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# The Menstrual Attitude Questionnaire

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In order to examine the relationship of attitudes about menstruation to self-reports of menstrual-related symptomatology as well as to other aspects of behavior, an instrument to measure attitudes concerning menstruation was developed. After constructing the Menstrual Attitude Questionnaire (MAQ), the factor analytic structure of the original MAQ sample was replicated on a second sample. Summary statistics are presented for college women, college men, and adolescent girls, and the relationship between menstrual-related attitudes, expectations, and experience is examined.

## INTRODUCTION

Recent approaches to menstrual cycle research suggest that cultural beliefs play an important role in the study of menstruation (1-3). The menstrual literature reflects the beliefs that 1) women experience fluctuations in physical and psychological symptoms associated with the menstrual cycle, 2) these fluctuations are hormonally, not socially, based, and 3) these fluctuations are negative in nature, causing debilitation during the premenstrual and menstrual phases (4, 5). Such beliefs seem likely to affect individual women's attitudes and expectations regarding the "menstrual experience." For example, most women report experiencing the same types of distress when asked about their experience (cf. ref. 6), as well as when asked to rate themselves "as if" they were in the pre-

menstrual phase (7) and when they believed they were in the premenstrual phase even when they were not (8). The acceptance of a more sociocultural orientation in the study of menstruation led us to explore the nature of women's attitudes toward menstruation and to examine possible dimensions or styles of coping related to menstruation. This endeavor seemed especially relevant, since, although little research has been conducted, the need for the study of menstrual attitudes has been alluded to by others (4, 6).

## METHOD AND RESULTS

### Questionnaire Development

The original questionnaire was developed with several goals in mind. First, we conceptualized menstrual-related attitudes as multidimensional. Most studies have only looked at one dimension, specifically the positive-negative evaluation of menstruation (cf. refs. 9 and 10). Second, we noticed that the negative aspect of menstruation was almost always emphasized, even though actual literature documenting overwhelming negative evaluations is sparse. In one large study of attitudes (10), college women expressed more positive than negative attitudes (on a scale ranging from 0 to 27, where a high score indicated an unfavorable attitude, the mean was 3.5). Third, we were curious about a phenomenon encountered in our college classrooms. When menstrual-related symptomatology, its incidence, and its causes were discussed, several women would

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state that menstrual distress did not exist and that women who reported distress were neurotic. We theorized that a subgroup of women may actively deny any menstrual effects, while other women may believe in severe and debilitating effects. Such individual differences may help explain the lack of significant relationships between menstrual-related expectations and behavior when data for all women are grouped (5). Fourth, we were interested in how various attitude dimensions, if they did exist, related to expected and reported cycle changes, as well as to other aspects of behavior (11).

Items were constructed to represent four categories: beliefs about physiological concomitants of menstruation; styles of dealing with menstruation; menstrual-related effects on performance; and general evaluations of menstruation. Each category included equal numbers of statements referring to women in general and using the first person singular.<sup>1</sup> Some were phrased in the positive; others in the negative. The original questionnaire contained 46 statements that were rated on a 7-point scale (disagree strongly = 1, agree strongly = 7). The order of item presentation was counterbalanced across the four pages of the questionnaire.

Subjects

The original subjects were 191 Princeton University undergraduate women (mean age = 19.29 years). Most of the women (150) were not currently taking oral contraceptives nor had they taken them in the previous three months, and 41 women were currently taking oral contraceptives.<sup>2</sup> Almost all were Caucasian (95%). The first four of Hollingshead's five social classes were represented, although the majority of the students were in the highest two

social classes (13). Subjects were recruited by advertisement and by direct contact in their dormitories, were paid for their participation, and remained anonymous (7). This sample is referred to as Sample 1.

A second sample of college women were given the shortened version of the MAQ (33 items), based on the factor structure in Sample 1.<sup>3</sup> Sample 2 consisted of 154 college women from three state colleges in central New Jersey. The women were distributed among the four undergraduate classes, although, like Sample 1, were more heavily represented in the freshman and sophomore classes. Most of the women were not currently taking oral contraceptives, nor had been during the last three months. Almost all were Caucasian, and in terms of their familial social class status, they were equally divided among the first four of the social class categories (13).

At the same time that the Sample 2 women were tested, 82 college men were tested. They were given the 33-item MAQ with the relevant first person singular items being changed to more general forms (e.g., "I" to "Women"). The college men attended the same schools as the Sample 2 women. Almost all were Caucasian and were equally distributed among the four undergraduate classes and the first four of the five social class categories (13).

Finally, a sample of adolescent girls was given a version of the MAQ. Fifteen of the 33 items were included, with some items being rewritten in language appropriate for junior high school students. Seventy-two sixth and seventh grade girls with equal numbers being pre- and postmenarcheal, completed the questionnaire. The girls were public school students, resided in central New Jersey, were equally distributed among the first four of the five social classes, and almost all were Caucasian.

