Contextual Influences on Women's Health Concerns and Attitudes toward Menopause

Judy R. Strauss

Social factors that affect women's attitudes toward menopause were examined in a sample of 1,037 baby boomer women who took part in two waves of the Midlife in the United States survey. Survey data were collected in 1996 and 2005 from a nationally representative sample of women born between 1946 and 1964 residing in the United States. Women's attitudes toward the effects of menopause on fertility, health, and attractiveness were examined. Analyses supported a two-factor model of women's adaptation to menopause: Attitudes concerning the effects of menopause on fertility and the cessation of menstruation had different antecedents than attitudes concerning the impact of menopause on health and attractiveness. Women who had more positive attitudes regarding loss of fertility occupied more roles, were older, less educated, yet more secure financially. Women who had more positive views of the effects of menopause on health and attractiveness reported fewer symptoms of menopause. These analyses were replicated in waves 1 and 2 of the data set. Results may be helpful to social work practitioners and social work policy advocates.

KEY WORDS: *baby boomer generation; menopause; longitudinal study; women's health; women's roles*

The purpose of this study was to better understand the ways in which the social context of midlife affects women's attitudes toward menopausal aging. This study builds on prior research that identifies contextual factors. Adaptation to menopause has many facets, including adjustment to the loss of fertility as well as concerns about physical attractiveness and health (Rossi, 2004). What is not clear is whether women's adjustment to menopause reflects a single underlying dimension that has a common set of antecedents or if it is more meaningful to differentiate between adjustment to the loss of fertility on the one hand and women's concerns regarding health and attractiveness on the other.

One contextual factor—having multiple roles—has the potential to enhance women's adaptation to menopause. According to role-enhancement theory (Thoits, 1983), multiple roles can promote women's development by increasing self-esteem, providing purpose and meaning in life, increasing one's ability to develop deep connections with others, and buffering against strain or difficulties experienced in one role. The perspective of role accumulation theory has received support from numerous studies of women's well-being (Barnett & Hyde, 2001; Chrouser-Ahrens & Ryff, 2006; Crosby, 1991). Although little attention has been given to the potential contribution of multiple roles to women's adjustment to menopause, some initial studies suggest that adaptation is better among women who occupy multiple roles. For example, paid work outside of the home may have a positive impact on women's experience of menopausal symptoms (Polit & Larocco, 1980; Prill, 1977). Paid work may be particularly important as a buffer against loss of fertility during menopause, as work can provide women with a meaningful identity that is not rooted in their capacity to carry children.

Other contextual factors that have been found to be related to women's adjustment to menopause include age, education, financial security, and symptom levels. Younger women may be more fearful of the impending experience of menopause than older women (Eisner & Kelly, 1980; Kresovich, 1980; Neugarten, Wood, Kraines, & Loomis, 1963) and, therefore, have more negative attitudes toward menopause (Dege & Gretzinger, 1982; Perlmutter & Bart, 1982; Wilbur, Miller, & Montgomery, 1995). Women with lower levels of education and income have been found to report more intense menopausal symptoms (Hunter, 1990; Hunter, Battersey, &

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Whitehead, 1986; Jaszmann, Van Lith, & Zatt, 1969; Leiblum & Swartzman, 1986; McKinlay, McKinlay, & Brambilla, 1987; Polit & Laracco, 1980) and tend to show greater increases in depression during menopause (McKinlay et al., 1987). Women who perceive menopause as a medical problem, rather than as a part of normative aging, tend to show lower levels of psychological well-being (Avis & McKinlay, 1991). Although these studies suggest that women's adjustment to menopause can be shaped by the social context in which this life transition occurs, it is not clear whether multiple contextual antecedents have the same adaptational significance for all facets of adjustment to menopause (for example, loss of fertility, concerns about attractiveness and health).

The present study examined the influence of contextual factors in a sample of women who were born in to the baby boom generation and who experienced menopause at the turn of the century. The present study may therefore provide a more contemporary perspective on the contributions of potential protective factors on adjustment to menopause. Many of the major menopause studies cited previously were conducted during the 1960s, 1970s, and 1980s. The women in these earlier studies were born before the postwar baby boom generation. The experiences of women born during the postwar baby boom may not be represented in these earlier studies. For the generation born after 1945, opportunities for women to expand their repertoire of multiple roles have increased greatly due to the steadily increasing participation of mothers in full-time career employment. These women have also achieved higher levels of formal education and have more often attained greater levels of independent financial security compared with women born in earlier decades. Hence, multiple roles and other contextual factors may be even more relevant to the adjustment of women to menopause in a contemporary sample.

