Sex-Role Attitudes and Some Selected Background Characteristics of Women in Nontraditional Careers, Women in Traditional Careers, and the Homemakers in Malaysia

Rohany Nasir
Western Michigan University

Follow this and additional works at: http://scholarworks.wmich.edu/dissertations
Part of the Vocational Education Commons

Recommended Citation
http://scholarworks.wmich.edu/dissertations/2355
SEX-ROLE ATTITUDES AND SOME SELECTED BACKGROUND CHARACTERISTICS OF WOMEN IN NONTRADITIONAL CAREERS, WOMEN IN TRADITIONAL CAREERS, AND THE HOMEMAKERS IN MALAYSIA

by

Rohany Nasir

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Counseling and Personnel

Western Michigan University
Kalamazoo, Michigan
December 1984
SEX-ROLE ATTITUDES AND SOME SELECTED BACKGROUND CHARACTERISTICS OF WOMEN IN NONTRADITIONAL CAREERS, WOMEN IN TRADITIONAL CAREERS, AND THE HOMEMAKERS IN MALAYSIA

Rohany Nasir, Ed.D.
Western Michigan University, 1984

The purpose of this study was to compare the sex-role attitudes and background characteristics of women in nontraditional careers, traditional careers, and the homemakers in Malaysia.

The population studied was 630 women, out of which there were 210 women in nontraditional careers, 210 women in traditional careers, and 210 homemakers over the age of 18 who worked and resided in the areas of Kuala Lumpur and Selangor.

Spence and Helmreich's Attitudes Toward Women Scale—short form was used to measure the overall sex-role attitudes while the AWS vocational, educational, and intellectual theme was utilized to measure the attitudes toward women's roles in the vocational, educational, and intellectual areas. A questionnaire which covered the biographic data of the three groups of women was used to examine the background characteristics of the women.

The basic premise of this study was that the three groups of women would differ in their sex-role attitudes and background characteristics. It was hypothesized that nontraditional careers women would be the most liberal in both their overall sex-role attitudes and their attitudes toward women's roles in the vocational,
educational, and intellectual areas. It was also postulated that there would be differences among the three groups of women in terms of their parents' combined monthly income levels, fathers' and mothers' levels of education, mothers' employment status, perception of parents' value of education, perception of parents' encouragement for them to pursue their careers, and places where they spent most of their childhood and adolescent years.

Results indicated that women in nontraditional careers were the most liberal among the three groups in both their overall sex-role attitudes and their sex-role attitudes in the vocational, educational, and intellectual areas. Findings also revealed differences among the three groups in terms of their background characteristics. Discussions focused on the implications of sex-role attitudes on career development of women in Malaysia. The relationship between background characteristics and how they could predict the nature of the careers of the three groups of women was discussed.

Recommendations were aimed towards further research pertaining to sex-role attitudes and women in Malaysia.
INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.

2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.
Nasir, Rohany

SEX-ROLE ATTITUDES AND SOME SELECTED BACKGROUND CHARACTERISTICS OF WOMEN IN NONTRADITIONAL CAREERS, WOMEN IN TRADITIONAL CAREERS, AND THE HOMEMAKERS IN MALAYSIA

Western Michigan University

Copyright 1985 by Nasir, Rohany
All Rights Reserved
ACKNOWLEDGMENTS

A very special thank you to my doctoral chairperson, Dr. Thelma Urbick, my doctoral committee members, Dr. Uldis Smidchens and Dr. Chris Koronakos, for their critical yet positive advice and more importantly their support.

I also owe a great deal to many people who have provided assistance during the process of collecting data: Cik Noor Faridah Ariffin of the Federation of Women Lawyers Malaysia; Cik Zainun and Cik Rohani of Peniagawati; Dr. Noridah Ibrahim; Cik Nor Enson Abbas, Cik Hasnah, and Matron Iskandar of University Hospital; Matron Zubaidah, Matron Kalsum, Cik Azizun, and Encik Mohammad Nor of General Hospital; IR Lai Cheng Cheong and Miss Chong Peick Hong of the Board of Engineers Malaysia; Encik Abdul Ghani Mahmud of JKR; Encik Benjamin of the Institution of Engineers; Cik Norhabilah Hassan of JPT; Raja Yazmin, Encik Ahmad Zakaria, and Encik Ismail of Telekoms; Cik Juliah Mohd Hassan of LLN; Cik Ramlah, Cik Fadzillah, Cik Fatimah, Cik Faridah, and Cik Zuriani.

To my colleagues at the National University of Malaysia, especially to Rajmah, Dr. Wan Rafaeli, Aminuddin, Dr. Mohammad, Ariffin Zainal, and Nordin Ahmad, for their encouragement and help.

Thank you very much to Mrs. Lee Pakko for the beautiful typing.

My gratitude to Sham for her concern and friendship throughout the final months.
I extend my most heartfelt love and appreciation to those to whom this effort is dedicated, my husband, Ahmad Suhaimi, and my children, Alan and Ida, for their constant support, understanding, and sacrifice. I also dedicate this effort to: my parents, who have made me recognize my own self-worth and the value of reaching to achieve the tasks I have undertaken; to my sisters, Kak Zi, Ana, Rozi, and Mek Jana, for their prayers; and to Pak Chik Aron for reminding me about "the ... tradition."

Rohany Nasir
TABLE OF CONTENTS

ACKNOWLEDGMENTS .................................................. ii
LIST OF TABLES ..................................................... viii
Chapter

I. THE PROBLEM ...................................................... 1
   Introduction .................................................. 1
   Background Information on Women in Malaysia .............. 1
   Background of the Problem ................................ 7
   Purpose of the Study ........................................ 10
   Definition of Concepts ...................................... 11
      Sex-Role Attitudes ....................................... 11
      Theory of Cognitive Dissonance ....................... 12
   Hypotheses .................................................. 13
      Sex-Role Attitudes ....................................... 14
      Background Characteristics ........................... 14
   Organization of Content .................................... 15

II. REVIEW OF LITERATURE ......................................... 16
   Introduction .................................................. 16
   Sex-Role Attitudes .......................................... 16
   Cross-Cultural Studies on Sex-Role Attitudes .............. 23
   Background Characteristics ............................... 25
   Summary ................................................................ 33

III. DESIGN AND METHODOLOGY ..................................... 35
   Introduction .................................................. 35
### Table of Contents—Continued

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentation and Materials</td>
<td>35</td>
</tr>
<tr>
<td>The Attitudes Toward Women Scale</td>
<td>35</td>
</tr>
<tr>
<td>Questionnaire Dealing With Background Characteristics</td>
<td>39</td>
</tr>
<tr>
<td>Back Translation</td>
<td>40</td>
</tr>
<tr>
<td>Materials</td>
<td>42</td>
</tr>
<tr>
<td>Population Studied</td>
<td>43</td>
</tr>
<tr>
<td>Women in Nontraditional Careers Subjects</td>
<td>44</td>
</tr>
<tr>
<td>Women in Traditional Careers Subjects</td>
<td>45</td>
</tr>
<tr>
<td>Homemakers Subjects</td>
<td>46</td>
</tr>
<tr>
<td>Paid Volunteer Research Assistants</td>
<td>62</td>
</tr>
<tr>
<td>Nonpaid Volunteer Research Assistants</td>
<td>64</td>
</tr>
<tr>
<td>Instructions to Paid Volunteer Research Assistants</td>
<td>64</td>
</tr>
<tr>
<td>Instructions to Nonpaid Volunteer Research Assistants</td>
<td>66</td>
</tr>
<tr>
<td>Coding Procedures</td>
<td>66</td>
</tr>
<tr>
<td>Research Design and Data Analysis</td>
<td>68</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>72</td>
</tr>
<tr>
<td>Characteristics of the Sample</td>
<td>72</td>
</tr>
<tr>
<td>Summary</td>
<td>74</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>75</td>
</tr>
<tr>
<td>Introduction</td>
<td>75</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td>78</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>81</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>84</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>87</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>89</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>92</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>94</td>
</tr>
<tr>
<td>Hypothesis 8</td>
<td>97</td>
</tr>
<tr>
<td>Hypothesis 9</td>
<td>99</td>
</tr>
<tr>
<td>Summary</td>
<td>102</td>
</tr>
<tr>
<td>V. SUMMARY, DISCUSSION, AND RECOMMENDATIONS</td>
<td>103</td>
</tr>
<tr>
<td>Summary</td>
<td>103</td>
</tr>
<tr>
<td>Discussion</td>
<td>113</td>
</tr>
<tr>
<td>Sex-Role Attitudes and Career Development</td>
<td>113</td>
</tr>
<tr>
<td>Background Characteristics of Women in Nontraditional Careers,</td>
<td>117</td>
</tr>
<tr>
<td>Traditional Careers, and the Homemakers</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td>124</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>128</td>
</tr>
<tr>
<td>A. Background Characteristics Questionnaire</td>
<td>129</td>
</tr>
<tr>
<td>B. Background Characteristics Questionnaire in the Malay Language</td>
<td>135</td>
</tr>
<tr>
<td>C. Attitudes Toward Women Scale</td>
<td>142</td>
</tr>
<tr>
<td>D. Attitudes Toward Women Scale Translated Into the Malay Language</td>
<td>150</td>
</tr>
<tr>
<td>E. Letter From the Researcher to the Research Subjects</td>
<td>158</td>
</tr>
<tr>
<td>F. Letter From the Researcher to the Research Subjects in the Malay Language</td>
<td>160</td>
</tr>
</tbody>
</table>
Table of Contents—Continued

G. Letter From the Head of Psychology Department of the National University of Malaysia Addressed to the Subjects of This Study ............... 162

H. Letter From the Head of Psychology Department of the National University of Malaysia Addressed to the Subjects of This Study in the Malay Language ... 164

I. Comment Record for Paid Volunteer Research Assistants and Nonpaid Volunteer Research Assistants ......................................................... 166

J. The Number of Engineers Registered at the Board of Engineers Malaysia .......................................................... 168

K. Number of Engineers in Malaysia Who Are Members of the Institution of Engineers Malaysia ........ 170

L. Occupational Classification .................................................. 172

M. Groups of Women by Mothers' Jobs: Frequency and Percentages ................................. 174

N. Groups of Women by Reasons for Perceiving That Their Parents Valued, Did Not Value, and Were Indifferent Towards Education for Them: Frequency and Percentages ......................... 176

O. Groups of Women by Reasons for Perceiving That Their Parents Encouraged, Did Not Encourage, and Were Indifferent Toward Them Pursuing Careers: Frequency and Percentages ......................... 179

P. Groups of Women by Others' Encouragement for Them to Achieve Their Aims: Frequency and Percentages ... 182

Q. Husband's Encouragement to Develop in Career by Groups of Women: Frequency and Percentages .... 184

R. Groups of Women by Racial Distribution: Frequency and Percentages ................................. 186

BIBLIOGRAPHY ................................................................. 188
List of Tables—Continued

15. Husbands' Monthly Income for Nontraditional Careers Group: Frequency and Percentages ........ 58
17. Husbands' Monthly Income for Homemakers Group: Frequency and Percentages ........ 59
18. Position Among Brothers and Sisters by Group: Frequency and Percentages ........ 60
19. Means and Standard Deviations on AWS-Short Form ........ 79
20. Summary of Analysis of Variance of the Three Groups of Women's Mean Scores on AWS-Short Form ........ 79
22. Means and Standard Deviations on AWS Vocational, Educational, and Intellectual Themes ........ 82
23. Summary of Analysis of Variance of the Three Groups of Women's Mean Scores on AWS Vocational, Educational, and Intellectual Themes ........ 82
27. Chi-Square Analysis: Women's Groups and Mothers' Educational Levels ........ 91
28. Chi-Square Analysis: Women's Groups and Mothers' Employment Status ........ 93
29. Chi-Square Analysis: Women's Groups and Perceptions of Parents' Value on Education for Them ........ 95
30. Chi-Square Analysis: Women's Groups and Perception of Parents' Encouragement to Pursue a Career ........ 98
31. Chi-Square Analysis: Women's Groups and the Place Where They Spent Most of Their Childhood and Adolescent Life " " " " " " " " " " " " " " " " " " " " " 101
CHAPTER I

THE PROBLEM

Introduction

In recent years there has been a growing consciousness of the role and status of women. The considerable increase in the number of working women which could be observed in many countries reflects the changing roles of women. There has also been a trend toward more liberal beliefs about the place and role of women in society.

In Malaysia, during the past 20 years women have been actively involved in the political, economic, and social fields. There have been attempts made through seminars and conferences to create public awareness about the contributions that women have made and are able to give to society as well as the role that they can play in the developing nation. Today, numerous women's organizations are becoming more vocal in championing the cause of women. Through these organizations women have begun to assert themselves and have been involved in major decision making in the country.

Background Information on Women in Malaysia

The total population of Malaysia is 13.1 million (Malaysia, Statistics Department, 1983). Approximately half of the population is made up of women. However, being a plural society (Malay, Chinese, Indians, and others), the major concern of the country tends
to be focused more on ethnic inequalities. As such, social inequalities based on factors such as sex are generally being ignored or subsumed within the ethnic dimension. Despite this, the participation of Malaysian women in various economic, social, and political fields and in nation building has steadily increased over the past few years.

A large proportion of the total population of women in Malaysia is made up of homemakers commonly referred to as full-time housewives. The statistical information concerning female participation in the labor force in the country, however, indicates that there has been a constant increase in the proportion of women in the labor force. In 1957, 28.3% of all women aged 15 years and above were in the labor force. In 1970, the population and housing census estimated that 37.0% of the female population worked outside the home. The number of female workers continued to increase from 1.37 million in 1975 to 1.57 million in 1979. In 1975 there were 54.8 female workers to every 100 workers (Malaysia, Statistics Department, 1981). This increase is only true in the professional and technical, administrative and managerial, and clerical and sales sectors. However, in the agricultural sector, female participation had decreased from 50% in 1975 to 42.8% in 1979. Despite this, however, the main concentration is still towards the agricultural sector. The high concentration of female labor in the agricultural sector shows that the proximity of the work place and home make it convenient for the women to engage in both agricultural and homemaking activities (Malaysia, Ministry of Finance, 1981).
For the past years the government of Malaysia has stressed the importance of education. A generous sum of money had been allocated for education at the primary, secondary, and the tertiary levels. The Malaysian government spent in excess of Malaysian (M) $600 million on public schooling in 1970, or more than 5% of the GNP, and direct expenditure on private schools added at least another M $25-30 million (Hoerr, 1975). Students are sent abroad to countries like Britain, the USA, and Australia to pursue courses that are usually not available at the local universities. Higher education has long been regarded as a manpower resource for development. According to Purcell (1958), the biggest single factor in encouraging the emergence of women in Southeast Asia is undoubtedly the increase in educational facilities for them. Traditionally, in several communities, it was not considered desirable for girls to be educated, and even the majority of boys remained illiterate. In peninsular Malaysia during the 1800s, the government had to contend with prejudices and oppositions on the part of the parents to the education of Malay girls. It was only in 1884 that two government girls' schools were established in the country due to encouragement of the success of the efforts made on behalf of boys' education (Wong & Ee, 1975). By 1956 government policy had extended equality of educational opportunity to women, even though in actual practice it was found that there was unequal utilization of educational opportunity by women (Hamid Don, 1975). Over the years, with increased awareness among the people of the importance of education and the continuous demand for educated personnel in the country, the number of women attending
schools gradually increased.

Even though statistics show that in peninsular Malaysia the female literacy rate is 45.1% as opposed to the male literacy rate, 72.2% (Malaysia, Statistics Department, 1981), female enrollment at the primary, secondary, and tertiary levels of education had greatly improved over the past 20 years. Strange (1978) observed in her study on rural Malay women between the years 1965-1975 that:

Females have ventured far from the village for education and jobs only during the past few years. The first woman to make the big step did so with her own ability and courage backed by an illiterate mother who shared her daughter's belief in the value of education for women as well as men and who worked and struggled against opposition to give her daughter the opportunity they both wanted. Others are following the example. (p. 64)

With the growing number of educated women in Malaysia, more career choices are available for women. There are women represented in various fields of endeavor in the country. Formerly, women were employed in jobs that are traditionally female or closely related to their prime roles as wives and mothers such as teaching, nursing, typing, tailoring, and housekeeping. Recently, women are increasingly entering occupations that were formerly considered male domains such as in business, in the administrative and managerial areas, armed forces, police force, legal, engineering, and the medical field. In the Administrative and Diplomatic Service (formerly the Malayan Civil Service), for example, there was no woman administrator prior to 1966. It was only in 1966 that the first three Malay women were recruited into the service. Today, out of the total population of 2,451 Administrative and Diplomatic officers in the service, 249
are women (Public Services Department Malaysia, 1983). In the medi-
cal field, according to the latest survey, there are 565 women out of
the total number of 4,601 medical doctors in the country (Government
of Malaysia, 1983). In the engineering profession, out of a total of
12,448 engineers who are registered at the Board of Engineers, 245
are women (Board of Engineers Malaysia, 1984). Even though the
proportion of women in comparison to men in the professional fields
is still very small, the figures have shown a big improvement over
the past few years.

With regard to women in higher education in Malaysia unlike in
the Western countries, there seems to be a wider cognizance that
higher education for women in Malaysia is a preparation for a career.
In Malaysia there are a number of structural supports which facili-
tate women combining marriage and childbearing with a career. These
supports are usually not available in the West (O'Brien, 1979). The
availability of low-paid domestic helpers, and the extended kin
networks permit the educated Malaysian women to delegate many of the
domestic and childminding responsibilities. This permits the women
to remain in the labor force continuously, and thus provides the real
potentiality to develop a career. By contrast, the lack of such
facilities (or functional equivalents) in the West, restricts the
range of career options open to women. In fact, the lack of child-
caring and domestic support restricts the likelihood of Western women
developing a "career," and frequently limits her to a "job." Oliver
(1975a) said that there is a difference in the career patterns of
American men and women in that even when a woman prepares for and
engages in a career, her participation is often not continuous if she marries.

Data from the study conducted by O'Brien (1979) showed that a higher percentage of Malaysian women appear to be enrolled in science and technology-based subject areas than women in the West. There are proportionally fewer Malaysian women enrolled in arts and social sciences. Compared to women in the West, women in Malaysia appear to have a wider range of educational opportunities. However, compared to Malaysian men, Malaysian women manifest a similar over-representation in arts, humanities, education, and social sciences. There is a similar under-representation in science and technology as the Western women.

Even though the present level of education achieved by the women in Malaysia is high and has contributed to the increase in the number of women in the labor force in the country, there are still more women of working age who are not employed outside of the home. In 1979, about 77% of the total number of women who are not working do not actively seek jobs because they are engaged in household duties (Malaysia, Ministry of Finance, 1981).

For the past 20 years, Malaysian women have also been actively involved in the country's political system at both the local and national levels. A number of women leaders have risen to important heights of achievement in the country's political power. The first woman Cabinet Minister was appointed in 1969 (Malaysia, Ministry of Finance, 1981). From then on more women were appointed as Cabinet Ministers and Deputy Cabinet Ministers. Today, Malaysia is proud to
have one woman Cabinet Minister and four women Deputy Cabinet Ministers.

Developments and modernization may have been the forces in loosening traditional restraints on women in Malaysia. With fewer constraints and more educational attainment, women have come out into the open and persist to participate in all kinds of career areas. However, like in many other countries, even though there have been significant changes in the roles women play in this society, the career patterns which reflects sexual imbalance still exist.

Background of the Problem

During the past years there has been a strong emphasis on equality in educational and vocational opportunities for advancement, and equal access to what have been traditionally stereotyped as male jobs.

In general the issue of the difference among women in the non-traditional careers, the traditional careers, and the homemakers has received much research interest in the United States. Inquiry into the nature and effect of sex-role attitudes began to gather momentum in the 1960s and has continued to grow in quantity and variety. Several studies which had been conducted in the United States are cited below.

Mason and Bumpass (1975) showed in their study that women who have been employed show less attitudinal sex-role traditionalism or conservatism than women who have not been employed. This evidence suggests that the field that a woman is in or the function that a
woman does is closely related to her attitude towards women's roles in society. Being involved in the fields that are male dominated may reflect liberal or nontraditional attitudes towards women's roles in society, while the involvement of a woman in homemaking may reflect conservatism or traditionalism in attitude towards the roles of women in society.

The relationship among sex-role attitudes, curriculum choice, and levels of educational and occupational aspirations and expectations was studied by Lyson and Brown (1982). Samples were college female students in typical (home economics) majors and in atypical (agricultural curriculums) majors. Results of this study showed that sex-role ideology is only weakly associated with curriculum choice, but is related to career ambition for women in sex-typical and sex-atypical areas of study.

Auster and Auster (1981) examined the empirical evidence concerning the factors influencing women's choice of nontraditional careers. Family socioeconomic status, including education, income, and parents' occupational status, as well as birth order and the number and sex of siblings are passive sources of influence. Parental attitudes, values, and behavior concerning the occupational socialization of children, on the other hand, are active variables that have more direct effects.

Most of the influence on nontraditional career choices seems related to family (Auster & Auster, 1981). Mothers of females in nontraditional occupations usually work outside of the home, frequently in nontraditional jobs (Kutner & Brogan, 1979). Fathers are
often cited as being achievement and occupational models for their daughters (Hennig, 1974). Featherman and Hauser (1976) found that the number of siblings and birth order are related to nontraditional occupational choice. Studies have repeatedly found that one-half or more of the women choosing nontraditional occupations were the oldest or only child (Anderson, 1974; Standley & Soule, 1974).

Researches have also suggested educational attainment and high socioeconomic status may be linked to women choosing nontraditional careers (Cartwright, 1972; Grambs & Waetjen, 1975).

Yuen, Tinsley, and Tinsley (1980) raised two important points with regard to previous researches on career oriented women and homemaker oriented women. First, they had focused on specialized samples, such as college students or college graduates. Second, in most of these studies the respondents were classified as career oriented or homemaker oriented on the basis of their actual vocational behavior.

Studies cited above are only a few out of numerous researches that have been conducted in the United States pertaining to this area. In Malaysia, in recent years there has been continued and consistent interest in issues related to women. Even though women's issues can be considered as one of the current interests in the country, research pertaining to this area is very limited. Some of the research available centered around women in their traditional roles and women who are employed in the manufacturing and agricultural sectors. Research in the country has not addressed the attitudes of women in the Malaysian work force. The sex-role attitudes of
Malaysian women in traditional careers, nontraditional careers, and the homemakers and their background factors remain generally unexplored. To remedy this shortcoming, this study aimed at finding the differences among sex-role attitudes of three groups of women in Malaysia, that is, those women in nontraditional careers, those in traditional careers, and the homemakers. In addition to that, in this study the differences among the background characteristics of these groups of women were examined. It was hoped that this study would show whether the findings of the Malaysian subjects would be similar or different from the findings of the studies conducted in the Western settings, the United States in particular.

