

Influence of Maternal Gender-Role Beliefs and Role Satisfaction on Daughters' Vocational Interests¹

Jennifer Steele and Julian Barling²

Queen's University

We examined whether maternal gender-role ideologies and role satisfaction influence daughters' vocational interests. 152 female undergraduate students (M age = 18.7 years), from predominantly white, middle- to upper-class homes, as well as their mothers and fathers, participated voluntarily. Students identified their career choices, completed a gender-role ideology scale and an identification with parents questionnaire, and reported their perceptions of their mothers' and fathers' gender-role ideologies and role satisfaction. Each parent completed a gender-role ideology scale and a role satisfaction questionnaire. Path analyses support a model in which actual and perceived maternal attitudes (n = 135) influence the gender-role ideologies of daughters, which in turn influence the gender stereotyped nature of daughters' career choices (Q = .90; W = 14.00, p > .05); furthermore daughters' maternal identification moderated the relationship between perceived maternal gender-role ideology and own gender-role ideology. A similar model substituting fathers' attitudes (n = 128) did not fit the data. The results indicate how maternal attitudes influence daughters' career choice, and support the role of family socialization on children's career aspirations.

The steady movement of women into the work force over the past 50 years (Barling, 1990; Hoffman, 1989), as well as the gradual expansion in the number of career options available to women, is a major social phenomenon warranting investigation; and researchers are now focusing on the predictors of women's vocational choice (Farmer, 1985; O'Brien & Fassinger,

¹Portions of this research were supported by grants from the School of Business, and the Social Sciences and Humanities Research Council of Canada, to Julian Barling.

²All correspondence, including reprint requests should be sent to Julian Barling, School of Business, Queen's University, Kingston, Ontario K7L 3N6, Canada.

1993). The aim of this study is to further this understanding of women's vocational choices. Although a strong and consistent statistical relationship exists between fathers' and sons' career choices (Barling, 1990; Lerner, 1994; Werts, 1968), no similar relationship exists between daughter's vocational decisions and either parent's career choice (Aberle & Naegele, 1952; Barling, 1990; Lerner, 1994). Nevertheless, two apparent influences on young women's vocational choices are their mothers' employment and their own attitudes.

Early research on women's careers showed that among a group of career-oriented students, more mothers were employed outside the home; among a group of noncareer-oriented students, more mothers were engaged in non-employment activities (Almquist & Angrist, 1970). Research has also indicated that daughters choosing to enter male-dominated careers had mothers who had been employed outside of the home to a greater extent than daughters choosing "traditional" occupations (Crawford, 1978). However, it has become clear that research must go beyond maternal employment *status* and examine mothers' employment attitudes and experiences (Barling, 1990).

Consistent with this notion, Baruch's (1972) earlier study showed that maternal employment status was not related to daughters' attitudes toward the dual role. Instead, daughters' attitudes to employment were more likely a function of the mothers' own attitudes to employment (Baruch, 1972; Chandler et al., 1981). Subsequent research has shown that mothers' job and employment role satisfaction is positively associated with the attitudes and behaviors they transmit to their children (Lerner, 1994; Piotrkowski & Stark, 1987).

A second influence on the career aspirations of young women is their own personal attitude regarding appropriate female behavior. Earlier research revealed a link between feminine role perception and vocational choice of female students in their senior year (Crawford, 1978). In an attempt to develop a causal model of career choice in adolescent women, O'Brien and Fassinger (1993) found that young women with more liberal attitudes are more interested in, and competent at, careers in mathematics.

The purpose of the present study, therefore, is to examine the relationship between mothers' employment attitudes, daughters' own attitudes, and daughters' vocational aspirations. Consistent with previous research on parental attitudes as well as young adults' work attitudes and beliefs (Barling, Kelloway, & Bremmerman, 1991), we suggest that maternal attitudes influence daughters' perceptions of their mothers' attitudes and beliefs, which in turn affect these young women's own gender-role beliefs. It is these latter beliefs that exert a direct effect on their vocational choice. Specifically, this study will examine the influence of parents' gender-role ide-

ologies and role satisfaction, as well as the influence of the gender-role ideologies of daughters, on the gender stereotyped nature of the proposed career choices of these young women.

