
<tr>
<td>R₁C₄</td>
<td>3.33</td>
<td>4.67</td>
<td>5.00</td>
<td>5.00</td>
<td>5.34</td>
<td>5.67</td>
<td>6.67</td>
<td>6.67</td>
<td>6.67</td>
<td>7.34</td>
</tr>
<tr>
<td>R₂C₁</td>
<td>4.33</td>
<td>3.67</td>
<td>4.00</td>
<td>4.00</td>
<td>4.34</td>
<td>4.67</td>
<td>5.67</td>
<td>5.67</td>
<td>5.67</td>
<td>8.34</td>
</tr>
<tr>
<td>R₂C₄</td>
<td>5.00</td>
<td>3.00</td>
<td>3.33</td>
<td>3.33</td>
<td>3.67</td>
<td>4.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.67</td>
</tr>
<tr>
<td>R₃C₃</td>
<td>5.33</td>
<td>2.67</td>
<td>3.00</td>
<td>3.00</td>
<td>3.34</td>
<td>3.67</td>
<td>4.67</td>
<td>4.67</td>
<td>4.67</td>
<td>5.34</td>
</tr>
<tr>
<td>R₂C₃</td>
<td>5.67</td>
<td>2.33</td>
<td>2.66</td>
<td>2.66</td>
<td>3.00</td>
<td>3.33</td>
<td>4.33</td>
<td>4.33</td>
<td>4.33</td>
<td>5.00</td>
</tr>
<tr>
<td>R₂C₁</td>
<td>6.67</td>
<td>1.33</td>
<td>1.66</td>
<td>1.66</td>
<td>2.00</td>
<td>2.33</td>
<td>3.33</td>
<td>3.33</td>
<td>3.33</td>
<td>4.00</td>
</tr>
<tr>
<td>R₅C₅</td>
<td>7.00</td>
<td>1.00</td>
<td>1.33</td>
<td>1.33</td>
<td>1.67</td>
<td>2.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.67</td>
</tr>
<tr>
<td>R₆C₂</td>
<td>7.00</td>
<td>1.00</td>
<td>1.33</td>
<td>1.33</td>
<td>1.67</td>
<td>2.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.67</td>
</tr>
<tr>
<td>R₁C₅</td>
<td>7.33</td>
<td>0.67</td>
<td>1.00</td>
<td>1.00</td>
<td>1.34</td>
<td>1.67</td>
<td>2.67</td>
<td>2.67</td>
<td>2.67</td>
<td>3.34</td>
</tr>
<tr>
<td>R₅C₅</td>
<td>8.00</td>
<td>0.33</td>
<td>0.33</td>
<td>0.67</td>
<td>1.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.67</td>
<td>3.33</td>
</tr>
<tr>
<td>R₆C₄</td>
<td>8.33</td>
<td>0.00</td>
<td>0.34</td>
<td>0.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>2.34</td>
<td>3.33</td>
</tr>
<tr>
<td>R₅C₂</td>
<td>8.33</td>
<td>0.34</td>
<td>0.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>2.34</td>
<td>3.00</td>
<td>4.00</td>
</tr>
<tr>
<td>R₄C₅</td>
<td>8.67</td>
<td>0.33</td>
<td>1.33</td>
<td>1.33</td>
<td>1.33</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.66</td>
<td>3.33</td>
</tr>
<tr>
<td>R₅C₃</td>
<td>9.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.67</td>
<td>2.33</td>
<td>3.33</td>
<td>3.33</td>
<td>3.33</td>
<td>4.00</td>
</tr>
<tr>
<td>R₄C₂</td>
<td>10.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₅C₄</td>
<td>10.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₃C₁</td>
<td>10.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₂C₄</td>
<td>10.67</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₄C₄</td>
<td>11.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₃C₅</td>
<td>11.67</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₅C₁</td>
<td>12.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₂C₂</td>