Purpose of the Study

First, the purpose of this study was to see if, in fact, there is a difference among the sex-role attitudes of the three groups of women, namely, women in the nontraditional careers, women in the traditional careers, and the homemakers. Second, this study attempted to compare the sex-role attitudes of the three groups of women in the vocational, educational, and intellectual areas. Finally, this study also examined the differences that exist among some selected background characteristics of women in the nontraditional careers, women in the traditional careers, and the homemakers. Specifically, this investigation was concerned with the following questions: Do the women in nontraditional careers, traditional careers, and the homemakers differ in their attitudes toward women's roles in society? Do they differ in their attitudes toward
women's roles in the vocational, educational, and intellectual areas? Do they differ in terms of their parents' income and educational levels? Do they differ in terms of whether or not their mothers worked outside of the home? Do they differ in their perceptions as to whether or not their parents valued education for them? Do they differ in their perceptions as to whether or not their parents encouraged them to pursue a career? Do they differ in terms of whether they grew up in the rural or the urban areas?

Definition of Concepts

Sex-Role Attitudes

Attitudes have generally been regarded as either mental readiness or implicit predispositions which exert some general and consistent influence on a fairly large class of evaluative responses. These responses are either favorable or unfavorable and are usually directed toward some object, person, or group. Attitudes are also seen as enduring predispositions, but those which are learned rather than innate. Thus, even though attitudes are not momentarily transient, they are susceptible to change.

Block (1973) defined sex-role as the constellation of qualities an individual understands to characterize males and females in the culture. By direct implication, an individual's conception of sex-roles will influence in important ways both behavior and self-evaluation. Sex-roles, therefore, are the responses that an individual usually directs toward the constellation of qualities that he or
she understands to characterize males or females in his or her culture.

**Theory of Cognitive Dissonance**

The best known theory of attitude is the cognitive dissonance theory which was introduced by Festinger (1957). This theory has stimulated the most research (Wagner & Sherwood, 1969). Several assumptions about how the human organism works become the basis of this theory. The central assumption is that human beings cannot tolerate psychological inconsistency. This means that whenever psychological inconsistency exists, it does two things to the organism: It activates and it directs. The inconsistency thus pushes (motivates) the organism in a specific direction which, if acted upon, will result in reduction of the unpleasant tension produced by the inconsistency.

The theory states that dissonance (psychological inconsistency) exists whenever one cognitive element conflicts with (is dissonant with) another cognitive element. These cognitives are bits of knowledge, opinions, or beliefs either about the environment or about oneself. In order for dissonance to exist, one cognitive element must be about oneself. Dissonance is more likely to occur in a situation where the decision is committed to some course of action while remaining aware of the volition to do otherwise (Zimbardo, 1969). Making a decision between various alternatives results in dissonance if the alternatives chosen have negative features and the alternatives rejected have positive features.
How can cognitive dissonance theory be applicable to career development? If career development is viewed within the framework of self-concept implementation in choices made (Super, 1957), change of jobs may occur among those women for whom some aspects of the self-concept is incongruent with some aspect of the chosen field. Such discrepancy might assume to arouse cognitive dissonance within the women, and one way to reduce such dissonance would be to change to a field more congruent with the person's concept of self. If sex-role is assumed to be one aspect of self-concept, then such a process might be related to persistence or change in a field depending on whether or not one's sex-role was not congruent with the gender stereotype of the field. Thus women who view themselves as traditionally feminine and who are enrolled in a male-dominated curriculum such as engineering are faced with a high discrepancy between one aspect of their self-concept, that is sex-role, and the gender stereotype of the field, which is masculine. Feminine typed women, thus, might be more likely to change fields than their androgynous or masculine-typed counterparts, who face with little or no discrepancy between their sex-role attitudes and the gender stereotype of their chosen field. The converse might be expected in a female dominated field like home economics, that is, masculine typed women might be more likely to abandon the field.

Hypotheses

This study was an effort to, first, ascertain the sex-role attitudes of women in Malaysia. Second, this study also saw the
relationship between some selected background characteristics of the
women to the kinds of occupations they choose. Following are the
theoretical hypotheses of this study:

**Sex-Role Attitudes**

H1: Women who are in nontraditional careers have more liberal
attitudes toward women's roles in society than women in the tradi­tional careers and the homemakers.

H2: Women in nontraditional careers have more liberal attitudes
toward women's roles in the vocational, educational, and intellectual
areas than women in the traditional careers and the homemakers.

**Background Characteristics**

H3: There is a difference among the three groups of women in
terms of the combined monthly income levels of their parents.

H4: There is a difference among the three groups of women in
terms of the educational levels of their fathers.

H5: There is a difference among the three groups of women in
terms of the educational levels of their mothers.

H6: There is a difference among the three groups of women in
terms of whether their mothers were or were not employed outside of
the home.

H7: There is a difference among the three groups of women in
terms of their perception as to whether or not their parents valued
education for them.
H8: There is a difference among the three groups of women in terms of their perception as to whether or not their parents encouraged them to pursue a career.

H9: There is a difference among the three groups of women in terms of whether they grew up in the rural or the urban areas.

Hypotheses 1 and 2 pertain to sex-role attitudes, while Hypotheses 3 to 9 pertain to selected background characteristics of the three groups of women. The background characteristics which had been selected are parents' combined income levels, parents' educational levels, mother's employment status, perception of parents' value for education, perception of parents' encouragement to pursue a career, and the place where they grew up.

Organization of Content

Chapter II contains a presentation of selected and related literature in the following three areas: studies on sex-role attitudes; cross-cultural studies on sex-role attitudes; and studies on background characteristics of women in the nontraditional careers, the traditional careers, and the homemakers. Chapter III explains the design and methodology including the instrumentation and materials, population being studied, the procedures for back translation, and research procedures and design. Chapter IV reports the statistical results of the study; and the final chapter, Chapter V, presents the summary, discussion, and recommendations.
CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter will present a review of research studies that pertain to the hypotheses of this research. It will first review studies that are related to sex-role attitudes and will be followed by a review of several cross-cultural studies concerning sex-role attitudes. Finally, those studies which examine the background characteristics of women in the nontraditional careers, the traditional careers, and the homemakers will be reviewed.

Sex-Role Attitudes

Sex-role attitudes of women have become increasingly popular areas of research during the last decade in Western societies. Many researchers have attempted to see the differences between the attitudes toward women's roles in the society of men, of different groups of women and men in different cultural backgrounds. Cited below are several studies conducted in the 1970s and 1980s which had attempted to examine sex-role attitudes.

Yanico, Hardin, and McLaughlin (1978) conducted a study on sex-role attitudes and traditional versus nontraditional career choice among college women. Samples were made up of women who were enrolled at Virginia Polytechnic Institute and the State University majoring
in either home economics or engineering. The scores of these two groups of women on the Bem Sex Role Inventory (BSRI) and ratings of curriculum satisfaction and certainty of career choice were compared. It was found that, as a group, women in engineering scored higher on masculine characteristics than women in home economics; however, the two groups did not differ on femininity scores. Based on BSRI scores subjects were divided into sex-role groups, and an almost equal number of androgynous women were found in the two majors. However, comparatively more masculine-typed women were found in engineering and more feminine-typed women were found in home economics. The feminine-typed women in engineering were less satisfied with and tended to be less certain of their major than their androgynous or masculine-typed counterparts.

O'Connel (1979) studied three separate life style patterns of traditional, neotraditional, and nontraditional women. Subjects of the study were 87 middle-class, college graduated women, wives and mothers, whose ages ranged from 30 to 58 years. The California Psychological Inventory (CPI) was used to measure personality, while the Inventory of Women's Role Concept and the Inventory of Women's Life Styles were the instruments used to measure life styles, role concept, attitudes, and influences of significant others, and personal and professional choices. Results of the study showed that women pursuing different life styles perceive the female role in significantly different ways. Nontraditional and neotraditional women were more likely than traditional women to perceive women's role as involving either simultaneous career and family commitments
or a role specifically designed to accommodate the individual women. This result reflects a tendency towards a more contemporary attitude of nontraditional and neotraditional as opposed to the traditional women who viewed women's role as focused on marriage, home, volunteer work, or as a return to child rearing.

It is also interesting to note that O'Connel's study showed that parents' life style had a dramatic effect on their daughter's choice of life style. Responses from the subjects of this study indicated that if the daughter perceived the parents' life style positively then there is a tendency that the daughter will have a similar life style as her parents'. On the other hand, if the daughter perceived the parents' life style negatively or unrewarding there is a likelihood that the daughter may choose a life style that is different from the parents' or one which is a reaction away from the parents' life style.

A study on sex-role attitudes and the career choices of 224 male and female graduate students in four professional schools was done by Valentine, Elinger, and Williams (1975). Using Spence and Helmreich's (1972) Attitudes Toward Women Scale (AWS), they found the mean scores of the subjects on the AWS suggested that none of the women could truly be considered conservative regarding the women's roles. There were only differences among them in their degree of liberalism. Men who chose masculine occupations were, however, far less liberal than men who chose feminine occupations in their attitudes toward women's roles in society. This study also found that men in feminine professions had a higher proportion of working
mothers than did men who chose masculine professions. The researchers noted that this result may indicate that less rigid role differentiation occurs when sons are exposed to mothers who work outside of the homes. Conversely, women in masculine occupations had a higher proportion of working mothers than did women in feminine occupations. Thus, both men's and women's attitudes toward women's roles seemed to be shaped by family experiences. Data from this study also suggested that women in graduate school have a higher proportion of professional fathers than do men in graduate school. The higher liberality of women in graduate school may reflect exposure to highly educated and professionally oriented families, particularly the father.

Tipton (1976) examined interests of 30 male and 30 female undergraduates having traditional and conservative attitudes toward the roles of women in society as measured by the Attitude Toward Women Scale (Spence & Helmreich, 1972). Strong-Campbell Interest Inventory was used to assess the vocational interests of the subjects. Men and women subjects with traditional attitudes were found to score higher on the conventional personality-occupational theme. Women with traditional attitudes scored higher on stereotypically female occupational scales. Meanwhile women with contemporary attitudes toward the role of women in society were found to have interest patterns similar to what has been referred to as career oriented women. This study, therefore, shows that attitudes concerning the roles of women in society is related to occupational interests. Female subjects of this study with traditional sex-role attitudes scored higher on
conventional sex-typed occupations, whereas those with liberal attitudes had little in common with such occupations.

Cotton's (1980) doctoral dissertation examined parental influences on sex-role concepts and the effects of sex-role concepts on achievement motivation, educational goals, desire to work, and career salience. Using Bem's Sex-Role Inventory, Cotton classified 65 high school females in Grades 9 through 12 into masculine, feminine, androgynous, and undifferentiated groups. The aim of Cotton's study was to investigate differences among the four different sex-role groups in terms of their maternal history, maternal and paternal education, maternal and paternal sex-role concepts, maternal and paternal career salience, and values concerning education and careers.

The results of the study indicated that daughters' sex-role classification had no relationship with either maternal employment status or paternal sex-role concepts. There were no differences among the different sex-role groups in parents' education, girl's educational aspirations, or parental career salience. Finally, it was also found that girls who had higher scores on the masculinity subscale of the Bem Sex-Role Inventory tended to have a higher desire to work and valued careers more than girls who scored lower on the scale. Maternal work status apparently had no effect on the daughter's desire to work.

In a study among contemporary black women on the relationship between masculine and feminine personality attributes, personal characteristics, and sex-role attitudes, Binion (1981) found that
encouragement of an equal balance of male and female characteristics is the child rearing model preferred by parents of women in the sample. Sex-role identity was found to be related to closeness and positiveness toward parents and happiness while growing up. Women in the androgynous category were more likely to be identified with both parents, while those women who were categorized as feminine or masculine identified more strongly with the same sex parents. Father's presence was the positive factor in the sample's development. It was further found that women who were reared with a father exhibited higher levels of self-esteem and were identified with liberal sex-role attitudes.

In terms of the effect of demographic and status characteristics, father's education was found to have no relationship to either sex identity or sex-role attitudes. However, mother's educational level was related to the respondent's belief about the female role, that is, the more educated the mother the more liberal the respondent's belief about the female role. Age denomination was also not related to sex-role identity, but religious identity was related to both variables, sex identity and sex-role attitudes.

Binion's study also found that women who were identified as feminine were reared in more religious households and had more traditional sex-role ideologies. On the other hand, masculine identified women were more likely to go to college, but they were as likely as women who were identified as feminine to have children and enjoy mothering. Finally, it was also found that there was a relationship between respondents feeling comfortable with other women and status
of the family origin, mother's education, respondent's education, and marital status.

A doctoral dissertation by Vigilanti (1980) investigated the effects of sex-role attitudes on women's levels of self-actualization and satisfaction with life. The subjects of this study were 164 women who were 18 years and older living in Kalamazoo, Michigan, during the time of the survey. Spence and Helmreich's Attitudes Toward Women Scale (short form) was administered to all subjects to determine whether they were liberal or conservative in their attitudes toward women's roles in society. The Personal Orientation Inventory was used to measure self-actualization while the level of life satisfaction was measured by the Satisfaction With Life Scale.

The findings of Vigilanti's study revealed that there were differences on measures of self-actualization for 11 out of 12 scales of the Personal Orientation Inventory between the groups of women who were categorized as liberal and conservative. Also no differences were found in life satisfaction between the liberal and conservative women. Further, there were also no differences found in the indicated life satisfaction between women in paid employment and homemakers. Finally, results of this study also showed that women who were more satisfied with their overall life were also more self-actualized on 8 of the 12 scales of the Personal Orientation Inventory than women who reported to have a lower level of overall life satisfaction.

Studies cited above, particularly those conducted by Yanico et al. (1978), O'Connel (1979), Valentine et al. (1975), Tipton (1976),
and Cotton (1980), indicated that both women and men samples who were in nontraditional curriculum choices or who chose nontraditional occupations had liberal or contemporary attitudes toward the roles of women in society. On the other hand, samples who were in traditional and neotraditional curriculum choices or who chose to be in traditional occupations had traditional or conservative sex-role attitudes. Based on these studies and with considerations on Festinger's (1957) cognitive dissonance and Super's (1957) career development theories, Hypotheses 1 and 2 of this study were developed. The first hypothesis was concerned with the overall sex-role attitudes of women in nontraditional careers, traditional careers, and homemakers. The second hypothesis examines the attitudes of the three groups of women towards women's roles in the vocational, educational, and intellectual areas.

Cross-Cultural Studies on Sex-Role Attitudes

Some researchers had attempted to see the differences in attitudes toward women's roles in society of people from different cultural backgrounds. Some of those studies are reviewed below.

Piotrowski (1971) dealt with the question of whether and how the employment of married women changes the real and ideal roles of husbands and wives. This study was based on the result of research conducted on the professional activity of married women and on urban families in Poland. The findings of this study showed that there was a definite relationship between attitudes and the professional activity of married women in Poland. It was found that the attitudes of
working wives were more modern than nonworking wives. Points scored by working women fell within the modern half of the scale, while those of nonworking women came close to the middle line of the scale. This study also revealed that the attitudes of the husbands of non-working wives were more traditional than those whose wives worked outside of the home.

In 1978 Braun and Chao did a study on sex-role attitudes of Asian born Chinese and 74 American Caucasians. Spence and Helmreich's Attitudes Toward Women Scale was used to measure the subjects' attitudes toward women's roles in society. The results of this study showed that both Caucasian and Chinese females were more liberal in their attitude toward women in regard to vocational, educational, and intellectual roles and marital relations and obligations. On three other factors, freedom and independence; dating and courting etiquette; and drinking, swearing, and jokes, the Caucasian females' and the Chinese males' scores were those that reflect liberal attitudes toward women's roles in society. Meanwhile, the Caucasian males and Chinese females were consistently more conservative on these three scales. This result suggests that Caucasian females and Chinese males have similar attitudes on these factors, while Caucasian males and Chinese females share similar attitudes.

Gackenbach (1978) compared the effect of race, sex, and career goal differences on sex-role attitudes at home and work of 206 black and white male and female college students. Gackenbach used Spence and Helmreich's Attitude Toward Women Scale (AWS) to measure sex-role attitudes, while Women As Managers Scale (WAMS) was used to measure
sex-role attitudes in the business environment. Blacks were found to be more traditional than whites in their attitudes toward women's expanding sex-roles at home, but have the same sex-role attitudes as whites in terms of women expanding sex-roles at work. Black men, nonetheless, do not favor expanding their work roles any more than do white men. Finally, those subjects, especially the women, who have nontraditional career goals were likely to be sympathetic to women expanding their roles at home.

A comparison of attitudes toward the roles of women in society was conducted by Levine and West (1979) on male and female high school and college students from the United States and Brazil. Liberalism and conservatism of attitudes toward the roles of women in society were measured by Spence and Helmreich's Attitudes Toward Women Scale (AWS). Findings of this study showed that college students were more liberal than were high school students. Results also showed that female students were more liberal than male students. Brazilians were also more liberal than American students.

Background Characteristics

Many studies have shown that several factors influence women to be in or to choose different occupations in life. Among the factors that influence women to be in nontraditional careers, traditional careers, and homemaking are education, place of birth, family socio-economic background, and parental educational attainment.

Most of the studies conducted in the past years have shown that families have a great influence on one's life and destiny. The
family is the first and foremost influence in our lives. As both the primary agent of socialization and the determinant of one's initial place in the social stratification system, it exerts a powerful and persistent influence on important aspects of our existence. In the occupational sphere, the family is a vital factor in our aspirations, expectations, and opportunities. Research documenting this influence has been accumulating for several years. An examination of studies such as that of Featherman and Hauser (1976) lead to a conclusion that family influence on occupational choice is the result of a complex interplay of active and passive, formal and informal, sociological, psychological, and economic factors.

Family socioeconomic status, including education, income, and parents' occupational status, as well as birth order and number and sex of siblings, are sources of passive influence. Parental attitudes, values, and behavior concerning the occupational socialization of children are active variables that have more direct effect (Auster & Auster, 1981).

In an attempt to differentiate between women in traditional areas of study and women in nontraditional areas of study, research has examined background characteristics. Lemkau (1979) reviewed literature on women in occupations where men predominate from 1930 to 1976. The literature was summarized and discussed with reference to the women's personality and background characteristics. Personality data of the women in the studies showed that such women were high on "contemporary" traits related to the masculine stereotype and ideal. These women were emotionally healthy and had good coping skills,
although they might experience situational stress. Generally, they tended to share background characteristics which foster achievement. Women in male dominated occupations tended to have well educated fathers who were employed in professional or managerial positions. According to the review too, the values of the parents of women in male dominated occupations were those conducive to the development of high achievement motivation regardless of sex or field of endeavor, that is, they value education and provide encouragement for achievement and hard work.

The demographic and attitudinal differences of homemaker and career oriented women were studied by Gysbers and Johnston (1968). One of their findings was that stable career women were apt to be single, have pursued more education, and came from families where both parents had more education than those from the unstable families.

Almquist and Angrist (1970) reported that women who chose atypical careers were twice as likely to have held more part-time and summer jobs. These women also were reported to have more exposure to occupational career models than the typical career groups. The authors concluded that atypical career choice in women was associated with broader enrichment in terms of exposure to working mothers and work experience rather than those with deviant interpersonal adjustment.

Cartwright (1972) examined the conscious factors influencing decisions of women to study medicine. Her study showed that there was strong support by both fathers and mothers for daughters to
pursue medical careers.

Kriger's (1972) research study of mature women was concerning parent-child interaction and career orientation. Kriger found that parent-child interaction was related to career orientation of the subjects under study. However, the extent to which the perception of parental attitudes may be influential at different life stages is not clear. Parents of the homemakers-to-be were reported to be the most controlling and parents of women in nontraditional occupations-to-be were most permissive, while parents of women in feminine occupations occupied the middle ground.

Oliver's (1975b) study was consistent with the findings made by Kriger's (1972) study cited above. Oliver studied the relationship between parental attitudes and parent identification and the career or homemaking orientation of college women. Subjects were 149 female students from introductory psychology courses at the University of Maryland during the spring semester 1973. In assessing the career or homemaking orientation of the subjects, a modified form of the questionnaire which was devised by Hoyt and Kennedy (1958) was used. This instrument discriminated between women subjects who planned on a continuous career involvement (career oriented women) from those who did not (homemaker oriented women). A Family Relations Inventory, devised by Brundum and Crites in 1974, was used to measure the parental attitudes, while parent identification was assessed by the Identification Scale developed by Heilbrum in 1965. Results of this study suggested that girls' fathers were more important than mothers in determining the degree of career commitment as a collegiate
undergraduate. The career oriented subjects compared to the homemaking oriented subjects perceived their fathers as less accepting but also identified strongly with their fathers. Greater mother identification and greater father acceptance were seen to be related to the development of a relatively higher need for affiliation in the homemaking oriented subjects.

The vocational and personal histories of women in four different types of male dominated professions were studied by Standley and Soule (1974). Subjects of this study were 26 women architects, 27 women lawyers, 27 women physicians, and 71 women psychologists. It was reported that, in general, women professionals of this sample came from prototypic upper-middle-class American homes. Almost all their parents' marriages were stable. The parents were also reported to be well educated, employed in high status occupations, and earn above average incomes. About one-third of the fathers and one-sixth of the mothers held academic degrees above the baccalaureate. Fifty-nine percent of the fathers were reported to have had incomes exceeding U.S. $15,000 per year when their daughters were growing up and half of them had professional careers.

Trigg and Perlman (1976) studied the social influences on women's pursuit of nontraditional careers. Their samples were made up of 78 applicants for nontraditional jobs and 153 applicants for traditional jobs. Results showed that the traditional subjects tended to be younger than the nontraditional subjects. There were also differences in fathers' education, mothers' education, and fathers' occupation. Parents of nontraditional subjects tended to be
better educated than parents of traditional subjects. Although the proportion of fathers with middle status occupations were similar in the two groups, differences were particularly apparent at the extreme ends of the scale. There was a higher proportion of fathers of nontraditional subjects in higher status positions and a higher proportion of fathers of traditional subjects in lower status positions.

Recent research conducted by Greenfeld, Greiner, and Wood (1980) compared job attitudes and background factors of 324 women who fell into one of the three groups: those working in male dominated jobs, those working in female dominated jobs, and those in relatively sex-ratio balanced jobs. Overall results showed that women holding male-dominated jobs were more likely to be older, better educated, have fathers with higher educational levels, and were more likely to be childless as compared to women in female dominated jobs.