Factor Analysis

The 46 items were factor analyzed by the principal components method using a Varimax rotation (unities in the diagonal) for Sample 1. Seven factors with eigenvalues of over 1.00 were identified. Two of the factors contained doublets and were omitted. The remaining five factors were then rotated. The five attitude factors were labeled as follows:

<sup>3</sup>The three different forms of the MAQ (for women, for men, and for adolescents) may be obtained from the authors.

<sup>1</sup>Both general and first person singular items were included in the MAQ, and, as the factor analyses on Sample 1 and 2 indicate, not only do the salient loadings for each factor include both types, but the loadings were replicated across the samples. Most attitudinal research includes both types of items. Since much of the retrospective research on self-reports of menstrual symptoms reflect, at least in part, a set of cultural beliefs (cf. refs. 5 and 12), it is not surprising that both first person and general items are found in several of the factors, especially the debilitation and prediction factors.

<sup>2</sup>No significant differences were found in either sample for the women who were taking oral contraceptives and those who were not.

menstruation as debilitating even if some event, as predicted and anticipated and should not represent the items within factor. Thirty-three one of the five factors

In order to check consistency of the given to Sample 1 if the original factor same procedure values of over 1.0 contained single five remaining five loadings for each

In only one factor in the first factor prediction/anticipation

<sup>4</sup>In our original (7), this factor was prediction as a positive more closely reflected

TABLE 1. M Salient Loadings

Sample 1	Sample 2
-0.45	-0.45
0.57	0.57
0.51	0.51
-0.49	-0.49
0.44	0.44
-0.70	-0.70
-0.59	-0.59
0.48	0.48
0.41	0.41
-0.59	-0.59
0.67	0.67
0.60	0.60

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menstruation as a psychologically and physically debilitating event, as a natural event,<sup>4</sup> as a bothersome event, as an event whose onset can be predicted and anticipated, and as an event that does not and should not affect one's behavior. Table 1 presents the items with salient loadings (>0.40) for each factor. Thirty-three of the items loaded on at least one of the five factors.

In order to check the replicability and internal consistency of the factors, the 33-item MAQ was given to Sample 2. An analysis was conducted to see if the original factors could be replicated using the same procedure as before. Nine factors with eigenvalues of over 1.00 were found. Four of the factors contained singles or doublets and were omitted. The five remaining factors were rotated, and the salient loadings for each item are presented in Table 1.

In only one factor did items that had not appeared in the first factor analysis appear in the second. The prediction/anticipation factor has seven additional

items with salient loadings; these were feeling as fit (0.58), being more tired (0.57), not expecting as much of oneself (0.43), not noticing symptoms (-0.77), noticing physiological symptoms (0.61), being affected intellectually (0.61), and being critical of a woman who is upset (-0.45).

To examine the similarity of the factor structure in the two samples, coefficients of congruence between the five factors in each sample were computed (14). Congruence was high between the same factors across the two samples (0.77 to 0.91), but low between the different factors. The only exception was that debilitation in Sample 1 and prediction in Sample 2 had a high degree of congruence (0.79). All of the other coefficients were 0.46 or less.

Finally, Cronbach's alpha coefficients were calculated for each factor. Scale homogeneity was high, ranging from 0.95 to 0.97 in both samples (with the exception of the denial factor in Sample 1 [0.90]). These coefficients are probably inflated somewhat, as factor analysis techniques capitalize on item homogeneity.

<sup>4</sup>In our original discussion of the questionnaire (7), this factor was labeled differently (i.e., menstruation as a positive event). We believe the current label more closely reflects the meaning of the items.

### Summary Statistics

Summary statistics for the five original factors are presented for the four samples—the college women

TABLE 1. Menstrual Attitude Questionnaire: The Five Factors, Salient Loadings, and Percentages

Salient Loadings		Items
Sample 1	Sample 2	
I. MENSTRUATION AS A DEBILITATING EVENT		
-0.45	-0.53	1. A woman's performance in sports is not affected negatively by menstruation.
0.57	a	2. Women are more tired than usual when they are menstruating.
0.51	0.33	3. I expect extra consideration from my friends when I am menstruating.
-0.49	a	4. The physiological effects of menstruation are normally no greater than other usual fluctuations in physical state.
0.44	0.73	5. Menstruation can adversely affect my performance in sports.
-0.70	-0.45	6. I feel as fit during menstruation as I do during any other time of the month.
-0.59	-0.59	7. I don't allow the fact that I'm menstruating to interfere with my usual activities.
0.48	0.55	8. Avoiding certain activities during menstruation is often very wise.
0.41	a	9. I am more easily upset during my premenstrual or menstrual periods than at other times of the month.
-0.59	-0.32	10. I don't believe my menstrual period affects how well I do on intellectual tasks.
0.67	0.44	11. I realize that I cannot expect as much of myself during menstruation compared to the rest of the month.
0.60	0.56	12. Women just have to accept the fact that they may not perform as well when they are menstruating.