We suggest that two specific maternal factors will be critical, namely role satisfaction and gender-role beliefs. A role reflects a set of distinct behaviors and responsibilities that are expected of a group member. Role satisfaction reflects an appraisal of the extent to which individuals derive satisfaction from their roles (Barling & MacEwen, 1988). Research shows that irrespective of whether or not mothers are employed, their role satisfaction is positively associated with their children's behavior (Barling, Fullagar, & Marchl-Dingle, 1988). As maternal role satisfaction is likely to be manifest in specific behavior, we believe that maternal role satisfaction will predict daughters' perception of mothers' role satisfaction. Consistent with previous research (Barling et al., 1988; Hock & DeMeis, 1990), we predict that mothers who are satisfied with their role will model different behaviors for their daughters than mothers who are not satisfied with this role. It is therefore hypothesized that daughters who perceive their mothers to be satisfied with their role will make greater attempts to pursue a role similar to their mothers'.

Sex-role ideology has been defined as prescriptive beliefs about appropriate gender behavior (Kalin & Tilby, 1978), and can be viewed along a continuum ranging from traditional to feminist. Again because gender-role ideology is likely to be manifest in both expressed attitudes and in specific behaviors, we expect that mothers' own gender-role ideology will predict their daughters' perception of maternal gender-role beliefs. We further hypothesize that daughters' perceptions of their mothers' gender-role beliefs will exert direct effects on these daughters' own gender-role beliefs.

A central tenet of our model is that mothers' own attitudes and beliefs lead to daughters' perceptions of these attitudes and beliefs, and that mothers' attitudes and beliefs indirectly affect daughters' own beliefs through these perceptions. In line with social learning theory, it is hypothesized that due to mothers' and daughters' common gender, maternal attitudes will have a greater impact than paternal attitudes. Previous research has shown that children's perceptions of their mothers' attitudes represents a critical mediating variable in the link between mothers' union experiences and daughters' attitudes towards unions (Barling et al, 1991; Kelloway & Watts, 1994).

The last link in our model is between daughters' own gender-role beliefs and vocational choice. A young woman who believes that men and women differ in some fundamental way should be less willing to enter into male dominated occupations. Accordingly, it would be expected that young women's gender-role ideology would have a direct influence on the gender

stereotyped nature of their vocational choices (Crawford, 1978; O'Brien & Fassinger, 1993). The final model, therefore, consists of mothers' gender-role ideology and role satisfaction, daughters' perception of these maternal attitudes, daughters' own gender-role ideology and the gender stereotyped nature of her career interests.

Consistent with previous research (Kelloway, Barling, & Agar, 1995), we propose that daughters' identification with their mothers will moderate the relationship between their perceptions of their mothers' gender-role ideology on the one hand, and their own gender-role ideology on the other. Specifically, this relationship will be greater when daughters identify more strongly with their mothers, contrasted with conditions of lower identification with their mothers.

Lastly, support for one model does not preclude the possibility that other models provide as good, or even better, fits to the data. The extent to which any model fits the data should be contrasted against other rival models. In the present study, we will contrast the proposed model with one in which fathers' role satisfaction and gender-role beliefs are held to predict daughters' perceptions of their role satisfaction and gender-role beliefs, which in turn influence daughters' own gender-role ideology. Daughters' vocational choice is again a function of these young women's own gender-role beliefs.

METHOD

Participants

One hundred and fifty-eight female undergraduate students, enrolled in an introductory psychology course, volunteered to participate in the study. However, six of these students, aged above 22 years (28–40 years), were excluded from the study as (a) our focus was on vocational choice among young adults, and (b) they would be outliers in regression analyses. The remaining 152 undergraduate participants, who were primarily from white, middle- to upper-class homes, had a mean age of 18.7 years ($SD = 0.6$; range = 17 to 21 years). Each student received course credit for her participation.

With permission from the students, questionnaires were mailed to 145 mothers and 143 fathers of the female undergraduates; 139 mothers and 132 fathers responded (a response rate of 90.0%). Some parents did not receive questionnaires for several reasons, e.g., they did not speak English, they were deceased, students requested that they not be contacted.

The mean age of the fathers was 49.4 years ($SD = 5.5$; range = 36 to 72), and that of the mothers was 46.6 years ($SD = 4.0$; range = 34 to 54). Eighty-four percent of the mothers had either full-time or part-time employment outside of the home.