A comparison between the nontraditional and traditional career women was done by Wilson, Weikel, and Rose (1982). The samples were made up of 25 selected women who held executive level positions in a corporation, business, or organization, and 25 selected full-time school teachers who have worked for over 5 years. The findings of this study showed that the two groups of women were similar in their marital status and the number of children they had. They had come from similar backgrounds in terms of the number of siblings and home environment. Members of the traditional group were apt to be college graduates and surpassed the educational level of the nontraditional group by about 2 years. Contrary to the research conducted by Hennig
(1974) and Standley and Soule (1974), this research found that a relatively high number of women in both groups were found to be the first born child. However, the researchers noted that one possible explanation for the lack of significant differences between groups is that women in both groups were identified as successful in their careers.

Like several other studies cited above, the study by Wilson et al. (1982) also showed that parents of the nontraditional women were better educated, usually having completed high school. Regarding the experience of role conflict, this study found that 40% of the traditional women and 28% of the nontraditional women in this study said that they experienced no such problems. The groups, however, differed in their experiences with sex discrimination on the job. Most of the women in the nontraditional group discussed discrimination on the job and in every day life, and one-fourth of the women asserted that their career advancement was hampered by sex discrimination in employment.

Burlew (1982) investigated differences in backgrounds, attitudes, and career related expectations of 137 black female undergraduates pursuing traditional and nontraditional careers for women. The results showed that nontraditionals had less traditional views about appropriate roles for women than traditionalists, were more confident of themselves, and were more likely to have had early work experience. However, nontraditionals were less confident than traditionalists that women could actually achieve the careers they themselves were pursuing. In terms of family backgrounds, mothers of
nontraditionals were likely to be better educated than mothers of traditionals. In addition to that, mothers of nontraditionals were more likely to have worked in nontraditional fields themselves.

The foundation for all the assumptions concerning the background characteristics of women in nontraditional careers, traditional careers, and homemaking rest upon the literature reviewed with regard to the background factors of the three groups of women. Studies by Standley and Soule (1974), Trigg and Perlman (1976), Gysbers and Johnston (1968), Greenfeld et al. (1980), cited above, all indicated that socioeconomic background was related to women choosing traditional or nontraditional fields. Women in nontraditional fields had generally higher socioeconomic backgrounds, fathers and mothers with higher educational levels, employed in higher status occupations, and had higher income levels compared to women in traditional careers or the homemakers. The study conducted by Burlew in 1982 also showed that mothers of nontraditional careers women were more likely to be better educated than mothers of the traditional careers women. These studies became the basis for Hypotheses 3, 4, 5, and 9, which pertain to parents' combined monthly income, fathers' and mothers' educational levels, and places where the subjects spent most of their childhood and adolescent years.

Hypothesis 6 which was concerned with the employment status of mothers of women in nontraditional careers, tradition careers, and homemaking was developed based on the study of Almquist and Angrist (1970) and Burlew (1982). The results of these two studies indicated that mothers of women in nontraditional careers were employed outside
of the home, and they were also more likely to be better educated than mothers of the traditional careers women or the homemakers.

The literature reviewed by Lemkau (1979) indicated that parents of women in male dominated occupations valued education and gave encouragement for their children's hard work. Cartwright's (1972) study on women in the medical profession indicated that parents of these women strongly supported them in their medical careers. Auster and Auster's (1981) study cited in the previous chapter also indicated that parents of women in nontraditional careers attitudes are conducive for their children's achievements. Based on Lemkau's (1979) review of literature, Cartwright's (1972) and Auster and Auster's (1981) studies, the seventh and eighth hypotheses of this study were developed.

Summary

In general, studies on sex-role attitudes cited in this chapter showed that both men and women subjects with contemporary or liberal attitudes toward women's roles in society tend to choose or show interest in nontraditional fields. On the other hand, men and women who showed conservative or traditional attitudes toward women's roles in society chose or showed interest in traditional fields. Some of the studies also indicated that subjects in nontraditional fields have more liberal attitudes toward women's roles in society than those subjects in traditional fields. Findings of the study cited above that was conducted in Poland revealed that working wives' attitudes were more modern than nonworking wives'. Comparative
studies between Asian born Chinese and American Caucasians, black and white male and female, and American and Brazilian college students do not appear to have consistent results or findings that demonstrate a certain trend. Studies on the background characteristics of women in traditional careers in general indicate that there were differences in most of their family background characteristics. The subjects for almost all of the studies were college students majoring in non-traditional and traditional fields of studies.
CHAPTER III

DESIGN AND METHODOLOGY

Introduction

This chapter presents the two instruments used in this study, the back-translation technique, and the description of the population being studied. It is also the purpose of this chapter to give details on the procedures used in the collection of data, a description of the pilot study, and the data analysis technique used.

Instrumentation and Materials

The Attitudes Toward Women Scale

Spence and Helmreich's (1972) Attitudes Toward Women Scale (AWS) was utilized to measure the dependent variable of sex-role attitudes. The Attitudes Toward Women Scale (AWS) measures attitudes toward the rights and roles of women in contemporary society. It is an objective instrument. The AWS has three versions, an original 55-item scale, the AWS-short form 25-item version, and a 15-item version.

Spence, Helmreich, and Stapp (1973) recommended that AWS be used when information is required on attitudes toward each of the issues represented by the items. They suggested using the AWS-short form when the researcher wishes to compare groups of persons on their traditional or liberal attitudes toward women. Therefore, following their recommendation, only items on vocational, educational, and
intellectual roles were used in order to assess the subjects' attitudes toward women. The AWS-short form was used to compare the liberalism or conservatism in attitudes of the three groups of subjects toward women's roles. The AWS-short form or the 25-item version correlates .95 with the original 55-item AWS.

The AWS consists of 55 statements which can be categorized into six independent theme areas: (1) vocational, educational, and intellectual roles (17 items); (2) freedom and independence (4 items); (3) dating, courtship, and etiquette (7 items); (4) drinking, swearing, and dirty jokes (3 items); (5) sexual behavior (7 items); and (6) marital relations and obligations (17 items). Each item consists of a declarative statement for which there are four response alternatives: agree strongly, agree mildly, disagree mildly, and disagree strongly. Each item is given a score from 0 to 3, with 0 representing choice of the response alternative reflecting the most traditional or conservative attitude, and 3, the alternative reflecting the most liberal, profeminist attitude. Since the statement contained in some of the items is conservative in content and in others is liberal, the specific alternative (agree strongly or disagree strongly) given a 0 score varied from item to item. Each subject's score is obtained by summing the value for the individual items. The range of possible scores thus range from 0 to 165.

To assess the subject's attitude toward women's roles in the vocational, educational, and intellectual areas only 17 items from the long form of the AWS were utilized. Scores were obtained by summing the values for the individual item. Thus, the range of
possible scores for this theme is from 0 to 51 with 0 representing the most conservative attitude and 51 representing the most liberal attitude. It requires 10-12 minutes to complete responding to all the 17 items.

The AWS-short form consists of 25 statements taken from the 55-item AWS. Like the 55-item AWS, each statement is accompanied by four response options: agree strongly, agree mildly, disagree mildly, and disagree strongly. Items are objectively scored and equally weighted. Item scores are summed to yield a total score, which can range from 0 (extremely conservative) to 75 (extremely liberal).

Since the AWS-short form was produced from the original AWS 55-item scale and since items in the vocational, educational, and intellectual theme areas were also part of the same scale, nine of the items in both scales overlap. In order to avoid inconsistencies in the response made by the subjects and in order not to waste the subjects' time responding to the same items, the nine items were not repeated in the vocational, educational, and intellectual theme. However, the scores for the nine items were repeated and transferred to the total score of the vocational, educational, and intellectual theme when the data for this theme were being processed.

The following were the items in both the AWS-short form and the vocational, educational, and intellectual theme which overlap with each other:

1. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.
each other:

1. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

2. There should be a strict merit system in job appointment and promotion without regard to sex.

3. Women should assume their rightful place in business and all the professions along with men.

4. Sons in a family should be given more encouragement to go to college than daughters.

5. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

6. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.

7. The intellectual leadership of a community should be largely in the hands of men.

8. On the average, women should be regarded as less capable of contributing to economic production than men.

9. Women should be given equal opportunity with men for apprenticeship in various trades.

Since the population studied was comprised of women of different social and economic levels, there was some concern that certain words contained in the scales would be misunderstood or would be revolting to some of them and would result in their not wanting to respond at all to the study. Certain words were changed while not affecting the original meaning of the statements. The following changes were made:
Instructions to the participants described that the statements in the scales were descriptions of attitudes toward the roles of women in society held by different people. Participants were informed that there were no right or wrong answers, only opinions. They were also requested to answer each item as they actually felt, not as they thought they should feel (see Appendix C).

Questionnaire Dealing With Background Characteristics

A questionnaire was developed to obtain information regarding background characteristics. The questionnaire covered several family background characteristics such as fathers' and mothers' occupational and educational levels, parents' combined monthly income levels, perception of parents value for education for them, and perception of parents' encouragement for them to pursue a career.

The questionnaire also covered other biographical information relevant to this study such as the place where the subjects spent most of their childhood years, occupational status, educational levels, monthly income levels, husband's occupation, husband's monthly income level, and husband's encouragement in the subject's career.

In the questionnaire, level of education was divided into five categories, namely, never been to school, primary school, secondary school, diploma, and university degree. Never been to school was meant for those people who have never had any formal education; primary school was applicable to those people who had been to or
completed elementary school level of education; and secondary school was relevant to those who have had some or had completed high school level of education. Diploma level was applicable to those who had graduated from colleges such as the technical colleges, while university degree level was applied to those who had obtained bachelor's, master's, or doctoral degrees.

Back Translation

Considering the fact that not everyone in the population studied was English educated, the Attitudes Toward Women Scale (AWS) was translated into the Malay language, which is the National Language of Malaysia. The AWS was translated by a process called back translation.

Back translation is the most common and highly recommended procedure for verifying the translation of a questionnaire or test (Chapman & Carter, 1979). The instrument is rendered into the second language by a translator; the resulting version is then translated back into the original language. Items with apparent discrepancies between the two translations are then modified and a second back translation conducted. Brislin, Lonner, and Thorndike (1973) recommended that an instrument be back translated at least three times, each time by a different translator.

The back translation procedure includes another process of translation which is referred to as decentering whereby the original and the second language versions are both subjected to modification. Decentering allows for the modification of words and concepts that
have no clear equivalents in the other language. It provides a solution when words and ideas are encountered in one version that are socially sensitive or present particular difficulty in the other version.

In order to back translate the AWS-short form and the vocational, educational, and intellectual theme area, a committee of four persons was set up. This committee was made up of the researcher herself, two third-year psychology students of the National University of Malaysia who were known to excel both in the Malay and English languages, and a lecturer in the Psychology Department of the National University of Malaysia who was also the department's representative in the National Language Committee. The two students and the researcher were the translators, while the fourth person in the committee was to do the final check, to correct, and to verify the final translated version.

The original version of the AWS-short form and the vocational, educational, and intellectual theme were given to each translator to be translated into the Malay language. When this was completed, the committee met to discuss the Malay version of the two scales. The committee decided on which of the three versions was to be translated back into English. Each translator worked on the translation of the Malay version into the English language. Finally, the second English version was verified and later translated into the Malay version. A meeting of all the committee members was held in order to decide on the most exact Malay version of the scales. Once the
decision was finalized, the scales were ready to be used (see Appendix D for the translated version of the scales).

Materials

The instruments for the survey consisted of an 11-page questionnaire which had two parts covering the demographic information and some parental background characteristics; the Attitudes Toward Women Scale—short form; and the Attitudes Toward Women Scale's vocational, educational, and intellectual themes combined. A cover letter, which explained the purpose of the survey, with the researcher's home and office addresses and telephone numbers accompanied the instruments (see Appendix E). A letter to verify the legitimacy of the research project from the Head of Psychology Department of the National University of Malaysia where the researcher worked was also enclosed with the instruments (see Appendix G).

The materials, including a stamped, self-addressed envelope, were mailed individually to the subjects in a 10" x 5" brown envelope. The materials, which were going to be distributed to women in nontraditional and traditional careers groups were put together in several 11" x 14" manila envelopes. These were sent to personnel officers, public relations officers, supervisors, and nonpaid research volunteers to be distributed and collected by them.

Those instruments to be given or administered to the homemakers group were given to paid research volunteers. Each paid research volunteer was told to take with her a pencil and paper for recording
the responses of the homemakers who were illiterate and comments by those homemakers who refused to participate in the survey.

Population Studied

The subjects of this study were three groups of women. The first group was made up of women who were employed in nontraditional careers, the second group was made up of women who were employed in careers traditionally associated with women, and the third group was made up of the homemakers. All of the three groups of women were comprised of women over the age of 18 who were employed or resided in the areas of Kuala Lumpur and Selangor.

The first group of subjects, that is, the nontraditional career group, was those women who were employed in careers that were not traditionally associated with them. The subjects for this group were women medical doctors, engineers, and lawyers who worked and resided in Kuala Lumpur and Selangor.

The second group was women who were employed in careers that were usually associated with them. Women teachers and nurses represented the group of women in traditional careers. It should be noted that in Malaysia, nursing is not only associated with women, the profession is also monopolized by them. Even though in this country teaching is also associated with women and a large proportion of women employed outside of the home are in this profession, the number of male teachers in the country is still greater than the number of female teachers.
The third group of subjects was those women who were not employed outside the home. They were the homemakers, usually known as full-time housewives.

Since the three groups of subjects differed from one another, and since within the nontraditional careers group and the traditional careers group, subjects differed in terms of their occupations and places of work, the subjects were contacted in different ways.

Women in Nontraditional Careers Subjects

The lists of names of all women medical doctors working in the two main and largest hospitals in Kuala Lumpur and Selangor (in fact, in the whole of Malaysia) were obtained from the administrative officers of both hospitals. The total number of women medical doctors in the University Hospital was 30, while the total number of those in the General Hospital was 63 (excluding 26 who were on study leave). The total number of women medical doctors in both the General Hospital and the University Hospital was 93. Prior to the distribution of research materials to the doctors, the researcher had to obtain approval from the director of the General Hospital and the assistant registrar of the University Hospital. Finally the distribution and collection of materials were done with the help of the assistant registrar of the University Hospital and the matrons and staff nurses of both the University Hospital and the General Hospital.

The list of names of women engineers was first obtained from the Institution of Engineers, Malaysia. However, since not all of the
engineers in the country were members of the Institution, another list was obtained from the Board of Engineers, Malaysia. The workplaces of the engineers were traced and contacted through various government and private organizations. The total number of women engineers in Kuala Lumpur and Selangor was 177. Cooperation and assistance from the personnel officers, public relations officers, or representative engineers of the organizations concerned were obtained to distribute and collect the complete materials.

The list of names of lawyers in Kuala Lumpur and Selangor was obtained from the Bar Council. Fifty instruments were personally distributed by the president of the Federation of Women Lawyers while the rest were mailed. Before mailing the instruments, the individual lawyers were contacted by telephone. They were informed about the research, and they were also urged to respond to the questionnaires. Even though almost all of those contacted agreed to respond, the response from the lawyers' group was generally poor.

**Women in Traditional Careers Subjects**

The names of all nurses working in both the General Hospital and the University Hospital were obtained from the matrons of both hospitals. The number of nurses in the General Hospital was 1,058 while there was a total of 528 nurses in the University Hospital. From the total number of nurses in both hospitals, a sample of 124 was randomly drawn. Instruments were distributed and collected to all the subjects through the matrons of both hospitals.
Nine schools in Kuala Lumpur and Selangor were randomly selected to obtain a list of teachers for this study. Fourteen teachers were randomly selected from each school. Questionnaires were distributed and collected by volunteer research assistants who were teaching in the same schools chosen for this study.

The response from both the nurses and the teachers were generally very good. One of the teachers who refused to participate in this research said, "I do not see any reason why I have to trouble myself filling in these forms when someone else is working for her degree."

Homemakers Subjects

Since the list of names of homemakers in Kuala Lumpur and Selangor could not be obtained, it was decided that 10 areas were randomly selected for this study. Paid volunteer research assistants were sent to each area that was selected. Each paid volunteer research assistant was to go to every 10th house and administer or distribute the research instruments. If it so happened that in the 10th house the mistress of the house happened to be working, then the research assistant should go to the 11th house. Also if there were more than one mistress of the house, only the older one was to be asked to participate in the study. In cases where the older woman refused, the younger woman was asked to participate instead.

It was decided that for each area of study, 25 homemakers were to be visited to make a total number of 250 homemakers for the study. However, due to time constraint and transportation problems of the
research assistants, only four of them could meet with the specified number.

Some of the homemakers who refused to respond to the materials said that the instruments were too long. Some said they had better things to do, and others said their husbands did not allow them to let anyone interview them.

Tables 1, 2, and 3 represent a breakdown of the number of materials distributed and the actual number of fully completed and returned materials by occupation or by areas of study for all the three groups of subjects.

Table 1

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of materials distributed</th>
<th>Materials fully completed and returned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Doctors</td>
<td>93</td>
<td>53</td>
</tr>
<tr>
<td>Engineers</td>
<td>177</td>
<td>109</td>
</tr>
<tr>
<td>Lawyers</td>
<td>150</td>
<td>48</td>
</tr>
<tr>
<td>Totals</td>
<td>420</td>
<td>210</td>
</tr>
</tbody>
</table>

Tables 1, 2, and 3 represent a breakdown of the number of materials distributed and fully completed and returned for the three groups of subjects. Originally, it was planned to obtain an equal
number of subjects for all three groups. Each group was to have 230 subjects and the total number of subjects for all the three groups would be 690. Table 1 indicates that only 210 of the women in nontraditional careers responded to the research. Table 2 shows that out of 250 instruments distributed to the traditional careers women, 215 responded; Table 3 shows that there were 224 materials actually fully completed and returned for the homemakers. However, because the original plan was to have an equal number of subjects for the three groups, the total number of subjects was reduced to 630. Therefore, adjustments had to be made to the traditional careers group and the homemakers group by reducing their numbers to 210 each. For the traditional careers group, a total of 5 subjects were randomly taken from the study; and for the homemakers group, a total of 14 subjects from the total number were randomly drawn out of the
study. Table 4 represents a breakdown of frequency and percentages of the subjects for occupations finally chosen for this study.

Table 3
Materials Distributed and Fully Completed and Returned Instruments for Homemakers Group by Areas of Study

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of materials distributed</th>
<th>Materials fully completed and returned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Ampang</td>
<td>22</td>
<td>88.0</td>
</tr>
<tr>
<td>Gombak</td>
<td>18</td>
<td>72.0</td>
</tr>
<tr>
<td>Setapak</td>
<td>24</td>
<td>96.0</td>
</tr>
<tr>
<td>Sentul</td>
<td>19</td>
<td>76.0</td>
</tr>
<tr>
<td>Datuk Keramat</td>
<td>21</td>
<td>84.0</td>
</tr>
<tr>
<td>Semenyih</td>
<td>25</td>
<td>100.0</td>
</tr>
<tr>
<td>Overseas Union Garden</td>
<td>20</td>
<td>80.0</td>
</tr>
<tr>
<td>Petaling Jaya</td>
<td>25</td>
<td>100.0</td>
</tr>
<tr>
<td>Kajang</td>
<td>25</td>
<td>100.0</td>
</tr>
<tr>
<td>Kampung Pandan</td>
<td>25</td>
<td>100.0</td>
</tr>
<tr>
<td>Totals</td>
<td>224</td>
<td>49.0</td>
</tr>
</tbody>
</table>
Table 4
Subjects of the Study by Occupations:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
<th>Homemakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Teachers</td>
<td>105</td>
<td>50.0</td>
<td>-</td>
</tr>
<tr>
<td>Nurses</td>
<td>105</td>
<td>50.0</td>
<td>-</td>
</tr>
<tr>
<td>Doctors</td>
<td>53</td>
<td>25.2</td>
<td>-</td>
</tr>
<tr>
<td>Engineers</td>
<td>109</td>
<td>51.9</td>
<td>-</td>
</tr>
<tr>
<td>Lawyers</td>
<td>48</td>
<td>22.9</td>
<td>-</td>
</tr>
<tr>
<td>Homemakers</td>
<td>210</td>
<td>100.0</td>
<td>210</td>
</tr>
</tbody>
</table>

Demographic information for all subjects was gathered for age, length of time in present jobs, educational levels, monthly income levels, marital status, and position among brothers and sisters. Particulars on those married subjects' husbands such as husbands' jobs and monthly income levels were also obtained. Tables 5 through 18 represent a breakdown of frequency and percentages according to each category by each career grouping.
Table 5
Age Groupings for Nontraditional Careers Group:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Age category (N = 210)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 years</td>
<td>29</td>
<td>13.8</td>
</tr>
<tr>
<td>25-34</td>
<td>169</td>
<td>80.5</td>
</tr>
<tr>
<td>35-44</td>
<td>12</td>
<td>5.7</td>
</tr>
<tr>
<td>45-54</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>55 and over</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 6
Age Groupings for Traditional Careers Group:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Age category (N = 210)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 years</td>
<td>26</td>
<td>21.4</td>
</tr>
<tr>
<td>25-34</td>
<td>124</td>
<td>59.0</td>
</tr>
<tr>
<td>35-44</td>
<td>55</td>
<td>26.2</td>
</tr>
<tr>
<td>45-54</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>55 and over</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 7
Age Groupings for Homemakers Group:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Age category (N = 210)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 years</td>
<td>20</td>
<td>9.5</td>
</tr>
<tr>
<td>25-34</td>
<td>77</td>
<td>36.7</td>
</tr>
<tr>
<td>35-44</td>
<td>67</td>
<td>31.9</td>
</tr>
<tr>
<td>45-54</td>
<td>31</td>
<td>14.8</td>
</tr>
<tr>
<td>55 and over</td>
<td>15</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Table 8

Number of Years in Present Job by Groups: Frequency and Percentages

<table>
<thead>
<tr>
<th>Group</th>
<th>5 yrs. and less</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21 and more</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Nontraditional</td>
<td>149</td>
<td>71.0</td>
<td>55</td>
<td>26.2</td>
<td>4</td>
</tr>
<tr>
<td>careers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Traditional careers</td>
<td>81</td>
<td>38.6</td>
<td>62</td>
<td>29.5</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>
Table 9
Groups of Women by Educational Levels: Frequency and Percentages

<table>
<thead>
<tr>
<th>Group</th>
<th>Nontraditional careers</th>
<th></th>
<th>Traditional careers</th>
<th></th>
<th>Homemakers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Never been to school</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20</td>
<td>9.5</td>
</tr>
<tr>
<td>Primary school</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>121</td>
<td>57.6</td>
</tr>
<tr>
<td>Secondary school</td>
<td>-</td>
<td>-</td>
<td>142</td>
<td>67.6</td>
<td>65</td>
<td>31.0</td>
</tr>
<tr>
<td>Diploma</td>
<td>-</td>
<td>-</td>
<td>49</td>
<td>23.3</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>University degree</td>
<td>210</td>
<td>100.0</td>
<td>19</td>
<td>9.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Totals</td>
<td>210</td>
<td>100.0</td>
<td>210</td>
<td>99.9</td>
<td>210</td>
<td>100.1</td>
</tr>
</tbody>
</table>
Table 10