METHOD

Sample

The study used data from the National Survey of Midlife Development in the United States (MIDUS). This study contained two waves: MIDUS 1 (1994 to 1996) and MIDUS 2 (2004 to 2006). The sample for the present study consisted of 1,037 women who completed both waves of the MIDUS study and who were born between 1946 and 1964. Technical information concerning the sample and data collection procedures are available from the MIDMAC Web site (http://midmac.med.harvard.edu/tech.html).

Measures

Attitudes toward Menopause. The items used for the present study are based on the work of Rossi (2004), who looked at three basic concerns women have during the menopausal transition: (1) ability to reproduce, (2) attractiveness, and (3) concern with being more vulnerable to physical health problems. To measure women's level of concern about these three issues, the women were asked to respond to the questions "How much do you worry about the following?": "being too old to have children," "being less attractive as a woman," and "having more illness as you get older." Women were asked to rate their level of concern on a four-point scale, with 1 = a lot, 2 = some, 3 = a little, and 4 = not at all. One additional question asked women whether they felt more relief or more regret when their menstrual periods ended, on a six-point scale, which was recoded so that higher ratings indicated more relief.

Roles. Roles were computed by adding the number of roles occupied by a woman. The roles of mother, caregiver, employee, and spouse were included in the count of roles.

Age. Women were asked to indicate the year in which they were born. Age was calculated by the reported year subtracted from the year of the survey.

Financial Comfort. Financial comfort was measured by one question that asked, "In general, would you say you (and your family living with you) have more money than you need, just enough for your needs, or not enough to meet your needs?" For the present study, this item was recoded so that higher scores indicated greater financial comfort.

Education. The education variable was combined into four discrete levels: (1) high school graduate or less, (2) some college or an associate's degree, (3) college graduate, and (4) postgraduate degree.

Symptoms. A menopausal symptoms scale based on the work of Rossi (2004) was used to obtain a score of symptoms for each respondent. Women were asked to rate how often they experienced each of five menopausal symptoms in the past 30 days (insomnia, heavy sweating, painful intercourse, hot flashes, and irritability). Women responded on

a six-point scale, with 1 = almost every day, 2 = several times a week, 3 = once a week, 4 = several times a month, 5 = once a month, and 6 = never. The symptom measure was scored so that higher scores indicated better health (that is, less frequent symptoms).

RESULTS

The main analyses of this article contrasted two models of attitudes toward menopausal aging and their antecedents. The first stage of the analysis examined a one-factor model of attitudes toward menopausal aging. The one-factor model assumed that concerns about fertility, attractiveness, and health and women's affective response toward menopause are all indicators of a single underlying dimension of attitudes toward menopausal aging that is shaped by a core set of contextual conditions in women's lives. The second stage of the analysis examined a more differentiated model of attitudes toward menopausal aging and their contextual antecedents. Descriptive statistics for the independent and dependent variables are shown in Table 1.

One-Factor Model of Attitudes toward Menopause and Their Antecedents

The one-factor model of attitudes toward menopause and their antecedents assumed that attitudes toward menopausal aging reflect a single underlying dimension and are related to a common set of antecedent conditions. Structural equation modeling (SEM) was used to test the fit of this model to the covariance matrix among antecedents and measures of attitudes. Separate analyses were conducted on the data from the wave 1 and wave 2 cohorts. The one-factor model did not exhibit adequate levels of fit to the wave 1 data (goodness-of-fit index [GFI] = .924, normed fit index [NFI] = .510, comparative fit index [CFI] = .509, root mean residual [RMR] = .138, root mean square error of approximation [RMSEA] = .146, $p < .001$) or to the wave 2 data (GFI = .958, NFI = .764, CFI = .775, RMR = .164, RMSEA = .100, $p < .001$). The values of these indices do not meet the criteria for adequate fit proposed by Hu and Bentler (1999). In particular, the NFI and CFI are too small, whereas the RMR and the RMSEA are too large.