(continued)

TABLE 1. (continued)

Salient Loadings		Items
Sample 1	Sample 2	
II. MENSTRUATION AS A BOTHERSOME EVENT		
0.51	0.69	1. Menstruation is something I just have to put up with.
-0.64	-0.63	2. In some ways I enjoy my menstrual periods.
0.57	0.68	3. Men have a real advantage in not having the monthly interruption of a menstrual period.
0.64	0.57	4. I hope it will be possible someday to get a menstrual period over within a few minutes.
0.53	0.32	5. The only thing menstruation is good for is to let me know I'm not pregnant.
-0.58	-0.34	6. Menstruation provides a way for me to keep in touch with my body.
III. MENSTRUATION AS A NATURAL EVENT		
0.50	0.72	1. Menstruation is a reoccurring affirmation of womanhood.
0.58	0.67	2. Menstruation allows women to be more aware of their bodies.
0.45	0.63	3. Menstruation provides a way for me to keep in touch with my body.
0.48	0.59	4. Menstruation is an obvious example of the rhythmicity which pervades all of life.
0.50	0.70	5. The recurrent monthly flow of menstruation is an external indication of a woman's general good health.
IV. ANTICIPATION AND PREDICTION OF THE ONSET OF MENSTRUATION		
0.45	0.55	1. I can tell my period is approaching because of breast tenderness, backache, cramps, or other physical signs.
0.44	0.58	2. I have learned to anticipate my menstrual period by the mood changes which precede it.
-0.55	-0.79	3. My own moods are not influenced in any major way by the phase of my menstrual cycle.
0.59	0.72	4. I am more easily upset during my premenstrual or menstrual periods than at other times of the month.
0.41	0.32	5. Most women show a weight gain just before or during menstruation.
V. DENIAL OF ANY EFFECT OF MENSTRUATION		
-0.46	a	1. Others should not be critical of a woman who is easily upset before or during her menstrual period.
0.42	0.64	2. Cramps are bothersome only if one pays attention to them.
0.59	0.37	3. A woman who attributes her irritability to her approaching menstrual period is neurotic.
0.44	a	4. I barely notice the minor physiological effects of my menstrual periods.
0.63	0.66	5. Women who complain of menstrual distress are just using that as an excuse.
0.51	0.66	6. Premenstrual tension/irritability is all in a woman's head.
0.66	0.72	7. Most women make too much of the minor physiological effects of menstruation.

<sup>a</sup> Item did not have a salient loading.

in Sample 1, the college women in Sample 2, the college men, and the adolescent girls. Table 2 includes the means and standard deviations for each dimension (range 1 to 7), with the means being calculated by dividing the sum of items by the number of items in each factor (reversing the signs of items where necessary) by subject. In general, the

mean data suggest that the college women perceived menstruation as natural, somewhat bothersome, and not very debilitating or predictable, although they did not deny that menstruation had some effects. The college men perceived menstruation as somewhat debilitating, natural, and bothersome, as well as quite predictable. The effects of menstruation

Factor Score  
 Debilitation  
 mean  
 S.D.  
 Bothersome  
 mean  
 S.D.  
 Natural  
 mean  
 S.D.  
 Predictable  
 mean  
 S.D.  
 Denial  
 mean  
 S.D.

\*p < 0.001

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**TABLE 2. Summary Statistics for the Menstrual Attitude Questionnaire**

Factor Scores	Sample				ANOVAs (3,495)
	College women (N=191)	College women (N=154)	College men (N=82)	Adolescent girls (N=72)	
Debilitation					
mean	3.39	3.61	4.45	3.75	20.40 <sup>a</sup>
S.D.	1.09	0.98	0.73	1.28	
Bothersome					
mean	4.18	4.65	4.13	3.99	7.05 <sup>a</sup>
S.D.	1.26	1.09	0.93	1.54	
Natural					
mean	4.64	4.51	4.55	4.62	0.53
S.D.	1.09	1.04	0.93	0.84	
Predictable					
mean	3.79	4.98	5.04	3.85	47.63 <sup>a</sup>
S.D.	1.16	1.11	0.74	1.34	
Denial					
mean	2.73	3.17	2.83	3.12	6.88 <sup>a</sup>
S.D.	0.96	1.05	0.79	1.08	

<sup>a</sup> $p < 0.001$ .

were not denied. The adolescent girls also perceived menstruation as natural, not very debilitating, bothersome, or predictive, but having some effect.