Groups of Women by Monthly Income:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Less than M$500</td>
<td>-</td>
</tr>
<tr>
<td>M$501-M$1,000</td>
<td>2</td>
</tr>
<tr>
<td>M$1,001-M$1,500</td>
<td>80</td>
</tr>
<tr>
<td>M$1,501-M$2,000</td>
<td>44</td>
</tr>
<tr>
<td>M$2,001-M$2,500</td>
<td>32</td>
</tr>
<tr>
<td>M$2,501-M$3,000</td>
<td>18</td>
</tr>
<tr>
<td>M$3,001 and more</td>
<td>34</td>
</tr>
<tr>
<td>Totals</td>
<td>210</td>
</tr>
<tr>
<td>Group</td>
<td>Nontraditional careers</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Single</td>
<td>66</td>
</tr>
<tr>
<td>Married</td>
<td>142</td>
</tr>
<tr>
<td>Separated</td>
<td>-</td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
</tr>
<tr>
<td>Widowed</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>210</td>
</tr>
</tbody>
</table>
### Table 12

**Husbands' Present Jobs for Nontraditional Careers Group: Frequency and Percentages**

<table>
<thead>
<tr>
<th>Husbands' present jobs (N = 142)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, technical, and related work</td>
<td>131</td>
<td>92.3</td>
</tr>
<tr>
<td>Administrative and managerial</td>
<td>10</td>
<td>7.0</td>
</tr>
<tr>
<td>Clerical and related work</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sales</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Service</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Agricultural, animal husbandry and forestry, fishing, and hunting</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Production and related work</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 13

**Husbands' Present Jobs for Traditional Careers Group: Frequency and Percentages**

<table>
<thead>
<tr>
<th>Husbands' present jobs (N = 163)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, technical, and related work</td>
<td>67</td>
<td>41.1</td>
</tr>
<tr>
<td>Administrative and managerial</td>
<td>46</td>
<td>28.2</td>
</tr>
<tr>
<td>Clerical and related work</td>
<td>25</td>
<td>15.3</td>
</tr>
<tr>
<td>Sales</td>
<td>9</td>
<td>5.5</td>
</tr>
<tr>
<td>Service</td>
<td>16</td>
<td>9.8</td>
</tr>
<tr>
<td>Agricultural, animal husbandry and forestry, fishing, and hunting</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Production and related work</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 14
Husbands' Present Jobs for Homemakers Group:
Frequency and Percentages

<table>
<thead>
<tr>
<th>Husbands' present jobs (N = 210)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, technical, and related work</td>
<td>25</td>
<td>11.9</td>
</tr>
<tr>
<td>Administrative and managerial</td>
<td>19</td>
<td>9.0</td>
</tr>
<tr>
<td>Clerical and related work</td>
<td>27</td>
<td>12.9</td>
</tr>
<tr>
<td>Sales</td>
<td>29</td>
<td>13.8</td>
</tr>
<tr>
<td>Service</td>
<td>62</td>
<td>29.5</td>
</tr>
<tr>
<td>Agricultural, animal husbandry and forestry, fishing, and hunting</td>
<td>16</td>
<td>7.6</td>
</tr>
<tr>
<td>Production and related work</td>
<td>32</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Table 15
Husbands' Monthly Income for Nontraditional Careers Group:
Frequency and Percentage

<table>
<thead>
<tr>
<th>Husbands' monthly income (N = 142)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than M$500</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>M$501-M$1,000</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>M$1,001-M$1,500</td>
<td>30</td>
<td>21.1</td>
</tr>
<tr>
<td>M$1,501-M$2,000</td>
<td>18</td>
<td>12.7</td>
</tr>
<tr>
<td>M$2,001-M$2,500</td>
<td>15</td>
<td>10.6</td>
</tr>
<tr>
<td>M$2,501-M$3,000</td>
<td>22</td>
<td>15.5</td>
</tr>
<tr>
<td>M$3,001 and more</td>
<td>54</td>
<td>38.0</td>
</tr>
</tbody>
</table>
### Table 16

**Husbands' Monthly Income for Traditional Careers Group:**
Frequency and Percentages

<table>
<thead>
<tr>
<th>Husbands' monthly income (N = 163)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than M$500</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>M$501–M$1,000</td>
<td>41</td>
<td>25.1</td>
</tr>
<tr>
<td>M$1,001–M$1,500</td>
<td>42</td>
<td>25.8</td>
</tr>
<tr>
<td>M$1,501–M$2,000</td>
<td>29</td>
<td>17.8</td>
</tr>
<tr>
<td>M$2,001–M$2,500</td>
<td>12</td>
<td>7.4</td>
</tr>
<tr>
<td>M$2,501–M$3,000</td>
<td>15</td>
<td>9.2</td>
</tr>
<tr>
<td>M$3,001 and more</td>
<td>23</td>
<td>14.1</td>
</tr>
</tbody>
</table>

### Table 17

**Husbands' Monthly Income for Homemakers Group:**
Frequency and Percentages

<table>
<thead>
<tr>
<th>Husbands' monthly income (N = 210)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than M$500</td>
<td>77</td>
<td>36.7</td>
</tr>
<tr>
<td>M$501–M$1,000</td>
<td>100</td>
<td>47.6</td>
</tr>
<tr>
<td>M$1,001–M$1,500</td>
<td>24</td>
<td>11.4</td>
</tr>
<tr>
<td>M$1,501–M$2,000</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>M$2,001–M$2,500</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>M$2,501–M$3,000</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>M$3,001 and more</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
Table 18

Position Among Brothers and Sisters by Groups: Frequency and Percentages

<table>
<thead>
<tr>
<th>Group</th>
<th>Only child</th>
<th>First born (eldest child)</th>
<th>Middle child</th>
<th>Last born</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>Nontraditional careers</td>
<td>6 2.9</td>
<td>51 24.3</td>
<td>121 57.6</td>
<td>32 15.2</td>
</tr>
<tr>
<td>Traditional careers</td>
<td>4 1.9</td>
<td>52 24.8</td>
<td>124 59.0</td>
<td>30 14.3</td>
</tr>
<tr>
<td>Homemakers</td>
<td>4 1.9</td>
<td>39 18.6</td>
<td>129 61.4</td>
<td>38 18.1</td>
</tr>
</tbody>
</table>
Table 5 shows that all of the women sampled in the non-traditional careers group were below 44 years old, while Table 6 indicates that all of the women in the traditional careers group in this study were below the age of 54 years old. Table 7, however, shows that the women in the homemakers group were represented in all the five age categories even though the majority of them were between 25 to 44 years old. From Table 8, it can be seen that 5.7% of the women sampled in the traditional careers group had been in their present jobs for over 21 years, but none of the women sampled in the nontraditional careers group had been in their jobs for that length of time. As can be seen in Table 8, only 1.0% of the nontraditional careers group had been in their present jobs for between 16-20 years. The information given by both Tables 5 and 8 reflects the actual situation that exists in Malaysia, that it was only a few years ago that more Malaysian women ventured into the male dominated professions.

As shown in Table 9, 9.5% of women in the homemakers group had never been to school and only 1.0% had university degrees. However, the majority of women in this group had primary school level of education.

Table 10 indicates that the majority of women in nontraditional careers had an income of more than M$1,500 per month in contrast to the majority of women in traditional careers whose monthly income was below M$1,500.

As can be seen in Table 11, the bulk of sampled subjects for both the nontraditional careers group and traditional careers group
were married. Table 12 shows that 92.3% of husbands of the non-traditional careers group were in the professional, technical, and related fields. It may be deduced from here that "birds of the same feathers flock together." It is shown in Table 13 that the majority of husbands of women in the traditional careers group were in the professional, technical, and related fields while none of the husbands were in the agricultural, animal husbandry and forestry, fishing and hunting, and production and related fields. Table 14, indicates that husbands of women in the homemakers group were in all the seven job fields even though a comparatively higher percentage were in the service field.

It is shown in Tables 15 and 16 that only 0.7% of husbands of women in nontraditional careers and 0.6% of husbands of women in traditional careers earned less than M$500 per month, while Table 17 shows that the majority of husbands of women in the homemakers group's monthly earned income was below M$1,000.

It is interesting to note from Table 18 that more than 57.0% of women in all the three groups sampled in this study were middle-born child.

Paid Volunteer Research Assistants

Paid volunteer research assistants were required for the purpose of distributing, administering, and collecting the research instruments to the homemakers group of subjects. An advertisement stating the nature and purpose of the research project was put on the notice board in the Psychology Department of the National University of
Malaysia. The intention was to take only third-year students of the department because of their past experience in assisting in the research projects conducted by the department. Recruitment of 5 third-year female students was made in early February 1984. It was decided that a higher percentage of responses would be obtained if research assistants were exclusively females and that communications would be easier, especially where topics which touched on sensitive issues were concerned. A woman surveyor would also be perceived as less suspect and less threatening, hence, making it more comfortable for the subjects to respond. The selection of research assistants was also based on the applicants' ability to communicate clearly and effectively, their trustworthiness, and friendliness.

Each research assistant was paid M$13.00 per day which was the standard payment rate for research assistants in the country. They were not paid for their bus fares, for food, or for the amount of time required to distribute or administer the instruments. Each one of them was assigned to either one or two geographical areas chosen for the study depending on the size of the areas and the hours they desired to work. Each research assistant was required to distribute or administer and collect a total of seven instruments per day. Each research assistant was given the privilege of choosing the area that was most familiar to her. They were all given 7 days to cover one area. This length of time allowed them to have a break in between if they wished to do so.

The survey was conducted during the middle of March 1984 to coincide with the National University of Malaysia's semester break.
It was thought that the timing was right so that the research assistants could concentrate on the survey while not affecting their school work. There were no dropouts among the paid volunteer research assistants.

Nonpaid Volunteer Research Assistants

There were nine volunteer research assistants, one for each school selected for the study. They were purely taken on a voluntary basis and out of their genuine interest to help make this research a success. The research assistants were either friends or former students of the researcher. The volunteer research assistants were also teachers in the schools selected for this study.

Instructions to Paid Volunteer Research Assistants

All research assistants were told to dress decently but comfortably in order to avoid suspicion and to enable them to move about freely from house to house. They were also told to be pleasant.

Each research assistant was instructed to introduce herself and the purpose of her visit even though a letter from the researcher which explained the intent of the research and letter from the head of Psychology Department of the National University of Malaysia verifying the research were already attached to the instruments.

All research assistants were told that they should go to every 10th house in the area under study. They were also told that the survey participants could only be homemakers who were 18 and over. If, in case the mistress of the house was not a homemaker, that is,
she was a working woman, the research assistant was required to go to the next house. Also, in cases where a house was occupied by an extended family (which is quite common in Malaysia) and there happened to be two homemakers, the older one (in most cases the mother or mother-in-law of the younger woman) of the two was to participate in the survey. However, if the older woman declined to participate, the younger one instead would be requested to respond to the research instruments.

All paid volunteer research assistants were instructed to wait while the subjects responded to the instruments. However, in cases where the subjects had other things to attend to at the time when the research assistants visited them, the instruments were to be left to the subjects and the completed forms were to be collected either later in the day or the next day. The subjects were reminded not to get help from either their husbands or anyone else in responding to the instruments.

In cases where the subjects were illiterate, the research assistants were to communicate the contents of the letters attached and each and every item contained in the instruments. Research assistants were reminded not, in anyway, to influence the subjects in the subject's response to the instruments. This was where honesty on the part of the research assistants became of great importance.

Whenever the research assistants were successful in getting responses from the subjects, they were to record the addresses of the houses being visited. This was done to avoid revisiting the same place.
A standard form was given to each one of them in order for them to write comments or reasons given by those who refused to participate (see Appendix I).

Instructions to Nonpaid Volunteer Research Assistants

Every nonpaid volunteer research assistant was given 14 instruments to be distributed to 14 teachers in their respective schools. They were requested to collect the completed instruments within one week. It was decided that the subjects should not be given longer than one week to return the completed instruments because there was a tendency to lose or forget about the instrument.

Each nonpaid volunteer research assistant was also given a standard form similar to the ones given to the paid volunteer research assistants, to enable them to write down comments by those teachers who refused to participate in this study (also see Appendix I).

Coding Procedures

Coding of research instruments was done with magic marker ink. Code numbers ranging from 0 to 12 were entered on the right hand side corresponding to the questions on each page of the instruments. Numbers were given to all the questions and statements. If someone marked the letter "c" on a choice of answers that went up to "g," the numerical equivalent would be recorded as 3. However, if for example in Question #23 someone marked "c" for a choice of statements which come up to "l," then the numerical equivalent would be recorded as
03. Missing data were coded as 9 and 90 depending on the number of choices in the answers. For example, if there were only eight choices, 9 would be recorded as missing data, and 90 would be recorded as missing data when there were more than eight choices.

There were questions to which some subjects were not to respond. For example, the questions pertaining to their husbands when the subjects were "single," "divorced," or "widowed" were coded 0.

Question #9 which asked for husband's occupation, Question #15 for father's occupation, and Question #18, mother's occupation, were coded in accordance with the classifications given by the Dictionary of Occupational Classification (1981). If the name of the occupation was given as "administrator" which falls under Category 2 in the dictionary, the response would be coded as 2. Since there were seven main classifications given by the dictionary, the codes for the three questions (#9, #15, and #18) ran from 1-7 (see Appendix J for Dictionary of Occupational Classification job categories).

All items in both the AWS-short form and the Attitudes Toward Women Scale occupational, educational, and intellectual themes were coded from 0 to 3 as instructed in the original version of both scales. There were no missing data for both scales.

Each coded sheet of the instruments was entered in the Fortran Sheets. Later the data in the Fortran Sheets were transferred onto the IBM key punch cards at the computer center of the National University of Malaysia.
Final data analysis was also computed for all hypotheses through the services of the computer center at the National University of Malaysia. Even though the final analysis of the data was completed in Malaysia, the IBM punch cards, the Fortran Sheets, and all the computer printouts were duplicated and were taken, together with other reports of the research project, back to Western Michigan University. This was done as a precautionary measure against loss and the need to retrieve the data in the Western Michigan University's computer.

Research Design and Data Analysis

The population studied was made up of three different groups of women. The traditional careers women and the homemakers were randomly selected. When difficulties were encountered in getting responses from the nontraditional careers group, coupled with the fact that the total number of women in each selected profession was small, research materials were distributed to all of them rather than a random sample. The final number of subjects in this study for the three groups was 630.

Relationships between the independent variable, groups, and the dependent variables, sex-role attitudes, were examined. Several selected background characteristics of the population were also investigated.

Nine hypotheses were tested for this study. Data analysis for Hypotheses 1 and 2 were tested by using one-way ANOVA. One-way ANOVA would determine whether or not there were differences among the three
means.

For Hypothesis 1, one-way ANOVA would determine if, in fact, the three groups means differed from one another. Following a significant $F$ ratio in the ANOVA, Newman-Keuls method was utilized to see which group's mean was the highest of the three. If the nontraditional careers group mean was the highest of the three, the null hypothesis which states that the means of the three groups are equal will be rejected and the alternative hypothesis will be accepted.

Hypothesis 2 was tested by using one-way ANOVA. One-way ANOVA would indicate whether the three groups' means were different from one another. If the $F$ ratio was significant, Newman-Keuls method would be utilized to determine which group's mean was the highest of the three. The null hypothesis which assumes that there is no difference among the three groups' means will be rejected if the means for the nontraditional careers group is higher than the other two groups' means, in which case, the alternative hypothesis will be accepted.

Hypotheses 3, 4, 5, 6, 7, 8, and 9 were tested by using chi-square statistic. The chi-square statistic would compare the differences among proportions.

For Hypothesis 3, chi-square statistic investigated whether or not the three groups of women sampled in this study differed in terms of their parents' combined monthly income levels. If results revealed differences among the groups, the null hypothesis which states that there is no difference among the proportions of the three groups of women in terms of the combined income levels of their parents will
be rejected. The alternative hypothesis, therefore, will be accepted.

Hypothesis 4 was also tested by utilizing chi-square statistic. Chi-square statistic would determine if the three groups of women were not equal in terms of their fathers' educational levels. If there are differences among the three groups, the null hypothesis which predicts no difference among the proportions of the women in nontraditional careers, traditional careers, and the homemakers in terms of the educational levels of their fathers will be rejected, in which case the alternative hypothesis will be accepted.

The chi-square statistic was also used to test Hypothesis 5. This statistic will show whether the numbers of women of the three groups are different in terms of their mothers' educational levels. If results indicate differences among the three groups, the null hypothesis which states that there is no difference among the proportions of the three groups of women in terms of the educational levels of their mothers will be rejected. The alternative hypothesis will therefore be accepted.

For Hypothesis 6, chi-square statistic was used to compare the difference among numbers of women in nontraditional careers, traditional careers, and the homemakers in terms of whether or not their mothers were employed outside of the home. The null hypothesis which states that there is no difference among the proportions of the three groups of women in terms of whether their mothers were or were not employed outside of the home will be rejected if differences existed among the groups. Hence, the alternative hypothesis will be
Hypothesis 7 was tested by using chi-square statistic. By utilizing this statistic the difference among the three groups of subjects in terms of whether or not they perceive their parents as having valued education for them would be determined. If differences existed among the three groups under study, the null hypothesis which predicts that there is no difference among the proportions of the three groups of women in terms of their perception as to whether or not their parents valued education for them will be rejected, while the alternative hypothesis will be accepted.

For Hypothesis 8, chi-square statistic was used to compare the difference between proportions among nontraditional careers group, traditional careers group, and the homemakers group in terms of whether or not they perceive their parents as having encouraged them to pursue their careers. The null hypothesis will be rejected if there was a difference among the proportions of the three groups. In this case, the null hypothesis which states that there is no difference among the proportions of the three groups of women in terms of their perception as to whether or not their parents encouraged them to pursue a career will be rejected and the alternative hypothesis will be accepted.

The final hypothesis, that is, Hypothesis 9, was tested by using chi-square statistic. Chi-square statistic will determine if there is a difference among the three groups of women being studied in terms of whether they grew up in the rural or the urban areas. If differences exist among the three groups, the null hypothesis which
assumes that there is no difference among the proportions of the three groups of women in terms of whether they grew up in the rural or the urban areas will be rejected, and the alternative hypothesis will be accepted.

Pilot Study

A pilot study was conducted prior to the full scale study. The purpose of the pilot study was to assess the soundness of hypothesis construction, research design, and most of all, the data collection techniques for the three groups of samples and appropriateness of the Attitudes Toward Women Scale and the suitability of the questionnaire which dealt with background characteristics of the sample. It was also the intention of this study to look at the problems that may be encountered in the research in order that precautions could be taken by the researcher to alleviate or eliminate them if possible. This pilot study was undertaken in late February of 1984 with a total sample size of 24 women over the age of 18. Out of the total sample size of 24 women, 12 of them were homemakers, 2 medical doctors and 4 engineers to represent women in nontraditional careers, and 6 teachers representing women in the traditional careers.

Characteristics of the Sample

The sample for the homemakers group was selected from the Petaling Jaya area. This area was chosen for convenience because the researcher lives in the same area. The sample for the homemakers group was randomly selected by going to every 10th house. If it so
happened that the mistress of the house was not a homemaker, the 11th house was visited. The six women who represented the nontraditional careers group and the six who represented the traditional careers group were either friends of the researcher or known to the researcher's friends.

The following is a description of the sample: women ranged in age from 18 years to over 55 years of age. The average age group was 25–34 years. Their educational level was from no schooling to university degree levels. The average educational level for the homemakers was primary school level; the average educational level for the women in nontraditional career was university degree, while the average educational level for the women in the traditional careers group was secondary school level. In terms of their income level, all the women in nontraditional careers fell in the M$1,501 and over levels while all the women in the traditional careers fell in the M$501 to M$1,500 income levels. The average income levels for the husbands of the homemakers was between M$501–M$1,000, while that of the nontraditional careers was M$1,501 and above and the traditional careers was M$1,001 to M$1,500.

In general, the pilot study was very helpful, especially in determining the appropriateness of the AWS and the questionnaires on the background characteristics. As a result of the pilot study two changes were made on the AWS based on the comments made by some of the subjects. A few other changes were also made on the questionnaires regarding the background characteristics. Based on the subjects' responses to the original open-ended versions of Questions #23
and #25, response options were constructed instead of leaving them open ended.

Summary

The aim of this chapter was to present the instruments used in this study, the technique used to translate the AWS into the Malay language, and to describe the population being studied. This chapter also presented and described the details on the procedures used in the collection of data, the pilot study, and techniques in analyzing the data. Characteristics of the population studied were presented in detail in terms of the three groups as a whole and in terms of each individual group.
CHAPTER IV

RESULTS

Introduction

It is the purpose of this chapter to present the statistical analyses of the data for all the hypotheses under study. The main aim of this study was to compare the differences among the women in nontraditional careers, traditional careers, and the homemakers in their attitudes towards women's roles in society and their background characteristics. It was also the purpose of this study to examine some selected background characteristics of the three groups of women. The background characteristics selected to be explored were parents' combined income, father's and mother's educational levels, subjects' perception of their parents' value for their education, subjects' perception of their parents' encouragement for them to pursue their careers, and the place where they spent most of their childhood and adolescent years. The results of this study, therefore, will answer the following questions: Do the women in nontraditional careers, traditional careers, and homemakers differ in their overall sex-role attitudes? Do they differ in their attitudes toward women's roles in the vocational, educational, and intellectual areas? Do they differ in terms of their parents' combined monthly income? Do they differ in terms of their parents' levels of education? Do they differ in their perception as to whether or not their parents
valued education for them? Do they differ in their perceptions as to whether or not their parents encouraged them to pursue their careers? Did they grow up in the rural or the urban areas?

There were nine hypotheses to be tested. The first two hypotheses were concerned with sex-role attitudes of the three groups of women, while the third to the ninth hypotheses examined their background characteristics.

The first hypothesis was concerned with finding the difference among the three groups of women in their sex-role attitudes as measured by the AWS-short form. This hypothesis predicted that the three groups of women would differ in their sex-role attitudes and that, among them, the nontraditional careers group would have the highest score on the scale. In other words, the nontraditional careers group would be the most liberal of the three.

The second hypothesis intended to see if differences existed among the nontraditional careers group, traditional careers group, and homemakers group in their sex-role attitudes in the vocational, educational, and intellectual areas. Their scores on the AWS vocational, educational, and intellectual areas were compared. This hypothesis proposed that women in nontraditional careers would be the most liberal among the three groups of women in their attitudes toward women's roles in the three themes mentioned.