Table 1: Sample Characteristics

	Wave 1		Wave 2	
Characteristic[a]	*M*	*SD*	*M*	*SD*
Age (years)	39.92	5.53	48.87	5.48
Number of roles	2.37	1.01	2.16	0.96
Symptoms[b]	1.90	0.87	2.58	1.04
Physical concerns[c]	2.69	0.90	2.60	0.91
Attractiveness[c]	2.91	0.92	2.95	0.95
Fertility[c]	3.56	0.84	3.80	0.62
Characteristic	***n***	**%**	***n***	**%**
Education				
High school graduate or less	354	34.2	314	30.3
Some college	314	30.3	316	30.5
Four- or five-year college graduate	203	19.6	204	19.7
Postcollege graduate	164	15.8	202	19.5
Total	1,035	100.0	1,036	100.0
Characteristic	***n***	**%**	***n***	**%**
Financial comfort				
More money than needed	144	14.0	241	23.4
Just enough money	573	55.5	543	52.6
Not enough money	315	30.5	256	24.0
Total	1,032	100.0	1,040	100.0

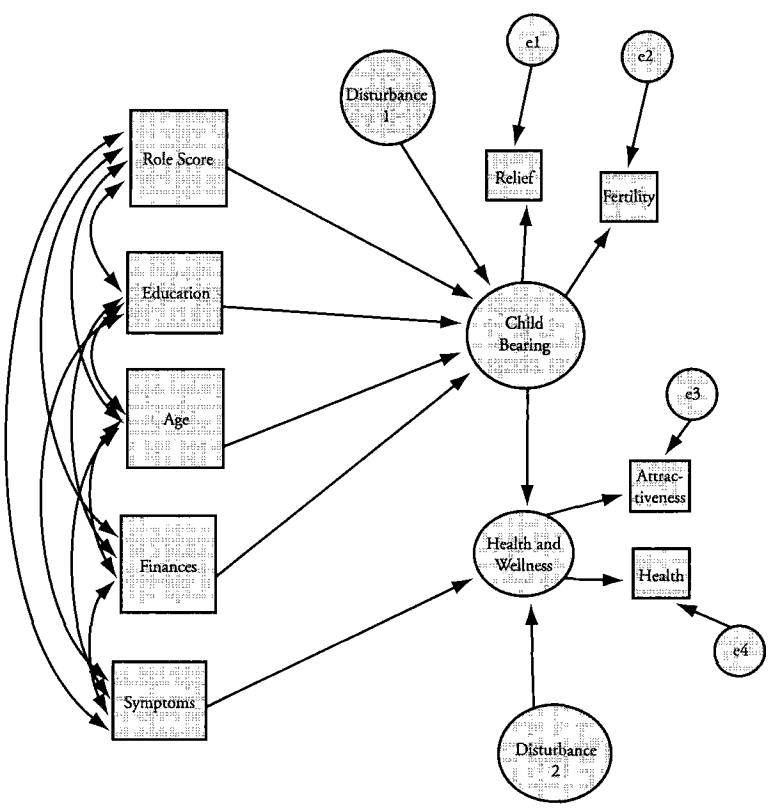
[a]Sample size: Wave 1 n = 1,010; wave 2 n = 1,009.
[b]Scale for symptoms: 1 = never, 2 = once a month, 3 = several times a month, 4 = once a week, 5 = several times a week, 7 = almost every day.
[c]Scale for Health, Attractiveness, and Fertility concerns: 1 = a lot, 2 = some, 3 = a little, 4 = not at all.

Differentiation of Two Factors: Childbearing and Health and Wellness

The two-factor model of attitudes toward menopause and their antecedents is shown in Figure 1. This model assumes that different attitudes toward menopausal aging reflect different factors and are related to a common set of antecedent conditions. The first factor reflects attitudes pertaining to loss of childbearing capacity, as reflected in concerns about loss of fertility and affective response to the last period. The second factor reflects concerns about changes in health and physical attractiveness. The antecedents to the childbearing dimension include having multiple roles, age, education, and financial security. The prime antecedent to the health and wellness dimension is the experience of menopausal symptoms. The two factors of menopausal aging are associated: In this model, attitudes toward loss of childbearing capacity influence the health and wellness dimension. SEM was used to test the fit of this model to the matrix of correlations among antecedents and measures of attitudes. Separate analyses were conducted on the data from the wave 1 and wave 2 cohorts. The two-factor model exhibited adequate levels of fit to the wave 1 data (GFI = .989, NFI = .938, CFI = .950, RMR = .108, RMSEA = .048, not significant) and to the wave 2 data (GFI = .986, NFI = .922, CFI = .939, RMR = .069, RMSEA = .054, not significant). The levels of these fit indices attain the standards proposed by Hu and Bentler (1999).