<td>13.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₃C₃</td>
<td>13.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₃C₂</td>
<td>13.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₅C₂</td>
<td>14.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₃C₃</td>
<td>16.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₆C₃</td>
<td>16.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₁C₂</td>
<td>16.67</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
<tr>
<td>R₆C₁</td>
<td>23.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.67</td>
<td>1.33</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.33</td>
<td>3.00</td>
</tr>
</tbody>
</table>
Post-Hoc Pairwise Comparisons of Cell Means: Category of Concern vs. Age Level (Tukey HSD) (continued)

<table>
<thead>
<tr>
<th></th>
<th>R3C5</th>
<th>R5C1</th>
<th>R3C4</th>
<th>R2C5</th>
<th>R2C2</th>
<th>R3C3</th>
<th>R3C2</th>
<th>R6C3</th>
<th>R1C2</th>
<th>R6C1</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1C3</td>
<td>2.80</td>
<td>10.00</td>
<td>10.66</td>
<td>11.33</td>
<td>11.66</td>
<td>11.66</td>
<td>12.33</td>
<td>14.33</td>
<td>14.66</td>
<td>15.00</td>
</tr>
<tr>
<td>R1C4</td>
<td>3.33</td>
<td>7.34</td>
<td>8.00</td>
<td>8.67</td>
<td>9.00</td>
<td>9.00</td>
<td>9.67</td>
<td>11.67</td>
<td>12.00</td>
<td>12.34</td>
</tr>
<tr>
<td>R1C1</td>
<td>4.33</td>
<td>6.67</td>
<td>7.33</td>
<td>8.00</td>
<td>8.33</td>
<td>8.33</td>
<td>9.00</td>
<td>11.00</td>
<td>11.33</td>
<td>11.67</td>
</tr>
<tr>
<td>R4C1</td>
<td>5.00</td>
<td>6.67</td>
<td>7.33</td>
<td>8.00</td>
<td>8.33</td>
<td>8.33</td>
<td>9.00</td>
<td>11.00</td>
<td>11.33</td>
<td>11.67</td>
</tr>
<tr>
<td>R4C3</td>
<td>5.33</td>
<td>6.34</td>
<td>7.00</td>
<td>7.67</td>
<td>8.00</td>
<td>8.00</td>
<td>8.67</td>
<td>10.67</td>
<td>11.00</td>
<td>11.34</td>
</tr>
<tr>
<td>R2C3</td>
<td>5.67</td>
<td>6.00</td>
<td>6.66</td>
<td>7.34</td>
<td>7.66</td>
<td>7.66</td>
<td>8.33</td>
<td>10.33</td>
<td>10.66</td>
<td>11.00</td>
</tr>
<tr>
<td>R2C1</td>
<td>6.67</td>
<td>5.00</td>
<td>5.66</td>
<td>6.34</td>
<td>6.66</td>
<td>6.66</td>
<td>7.33</td>
<td>9.33</td>
<td>9.66</td>
<td>10.00</td>
</tr>
<tr>
<td>R5C5</td>
<td>7.00</td>
<td>4.67</td>
<td>5.33</td>
<td>6.00</td>
<td>6.33</td>
<td>6.33</td>
<td>7.00</td>
<td>9.00</td>
<td>9.33</td>
<td>9.67</td>
</tr>
<tr>
<td>R6C2</td>
<td>7.00</td>
<td>4.67</td>
<td>5.33</td>
<td>6.00</td>
<td>6.33</td>
<td>6.33</td>
<td>7.00</td>
<td>9.00</td>
<td>9.33</td>
<td>9.67</td>
</tr>
<tr>
<td>R1C5</td>
<td>7.33</td>
<td>4.34</td>
<td>5.00</td>
<td>5.67</td>
<td>6.00</td>
<td>6.00</td>
<td>6.67</td>
<td>8.67</td>
<td>9.00</td>
<td>9.33</td>
</tr>
<tr>
<td>R6C5</td>
<td>8.00</td>
<td>3.67</td>
<td>4.33</td>
<td>5.00</td>