The third hypothesis rested on the assumption that the three groups of women under study differed in terms of their parents' combined monthly income levels.
The fourth and fifth hypotheses were concerned with the three groups of women's parents' educational levels. Hypothesis 4 predicted that the women in nontraditional careers, traditional careers, and the homemakers would differ in terms of their fathers' educational levels, while the fifth hypothesis assumed that the three groups of women would differ in terms of their mothers' levels of education.

The sixth hypothesis investigated the employment status of mothers of the three groups under study. This hypothesis postulated that differences would exist among the women in nontraditional careers, traditional careers, and the homemakers in terms of whether or not their mothers worked outside of the home.

The seventh hypothesis proposed that there would be a difference among the three groups of women in terms of their perception as to whether or not their parents valued education for them.

Hypothesis 8 investigated the three groups of women's perceptions as to whether or not their parents encouraged them to pursue a career. It was predicted that the perception of the three groups of women would differ with regard to their parents' encouragement for them to pursue their careers.

The final hypothesis focused on the areas in which the three groups grew up. It assumed that they would differ in proportions in terms of whether they spent most of their childhood and adolescent years in the rural or the urban areas.

The following pages will present findings for each hypothesis. Findings for the nine hypotheses will be reported and presented in
Hypothesis 1

H$_1$: The mean score on the AWS-short form of women in nontraditional careers is the highest compared to the mean scores of women in traditional careers and the homemakers.

To analyze the data for this hypothesis, a one-way ANOVA was used to determine the difference among the means on the AWS-short form. The independent variable is the three groups of women and the dependent variable is their scores on the AWS-short form. The function of the one-way ANOVA is to compare the difference among the three means. Following a significant $F$ ratio in the one-way ANOVA, Newman-Keuls method was utilized in order to determine which group's mean is the highest of the three. A .05 level of significance was set for the results obtained.

The null hypothesis states that the mean scores of the three groups of women are equal on the AWS-short form. Tables 19 and 20 report the findings of this hypothesis. The null hypothesis will be rejected if, in fact, there is a significant difference among the three groups' means and if, in fact, the nontraditional careers group's mean is higher than the mean of the traditional group or the homemakers' group mean and the probability of occurrence is .05 or less.
Table 19
Means and Standard Deviations on AWS-Short Form

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nontraditional careers</td>
<td>54.09</td>
<td>11.49</td>
</tr>
<tr>
<td>Traditional careers</td>
<td>47.76</td>
<td>8.59</td>
</tr>
<tr>
<td>Homemakers</td>
<td>34.72</td>
<td>7.45</td>
</tr>
</tbody>
</table>

Table 20
Summary of Analysis of Variance of the Three Groups of Women's Mean Scores on AWS-Short Form

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>20478.87</td>
<td>235.1*</td>
</tr>
<tr>
<td>Within</td>
<td>627</td>
<td>87.10</td>
<td></td>
</tr>
</tbody>
</table>

p < .05.

The findings for Hypothesis 1 (p [F = 235.1] = 0.00) indicates that there is a difference among the nontraditional careers, the traditional careers women, and the homemakers in their sex-role attitudes.

Newman-Keuls post hoc tests were performed in order to see if the nontraditional careers women differed from the homemakers; nontraditional careers women differed from traditional careers women; and traditional careers women differed from the homemakers. Table 21 presents the means, the Q statistic of the Newman-Keuls analysis, and
the degrees of freedom of the three groups of women on the AWS-short form.

**Table 21**

Newman-Keuls Analysis of Women's Groups Means on the AWS-Short Form

<table>
<thead>
<tr>
<th></th>
<th>Homemakers</th>
<th>Traditional careers</th>
<th>Nontraditional careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>34.72</td>
<td>47.76</td>
<td>54.09</td>
</tr>
<tr>
<td>Q Homemakers</td>
<td>20.37*</td>
<td></td>
<td>30.26*</td>
</tr>
<tr>
<td>Q Traditional careers</td>
<td>9.89*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, df = 627.

As shown in Table 21, traditional careers women scored higher than the homemakers, Q (2,627) = 20.37, *p < .05; nontraditional careers women scored higher than the homemakers, Q (3,627) = 30.26, *p < .05; and nontraditional careers women scored higher than the traditional careers women, Q (2,627) = 9.89, *p < .05. By looking at the mean scores of the three groups, it appears that the careers women, that is, women in nontraditional careers and women in traditional careers, had a more liberal attitude toward the roles of women in society than the homemakers.

Since differences were found among the three groups, and since the nontraditional careers group scored higher than either women in traditional careers or the homemakers, the null hypothesis which states that there is no difference among the three groups in their
Hypothesis 2

$H_2$: The mean score of women in nontraditional careers is higher than the mean score of women in traditional careers and the homemakers in the vocational, educational, and intellectual theme areas of the AWS.

In order to analyze the data for this hypothesis, a one-way ANOVA was utilized. The function of the one-way ANOVA is to find the difference among the means of the three groups of women sampled on the AWS vocational, educational, and intellectual theme areas. Subjects' scores on the vocational, educational, and intellectual theme of the AWS is the dependent variable while the independent variable is women in nontraditional careers, women in traditional careers, and the homemakers. Following a significant $F$ ratio in the ANOVA, Newman-Keuls method was used to determine which group's mean is the highest of the three. A .05 significance level was set for the results obtained.

The null hypothesis states that the mean scores of the three groups of women are equal on the AWS vocational, educational, and intellectual themes. Tables 22 and 23 report the findings of this hypothesis. The null hypothesis will be rejected if there is a difference among the three groups and if the $F$ ratio is so large that the probability of occurrence is less than .05.
Table 22

Means and Standard Deviations on AWS Vocational, Educational, and Intellectual Themes

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWS vocational, educational, and intellectual themes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nontraditional careers</td>
<td>41.18</td>
<td>7.23</td>
</tr>
<tr>
<td>Traditional careers</td>
<td>37.29</td>
<td>6.55</td>
</tr>
<tr>
<td>Homemakers</td>
<td>26.68</td>
<td>5.59</td>
</tr>
</tbody>
</table>

Table 23

Summary of Analysis of Variance of the Three Groups of Women's Mean Scores on AWS Vocational, Educational, and Intellectual Themes

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>11824.28</td>
<td>280.33*</td>
</tr>
<tr>
<td>Within</td>
<td>627</td>
<td>42.18</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.

The finding for Hypothesis 2 shows that the obtained results of \( p (F = 280.33) = 0.00 \) indicates that there are differences among the women in nontraditional careers, women in traditional careers, and the homemakers in their attitudes toward women's roles in the vocational, educational, and intellectual areas.

Hypothesis 2 also assumes that the women in nontraditional careers are the most liberal in their sex-role attitudes in the three areas among the three groups. Since the \( F \) ratio was found to be
significant, a Newman-Keuls method was utilized in order to determine which group's mean is the highest of the three. The function of Newman-Keuls post hoc tests was to see if there was any significant difference between the traditional careers women and the homemakers, the traditional careers women and the nontraditional careers women, and the homemakers and the nontraditional careers women. The results of the Newman-Keuls post hoc test are presented in Table 24.

Table 24

<table>
<thead>
<tr>
<th>Newman-Keuls Analysis of Women's Groups Means on AWS Vocational, Educational, and Intellectual Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homemakers</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>( \bar{x} )</td>
</tr>
<tr>
<td>Q</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

\*p < .05, df = 627.

Table 24 indicates that traditional careers women scored significantly higher on the AWS vocational, educational, and intellectual themes than the homemakers, \( Q(2,627) = 23.68, p < .05 \); nontraditional careers women scored significantly higher on the AWS vocational, educational, and intellectual themes than the homemakers, \( Q(3,627) = 32.37, p < .05 \); and the nontraditional careers women also scored significantly higher than the traditional careers women on the AWS vocational, educational, and intellectual themes,
Therefore, the nontraditional careers women scored higher than both the homemakers and the women in traditional careers. Hence, results showed that the nontraditional careers women had the most liberal attitudes toward women's roles in the vocational, educational, and intellectual areas. It is also obvious from the results that careers women, or women in nontraditional careers and women in traditional careers, were more liberal in their sex-role attitudes in the three areas than the women in the homemakers group.

Findings for this hypothesis lead to the rejection of the null hypothesis. The alternative hypothesis is therefore accepted.

Hypothesis 3

$H_3$: There is a difference among women in nontraditional careers, traditional careers, and the homemakers in terms of their parents' combined monthly income.

To analyze the data for this hypothesis a chi-square test was used in which parents' combined monthly income was divided into three categories, less than M$1,000, M$1,001 to M$2,000, and M$2,001 and more. The chi-square test assumes that the response of the individual women's groups, as recorded in the cells of the crosstabs, are independent of each other. The function of the chi-square test is to compare the obtained results with those that were expected on the basis of chance. A .05 level of significance was set for the obtained results. The null hypothesis states that in the population distribution, the proportional frequency in each subcategory, will
equal a specified value. These values are predicted upon equal numbers in parents' income categories among the three groups of women, the nontraditional careers, traditional careers, and the homemakers.

Table 25 reports the findings of this hypothesis in cross tabulation format with totals on the less than M$1,000, M$1,001 to M$2,000, and M$2,001 and more. The null hypothesis will be rejected if values of $\chi^2$ are so large that their probability of occurrence is .05 or less. Chi-square values, degrees of freedom, and chi-square significance levels are also reported.

Table 25

Chi-Square Analysis: Women's Groups and Parents' Combined Monthly Income

<table>
<thead>
<tr>
<th>Parents' combined monthly income</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than M$1,000</td>
<td>Count</td>
<td>60</td>
<td>145</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>15.7</td>
<td>38.0</td>
<td>46.3</td>
</tr>
<tr>
<td>M$1,001-M$2,000</td>
<td>Count</td>
<td>77</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>49.0</td>
<td>31.9</td>
<td>19.1</td>
</tr>
<tr>
<td>M$2,001 and more</td>
<td>Count</td>
<td>73</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>80.2</td>
<td>16.5</td>
<td>3.3</td>
</tr>
</tbody>
</table>

$\chi^2 = 171.086, \text{ df } = 4, p = .00^*$

$^*$p < .05.
The findings for Hypothesis 3 indicate the obtained result of \( p (\chi^2 > 171.086) = .00 \) and shows that there is a significant difference among the three groups of women in terms of their parents' combined income.

As reported in Table 25, the majority of women sampled in this study, that is 382, had parents with a combined income of less than M$1,000 per month. Compared to the other two groups of women, women in the homemakers group appear to have the largest percentage of parents in this monthly income level.

On the M$1,001 to M$2,000 parents' monthly income level, 49.0% was made up of women in nontraditional careers group. In contrast to that of women in nontraditional careers, only 19.1% of parents of women in the homemakers group fell in this income level.

Table 25 also indicates that only 91 out of the total number of women in this study had parents whose combined monthly income exceeded M$2,001. Of the total of 91 women with parents' monthly income of M$2,001, 80.2% of them were nontraditional careers women as opposed to only 3.3% homemakers and 16.5% women in traditional careers.

As indicated in Table 25, the differences among the three groups of women in terms of their parents' combined monthly incomes were high. These differences result in the rejection of the null hypothesis. The alternative hypothesis which predicts differences among the three groups of women in terms of their parents' combined monthly income is therefore accepted.
Hypothesis 4

H₄: There is a difference among women in nontraditional careers, traditional careers, and the homemakers in terms of the levels of education of their fathers.

Using a chi-square test the data for this hypothesis were analyzed. The fathers' education was trichotomized into never been to school, primary/secondary school, and diploma/university degree levels. It is stated in the null hypothesis that in the population distribution, the proportional frequency in each subcategory will equal a specified value. These values are predicted upon equal proportions of fathers in the three levels among the three groups of women, the nontraditional careers, traditional careers, and the homemakers. The purpose of the chi-square test is, therefore, to compare the obtained results with those that were expected on the basis of chance. A .05 level of significance was set for the obtained results.

Table 26 shows the findings of this hypothesis in cross tabulation format with totals on the never-been-to-school fathers of the three groups, primary/secondary school of fathers of the three groups, and diploma/university degree fathers of the three groups. The null hypothesis will be rejected if values of χ² are so large that their probability of occurrence is .05 or less. Chi-square values, degrees of freedom, and chi-square significance levels are also given.
Table 26
Chi-Square Analysis: Women's Groups and Fathers' Educational Levels

<table>
<thead>
<tr>
<th>Fathers' educational levels</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never been to school</td>
<td>Count</td>
<td>7</td>
<td>12</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>9.7</td>
<td>16.7</td>
<td>73.6</td>
</tr>
<tr>
<td>Primary/secondary school</td>
<td>Count</td>
<td>147</td>
<td>187</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>30.1</td>
<td>38.3</td>
<td>31.6</td>
</tr>
<tr>
<td>Diploma/university degree</td>
<td>Count</td>
<td>56</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>80.0</td>
<td>15.7</td>
<td>4.3</td>
</tr>
</tbody>
</table>

\[ x^2 = 128.665, \text{df} = 4, \ p = .00^* \]

*p < .05.

Table 26 shows that the findings for Hypothesis 4 with the obtained result of \( p (x^2 > 128.665) = .00 \) indicates that there are differences among the women in nontraditional careers, traditional careers, and the homemakers in terms of their fathers' levels of education at \( p < .05 \) level.

It appears from Table 26 that the majority of women sampled in this study had fathers with primary/secondary school level of education. Only 72 of the women sampled had fathers who had never been to school and only 70 had fathers who had earned diploma/university degrees.
As reported in Table 26, out of a total of 72 women whose fathers had never been to school, 73.6% was made up of homemakers as compared to 9.7% nontraditional careers women.

The majority, that is, 80.0% of those women with fathers who had earned diploma or university degrees were in nontraditional careers. This is a big contrast to only 4.3% of women in the homemakers group whose fathers had diploma or university degrees.

Since there were differences among the three groups of women in terms of their fathers' educational levels, the null hypothesis, which assumes no difference in proportions among the three groups of women in terms of the educational levels of their fathers, is rejected. The alternative hypothesis, in turn, is accepted.

Hypothesis 5

H_5: There is a difference among women in nontraditional careers, traditional careers, and the homemakers in terms of their mothers' levels of education.

In order to analyze the data for this hypothesis, a chi-square test was used in which mothers' education, like fathers' education, was trichotomized into three levels. The levels of mothers' education were never been to school, primary/secondary school, and diploma/university degree.

The chi-square test assumes that the responses of the individual women, as recorded in the cells of the crosstabs, are independent of each other. The purpose of the chi-square test is to compare the obtained results with those that were expected on the basis of
chance. For the obtained results, a .05 level of significance was set. The null hypothesis assumed that in the distribution of population, the proportional frequency in each subcategory will equal a specified value. These values are hypothesized to be of equal number in mothers' educational levels among the women in nontraditional careers, traditional careers, and the homemakers.

The findings of this hypothesis are reported in Table 27 in cross tabulation format with totals on the three categories, never been to school, primary or secondary school, and diploma or university degree level of education. The null hypothesis will be rejected if the values of $\chi^2$ were found to be so large that their probability of occurrence is .05 or less. Table 27 also presents the chi-square value, degrees of freedom, and chi-square significance levels.

The findings for Hypothesis 5 indicate that the obtained result of $p(\chi^2 > 139.252) = .00$ shows that there are differences among women in nontraditional careers, traditional careers, and the homemakers in terms of their mothers' educational levels.

As reported in Table 27, only 35 out of the total number of women in this study had mothers with diplomas or university degrees. Out of 35 women whose mothers had earned diplomas or university degrees, 85.7% were women in nontraditional careers. None of the women in the homemakers group had mothers with this level of education.

A large number of women sampled in this study had mothers who have had primary or secondary school level of education.
On the never-been-to-school level, out of a total of 101, 76.3% were mothers of women in the homemakers group. This is a big contrast to that of the women in nontraditional careers whose mothers in this level of education only made up 6.9% of the total population.

As can be observed from the findings of this hypothesis, there are obvious differences among proportions of women in nontraditional careers, traditional careers, and the homemakers in terms of their mothers' levels of education.

The null hypothesis is rejected and the alternative hypothesis, which suggested that there will be differences among the three groups...
of women in terms of the levels of education of their mothers, is accepted.

Hypothesis 6

H₆: There is a difference among the three groups of women in terms of whether or not their mothers were employed outside of the home.

A chi-square test was utilized to analyze the data for this hypothesis. The mothers' employment status was dichotomized into employed and unemployed categories. The chi-square test assumes that the responses of the individual women on the question of whether their mothers were or were not employed outside of the home, as recorded in the crosstabs cells, are not dependent on each other. The chi-square test will compare the obtained results with those that were expected on the basis of chance. The level of significance was set at .05 for the obtained results. The null hypothesis states that in the population distribution, the proportional frequency in each subcategory will equal specified values. These values are predicted upon equal numbers of mothers among the three groups of women.

The findings for Hypothesis 6 are presented in Table 28 in cross tabulation format with totals on the employed and the unemployed mothers of the three groups of women. The null hypothesis will be rejected if values of \( \chi^2 \) are so large that their probability of occurrence is .05 or less. Chi-square values, degrees of freedom, and chi-square significance levels are also reported.
**Table 28**

Chi-Square Analysis: Women's Groups and Mothers' Employment Status

<table>
<thead>
<tr>
<th>Mothers' employment status</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>Count</td>
<td>60</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>48.4</td>
<td>21.8</td>
<td>29.8</td>
</tr>
<tr>
<td>Unemployed</td>
<td>Count</td>
<td>150</td>
<td>183</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>29.6</td>
<td>36.2</td>
<td>34.2</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 17.250, \text{df} = 2, p = .0002^* \]

*p < .05.

The findings for Hypothesis 6 indicate that the obtained result of \( p (\chi^2 > 17.250) = .0002 \) shows that there is a difference among the women in nontraditional careers, traditional careers, and the homemakers in terms of their mothers' employment status.

As shown in Table 28, the majority of mothers of women sampled in this study had never been employed outside of the home. Out of a total of 506 women whose mothers were unemployed, 36.2% were women in traditional careers.

Among those women whose mothers were employed outside of the home, the biggest percentage, or 48.4%, was made up of women in nontraditional careers. This percentage is large in comparison to that of the traditional careers women or the women in the homemakers.
The findings of this hypothesis indicate differences among the proportions of the three groups of women in terms of whether or not their mothers were employed outside of the home. Thus, the null hypothesis is rejected and the alternative hypothesis which assumes that there is a difference among the three groups of women in terms of their mothers' employment status is accepted (see Appendix M on the breakdown of frequency and percentages of the three groups of women by their mothers' jobs).

Hypothesis 7

H7: There is a difference among women in nontraditional careers, women in traditional careers, and the homemakers in terms of their perception of whether or not their parents valued education for them.

Data for this hypothesis were also analyzed by utilizing a chi-square test. Parents' value for education was trichotomized into valued, did not value, and indifferent. It is assumed by the chi-square test that the responses of the individual groups of women, as written in the cells of the crosstabs, are not dependent on one another. The chi-square test compares the obtained results with those that were expected on the basis of chance. For the results obtained, a .05 level of significance was set. It is stated in the null hypothesis that in the population distribution, the proportional frequency in each subcategory will equal a specified value. These values are predicted upon equal numbers in perception of parents'
value for education among the three groups of women, the nontraditional careers, traditional careers, and the homemakers.

Reports of the findings for Hypothesis 7 are presented in Table 29. Table 29 shows a cross tabulation format with totals on the valued response of the three groups of women, did not value response of the three groups of women, and indifferent response of the three groups of women. This study will reject the null hypothesis if the \( \chi^2 \) values are so large that their probability of occurrence is .05 or less. Chi-square values, degrees of freedom, and chi-square significance levels are also presented.

Table 29

<table>
<thead>
<tr>
<th>Perception</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valued</td>
<td>Count</td>
<td>206</td>
<td>191</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>43.6</td>
<td>40.5</td>
<td>15.9</td>
</tr>
<tr>
<td>Did not value</td>
<td>Count</td>
<td>2</td>
<td>12</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>1.7</td>
<td>9.9</td>
<td>88.4</td>
</tr>
<tr>
<td>Indifferent</td>
<td>Count</td>
<td>2</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>5.4</td>
<td>18.9</td>
<td>75.7</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 262.737, \ df = 4, p = .00* \]

\( p < .05 \).
The findings for Hypothesis 7 show that the obtained result of

\[ p \left( x^2 > 262.737 \right) = .00 \]

dicates that there is a difference among the nontraditional careers women, traditional careers women, and the homemakers in terms of their perceptions of whether or not their parents valued education for them.

Table 29 shows that the majority of women sampled in this study perceived that their parents valued education for them. From a total of 472 women who perceived that their parents valued education for them, only a comparatively small percentage, that is, 15.9%, were women in the homemakers group.

From a total of 121 women who perceived that their parents did not value education for them, a big percentage, that is, 88.4%, were women in the homemakers group. This percentage is a big contrast to only 1.7% of women in the nontraditional careers group who perceived that their parents did not value education for them.

As indicated in Table 29, only 37 out of the total population of women sampled in this study felt that their parents were indifferent toward education for them. The majority of these women came from the homemakers group.

The differences that exist among the proportion of the three groups of women in terms of their perceptions as to whether or not their parents valued education for them leads to a rejection of the null hypothesis. The alternative hypothesis which postulated that there will be differences among the three groups of women in terms of their perceptions as to whether or not their parents valued education for them is accepted.
Hypothesis 8

H₈: There is a difference among the three groups of women in terms of their perception as to whether or not their parents encouraged them to pursue a career.

To analyze the data for this hypothesis, a chi-square test was used in which the variable, perception, was divided into three levels, encouraged, did not encourage, and indifferent. The chi-square test assumes that the responses of the individual women, as recorded in the cells of the crosstabs, are independent of each other. A .05 level of significance was set for the obtained results. The null hypothesis states that in the population distribution, the proportional frequency in each subcategory will equal a specified value. These values are predicted upon equal numbers checked among the three groups, nontraditional careers, traditional careers, and the homemakers group.

The findings of this hypothesis in cross tabulation format with totals for the three levels, that is, those encouraged in the three groups of women, those not encouraged in the three groups of women, and the indifferent in the three groups of women, are reported in Table 30. The null hypothesis will be rejected if the value of the \( \chi^2 \) is so large that its probability of occurrence is .05 or less. Chi-square values, degrees of freedom, and chi-square significance levels are also given.
Table 30

Chi-Square Analysis: Women's Groups and Perception of Parents' Encouragement to Pursue a Career

<table>
<thead>
<tr>
<th>Perception</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged</td>
<td>Count</td>
<td>183</td>
<td>150</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>47.0</td>
<td>38.6</td>
<td>14.4</td>
</tr>
<tr>
<td>Did not</td>
<td>Count</td>
<td>10</td>
<td>36</td>
<td>119</td>
</tr>
<tr>
<td>encourage</td>
<td>Row %</td>
<td>6.1</td>
<td>21.8</td>
<td>72.1</td>
</tr>
<tr>
<td>Indifferent</td>
<td>Count</td>
<td>17</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>23.3</td>
<td>32.9</td>
<td>43.8</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 190.24, \text{ df} = 4, p = .00^* \]

*\(p < .05\).