The regression parameters for the model are shown for wave 1 and wave 2 in Tables 2 and 3, respectively. In both waves, more positive attitudes toward the loss of childbearing capacity were found among women who occupied more roles and who were older, less educated, and financially secure. More positive attitudes concerning health and appearance were found among women who had lower symptom levels. The effects found for multiple roles,

Figure 1: Two-Factor Model of Menopausal Concerns



Note: The e in e1 through e4 stands for error and for the unique variance in the manifest indicator that is not explained by the latent variable.

Table 2: Model Parameters for Two-Factor Model: Wave 1

Path	B
Antecedents to latent endogenous variables	
Roles → Childbearing	.203***
Education → Childbearing	−.159**
Age → Childbearing	.378***
Financial security → Childbearing	.085*
Symptoms → Health/wellness	−.264***
Latent endogenous variables to indicators	
Childbearing → Fertility	.915***
Childbearing → Relief	.229***
Health/wellness → Attractiveness	.723***
Health/wellness → Physical health	.701***
Latent endogenous variables	
Childbearing → Health/wellness	.224***

*$p < .05$. **$p < .01$. ***$p < .001$.

age, financial security, and symptoms were consistent with the hypotheses offered earlier. However, the relationship of education to attitudes was contrary to the hypothesis that women with higher levels of education would have more positive attitudes to the loss of fertility.

DISCUSSION

The main findings of this study were consistent with a two-factor model of adjustment to fertility. Different contextual antecedents shaped adjustment to changes in fertility as distinct from changes in health and appearance. Better adjustment to the loss of fertility was found among women who occupied more roles and were older, less educated, and more financially secure. Women had fewer concerns about health and appearance when they experienced lower symptom levels. The antecedents of adaptation to loss of fertility and health/appearance were distinct from one another in the sense that symptom levels were not associated with adaptation to loss of fertility, and multiple roles, age, education, and financial security were not associated significantly with concerns about the impact of menopause on health and appearance.

The predictions of role enhancement theory were partially supported by the findings of this study. Consistent with role enhancement theory, women who occupied multiple roles had better adjustment to the loss of fertility. Women who have been parents may cope with the loss of fertility better than women who have never been parents. The loss of fertility may be particularly problematic for some women who have never been parents due to involuntary factors (that is, lifelong difficulties in conception, spousal infertility). For these women, the loss of fertility may represent closure of the chance to conceive any children in their lifetime. In addition, roles in paid employment or as a caregiver may provide meaningful social identities for menopausal women that are not based on fertility and childbirth.

By contrast, having multiple roles did not facilitate adjustment to changes in health and appearance: Women with multiple roles had the same level of concern about the effects of menopause on health and physical appearance as those who had fewer roles. Further research should examine the possibility that the contextual antecedents to menopausal symptoms, and adjustment to these symptoms, are different from the antecedents to broader physical and mental health, where multiple roles appear to serve a protective function.

The loss of fertility may have been easier for older women to cope with than younger ones because of normative expectations about childbearing. The younger women in this sample were in their 30s during wave 1 and in their early to mid 40s in wave 2. For many of these younger women, conception is possible and may still be desired. By contrast, the older women in this sample were in their mid to late 40s in wave 1 and in their 50s in wave 2. For most of these women, conception (other than by

Table 3: Model Parameters for Two-Factor Model: Wave 2

Path	B
Antecedents to latent endogenous variables	
Roles → Childbearing	.156***
Education → Childbearing	−.173***
Age → Childbearing	.339***
Financial security → Childbearing	.140**
Symptoms → Health/wellness	.384***
Latent endogenous variables to indicators	
Childbearing → Fertility	.679***
Childbearing → Relief	.408***
Health/wellness → Attractiveness	.845***
Health/wellness → Physical health	.590***
Latent endogenous variables	
Childbearing → Health/wellness	.384***

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

in vitro fertilization) is not physically possible. The absence of a relationship between age and attitudes to the health impact of menopause is noteworthy. Although prior research suggests that age brings greater acceptance of and experience with physical changes in menopause, the findings of this study suggest that concerns with the health effects of menopause are not allayed by experience.