<td>5.33</td>
<td>5.33</td>
<td>6.00</td>
<td>8.00</td>
<td>8.33</td>
<td>8.66</td>
</tr>
<tr>
<td>R6C4</td>
<td>8.33</td>
<td>3.34</td>
<td>4.00</td>
<td>4.67</td>
<td>5.00</td>
<td>5.00</td>
<td>5.67</td>
<td>7.67</td>
<td>8.00</td>
<td>8.33</td>
</tr>
<tr>
<td>R5C2</td>
<td>8.33</td>
<td>3.34</td>
<td>4.00</td>
<td>4.67</td>
<td>5.00</td>
<td>5.00</td>
<td>5.67</td>
<td>7.67</td>
<td>8.00</td>
<td>8.33</td>
</tr>
<tr>
<td>R4C5</td>
<td>8.67</td>
<td>3.00</td>
<td>4.34</td>
<td>4.33</td>
<td>4.66</td>
<td>4.66</td>
<td>5.33</td>
<td>7.33</td>
<td>7.66</td>
<td>8.00</td>
</tr>
<tr>
<td>R5C3</td>
<td>9.00</td>
<td>2.67</td>
<td>3.33</td>
<td>4.00</td>
<td>4.33</td>
<td>4.33</td>
<td>5.00</td>
<td>7.00</td>
<td>7.33</td>
<td>7.67</td>
</tr>
<tr>
<td>R4C2</td>
<td>10.00</td>
<td>1.67</td>
<td>2.33</td>
<td>3.00</td>
<td>3.33</td>
<td>3.33</td>
<td>4.00</td>
<td>6.00</td>
<td>6.33</td>
<td>6.67</td>
</tr>
<tr>
<td>R5C4</td>
<td>10.00</td>
<td>1.67</td>
<td>2.33</td>
<td>3.00</td>
<td>3.33</td>
<td>3.33</td>
<td>4.00</td>
<td>6.00</td>
<td>6.33</td>
<td>6.67</td>
</tr>
<tr>
<td>R3C1</td>
<td>10.00</td>
<td>1.67</td>
<td>2.33</td>
<td>3.00</td>
<td>3.33</td>
<td>3.33</td>
<td>4.00</td>
<td>6.00</td>
<td>6.33</td>
<td>6.67</td>
</tr>
<tr>
<td>R2C4</td>
<td>10.67</td>
<td>1.00</td>
<td>1.66</td>
<td>2.33</td>
<td>2.66</td>
<td>2.66</td>
<td>3.33</td>
<td>5.33</td>
<td>5.66</td>
<td>6.00</td>
</tr>
<tr>
<td>R4C4</td>
<td>11.33</td>
<td>0.34</td>
<td>1.00</td>
<td>1.67</td>
<td>2.00</td>
<td>2.00</td>
<td>2.67</td>
<td>4.67</td>
<td>5.00</td>
<td>5.34</td>
</tr>
<tr>
<td>R3C5</td>
<td>11.67</td>
<td>0.66</td>
<td>1.33</td>
<td>1.66</td>
<td>1.66</td>
<td>2.33</td>
<td>4.33</td>
<td>4.66</td>
<td>5.00</td>
<td>5.34</td>
</tr>
<tr>
<td>R5C1</td>
<td>12.33</td>
<td>0.67</td>
<td>1.00</td>
<td>1.00</td>
<td>1.67</td>
<td>3.67</td>
<td>4.00</td>
<td>4.34</td>
<td>11.33</td>
<td></td>
</tr>
<tr>
<td>R3C4</td>
<td>13.00</td>
<td>0.33</td>
<td>0.33</td>
<td>1.00</td>
<td>3.00</td>
<td>3.33</td>
<td>3.67</td>
<td>10.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C5</td>
<td>13.33</td>
<td>0.00</td>
<td>0.67</td>
<td>2.67</td>
<td>3.00</td>
<td>3.34</td>
<td>10.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2C2</td>
<td>13.33</td>
<td>0.67</td>
<td>2.67</td>
<td>3.00</td>
<td>3.34</td>
<td>10.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C3</td>
<td>16.00</td>
<td>0.33</td>
<td>0.67</td>
<td>7.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C1</td>
<td>16.67</td>
<td>0.34</td>
<td>7.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1C2</td>
<td>16.33</td>
<td>6.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6C1</td>
<td>23.33</td>
<td>6.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>