As shown in Table 30, 3 persons sampled in this study did not respond to this question and all of the 3 women were from the homemakers group. The total number of women who responded to this question, therefore, was 627. The findings for this hypothesis indicate that the obtained result of \(p (\chi^2 > 190.24) = .00\) shows that there is a difference among the women in nontraditional careers, traditional careers, and the homemakers in terms of their perception as to whether or not their parents encouraged them to pursue a career.

It appears from Table 30 that more than half of women sampled in this study perceived that their parents encouraged them to pursue a
career. As reported in Table 30, among those women who perceived
that their parents encouraged them to pursue a career, the majority
is made up of women in the nontraditional careers group. In contrast
to women in nontraditional careers group, only 14.4% of women in the
homemakers group perceived that their parents encouraged them to
pursue their careers.

Out of a total of 165 women who thought that their parents did
not encourage them to pursue their careers, 72.1% were the homemakers
as opposed to 6.1% women in nontraditional careers group.

The majority of those who thought that their parents were in­
different towards their pursuing their careers were the homemakers.

Since findings for this hypothesis indicate differences among
proportions of women in nontraditional careers, traditional careers,
and the homemakers in terms of their perception as to whether or not
their parents encouraged them to pursue a career, the null hypothesis
is thus rejected. The alternative hypothesis is accepted.

Hypothesis 9

H₉: There is a difference among the women in nontraditional
careers, traditional careers, and the homemakers in terms of whether
they grew up in the rural or the urban areas.

The data for this hypothesis were analyzed by again utilizing a
chi-square test. The place where the subjects spent most of their
childhood life was dichotomized into urban and rural categories. The
responses of the individual women, as recorded in the cells of the
crosstabs, are assumed by the chi-square test to be independent of
each other. The chi-square test will compare the obtained results with those expected on the basis of chance. A .05 level of significance was set for the obtained results.

Table 31 reports the findings of this hypothesis in cross tabulation format with totals on urban nontraditional careers women, traditional careers women, and the homemakers, and rural nontraditional careers women, traditional careers women, and the homemakers. If the $\chi^2$ value is so large that the probability of occurrence is .05 or less, the null hypothesis will be rejected. Chi-square values, degrees of freedom, and chi-square significance are also reported.

The findings for Hypothesis 9 show that the obtained result of $\chi^2 > 158.21$ indicates that there is a difference among the three groups of women sampled in this study in terms of the places where they spent most of their childhood and adolescent life.

As seen in Table 31, 335 women in this study spent most of their childhood and adolescent life in the urban areas. From the total number of women who grew up in the urban areas, 51.4% were in the nontraditional careers group in contrast to only 13.1% who were in the homemakers group.

It is also indicated in Table 31 that the majority of women who grew up in the rural areas was made up of the homemakers. It is obvious from the figures shown in this table that only a small percentage of those women who grew up in the rural areas were in the nontraditional careers group.
Table 31
Chi-Square Analysis: Women's Groups and the Place Where They Spent Most of Their Childhood and Adolescent Life

<table>
<thead>
<tr>
<th>Place</th>
<th>Nontrad. careers</th>
<th>Trad. careers</th>
<th>Homemakers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Count</td>
<td>172</td>
<td>119</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>51.4</td>
<td>35.5</td>
<td>13.1</td>
</tr>
<tr>
<td>Rural</td>
<td>Count</td>
<td>38</td>
<td>91</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>12.9</td>
<td>30.8</td>
<td>56.3</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 158.21, \text{df} = 2, p = .00^* \]

*\(p < .05\).

From the results it can be seen that a much higher percentage of women in nontraditional careers and women in traditional careers spent their childhood and adolescent years in the urban areas compared to the homemakers. However, compared to the women in nontraditional careers and the traditional careers, a much larger percentage of the homemakers spent their childhood in the rural areas. The differences in percentages resulted in significant findings for this hypothesis.

The null hypothesis is rejected since there are differences among the proportions of the three groups of women in terms of whether they grew up in the rural or the urban areas. The alternative hypothesis is accepted.
It appears from this result that the places where they spent most of their childhood and adolescent years could predict the nature of the women's careers, that is, whether they were going to be career oriented or homemaking oriented.

Summary

It was the purpose of this chapter to present findings of the study. Nine hypotheses were being tested. For Hypotheses 1 and 2, one-way ANOVA was used to analyze the data followed by the Newman-Keuls post hoc analysis to see which group was the most liberal in their sex-role attitudes among the three. The chi-square test was used to analyze data for Hypotheses 3 through 9. All the hypotheses tested were accepted, since findings for all of them were in line with the assumptions. Differences were found among the three groups of subjects sampled in this study in their sex-role attitudes and their background characteristics.
CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary

The purpose of this study was to obtain information regarding the sex-role attitudes of three groups of Malaysian women, nontraditional careers women, traditional careers women, and homemakers. It was also the aim of this study to investigate whether or not any differences exist among the three groups of women in their background characteristics. The background characteristics selected for this study were parents' income levels, fathers' and mothers' educational levels, perception of parents' value of education, perception of parents' encouragement for them to pursue their careers, and areas in which the subjects spent most of their childhood and adolescent years.

The study also investigated the influence of sex-role attitudes and background characteristics on careers. The issue of the difference among sex-role attitudes of women in careers that are not traditionally associated with women, women in careers that are traditionally female, and the homemakers had been addressed in many studies previously conducted in the West, especially in America. However, studies conducted on women in Malaysia are few and most of them focused on either the rural women in their traditional roles as wives and mothers or the women who are employed in the manufacturing
sectors. Practically nothing is yet known about the sex-role attitudes of women in Malaysia.

Studies on sex-role attitudes began to attract researchers in the early 1960s; however, it was only in the 1970s that more research in this area was conducted. Most of this research compared sex-role attitudes of nontraditional and traditional careers women and careers women and homemakers. Many studies also attempted to explore the background characteristics of women in different careers or occupational groups. Research studies cited in the review of literature showed the differences that exist among women in different occupational groups in their attitudes toward women's roles in society. Those studies also demonstrate differences in the background characteristics of the women being studied.

The basic premise of this study is that among women in nontraditional careers, traditional careers, and homemaking, there are differences in sex-role attitudes and background characteristics. This premise is based on the literature reviewed in addition to the theoretical considerations of the application of the cognitive dissonance theory to career development.

Nine hypotheses were tested in this study. The first hypothesis dealt with the overall sex-role attitudes of the three groups of women under study, while the second hypothesis was concerned with the attitudes of the three groups of women towards women's roles in the vocational, educational, and intellectual areas. The third through the ninth hypotheses examined the background characteristics of the three groups of women and include parents' combined monthly income,
fathers' and mothers' educational levels, mothers' occupational status, perception of parents' value for education, perception of parents' encouragement for them to pursue a career, and places where they grew up.

The literature reviewed in this study was presented in three separate sections, namely: studies on sex-role attitudes in general, cross-cultural studies on sex-role attitudes, and those studies that were concerned with the background characteristics of different groups of women. Generally, studies on sex-role attitudes which were cited in the review of literature showed that subjects sampled in those studies, regardless of whether they were men or women, who had liberal attitudes toward the roles of women in society tended to show interest in or be inclined towards career fields that were nontraditional in nature. Meanwhile those men and women subjects who had conservative or traditional sex-role attitudes were more inclined to choose or had interest in traditional fields.

Several studies cited in the literature also indicated that people who were in nontraditional careers had a tendency to have more liberal attitudes toward the roles of women in society. It was also shown in those studies that those people who were in traditional careers had an inclination to have more conservative or traditional sex-role attitudes.

In general, results of the cross-cultural studies cited in the literature review were not consistent. A study conducted on Asian born Chinese and American Caucasians, for example, showed that American Caucasian females and Chinese females were more liberal than
American Caucasian males and Chinese males in their attitudes toward women's roles in the vocational, educational, and intellectual, and marital relations and obligations themes. However, on factors such as freedom and independence, dating and courting etiquette and drinking, swearing and jokes, the American Caucasian females and Chinese males were more liberal than the American males and Chinese females. Another study cited was on the high school and college American and Brazilian students. According to the results reported, college students were more liberal than high school students and female students were also found to be more liberal than male students. It was also found that Brazilian students were more liberal than the American students.

Research relating to background characteristics are uniformly in agreement with each other. In general, all of those studies cited pertaining to the background characteristics of women in nontraditional careers, traditional careers, and homemaking indicated that there were differences in most of their family background characteristics.

Spence and Helmreich's (1972) AWS-short form, or 25-item version, was the instrumentation utilized to measure sex-role attitudes of the women sampled in this study. The scale contains four response options: agree strongly, agree mildly, disagree mildly, and disagree strongly. Each item in the scale is given a score of 0 to 3 with 0 as the most traditional or conservative attitude and 3 as the most contemporary or liberal attitude. As such, the total score would range from 0 to 75 whereby those subjects who scored 0 would be
considered as the most conservative and those whose scores reached 75 would be considered as having the most liberal attitudes toward women's roles in society.

This study was also concerned with the sex-role attitudes of the three groups of women in the vocational, educational, and intellectual areas. The attitudes of the three groups of women sampled in this study in the vocational, educational, and intellectual themes were measured by using Spence and Helmreich's 55-item AWS. Following the suggestion from Spence and Helmreich, only 17 items were utilized. Similar to the AWS-short form, this instrument also has four response alternatives: agree strongly, agree mildly, disagree strongly, and disagree mildly. The range of possible scores for this scale for the 17 items was from 0 to 51, with 0 representing the most conservative attitude and 51 as the most liberal attitude.

For the purpose of exploring the background characteristics of the women sampled in this study, a questionnaire dealing with background characteristics was developed. This questionnaire covered the subjects' demographic data, such as their age, ethnic background, marital status, and important information concerning the subjects' husbands, such as jobs and monthly income. The other questions included in the questionnaire were related to those background characteristics selected to be studied, such as those questions relating to their parents' jobs and incomes, parents' value on education, parents' encouragement for them to pursue their careers, and their mothers' employment status. A question on the places where they spent most of their childhood and adolescent years was also included.
The women in nontraditional careers, women in traditional careers, and homemakers over the age of 18 who worked and resided in the areas of Kuala Lumpur and Selangor made up the population studied in this research project. Medical doctors, lawyers, and engineers represented the women in nontraditional careers. Women in traditional careers were made up of teachers and nurses. For the homemakers group, women from 10 randomly selected areas from Kuala Lumpur and Selangor were the subjects. The total number of subjects for the three groups was 630, that is, each group had 210 subjects.

Due to the varied occupations of the subjects of this study, contact was made through different ways. For the nontraditional careers group, research instruments for the medical doctors were distributed and collected by the matrons and administrative officers of the two hospitals where the doctors worked. As for the engineers, research instruments were distributed and collected by the representatives of the organizations or institutions where they were employed. Research instruments were mailed to two-thirds of the women lawyers, while the rest of the instruments for the other one-third of the lawyers group were distributed personally by the president of the Federation of Women Lawyers, Malaysia who had kindly agreed to help. As for the women in the traditional careers' group, research instruments for the teachers were given out and collected by nonpaid volunteer research assistants, whereas instruments for the nurses were distributed and collected by matrons of the two hospitals where the nurses worked. Research instruments for the homemakers group were distributed or administered and collected by paid
volunteer research assistants who were students of the Psychology Department of the National University of Malaysia.

A pilot study was conducted preceding the actual study. It was the purpose of the pilot study to assess the soundness of the nine hypotheses constructed, the research design, and all the data collection techniques for the three groups of subjects. The appropriateness of the AWS-short form and AWS vocational, educational, and intellectual areas and the suitability of the questionnaire that dealt with the selected background characteristics was also appraised. The purpose of the pilot study was also to look into the problems that might evolve during the actual research so that appropriate steps could be taken to overcome the problems and to enable the researcher to be more prepared to face the problems if they occurred. The total sample size of the pilot study was 24 women over the age of 18 and they were made up of 12 homemakers, 2 medical doctors and 4 engineers for the nontraditional careers group, and 6 teachers for the traditional careers group.

The dependent variable for the first and the second hypotheses was the sex-role attitudes, and the independent variable was the occupational group, nontraditional careers, traditional careers, and homemakers. The first and second hypotheses were analyzed by using a one-way ANOVA to compare the different mean scores on the AWS-short form and the AWS vocational, educational, and intellectual themes. Newman-Keuls post hoc analysis was used following a significant F value. The chi-square statistic was utilized for the third through the ninth hypotheses. The statistics provided a measure of
discrepancy between expected and obtained frequencies. If the value of $\chi^2$ was so large that such a value rarely occurred if the hypothesis was true, it would result in the rejection of the hypothesis if the probability of occurrence is .05 or less.

The first hypothesis was based on the assumption that the sex-role attitudes of women in nontraditional careers, traditional careers, and the homemakers would differ. It was also predicted that nontraditional careers women would be the most liberal of the three groups. Findings of this hypothesis showed that there is a difference among the three groups of women in their sex-role attitudes. It was also found as predicted, that women in the nontraditional careers had the most liberal sex-role attitudes among the three.

The second hypothesis pertained to the sex-role attitudes of women in the three groups in the vocational, educational, and intellectual areas. It was expected that among the three groups of women, women in nontraditional careers would be the most liberal in their attitudes towards women's roles in the vocational, educational, and intellectual themes. Findings for this hypothesis disclosed that women in nontraditional careers were the most liberal of the three groups in their sex-role attitudes in the areas mentioned.

Hypothesis 3 was concerned with the three groups of women's parents' combined income levels. It was postulated that there would be differences among the three groups of women in terms of the monthly income levels of their parents. Results of the study showed that differences exist among the three groups in terms of their parents' levels of income.
The fourth hypothesis rested on the assumption that differences exist among the women in nontraditional careers, traditional careers, and the homemakers in terms of the educational levels of their fathers. Chi-square analysis for this hypothesis revealed that the three groups of women indeed differ in terms of the levels of education of their fathers.

Similar to Hypothesis 4, the fifth hypothesis dealt with the educational levels of the mothers of the three groups of women under study. It was predicted that the three groups of women would differ in terms of their mothers' educational levels. Analysis of the data for this hypothesis indicated, like that of the fourth hypothesis, that the women in nontraditional careers, traditional careers, and the homemakers were different in terms of their mothers' educational levels.

Findings for the sixth hypothesis, which pertained to the employment status of mothers of women in nontraditional careers, traditional careers, and the homemakers, indicated that there was a difference among the three groups of women in terms of whether or not their mothers were employed outside of the home.

Hypothesis 7 was interested in exploring the perception of the three groups of women in terms of their parents' value on education for them. It was found that the majority of women in nontraditional careers and traditional careers perceived that their parents valued education for them, while the majority of women in the homemakers group perceived that their parents did not value education for them. Analysis of the data found that the three groups of women were
different in terms of their perception of their parents' value for education.

The eighth hypothesis was concerned with the perception of the three groups of women under study in terms of their parents' encouragement for them to pursue their careers. Results for this hypothesis revealed that there was a difference among the women in nontraditional careers, traditional careers, and the homemakers in their perception as to whether or not their parents encouraged them to pursue their careers.

The final hypothesis intended to see if differences exist among the three groups of women being studied in terms of the places where they spent most of their childhood and adolescent days. Data analysis for this hypothesis found that as predicted, there was a difference among the three groups of women in terms of whether they spent their childhood and adolescent years in the rural or the urban areas. The majority of women in the homemakers group spent most of their childhood and adolescent life in the rural areas in contrast to most of the women in the nontraditional careers group who spent most of their childhood and adolescent life in the urban areas.

The findings for all the hypotheses tested in this study proved to be as expected. Discussions in relation to the results of this study will be presented in the next section of this chapter. In the remainder of this chapter, recommendations for further research pertaining to this area will be presented.
Discussion

Sex-Role Attitudes and Career Development

Sex-role attitudes are the expected behavioral qualities that an individual understands to differentiate between males and females in a certain culture. As such, certain rights and privileges are expected and approved for one sex, and unexpected and disapproved for the other sex. In Malaysia, regardless of the cultural system that is being followed (Malay, Chinese, Indian, or others), as in many other cultures, behavioral qualities that differentiate an individual from the others were usually on the basis of sex. Through the process of socialization, cultural values and expectations are transmitted and embedded, and through this same process an individual will grow up to learn the behavioral expectations of a boy and a girl. It is believed that a woman is innately and instinctively adapted at nurturing, caring, and serving for others. This belief is common in all the four major cultural systems in the country. In addition, it is assumed that no matter how highly educated a woman is, she can never get away from her duties in the kitchen. This also means that to a woman, no matter how big or important her role is outside of the home, she is first committed to her responsibilities as a wife and a mother who serves and nurtures. With these assumptions and expectations, it implies that for the women in the country, a career is secondary. Regardless of what the traditional belief is about what a woman should and should not do, today, many Malaysian women have opted not to be bonded by the myths.
and stereotypes. Many changes have slowly but steadily erased the cultural beliefs and expectations of the roles of women in the country. With more women venturing into all kinds of fields, women have proved that given the opportunity, they are capable of doing anything they so desire beyond the home.

The underlying premise of this study is derived from Festinger's (1957) theory of cognitive dissonance and Super's (1957) theory of career development. Festinger's theory centered around the assumption that human beings cannot tolerate dissonance or psychological inconsistency. Dissonance occurs when one cognitive element is in conflict with another cognitive element. In a situation where psychological inconsistency exists, human beings will try to reduce the unpleasantness of the situation.

Super's theory of career development states that people strive to implement their self-concept by choosing to enter the occupation seen as most likely to permit self-expression (Osipow, 1983). A career is seen as an expression of self-concept. Here, sex-role attitudes are considered as one aspect of self-concept. Thus, career satisfaction will only be achieved by an individual whose career permits her to express her sex-role attitudes. Psychological inconsistency or cognitive dissonance will occur when sex-role attitudes are not consistent with career choice. In applying this theory to the Malaysian context, it can be assumed that a Malaysian woman who is employed in a male-dominated or nontraditional profession, whose sex-role attitude is conservative, will experience psychological dissonance since her attitude is not consistent with her
profession. It can be expected that she will not experience satisfaction with her profession since the nature of her profession, which is traditionally not for women, will not permit her to express her self-concept. The same argument is applicable to those who are employed in traditional careers and homemaking but yet have liberal or contemporary attitudes toward the roles of women in society.

Findings for the first hypothesis indicated that women in nontraditional careers were the most liberal of the three groups of women under study in their sex-role attitudes. Results for this hypothesis also revealed that career women were more liberal in their attitudes toward women's roles in society compared to the homemakers. For the second hypothesis, data analysis showed that among the three groups of women, women in nontraditional careers had the most liberal sex-role attitude in the vocational, educational, and intellectual areas.

Results of the first two hypotheses may be due to the influence of career on sex-role attitudes as much as sex-role attitudes influence career choice. Past research related to Super's theory (Blocher & Schutz, 1961; Kibrick & Tiedeman, 1961; Morrison, 1962; Warren, 1961) showed that sex-role attitudes influence career choice. It may be deduced from the results of this study that the liberal sex-role attitudes of women in nontraditional careers is somewhat consistent with the gender stereotype of their careers. It may further be assumed that the nontraditional career women sampled in this study were in psychological consistency since their sex-role attitudes which is an aspect of their self-concept is in consonant...
with the kind of careers that they chose. The same thing may be said about the homemakers group whose attitudes toward the roles of women in society were found to be conservative. The conservatism of their attitude toward women's roles in society is congruent with the stereotypes of their roles as wives and mothers.

Based on Festinger's theory of cognitive dissonance and Super's career development theory, it may be expected that those Malaysian women in nontraditional careers, traditional careers, or homemaking whose sex-role attitudes were in conflict with their careers may experience dissonance. Thus, they could reduce the dissonance by either changing their fields to an area more congruent with their sex-role attitudes (which is an aspect of self-concept) or changing their sex-role attitudes to make it more congruent with their chosen fields (Yanico & Hardin, 1978).

It is interesting to note that in the case of the nontraditional careers women, first of all their career fields were not in line with the traditional expectations of women in Malaysia. Second, the liberalism of their attitudes toward the roles of women in society, while congruent with their careers, were not consonant with the traditional behavioral traits desired of women in Malaysia. The results of this study implies a shift away from traditionalism towards more liberal sex-role attitudes among women in Malaysia.
This study assumed that women working in male-dominated careers, or nontraditional careers, women in traditional careers, and the homemakers have certain family background characteristics which can distinguish them from one another. Several background characteristics were selected to be explored. The characteristics chosen were parents' combined monthly income, fathers' and mothers' educational levels, mothers' employment status, the perception of parents' value for education, the perception of parents' encouragement for them to pursue their careers, and the places where they spent most of their childhood and adolescent years.

The findings for the third hypothesis showed that there were differences among the three groups of women in terms of their parents' combined income. It was revealed that the majority of women in the homemakers and the traditional careers groups' parents had incomes of less than M$1,000 per month, whereas the majority of parents of women in nontraditional careers earned between M$1,000 and M$2,001 and more.

The fourth and fifth hypotheses were concerned with the educational levels of both fathers and mothers of the three groups of women under study. Results of the study for the fourth hypothesis revealed that there was a difference among the women in nontraditional careers, traditional careers, and the homemakers in terms of their fathers' levels of education. The data analysis also showed that the majority of fathers of the three groups of women have had
primary and secondary school level of education. From the total number of women sampled in this study, there were only 70, or 11.1% of the fathers had obtained diplomas or university degrees. However, the women in nontraditional careers compared to the other two groups, had the largest percentage of fathers who had reached this level of education. The women in the homemakers group compared to the women in traditional or nontraditional groups had the highest number of fathers in the never-been-to-school group.

Results for the fifth hypothesis indicated that among the three groups of women, there was a difference in terms of their mothers' educational levels. A large majority of women sampled in this study had mothers with a primary or secondary school level of education. This is consistent with the school enrollment figure in Malaysia for as late as 1972 which noted that utilization of educational opportunity by women was still largely confined to the primary and lower secondary levels of education (Hamid Don, 1975). Compared to the fathers, the mothers appeared to be smaller in number in terms of those who had obtained diplomas or university degrees. Among the homemakers group, none of their mothers seemed to have reached this level of education. The mothers of the three groups of women, compared to their fathers, appeared to be greater in number in terms of those who were in the never-been-to-school level. This result is somewhat expected because, even though by 1956 the government of Malaysia's policy had extended equality of educational opportunity to women, in actual fact, it was found that there was unequal utilization of educational opportunity by women. It was only by the 1960s
that opportunities in the form of facilities and amenities were available to girls, and most important of all, the attitudes of parents towards the education of girls had changed (Hamid Don, 1975).