Questionnaires

The gender-typed nature of students' vocational choice was measured by asking students "What career do you see yourself as having when you are done school? Please state your first and second choices. Be as specific as possible." The numerical value for each career reflected the percentage of females in the career, as determined by current, national normative data (Statistics Canada, 1993), with higher scores reflecting a more "traditional" gender-typed career choice. The average of two career choices was used to obtain a more reliable estimate (Horowitz, Inouye, & Siegelman, 1979).

The 18-item short form (Cota & Xinaris, 1989) of the *Sex-Role Ideology Scale* (Kalin & Tilby, 1978) was used to assess gender-role ideology. The 18-item scale uses a seven-point Likert-type response format (agree = 1 to disagree = 7), with higher scores indicating a more feminist, as opposed to a more traditional, position.

Both the self-reported and the students' perceived *Role satisfaction* for each parent was assessed using an eight-item questionnaire (Barling & MacEwen, 1988). Students were given options ranging from 'not at all true' (1) to 'very true' (7), and were asked to circle the number which they felt best represented their mother's attitudes as an employed mother, or as a homemaker, in response to statements such as: "My mother is disappointed that she ever became an employed mother/homemaker", and "All in all, my mother is very satisfied with being an employed mother/homemaker." Students completed similar questionnaires to rate their perceptions of their fathers' role satisfaction, as an employed father, by responding to statements such as: "Most days my father is enthusiastic about being an employed father," and "My father considers his role as employed father rather unpleasant."

Identification with parents was assessed using eight items rating how similar respondents perceive themselves to be to their mother and their father individually, in four areas, namely physical appearance, personality, life style and "in general" (MacEwen, 1991). Each item uses a seven-point Likert-type response format, with options ranging from 'agree' to 'disagree'.

The material sent to *each* parent consisted of the 18-item Sex-Role Ideology Scale (Cota & Xinaris, 1989) and the role satisfaction questionnaire (Barling & MacEwen, 1988).

Procedure

Upon the completion of the questionnaire, the participants were asked to write each of their parents' addresses on the separate envelopes provided. Each participant was also asked to write a short note to both her mother and her father, asking that they each take part in the present study.

Parents were individually sent a brief letter of explanation, along with the short note their daughter had written. Each parent was asked to sign a consent form and to respond from his or her personal perspective to the 18-item Sex-Role Ideology Scale (Cota & Xinaris, 1989), as well as the eight-item role experience questionnaire (Barling & MacEwen, 1988). Each parent received a postage-paid, addressed envelope in which to return the completed forms.

RESULTS

Descriptive data, intercorrelations and internal consistency data for all variables appears in Table I.

After the data were inspected to ensure that underlying assumptions were adequately met, the models were tested using path analysis. Multicollinearity was not a problem, variables were free of measurement error, and with the exception of the relationship between perceived maternal role satisfaction and daughters' own gender-role ideology, the relationships between predictors and outcome variables did not deviate from linearity.

The goodness of the fit for a model may be evaluated in two ways. First, the strength of individual relationships (or paths) can be inspected. Paths that are hypothesized to be significant should be, while those not directly included in the model (i.e., set to zero) should not be significant. Second, a goodness of fit index, Q , can be calculated. Q reflects the ratio between the variance explained by the overidentified model (in which only hypothesized paths are included) and the variance explained by the just identified model (in which each outcome variable is said to be predicted by *all* variables preceding it in the model). A higher value of Q indicates a good fit of the model, since the exclusion of variables hypothesized as non-significant has no effect on the variance. However, inferences about Q are limited as its distribution is unknown; hence W , which approximates a X^2 distribution, must also be calculated. For the model to provide a reasonable fit to the data, X^2 should be non-significant, as the exclusion of paths not hypothesized to be significant should not affect the amount of variance accounted for. The degrees of freedom associated with each test corresponds to the number of paths set to zero.