Women who were less educated and more financially secure had better adaptation to loss of fertility. Because education and financial security have opposite effects on adaptation, it is difficult to interpret this trend as an effect of a woman's overall socioeconomic status. It is noteworthy that the effects of financial security were significant even when the effects of multiple roles were considered in the structural equation model. The significant coefficient for financial security indicates that security has significant effects on adaptation after controlling statistically for the other exogenous variables in the model (that is, multiple roles and age). This finding suggests that the effects of financial security do not arise merely because women who occupy multiple roles (as spouses and as paid employees) are often more financially secure than women who are single or do have paid employment. Rather, financial security itself appears to facilitate adjustment to the loss of fertility.

Evidence for the two-factor model suggests that menopause is not only an issue concerning fertility, but also one in which changes in health pose a distinct constellation of challenges. The findings of this study suggest that issues concerning the health effects of menopause are shaped by women's experiences of menopausal symptoms, regardless of their educational background, income, or employment. Future research should consider the degree to which women's concerns about the health effects of menopause are shaped specifically by menopausal symptoms or by general physical health. To the extent that menopause is defined as a medical problem, rather than a normative feature of aging, women may attribute changes in their overall level of physical health to menopause. However, to the extent that menopause is perceived as a distinct set of challenges and changes, women might be less likely to attribute changes in physical health to menopause. Our understanding of the different factors affecting adjustment to loss of fertility and health concerns may be increased by considering these dual aspects of adjustment to menopause in the context of concurrent physical and psychological symptoms.

The findings of the present study provide some guidance for social work interventions among women in this generation. The primary implication of this work is that women facing issues around menopause are not a homogeneous population. Women may face difficulties concerning the loss of fertility, or health and attractiveness, or both. For women who are facing issues centered on the loss of fertility, exploration of the roles that these women occupy and efforts to increase the variety, meaning, and value of these multiple roles may be a fruitful direction to pursue for social work practitioners.

However, for women who are primarily concerned with the impact of menopause on their health and attractiveness, an emphasis on role enhancement may not be as pertinent. Adjustment to menopause for these women is more closely related to their unique experience of the changes to their bodies and body images as well as reactions to common menopausal symptoms, such as hot flashes and the impact on their health. Hence, social work interventions and social work advocacy might be focused on and include education to better inform younger, perimenopausal women about the emerging stage of menopause to alleviate fears often seen in younger women in regard to menopause. Social services that offer women information on safe and available remedies to prevent weight gain or body changes or methods to reduce common menopausal symptoms, such as hot flashes, would be more relevant to the needs of women who are concerned more with attractiveness and health.

It should be noted that the assessment of multiple roles in the present study is limited by the information that is available in the MIDUS data set. The analysis focused on the number of roles that a woman occupied, rather than the quality of her role as a paid employee, spouse, parent, caregiver, or community member. Current research on role enhancement theory suggests that the quality, more than the mere number, of roles is critical to a woman's well-being. Thus, the impact of multiple roles might have been underestimated in the present work. In addition, the definition of marriage does not include long-term relationships that fell outside of the prevalent legal definition of marriage when the data were collected (for example, same-sex relationships) that may confer the protective effects posited by role enhancement theory.

In the United States today, public policy and negative attitudes toward aging have not fostered the development of specialized health and social services geared to the needs of the population discussed in this article. Public support for such services as education, early disease detection, and intervention in emerging health problems during the menopausal transition may prevent or reduce the onset and severity of health problems, such as bone breakages from osteoporosis, or the beginning of other diseases in later life that become more common during and after menopause. Addressing the needs of menopausal baby boomers is likely to have radiating effects across the family and benefit members of the older and younger generation, by enhancing women's roles to provide better care for children and elderly people.

The findings of the present research have potential benefits for social workers who work in a variety of settings. Illustratively, social workers who practice in the workplace (for example, in employee assistance programs) are working with women who are in paid employment, and would benefit from an understanding of the ways in which roles inside and outside of the workplace assist women in their adjustment to the loss of fertility. Social workers located within primary care facilities may be working with midlife women who are undergoing the menopausal transition, or they may be working with an older population whose primary caretakers are daughters who are undergoing menopause while still caring for an elderly parent. In either case, understanding the differentiated needs of women during menopause can guide efforts to increase resources and competencies for coping with both the medical and the social implications of this major life transition. HSW

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Judy R. Strauss, PhD, LMSW, *is area chair of social sciences, University of Phoenix; e-mail: jrstr@email.phoenix.edu.*

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