Hamid Don (1975) also noted that the growing emancipation of Malaysian women can be attributed to access of education. With more educational attainment for both men and women in the country, it is assumed that there would be more awareness of the growing potentialities among the women in the country. As such, it may be possible that since parents of women in the nontraditional careers group had higher educational attainment than the other two groups, they had higher levels of awareness of their children's potentialities in those professional fields. Therefore, it is no wonder that the women in the nontraditional careers have reached their present levels of professional achievement.

Parents' income and educational levels normally are the factors that determine an individual's socioeconomic background. The question is: Is there merit to the idea that women in nontraditional careers, traditional careers, and the homemakers differ in their socioeconomic background? The data for this study and other studies cited in the literature review (Greenfeld et al., 1980; Standley & Soule, 1974; Trigg & Perlman, 1976) were inclined to agree with this argument. Women in nontraditional careers tend to come from a higher socioeconomic background when compared to either women in traditional careers or the homemakers.
The sixth hypothesis was concerned with the employment status of mothers of women in nontraditional careers, traditional careers, and the homemakers. It was predicted that the three groups of women would differ in terms of whether or not their mothers were employed outside of the home. The results of this study showed that, as assumed, the three groups of women differed in terms of their mothers' employment status. However, the majority, that is, 506 or over 70%, of mothers of all the three groups of women were not employed outside of the home. Among the mothers of the nontraditional careers group, 11.6% were employed in the professional, technical, and related work; and 31.7% were employed in administrative and managerial work (see Appendix M). Compared to the other two groups of women, women in the homemakers group seemed to have the largest number of mothers employed in the production and related work, transport and equipment operation, and labor. Since the results from the third hypothesis had shown that the majority of parents of women in the homemakers group were in the lowest income level, and since in the fifth hypothesis it was also revealed that the proportion of mothers of the homemakers group is the highest of the three in the never-been-to-school group, it may be likely that mothers of the homemakers group worked outside of the home out of economic necessity to add to the family income. After all, not long ago, the socialization of Malaysian girls did not seriously include a preparation for a career, and if a woman did seek a career, it was done so to supplement the family income or to regard the career as a short-run venture until marriage and motherhood occurred.
The seventh hypothesis investigated the perception of the women under study regarding their parents' value of education for them. The majority of women in nontraditional careers and traditional careers perceived that their parents valued education for them. Meanwhile, a large number of women in the homemakers group perceived that their parents did not value education for them (see Appendix N for the table on the groups of women by the reasons for perceiving that their parents valued, did not value, and were indifferent towards education for them).

The eighth hypothesis was concerned with the three groups of women's perceptions as to whether or not their parents encouraged them to pursue a career. The majority of women in nontraditional careers and traditional careers felt that their parents encouraged them to pursue their careers. On the other hand, more than half of the homemakers thought that their parents did not encourage them to pursue their careers. When asked what made them think that their parents did not encourage them, it was not surprising that the answer that was checked by most of the women in the homemakers group was that their parents "believed that women need not be successful in their careers." This is reflective of the traditional expectation of the roles of women in the vocational areas (see Appendix 0 for the table on the groups of women and the reasons for thinking that their parents encouraged, did not encourage, and were indifferent toward them pursuing their career).

From the findings of the seventh and the eighth hypotheses, it was obvious that most of the women in the nontraditional careers
group felt that their parents valued education for them and most of
them received encouragement from both their parents to pursue their
careers.

In the questionnaire dealing with background characteristics,
the subjects from this study were also asked if they received en-
couragement from people other than their parents. The data obtained
from this question indicated that the majority of women in nontradi-
tional careers and traditional careers claimed that they did get
encouragement from others. The majority of women in traditional
careers also received encouragement from their parents and signifi-
cant others to pursue their careers. However, a large number of
women in the homemakers group did not seem to get encouragement from
their parents or others to pursue their careers (see Appendix P).

On the question of whether or not their husbands encouraged them
to develop in their careers, almost equal percentages of women in
both the nontraditional careers and traditional careers claimed that
their husbands did encourage them to develop in their careers. Only
16.2% of the nontraditional careers and 11.7% of the traditional
careers groups said that their husbands did not encourage them (see
Appendix Q). It appears from this information and from the results
for the findings of the seventh and eighth hypotheses that women in
nontraditional and traditional careers have all the emotional,
social, and economic support that they needed to be in the positions
they were in.

The final hypothesis of this study was interested in knowing
whether the women in nontraditional careers, traditional careers, and
the homemakers spent most of their childhood and adolescent years in the rural or the urban areas. Results showed that the majority of the homemakers grew up in the rural areas while the majority of women in nontraditional and traditional careers grew up in the urban areas. This may be a contributing factor to their being in their present careers. The urban areas are more developed and have more educational facilities to enhance educational achievement. The rural areas in Malaysia are normally neglected and educational facilities and opportunities are usually far from sufficient to fulfill the growing needs of the children in the areas. Students with high academic achievement from various schools in the country are normally selected to enter boarding schools usually located in the more developed areas. In addition, people in the urban areas are more open to new ideas. Hamid Don (1975) observed:

By 1972 much of the indifference and traditional obstacles to giving girls access to education have been eliminated except perhaps in certain remote areas where modernity is still suspect, and where girls are needed to tend to domestic chores or carry on the family economic activities while the boys avail themselves of the educational opportunities. (p. 9)

Results of this study indicated that the parents of women in nontraditional careers were better educated and had higher monthly income than parents of both women in the traditional careers and the homemakers. Social and economic supports were available for the women in nontraditional careers to make it easier for them to be where they are now. The finding from the present study seemed to support those studies conducted in the past by Cartwright (1972) and Grambs and Waetjen (1975) which suggested that educational attainment
and high socioeconomic status may be linked to women choosing non-
traditional careers. It appears from the results of this study that 
background characteristics could predict the nature of the women's 
careers, nontraditional, traditional, or homemaking.

Recommendations

The population being studied in this research project was cate-
gorized into nontraditional career women, traditional career women, 
and homemakers in Malaysia. Past research had also labeled nontradi-
tional career women as women in male-dominated careers and tradi-
tional careers women as women in female-dominated careers. Research 
had not established a precise definition and clarification of the 
differences among the three groups of women being labeled as non-
traditional career or male-dominated career women, traditional career 
or female-dominated career women, and the homemakers. Married women 
or women with children, regardless of whether they are in traditional 
or nontraditional careers, usually could not separate themselves from 
the needs of their children or families. Regardless of how highly 
professional and devoted they are to their careers they also do not 
ignore their nurturing roles as wives and mothers. Therefore, 
trichotomizing them into nontraditional and traditional career women 
and homemakers may not accurately reflect the multiple roles that are 
played by women. Apart from that, there need to be guidelines re-
garding the classification of occupations into traditional or female-
dominated and nontraditional or male-dominated categories. In order 
to establish these guidelines some form of research and occupational
analysis may be needed.

In the area of sampling, for the women in nontraditional careers the women medical doctors, lawyers, and engineers who worked and lived in Kuala Lumpur and Selangor represented this group. Past studies cited in the literature have used college students pursuing law, medicine, and engineering to represent the nontraditional or male-dominated professional group. For the traditional career group, past studies had used college students majoring in courses leading to teaching and nursing, and for the homemakers group, college students majoring in home economics. Medical, law, and engineering professions are also representative of the so-called highly professional and elite professions which require high academic and professional achievements. In Malaysia, as in many other countries, women have also ventured into other nontraditional occupations such as police and armed forces. These professions do not require the same level of academic achievement; however, they also represent nontraditional careers or male-dominated professions. As for the traditional career group, there are other careers that are also traditionally associated with women and are female-dominated in Malaysia, as well as in other countries, such as typing, secretarial work, and hotel and air stewards. It would be interesting if further research would include women in the armed forces and police force for the nontraditional careers group. The study would be able to show whether educational and professional levels and exposures would have any link with sex-role attitudes. It would also be interesting to determine if the women in nontraditional careers whose careers do not require high
academic and professional qualifications come from the same socio-economic background as those with high academic and professional qualifications. Studies that include samples from occupational groups other than those normally included in the past studies for the traditional career group might be enlightening with more information pertaining to women in the female-dominated or traditional careers.

This study has explored the selected background characteristics such as parents' educational levels and combined income levels, mothers' occupational status, parents' value for education and encouragement for them to develop in their careers, and places where they spent most of their childhood and adolescent years. It was the aim of this study to investigate whether or not background characteristics were related to women being in nontraditional, traditional, and homemaking careers. Further research is required to obtain more information regarding both parental behaviors and attitudes, particularly sex-role attitudes, and how these behaviors and attitudes have affected a women being in nontraditional, traditional, and homemaking careers.

With regard to instrumentation, even though Spence and Helmreich's AWS had been widely used in America and even in cross-cultural studies, the same scale had never been used in Malaysia. This study may be the first of its kind to have studied sex-role attitudes of the three groups of women and to have also utilized Spence and Helmreich's instrument for measuring sex-role attitudes in Malaysia. Studies in the future might investigate the reliability and validity of this instrument in the Malaysian culture.
During the preliminary part of this research some problems arose in the efforts to identify the women populations in the professions chosen to represent the women in nontraditional careers. Data on women in engineering, medical, and law areas, even though the organizations and departments concerned had the overall figures for the total number of people in the professions, the data were not recorded in terms of men and women. Perhaps the organizations did not find it necessary to record it in terms of sex. Therefore, when the researcher required the numbers for women medical doctors, for example, the researcher herself had to sit down with the secretary at the Malaysian Medical Association to identify the women medical doctors in the country. Much time was wasted doing this. Special requests had to be made to get figures for women engineers and lawyers in Kuala Lumpur. It is recommended that, in the future, more accurate data be kept regarding women's careers.
APPENDICES
Appendix A

Background Characteristics Questionnaire
Questionnaire Part I

Background Characteristics: Part I

To help me understand something about you and your background, I request you to complete the following questionnaire.

1. Your age:
   - 18-24
   - 25-34
   - 35-44
   - 45-54
   - 55 and above

2. Your race:
   - Malay
   - Chinese
   - Indian
   - Others

3. The highest level of education achieved by you:
   - a. Never been to school
   - b. Primary school
   - c. Secondary school
   - d. Diploma
   - e. University degree

4. Your marital status:
   - a. Single
   - b. Married
   - c. Separated
   - d. Divorced
   - e. Widowed

5. Your employment status:
   - a. Employed
   - b. Unemployed

Note: If your answer to Item 5 is a. Employed, proceed to Items 6, 7, and 8. If your answer to Item 5 is b. Unemployed, skip Items 6, 7, and 8 and proceed to Item 9.

6. State the name of your present job. ____________________________
7. How long have you been in this job?
   a. Less than 5 years 
   b. 6-10 years 
   c. 11-15 years 
   d. 16-20 years 
   e. 21 years and more 

8. Your monthly income:
   a. Less than $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 and above

Note: If you are married, please respond to Items 9, 10, and 11; otherwise proceed to Item 12.

9. Your husband's job. 

10. Your husband's monthly income:
    a. Less than $500.00
    b. $501.00-$1,000.00
    c. $1,001.00-$1,500.00
    d. $1,501.00-$2,000.00
    e. $2,001.00-$2,500.00
    f. $2,501.00-$3,000.00
    g. $3,001.00 and above

11. Does your husband encourage you to develop in your career?
    a. Yes
    b. No
    c. Indifferent

Note: The following questions concern you and your parents/guardians.

12. Name the place where you spent most of your childhood and adolescent years (for example, name of a town/city or district). 


13. Check the category which describes your position among your brothers and sisters:
   a. Only child
   b. First born (eldest child)
   c. Middle child
   d. Last born (youngest child)

14. What was the highest level of education achieved by your father?
   a. Never been to school
   b. Primary school
   c. Secondary school
   d. Diploma
   e. University degree

15. During most of your childhood and adolescence years, what was your father's occupation?

16. Father's monthly income:
   a. Less than $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 and above

17. Did your mother ever work outside of the home?
   a. Yes
   b. No

18. State the name of your mother's job

19. What was the highest level of education achieved by your mother?
   a. Never been to school
   b. Primary school
   c. Secondary school
   d. Diploma
   e. University degree
20. Your mother's monthly income:
   a. Less than $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 and above

21. Parents combined monthly income:
   a. Less than $1,000.00
   b. $1,001.00-$2,000.00
   c. $2,001.00 and more

22. Do you think that your parents valued education for you?
   a. Yes
   b. No
   c. Indifferent

23. What makes you think so? Please check one that is most relevant to you.

   I think my parents valued education for me because they:
   a. Encouraged me in my studies
   b. Helped me with my school work
   c. Willing to sacrifice their money for my education
   d. Concerned about my progress in school
   e. Rewarded me when I did well in my examinations
   f. Sent me for tuition classes

   I think my parents did not value education for me because they:
   g. Preferred me to do housework to school work
   h. Never encouraged me to study
   i. Believed that education was not important for girls

   I think they were indifferent towards education for be because:
   j. I was left on my own
   k. They were ignorant about the value of education
   l. They had other pressing matters to think about
24. As far as you can remember, did your parents encourage you to pursue a career?
   a. Yes    
   b. No    
   c. Indifferent

25. What makes you think so? Please check one that is most relevant to you.

   I think they encouraged me to pursue a career because:
   a. They wanted me to have a better life than their's
   b. They always advised me to improve myself
   c. They were very supportive of my success
   d. They always advised me to further my studies

   I think they did not encourage me to pursue a career because:
   e. They thought that what I had achieved was good enough
   f. They thought that women need not be successful in their careers
   g. They preferred their daughters to stay at home

   I think they were indifferent towards my pursuing a career because:
   h. It was all up to me
   i. It did not matter to them whether I work or not
   j. They were too involved with other things

26. Other than your parents, did any other persons encourage you to pursue a career?
   a. Yes    
   b. No    

   If your answer to Question 26 is a. Yes, please proceed to Question 27.

27. Who had given you the most encouragement?
   a. Brothers and sisters
   b. Uncles, aunts, and relatives
   c. Grandparents
   d. Friends
   e. Teachers
Appendix B

Background Characteristics Questionnaire in the Malay Language
Bahagian I

Bagi membolehkan saya memahami sedikit sebanyak mengenai diri dan latar belakang saudari, sukacita saya sekiranya saudari isi tempat kosong atau pun letakkan tanda seperti berikut √.

1. Umur:

   18-24 tahun  _______
   25-34 tahun  _______
   35-44 tahun  _______
   45-54 tahun  _______
   55 tahun ke atas _______

2. Keturunan:

   Melayu _______
   Cina _______
   India _______
   Lain-lain _______

3. Taraf pengajian yang paling tinggi dicapai:

   a. Tidak pernah bersekolah _______
   b. Sekolah Rendah _______
   c. Sekolah Menengah _______
   d. Diploma _______
   e. Ijazah Universiti _______

4. Taraf perkahwinan:

   a. Bujang _______
   b. Berkahwin _______
   c. Tinggal berasingan (separated) _______
   d. Janda _______
   e. Balu _______

5. Taraf Pekerjaan:

   a. Bekerja _______
   b. Tidak bekerja _______

   Nota: Sekiranya jawapan saudari bagi soalan 5 ialah (a) Bekerja, teruskan kepada soalan-soalan 6, 7, dan 8, jika jawapan saudari ialah (b) Tidak bekerja, teruskan kepada soalan 9.

6. Pekerjaan saudari sekarang: __________________________________
7. Berapa lamakah telah saudari berada dalam pekerjaan ini?
   a. 5 tahun ke bawah
   b. 6-10 tahun
   c. 11-15 tahun
   d. 16-20 tahun
   e. 21 tahun ke atas

8. Pendapatan sebulan:
   a. Kurang dari $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 ke atas

Nota: Jika berkahwin, sila jawab soalan 9, 10 dan 11.
      Jika tidak teruskan kepada soalan 12.

9. Pekerjaan suami: ________________________________

10. Pendapatan suami sebulan:
    a. Kurang dari $500.00
    b. $501.00-$1,000.00
    c. $1,001.00-$1,500.00
    d. $1,501.00-$2,000.00
    e. $2,001.00-$2,500.00
    f. $2,501.00-$3,000.00
    g. $3,001.00 ke atas

11. Adakah suami saudari mendorong saudari supaya memajuken diri
    dalam bidang pekerjaan?
    a. Ya
    b. Tidak
    c. Kadang-kadang

Nota: Soalan-soalan berikut adalah berhubung dengan saudari dan
      ibu bapa atau penjaga saudari.

12. Nama tempat di mana saudari paling lama sekali menghabiskan masa
    kanak-kanak hingga ke peringkat remaja (misalnya nama kampung,
    nama bandar/kota atau nama daerah). ____________________________
13. Tandakan satu kategori yang menerangkan kedudukan saudari di kalangan adik beradik saudari.
   a. Anak tunggal
   b. Anak sulung
   c. Anak tengah (mempunyai abang atau kakak dan adik)
   d. Anak bongsu

14. Apakah taraf pengajian yang tertinggi yang telah dicapai oleh bapa saudari?
   a. Tidak pernah ke sekolah
   b. Sekolah Rendah
   c. Sekolah Menengah
   d. Diploma
   e. Ijazah Universiti

15. Pada sebahagian besar masa kanak-kanak dan remaja saudari dahulu: Apakah pekerjaan bapa saudari: ____________________

16. Pendapatan bapa sebulan:
   a. Kurang dari $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 ke atas

17. Pada masa saudari dalam peringkat kanak-kanak dan remaja dahulu, adakah pernah ibu saudari bekerja di luar rumah?
   a. Ya
   b. Tidak

18. Sekiranya jawapan saudari ialah 'Ya' sila nyatakan jenis pekerjaan ibu: ______________________

19. Apakah taraf pengajian yang tertinggi yang telah dicapai oleh ibu saudari?
   a. Tidak pernah ke sekolah
   b. Sekolah Rendah
   c. Sekolah Menengah
   d. Diploma
   e. Ijazah Universiti
20. Pendapatan ibu sebulan:
   a. Kurang dari $500.00
   b. $501.00-$1,000.00
   c. $1,001.00-$1,500.00
   d. $1,501.00-$2,000.00
   e. $2,001.00-$2,500.00
   f. $2,501.00-$3,000.00
   g. $3,001.00 ke atas

21. Pendapatan ibu dan bapa
   a. Kurang dari $1,000.00
   b. $1,001.00-$2,000.00
   c. $2,001 ke atas

22. Adakah saudari fikir ibu dan bapa saudari mementingkan pelajaran bagi saudari?
   a. Ya
   b. Tidak
   c. Tidak peduli/berkecuali


   Saya fikir ibu bapa saya mementingkan pelajaran bagi diri saya sebab mereka:
   a. Selalu mendorong saya supaya belajar
   b. Membantu saya dalam melakukan kerja-kerja sekolah
   c. Rela berkorban wang mereka untuk kepentingan pelajaran saya
   d. Mengambil berat tentang kemajuan saya di bidang pelajaran
   e. Memberi hadiah apabila saya berjaya dengan baik di dalam peperiksaan
   f. Hantar saya ke kelas tambahan

   Saya fikir ibu bapa saya tidak mementingkan pelajaran bagi diri saya sebab mereka:
   g. Lebih suka saya melakukan kerja-kerja rumah daripada kerja-kerja sekolah
   h. Tidak pernah memberi dorongan kepada saya untuk belajar
   i. Percaya bahawa pelajaran adalah tidak begitu penting bagi anak-anak perempuan
Saya fikir ibu bapa saya berkecuali terhadap pelajaran bagi saya kerana:

j. Semuanya adalah terserah kepada saya ______
k. Mereka tidak tahu tentang kepentingan pelajaran ______
l. Mereka lebih mementingkan hal-hal lain ______

24. Sepanjang yang dapat saudari ingat adakah ibu bapa saudari menggalakkan saudari supaya meninggikan kerjaya saudari:

a. Ya ______
b. Tidak ______
c. Berkecuali ______


Saya rasa mereka menggalakkan saya supaya berjaya dalam kerjaya saya kerana:

a. Mereka mahukan kehidupan saya lebih baik bagi saya ______
b. Mereka selalu menasihati saya supaya memperbaiki diri ______
c. Mereka menyokong kuat kejayaan saya ______
d. Mereka selalu menasihati saya supaya melanjutkan pelajaran ______

Saya rasa mereka tidak menggalakkan saya supaya berjaya dalam kerjaya saya oleh kerana:

e. Mereka percaya bahawa apa yang saya perolehi sekarang adalah sudah mencukupi ______
f. Mereka fikir bahawa kaum perempuan tidak perlu berjaya di dalam bidang pekerjaan ______
g. Mereka lebih suka anak-anak perempuan tinggal di rumah ______

Saya rasa mereka bersikap berkecuali terhadap kerjaya saya kerana:

h. Semuanya terserah kepada saya ______
i. Tidak menjadi hal bagi mereka sama ada saya bekerja atau tidak ______
j. Mereka lebih mementingkan hal-hal lain ______

26. Selain daripada ibu bapa saudari sendiri, adakah orang lain mendorong saudari dalam mencapai cita-cita saudari di masa kecil?

a. Ya ______
b. Tidak ______
Sekiranya jawapan saudari kepada soalan 26 ialah a. Ya, sila teruskan kepada soalan 27.

27. Siapakah yang paling banyak memberikan dorongan kepada saudari?

a. Abang dan kakak
b. Bapa saudara, ibu saudara atau saudara-saudara lain
c. Datuk dan nenek
d. Kawan-kawan
e. Guru sekolah
Appendix C

Attitudes Toward Women Scale
Attitudes Toward Women Scale

Part II

The statements listed below describe attitudes toward the role of women in society that different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by indicating whether you (A) AGREE STRONGLY, (B) AGREE MILDLY, (C) DISAGREE MILDLY, OR (D) DISAGREE STRONGLY. Please indicate your own opinion by placing a check mark under the column which best describes your feelings. Please answer each item as you actually feel, not as you think you should feel.