Table I. Descriptive Statistics, Intercorrelations, and Internal Consistencies of All Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Mother's sex-role ideology (SRI)	5.30	0.92	.82											
2. Mothers' role satisfaction (RS)	5.83	1.04	.05	.85										
3. Perceptions of mothers' SRI	4.49	1.14	-.57**	.07	.90									
4. Perceptions of mothers' RS	5.26	1.27	.04	.37**	.29***	.91								
5. Fathers' sex-role ideology	4.76	0.95	.65**	.06	.54**	.13	.82							
6. Fathers' role satisfaction	6.03	0.78	.27**	.06	.09	.14	.23**	.66						
7. Perceptions of fathers' SRI	4.03	1.15	.47**	.09	.71**	.27**	.62**	.17*	.90					
8. Perceptions of fathers' RS	5.52	1.10	-.07	.02	.07	.24**	.07	.22*	.16*	.90				
9. Students' own sex-role ideology	5.88	0.64	-.26**	-.11	.40**	-.09	.23**	-.01	.34**	.22**	.75			
10. Students' career choice	50.51	17.19	-.01	.09	-.05	.03	-.20**	-.01	-.05	-.12	-.11	.23		
11. Maternal identification	4.15	1.25	.31**	.10	.38**	.26**	.34**	.24**	.36**	.04	-.01	-.02	.72	
12. Paternal identification	3.96	1.38	.10	.12	.11	.11	.21	.07	.42**	.19**	.04	-.09	.22**	.79

Note. The diagonal lists internal consistency values for each scale.

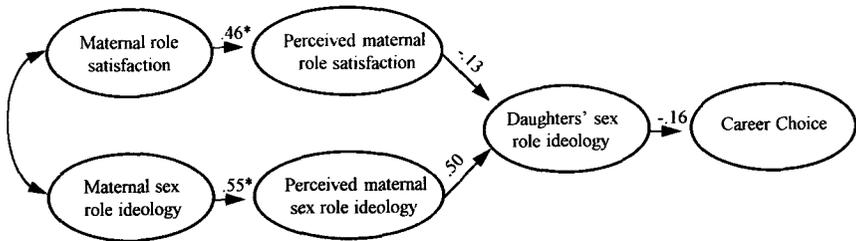
* $p < .05$

** $p < .01$.

The path analysis suggests that the proposed model provides an appropriate fit to the data. Firstly, Q was .90, ($W(df = 8) = 14.00, p > .05$). Secondly, with two exceptions (daughters' own gender-role beliefs and career choice, and perceived maternal role satisfaction and daughters' own gender-role ideology), all path coefficients hypothesized to be significant were, while none of the paths that were set to zero were statistically significant (see Fig. 1).

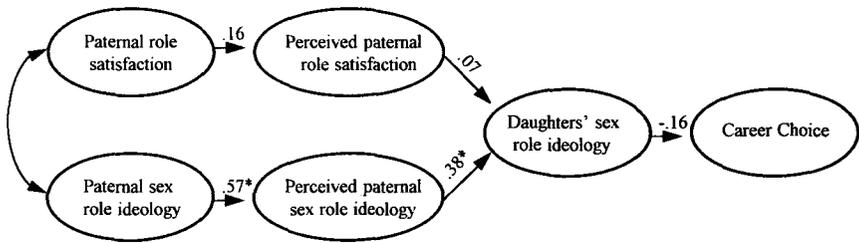
As stated earlier, inferences about the goodness of fit of a proposed model are strengthened if rival models are not found to be a good fit to the data. The alternative model proposed that fathers' role attitudes and gender-role ideology influence their daughters' vocational choice in the same manner as do maternal attitudes in the originally hypothesized model. This alternative model can be rejected, however, as Q was 0.79 ($W(df = 8) = 28.81, p < .05$) The beta weights established in the calculation of regression equations for this overidentified model are presented in Fig. 2.

A multiple regression analysis was conducted to determine if maternal identification moderated the relationship between perceived maternal gender-role ideology and daughter's gender-role ideology. This interaction was significant ($F(1, 148) = 7.29, p < .05$). Subsequent analyses showed that when identification with the mother was relatively low ($M \leq 3.67$), the correlation between perceived maternal gender-role ideology and daughter's gender-role ideology was not significant ($r = .22, p > .01$). However, under conditions of "high" maternal identification ($M \geq 4.00$), the corresponding correlation was significant ($r = .30, p < .01$).



* $p < .01$

Fig. 1. Path analytic results linking mothers' attitudes and daughters' vocational choices.



* p < .01

Fig. 2. Path analytic results linking fathers' attitudes and daughters' vocational choices.

DISCUSSION

The aim of the present study was to examine the influence of maternal attitudes on the gender-typed nature of daughters' vocational interests. In general, the findings of this study support the role of family socialization in the development of children's career aspirations. Maternal role satisfaction and gender-role ideology indirectly influenced their daughters' vocational interests through their direct effects on daughters' own gender-role beliefs. Furthermore, a similar role for fathers' effects on their daughters' vocational interests was not statistically supported, despite previous research showing the influence of fathers' career choices on their sons (Barling, 1990, 1992). One important difference, however, is that the current research focused on the relationship between maternal *attitudes* and daughters career interests; previous research focused on the similarity between fathers' and sons' *occupations*.