<table>
<thead>
<tr>
<th></th>
<th>(A) Agree Strongly</th>
<th>(B) Agree Mildly</th>
<th>(C) Disagree Mildly</th>
<th>(D) Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Swearing and obscenity are more repulsive in the speech of a woman than in the speech of a man.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Both husband and wife should be allowed the same grounds for divorce.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Telling dirty jokes should be mostly a masculine prerogative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Drunkenness among women is worse than drunkenness among men.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Under modern economic conditions, with women being active outside of the home, men should share in household tasks such as washing dishes and doing the laundry.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(A) Agree</td>
<td>(B) Agree</td>
<td>(C) Disagree</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-----------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strongly</td>
<td>Mildly</td>
<td>Mildly</td>
</tr>
<tr>
<td>7.</td>
<td>It is insulting to expect a wife to obey her husband.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>There should be a strict merit system in job appointment and promotion without regard to sex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>A woman should be as free as a man to propose marriage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Women should worry less about their rights and more about becoming good wives and mothers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Women earning as much as their dates, should bear equally of the expense when they go out together.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Women should assume their rightful place in business and all the professions along with men.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>A woman should not expect to go to exactly the same places or have quite the same freedom of action as a man.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Sons in a family should be given more encouragement to go to college than daughters.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>It is ridiculous for a woman to run a locomotive and for a man to darn socks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(A) Agree</td>
<td>(B) Agree</td>
<td>(C) Disagree</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-----------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>16. In general, the father should have greater authority than the mother in the bringing up of children.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Women should be encouraged not to be physically intimate with anyone before marriage, even with their fiances.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. The husband should not be favored by law over the wife in the disposal of family property or income.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. The intellectual leadership of a community should be largely in the hands of men.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. On the average, women should be regarded as less able of contributing to economic production than men.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. There are many jobs in which men should be given first choice over women in being hired or promoted.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
24. Women should be given equal opportunity with men for apprenticeship in various trades.

25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.
Part III

Vocational, Educational, and Intellectual Theme

<table>
<thead>
<tr>
<th>(A) Agree Strongly</th>
<th>(B) Agree Mildly</th>
<th>(C) Disagree Mildly</th>
<th>(D) Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Vocational and professional schools should admit the best qualified students, independent of sex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. There should be a strict merit system in job appointment and promotion without regard to sex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Women should assume their rightful place in business and all the professions along with men.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sons in a family should be given more encouragement to go to college than daughters.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. It is ridiculous for a woman to run a locomotive and for a man to darn socks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Society should regard the services rendered by the women workers as valuable as those of men.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. It is only fair that male workers should receive more pay than women even for identical work.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. There are some professions and types of businesses that are more suitable for men than women.

10. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.

11. The intellectual leadership of a community should be largely in the hands of men.

12. On the average, women should be regarded as less capable of contribution to economic production than are men.

13. The intellectual equality of woman with man is perfectly obvious.

14. There are many jobs in which men should be given preference over women in being hired or promoted.

15. Women with children should not work outside the home if they don't have to financially.

16. Women should be given equal opportunity with men for apprenticeship in the various trades.

<table>
<thead>
<tr>
<th></th>
<th>(A) Agree Strongly</th>
<th>(B) Agree Mildly</th>
<th>(C) Disagree Mildly</th>
<th>(D) Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
17. The relative amounts of time and energy to be devoted to household duties on the one hand and to a career on the other should be determined by personal desires and interests rather than by sex. 

<table>
<thead>
<tr>
<th></th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Strongly</td>
<td>Mildly</td>
<td>Mildly</td>
<td>Strongly</td>
</tr>
</tbody>
</table>
Appendix D

Attitudes Toward Women Scale Translated
Into the Malay Language
Bahagian II

Kenyataan-kenyataan di bawah menerangkan sikap orang-orang yang berbeza terhadap peranan kaum wanita dalam masyarakat. Kesemuanya hanyalah pendapat semata-mata dan bukan merupakan jawapan betul atau salah. Saudari dikehendaki mengemukakan perasaan saudari terhadap setiap kenyataan itu dengan menandakan sama ada saudari: (A) SANGAT SETUJU (B) SETUJU SEDIKIT (C) TIDAK BERAPA SETUJU (D) SANGAT TIDAK SETUJU. Sila nyatakan pendapat-pendapat saudari dengan meletakkan tanda (✓) di dalam ruangan yang paling sesuai dengan pendapat saudari. Saudari diminta menjawab mengikut apa yang sebenarnya saudari rasa bukan apa yang harus saudar rasai.

<table>
<thead>
<tr>
<th>Bahasa yang kesat dan lucah adalah lebih menjijikkan jika digunakan oleh wanita berbanding jika digunakan oleh lelaki.</th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaum wanita harus mengambil lebih banyak tanggungjawab kepimpinan bagi menyelesaikan masalah intelek dan sosial masa kini.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kedua-dua pihak suami dan isteri, harus diberi peluang yang sama untuk mengemukakan alasan untuk bercerai.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berjenaka secara lucah, haruslah menjadi hak istimewa lelaki.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kemabukan di kalangan wanita adalah lebih buruk daripada kemabukan di kalangan lelaki.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Di dalam keadaan ekonomi yang moden di mana wanita juga aktif di luar rumah, kaum lelaki seharusnya berkongsi dalam kerja-kerja rumah tangga seperti mencuci pinggan dan kain baju.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Mengharapkan seseorang isteri mematuhi suaminya adalah satu kehinaan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Sistem penghargaan yang lebih tegas haruslah diwujudkan dalam perlantikan dan kenaikan pangkat tanpa mengira jantina seseorang itu.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Seorang wanita harus dibebaskan untuk melamar pasangan perkahwinan seperti lelaki juga.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Wanita harus kurang memikirkan soal hak-haknya dan lebih memikirkan bagaimana hendak menjadi seorang isteri dan ibu yang baik.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Wanita yang mempunyai pendapatan yang sama dengan teman lelakinya patutlah sama-sama menanggung perbelanjaan bila mereka keluar bersama.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Wanita harus mendapat tempat yang selayaknya dalam bidang perniagaan dan lain-lain pekerjaan sama seperti lelaki.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Seseorang wanita tidak seharusnya menjangkakan untuk pergi ke tempat yang sama seperti lelaki atau mendapat kebebasan yang serupa dengan lelaki.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Adalah karut bagi wanita untuk memandu kereta dan bagi lelaki untuk menampal setoking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Kaum wanita harus digalakkan supaya jangan mengadakan hubungan yang rapat dengan sebarang lelaki sebelum berkahwin, walaupun tunang sendiri.

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Dari segi undang-undang, suami tidak patut diberi pertimbangan yang lebih daripada isteri dalam pembahagian harta keluarga atau pendapatan.

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Kepimpinan intelek dalam sebuah masyarakat pada sebahagian besarnya harus berada di tangan kaum lelaki.

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. Secara purata, kaum wanita harus dianggap sebagai kurang berkebolehan dalam memberi sumbangan kepada keluaran ekonomi berbanding dengan kaum lelaki.

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Sedikit Setuju</th>
<th>(C) Tidak Berapa Setuju</th>
<th>(D) Sangat Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. Terdapat banyak pekerjaan di mana lelaki harus diberi keutamaan diambil bekerja atau dinaikkan pangkat berbanding dengan wanita.

24. Wanita dan lelaki patut diberi peluang yang sama dalam latihan kemahiran di berbagai bidang pekerjaan.

25. Gadis moden adalah juga berhak untuk mendapat kebebasan dari pada peraturan-peraturan dan kawalan seperti yang diberikan kepada lelaki moden.
Bahagian III

1. Kaum wanita harus mengambil lebih banyak tanggung jawab kepimpinan bagi menyelesaikan masalah intelek dan sosial masa kini.

2. Sekolah-sekolah vokasional dan profesional harus menerima masuk pelajar-pelajar yang berkelayakan terbaik, tanpa mengira jantina.

3. Sistem penghargaan yang lebih tegas haruslah diwujudkan di dalam perlantikan dan kenaikan pangkat tanpa mengira jantina seseorang itu.

4. Wanita harus mendapat tempat yang selayaknya dalam bidang perniagaan dan lain-lain pekerjaan sama seperti lelaki.

5. Anak-anak lelaki dalam sesebuah keluarga harus diberi lebih galakan untuk pergi ke universiti berbanding dengan anak-anak perempuan.

6. Adalah karut bagi wanita untuk memandu kereta api dan bagi lelaki untuk menampal setoking.

7. Masyarakat hendaklah menganggap bahawa khidmat yang disumbangkan oleh pekerja-pekerja wanita sebagai sama nilainya dengan khidmat pekerja lelaki.

8. Adalah adil untuk pekerja lelaki menerima gaji yang lebih dari pada pekerja wanita, walaupun untuk pekerjaan yang serupa.
9. Terdapat beberapa jenis pekerjaan dan perniagaan yang lebih sesuai dengan kaum lelaki daripada dengan kaum wanita.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Sedikit Setuju</th>
<th>(D) Sedikit Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Wanita harus kurang memikirkan soal hak-haknya dan lebih memikirkan bagaimana hendak menjadi seorang isteri dan ibu yang baik.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Kepimpinan intelek dalam sesuatu masyarakat pada sebahagian besarnya harus berada di tangan kaum lelaki.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Secara purata, kaum wanita harus dianggap sebagai kurang berkebolehan dalam memberi sumbangan kepada keluaran ekonomi berbanding dengan kaum lelaki.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Persamaan intelek di antara kaum wanita dengan lelaki adalah sangat ketara.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Terdapat banyak pekerjaan di mana kaum lelaki patut diberi keutamaan dalam hal perjawatan dan kenaikan pangkat berbanding dengan wanita.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Wanita-wanita yang sudah mempunyai anak tidak seharusnya keluar bekerja jikalau sumber kewangan sudah mencukupi.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Wanita dan lelaki patut diberi peluang yang sama dalam latihan kemahiran di berbagai bidang pekerjaan.  

<table>
<thead>
<tr>
<th></th>
<th>(A) Sangat Setuju</th>
<th>(B) Setuju</th>
<th>(C) Tidak Sangat Setuju</th>
<th>(D) Tidak Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
17. Jumlah masa dan tenaga yang diberikan terhadap kerja-kerja rumah tangga di satu pihak dan kepada kerjaya di satu pihak yang lain, haruslah ditentukan oleh keinginan dan minat peribadi seseorang dan bukannya oleh jantina.

<table>
<thead>
<tr>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sangat Setuju</td>
<td>Setuju</td>
<td>Tidak</td>
<td>Sangat</td>
</tr>
<tr>
<td>Sedikit</td>
<td>Berapa</td>
<td>Setuju</td>
<td>Tidak</td>
</tr>
<tr>
<td>Sedikit</td>
<td>Setuju</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sangat Setuju
Setuju
Sedikit
Berapa
Sedikit
Setuju
Tidak
Sangat
Setuju
Appendix E

Letter From the Researcher to the Research Subjects
Dear Madam,

I am a lecturer of the National University of Malaysia and I am also enrolled in a Doctoral program at Western Michigan University. At present I am undertaking a research project for my Doctoral Dissertation.

Kindly please spare some of your time to respond to the questionnaire provided. Your cooperation is very much appreciated.

The questionnaire consists of two parts. Part I aimed at getting some information with regard to your background. Part II is meant to get to know your feelings towards 33 statements given in the questionnaire.

The information given to me will be used strictly for my research. You are not required to give your name or your address.

If in case you have any question with regard to the questionnaire, please get in touch with me at the above address or at the Psychology Department, Faculty of Social Sciences and Humanities, The National University of Malaysia, Bangi, Selangor (Telephone 350001 Etn, 2204).

I would be pleased if you return the completed questionnaire a week from the day you receive this letter. Thank you.

Yours sincerely,

Rohany Nasir
Appendix F

Letter From the Researcher to the Research Subjects in the Malay Language
Saudari yang dihormati,


Saya memohon agar saudari dapat me luangkan sedikit masa menjawab soalan-soalan yang disediakan. Kesudian saudari menjawab dan mengem balikan soalselidik ini amatlah saya harga.

Soalselidik yang disertakan ini mengandungi dua bahagian. Bahagian I bertujuan untuk mendapatkan maklumat mengenai diri dan latar belakang saudari. Bahagian II bertujuan untuk mengetahui perasaan saudari terhadap 33 kenyataan yang telah disediakan.

Maklumat-maklumat yang diperolehi dari soalselidik ini akan saya gunakan semata-mata untuk penyelidikan saya sahaja. Saudari tidak perlu menurunkan nama dan alamat saudari.

Jika saudari perlu mendapatkan penjelasan lanjut berhubung dengan soalselidik ini, sila hubungi saya di alamat di atas atau di Jabatan Fikologi, Fakulti Sains Kemasyarakatan dan Kemanusiaan, Universiti Kebangsaan Malaysia, Bangi, Selangor (Nombor talipon 350001 sambungan 2204).

Sukacita saya sekiranya soalselidik ini dapat saudari kembali-kan kepada saya dalam masa seminggu dari tarikh surat ini diterima. Terima kasih.

Yang benar,

Rohany Nasir
Appendix G

Letter From the Head of Psychology Department of the National University of Malaysia Addressed to the Subjects of This Study
Feb. 15th, 1984

TO WHOM IT MAY CONCERN

Madam,

Ms Rohany Nasir is a lecturer of the Psychology Department at the National University of Malaysia. She is also a student at Western Michigan University and is currently undertaking a research for her Doctoral Dissertation.

Kindly please extend your response to the questionnaire of her research exercise. Your cooperation accorded to her is very much appreciated.

Yours sincerely,

Head,
Department of Psychology,
Faculty of Social Sciences and Humanities,
The National University of Malaysia.
Appendix H

Letter From the Head of Psychology Department of the National University of Malaysia Addressed to the Subjects of This Study in the Malay Language

KEPADA SESIAPA YANG BERKENAAN

Puan,

Puan Rohany Nasir adalah seorang pensyarah di Jabatan Psikologi, Universiti Kebangsaan Malaysia dan juga pelajar di Western Michigan University. Pada masa ini beliau sedang menjalankan kajian untuk ijazah Ed.D-nya.

Sukacita sekiranya puan dapat memberi kerjasama kepada beliau. Atas kerjasama dan sokongan pihak puan diucapkan terima kasih.

Yang benar,

Ketua,
Jabatan Psikologi,
Fakulti Sains Kemasyarakatan dan Kemanusian,
Universiti Kebangsaan Malaysia.
Appendix I

Comment Record for Paid Volunteer Research Assistants and Nonpaid Volunteer Research Assistants
<table>
<thead>
<tr>
<th>Location</th>
<th>Comments/Reasons given for refusal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix J

The Number of Engineers Registered at the Board of Engineers Malaysia

Source: Board of Engineers Malaysia, April 24th, 1984.
Total number of engineers registered at the Board of Engineers:

12,448

Total number of engineers in terms of sex:

Male: 12,203  
Female: 245

Total number of engineers in the state of Selangor: 2,984

Total number of engineers in the state of Selangor in terms of sex:

Male: 2,910  
Female: 74

Total number of engineers in the area of Kuala Lumpur (Federal Territory):

3,623

Total number of engineers in the area of Kuala Lumpur (Federal Territory) in terms of sex:

Male: 3,520  
Female: 103

Total number of engineers registered at the Board of Engineers in terms of race:

Malay: 2,882  
Chinese: 8,532  
Indian: 704  
Others: 330
Appendix K

Number of Engineers in Malaysia Who Are Members of the Institution of Engineers Malaysia

\[ \text{Source: Institution of Engineers Malaysia, April 16th, 1984.} \]
Total number of members registered:

6,500

Total number of members registered in terms of sex:

Male: 6,462
Female: 38
Appendix L

Occupational Classification

---

1Source: Dictionary of Occupational Classification, 1980.
### Occupational Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Field</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Professional, technical, and related work</td>
<td>Engineer</td>
</tr>
<tr>
<td>2.</td>
<td>Administrative and managerial</td>
<td>Bank manager</td>
</tr>
<tr>
<td>3.</td>
<td>Clerical and related work</td>
<td>Clerk</td>
</tr>
<tr>
<td>4.</td>
<td>Sales work</td>
<td>Sales assistant</td>
</tr>
<tr>
<td>5.</td>
<td>Service work</td>
<td>Nurse</td>
</tr>
<tr>
<td>6.</td>
<td>Agricultural, animal husbandry, and forestry</td>
<td>Farmer</td>
</tr>
<tr>
<td>7.</td>
<td>Production and related work, transport equipment operation and labor</td>
<td>Gardener</td>
</tr>
</tbody>
</table>
Appendix M

Groups of Women by Mothers' Jobs:
Frequency and Percentages
<table>
<thead>
<tr>
<th>Groups of Women by Mothers' Jobs: Frequency and Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Nontraditional careers</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Professional, technical, and related work</td>
</tr>
<tr>
<td>Administrative and managerial</td>
</tr>
<tr>
<td>Clerical and related work</td>
</tr>
<tr>
<td>Sales work</td>
</tr>
<tr>
<td>Service work</td>
</tr>
<tr>
<td>Agricultural, animal husbandry, and forestry</td>
</tr>
<tr>
<td>Production and related work, transport equipment operation and labor</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>
Appendix N

Groups of Women by Reasons for Perceiving That Their Parents Valued, Did Not Value, and Were Indifferent Towards Education for Them: Frequency and Percentages
Groups of Women by Reasons for Perceiving That Their Parents Valued, Did Not Value, and Were Indifferent Towards Education for Them: Frequency and Percentages

<table>
<thead>
<tr>
<th>Reason</th>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
<th>Homemakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>1. Encouraged me in my studies</td>
<td>68</td>
<td>32.4</td>
<td>66</td>
</tr>
<tr>
<td>2. Helped me with my school work</td>
<td>32</td>
<td>15.2</td>
<td>25</td>
</tr>
<tr>
<td>3. Willing to sacrifice their money for my education</td>
<td>50</td>
<td>23.8</td>
<td>44</td>
</tr>
<tr>
<td>4. Concerned about my progress in school</td>
<td>26</td>
<td>12.4</td>
<td>32</td>
</tr>
<tr>
<td>5. Rewarded me when I did well in my examinations</td>
<td>17</td>
<td>8.1</td>
<td>17</td>
</tr>
<tr>
<td>6. Sent me for tuition classes</td>
<td>13</td>
<td>6.2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Nontraditional careers</td>
<td>Traditional careers</td>
<td>Homemakers</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------------------</td>
<td>----------------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>7. Preferred me to do housework to school work</td>
<td>1</td>
<td>0.5</td>
<td>9</td>
</tr>
<tr>
<td>8. Never encouraged me to study</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>9. Believed that education was not important for girls</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>10. I was left on my own</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>11. They were ignorant about the value of education</td>
<td>2</td>
<td>1.0</td>
<td>3</td>
</tr>
<tr>
<td>12. They had other pressing matters to think about</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>210</td>
<td>100.0</td>
<td>210</td>
</tr>
</tbody>
</table>
Appendix 0

Groups of Women by Reasons for Perceiving That Their Parents Encouraged, Did Not Encourage, and Were Indifferent Toward Them Pursuing Careers:
Frequency and Percentages
<table>
<thead>
<tr>
<th>Groups of Women by Reasons for Perceiving That Their Parents Encouraged, Did Not Encourage, and Were Indifferent Toward Them Pursuing Careers: Frequency and Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Encouraged</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1. They wanted me to have a better life than their's</td>
</tr>
<tr>
<td>2. They always advised me to improve myself</td>
</tr>
<tr>
<td>3. They were very supportive of my success</td>
</tr>
<tr>
<td>4. They always advised me to further my studies</td>
</tr>
<tr>
<td>5. They thought that what I had achieved was good enough</td>
</tr>
<tr>
<td><strong>Did not encourage</strong></td>
</tr>
<tr>
<td>6. They thought that women need not be successful in their careers</td>
</tr>
<tr>
<td>7. They preferred their daughters to stay at home</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>8. It was all up to me</td>
</tr>
<tr>
<td>9. It did not matter to them whether I work or not</td>
</tr>
<tr>
<td>10. They were too involved with other things</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>
Appendix P

Groups of Women by Others' Encouragement for Them to Achieve Their Aims: Frequency and Percentages
### Groups of Women by Others' Encouragement for Them to Achieve Their Aims: Frequency and Percentages

<table>
<thead>
<tr>
<th></th>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
<th>Homemakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Encouraged</td>
<td>122</td>
<td>58.1</td>
<td>132</td>
</tr>
<tr>
<td>Did not get</td>
<td>88</td>
<td>41.9</td>
<td>78</td>
</tr>
<tr>
<td>encouragement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>210</td>
<td>100.0</td>
<td>210</td>
</tr>
</tbody>
</table>

### Groups of Women by Significant Others Who Had Given Them Encouragement: Frequency and Percentages

<table>
<thead>
<tr>
<th></th>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
<th>Homemakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Brothers and sisters</td>
<td>52</td>
<td>42.6</td>
<td>62</td>
</tr>
<tr>
<td>Uncles, aunts, and relatives</td>
<td>22</td>
<td>18.0</td>
<td>26</td>
</tr>
<tr>
<td>Grandparents</td>
<td>18</td>
<td>14.7</td>
<td>18</td>
</tr>
<tr>
<td>Friends</td>
<td>14</td>
<td>11.5</td>
<td>15</td>
</tr>
<tr>
<td>Teachers</td>
<td>16</td>
<td>13.1</td>
<td>11</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>122</td>
<td>100.0</td>
<td>132</td>
</tr>
</tbody>
</table>
Appendix Q

Husband's Encouragement to Develop in Career by Groups of Women: Frequency and Percentages
Husband's Encouragement to Develop in Career by Groups of Women: Frequency and Percentages

<table>
<thead>
<tr>
<th>Husband's encouragement</th>
<th>Yes</th>
<th>No</th>
<th>Rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Nontraditional careers</td>
<td>79</td>
<td>55.6</td>
<td>23</td>
</tr>
<tr>
<td>Traditional careers</td>
<td>91</td>
<td>55.8</td>
<td>19</td>
</tr>
</tbody>
</table>
Appendix R

Groups of Women by Racial Distribution:
Frequency and Percentages
### Groups of Women by Racial Distribution:
**Frequency and Percentages**

<table>
<thead>
<tr>
<th></th>
<th>Nontraditional careers</th>
<th>Traditional careers</th>
<th>Homemakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Malay</td>
<td>129</td>
<td>61.4</td>
<td>124</td>
</tr>
<tr>
<td>Chinese</td>
<td>65</td>
<td>31.0</td>
<td>72</td>
</tr>
<tr>
<td>Indian</td>
<td>16</td>
<td>7.6</td>
<td>9</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>210</td>
<td>100.0</td>
<td>210</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


Board of Engineers Malaysia. (1984, April 24). Statistics on the engineers registered at the Board of Engineers Malaysia.


Cotton, C. A. (1980). Sex-role concepts in young women: Parental influences on sex-role concepts and the effects of sex-role concepts on achievement motivation, educational goals, desire to
work and career salience (Doctoral dissertation, Ohio State University, 1980). Dissertation Abstracts International, 41, 344B.


Spence, J. T., & Helmreich, R. (1972). The attitude toward women scale: An objective instrument to measure attitudes toward the rights and roles of women in contemporary society. JSAS. Catalog of Selected Documents in Psychology, 2, 66. (Ms No. 153)