While the career options available to young women are expanding, and becoming more similar to the career opportunities of their fathers, our findings indicate that these young women are looking more to maternal attitudes, than paternal attitudes, for vocational guidance. This is congruent with a central tenet of social learning theory which holds that people are more motivated to learn from a model similar to themselves. The importance of this finding is further justified by the significant moderating role accorded to maternal identification in this study.

However, it must also be noted that these findings could change as women become equally integrated into the work force. As women gain

equal access into professions that are currently male-dominated, and as men increasingly assume equal responsibility for household and child care issues, the influence of both mothers' and fathers' attitudes could become equally important to both daughters' and sons' vocational choices. Continued research in this area, therefore, could indicate changing societal trends.

Nonetheless, a number of limitations to the present study remain. First and foremost, this research was conducted with a highly selective sample of young female university students. Accordingly, the gender-role ideologies of both students and their parents tended to be quite liberal, and the role satisfaction of parents tended to be quite high. To increase the generalizability of the present findings, future research should attempt to replicate the present study using other university and college students, as well as young women who have chosen not to further their education. Nevertheless, it would seem possible that the potentially truncated scores on the aforementioned variables would mitigate against uncovering significant correlations, leaving the current results somewhat conservative, and therefore strengthening the significance of the present findings.

It must also be noted that because the majority of students were beginning their first year of university, their current career aspirations may still be subject to much change. Longitudinal studies, which examine their eventual career choice, would further our understanding of women's vocational development. Such research could eliminate some of the potential self-report biases, such as socially desirable responding, by assessing actual career choice.

Other limitations arise from the outcome variable used. While several studies have made use of the number of women in a given discipline or occupation to determine the extent to which subjects are in a male or female dominated career (Crawford, 1978; Davey & Stoppard, 1993; McKenna & Ferrero, 1991; Sandberg et al., 1987), there are several reasons why this measure may be flawed. Firstly, some researchers have chosen to artificially dichotomize this variable (e.g., Sandberg et al., 1987). In an attempt to eliminate this limitation, this variable was viewed along a continuum in the present study. Secondly, for certain individuals, the gender-based nature of the career may not be a salient feature in their career choice. Thirdly, the information used in this study (Statistics Canada, 1993) may not make the fine distinctions necessary within certain jobs to determine the appropriate female or male ratios. For example, physicians and surgeons are grouped together (Statistics Canada, 1993); however, the gender ratios within pediatricians and neurosurgeons are, in reality, quite different. Similarly, participants who simply listed teaching as their occupational choice were given a value of 70 for the gender stereotyped nature

of their career choice, while those who specifically listed high school teaching received a much lower value of 47.

Although certain directions for future research have been mentioned previously in this discussion, other possible areas of research should be noted. The findings of the present study indicate that maternal gender-role ideologies and role satisfaction, as well as daughters' gender-role ideologies, influence the gender stereotyped nature of daughters' vocational aspirations. Research which also focuses on other potentially relevant variables could add to the understanding of parental influence on daughters' vocational interests, as the omission of important predictors from a model compromises its validity (Jarnes, Mulaik, & Brett, 1982). Future research that examines other pertinent parental attitudes, such as job satisfaction, on close friends as an additional social influence, or on skill-related predictor variables (O'Brien & Fassinger, 1993), would be beneficial.

In conclusion, therefore, our findings indicate that mothers' gender-role beliefs and role satisfaction indirectly influence their daughters' career interests more strongly than the comparable paternal attitudes. Although this phenomenon awaits replication with individuals from different socio-economic and educational backgrounds, as well as through longitudinal research of actual career choice, these findings extend the current understanding of women's career choice, as they indicate the important influence of maternal attitudes.

REFERENCES

- Aberle, D. F., & Naegle, K. D. (1952). Middle-class fathers' occupational role and attitudes toward children. *American Journal of Orthopsychiatry*, 22, 366-378.
- Almquist, E. M., & Angrist, S. S. (1970). Role model influences on college women's career aspirations. *Merrill-Palmer Quarterly*, 20, 263-279.
- Barling, J. (1990). *Employment, stress and family functioning*. London: Wiley & Sons.
- Barling, J. (1992). Work and family: In search of the missing links. *Journal of Employee Assistance Research*, 1, 271-285.
- Barling, J., Fullagar, C., & Marchl-Dingle, J. (1988). Employment commitment as a moderator of the maternal employment status/child behaviour relationship. *Journal of Organizational Behaviour*, 9, 113-122.
- Barling, J., Kelloway, E. K., & Bremmerman, E. H. (1991). Preemployment predictors of union attitudes: The role of family socialization and work beliefs. *Journal of Applied Psychology*, 76, 725-731.
- Barling, J., & MacEwen, K. E. (1988). A multitrait-multimethod analysis of four maternal employment role experiences. *Journal of Organizational Behaviour*, 9, 335-344.
- Baruch, G. K. (1972). Maternal influences upon college women's attitudes toward women and work. *Developmental Psychology*, 6, 32-37.
- Chandler, T. A., Sawicki, R. F., & Stryffeler, J. M. (1981). Relationship between adolescent sexual stereotypes and working mothers. *Journal of Early Adolescence*, 1, 72-83.

- Cota, A. A., & Xinaris, S. (June, 1989). *Psychometric properties of the sex-role ideology scale*. Poster session presented at the annual convention of the Canadian Psychological Association, Halifax, Nova Scotia.
- Crawford, J. D. (1978). Career development and career choice in pioneer and traditional women. *Journal of Vocational Behaviour, 12*, 129-139.
- Davey, F. H., & Stoppard, J. M. (1993). Some factors affecting the occupational expectations of female adolescents. *Journal of Vocational Behaviour, 44*, 235-250.
- Farmer, H. S. (1985). Model of career and achievement motivation for women and men. *Journal of Counseling Psychology, 32*, 363-390.
- Hock, E. T., & DeMeis, D. (1990). Depression in mothers of infants: The role of maternal employment. *Developmental Psychology, 26*, 285-291.
- Hoffman, L. W. (1989). Effects of maternal employment in the two-parent family. *American Psychologist, 44*, 283-292.
- Horowitz, L. M., Inouye, D., & Siegelman, E. Y. (1979). On averaging judges' ratings to increase their correlation with an external criterion. *Journal of Consulting and Clinical Psychology, 47*, 453-458.
- James, L. R., Mulaik, S. A., & Brett, J. M. (1982). *Causal analysis: Assumptions, models and data*. CA: Sage.
- Kalin, R., & Tilby, P. J. (1978). Development and validation of a sex-role ideology scale. *Psychological Reports, 42*, 731-738.
- Kelloway, J., Barling, J., & Agar, S. (1995). Pre-employment predictors of union attitudes: The role of parental identification. *Journal of Social Psychology*.
- Kelloway, E. K., & Watts, L. (1994). Preemployment predictors of union attitudes: Replication and extension. *Journal of Applied Psychology, 79*, 631-634.
- Lerner, J. V. (1994). *Working women and their families*. CA: Sage.
- MacEwen, K. E. (1991). *A social learning approach to refining the link between family of origin aggression and current relationship aggression*. Unpublished doctoral dissertation, Queen's University, Kingston, Ontario K7L 3N6.
- McKenna, A. E., & Ferrero, G. W. (1991). Ninth-grade students' attitudes toward nontraditional occupations. *The Career Development Quarterly, 40*, 168-181.
- O'Brien, K. M., & Fassinger, R. E. (1993). A causal model of the career orientation and career choice of adolescent women. *Journal of Counseling Psychology, 40*, 456-469.
- Piotrkowski, C. C., & Stark, E. (1987). Children and adolescents look at their parents' jobs. In J. J. Lewko (Ed.), *How children and adolescents view the world of work*, (pp. 3-19). CA: Jossey-Bass.
- Sandberg, D. E., Ehrhardt, A. A., Mellins, C. A., Ince, S. E., & Meyer-Bahlburg, H. F. (1987). The influence of individual and family characteristics upon career aspirations of girls during childhood and adolescence. *Sex Roles, 16*, 649-667.
- Statistics Canada (March, 1993). *Occupation: The Nation*. Ottawa: Ministry of Industry, Science and Technology.
- Werts, C. E. (1968). Parental influence on career choice. *Journal of Counseling Psychology, 15*, 48-52.