### Comparisons among Samples

In order to compare the samples, one-way ANOVAs were calculated and are presented in Table 2, with significant differences found for all factors except menstruation as a natural event. First, the college women in Samples 1 and 2 were compared with respect to menstrual attitudes. The two samples differed somewhat, as menstruation was seen as more bothersome,  $t(1, 343) = 3.66, p < 0.01$ , and predictable,  $t(1, 343) = 9.66, p < 0.01$ , and menstrual effects were denied more,  $t(1, 343) = 4.06, p < 0.01$ , in the second than in the first sample. The reasons for the differences across the two samples are not totally clear. It may represent a difference in the nature of the sample (i.e., women at Princeton versus state colleges). It may also be related to the fact that the questionnaire was longer for Sample 1.

Second, the college men and women from Sample 2 were compared. The college men perceived menstruation as more debilitating,  $t(1, 243) = 6.82, p < 0.01$ , and were less likely to deny the effects of

menstruation,  $t(1, 234) = 2.54, p < 0.05$ , while women saw menstruation as more bothersome,  $t(1, 243) = 3.70, p < 0.01$ . These findings are consistent with previous reports that men perceive menstrual distress as more severe (12). Third, the adolescent girls perceived menstruation as more debilitating,  $t(1, 261) = 2.28, p < 0.05$ , less bothersome,  $t(1, 261) = 2.57, p < 0.05$ , and more as an event that should not affect one's behavior,  $t(1, 261) = 2.41, p < 0.05$ . Within the adolescent sample, the premenarcheal and postmenarcheal girls did not differ on any of the factors, suggesting that initial experience with menstruation has little effect on attitudes. However, the differences across age suggest that experience with menstruation may lessen the perception of menstruation as debilitating. Interestingly, although women tend to deny the effects of menstruation more than do men, adolescents deny the effects even more so than do college women. This seeming paradox with the adolescents, that they perceive menstruation as more debilitating and deny the effects more, might be due to the messages adolescents receive about menstruation. For example, girls are often told to "act normal" and "not let menstruation affect you." Menstruation is also seen as more bothersome by the college women than by

the other two groups, again implying the effects of experience.

**Reported Menstrual Experience, Symptom Expectations, and Attitudes**

In order to examine the relationship between the menstrual-related attitudes and self-reported expectations or experience, Samples 1 and 2 college women were given the Moos Menstrual Distress Questionnaire (15). Sample 1 was instructed to complete the MDQ "as if you were in the premenstrual phase of your menstrual cycle: Try to respond as if you were premenstrual", and "as if you were in the intermenstrual phase of your menstrual cycle: Try to respond as if you were intermenstrual." These two phases were defined as "your period will begin in a day or two (premenstrual)" and "your period will not begin for at least 7 to 10 days (intermenstrual)" (7). Order of presentation was counterbalanced across subjects; there were no significant order effects. One-half of Sample 2 filled out the MDQ for what they themselves experience in the premenstrual, menstrual, and intermenstrual phases; the other half answered the MDQ for what women in general experience in the three cycle phases. Again, order of presentation was counterbalanced, and no order effects were found. The eight symptom scales described by Moos were used, and product-moment correlations between the attitude factors and the MDQ factors for premenstrual (Sample 1) and menstrual (Samples 1 and 2) symptoms were compared (using difference scores with the intermenstrual scores as a base). Difference scores were used in order to control for general symptom severity or response biases because our interest was in cycle phase effects. Table 3 presents the correlations for self-reported symptoms (Sample 2), and simulated symptoms (Sample 1).

As can be seen in Table 3, perceiving menstruation as natural and bothersome was not related to MDQ symptom scales, while relationships were found with the other three attitude factors. Women who perceived menstruation as debilitating reported higher symptom scores in all three conditions (self-report, simulation, and women in general). Across all three conditions, correlations were significant for Pain, Negative Affect, Concentration, Behavioral Change, and Autonomic Reactions. Women who perceived menstruation as predictable were likely to report higher symptomatology on all scales except

Arousal and Control than were women who did not perceive menstruation as predictable.<sup>5</sup>

Women who denied any effects of menstruation reported less severe symptomatology, although this was true for both the self-report and the women in general conditions, but not the simulation condition. Perhaps this is due to a sample difference rather than a condition difference, since the simulation condition was comprised of Sample 1 subjects. Alternatively, this difference may be due to response bias, since the women in Sample 1 were asked to respond "as if" they were in a certain menstrual-related phase.

**DISCUSSION**

Our findings on attitudes toward menstruation speak to several points. First, as we had anticipated, attitudes toward menstruation may be conceptualized as multidimensional. Although we have identified five attitudinal dimensions, others may also exist. For example, attitudes about sexuality during menstruation have been studied by Paige (16). Second, the examination of several dimensions questions the assumption that menstruation is only perceived as a negative event. Menstruation has positive (e.g., naturalness) and negative aspects to it, a fact that has been obscured by the use of a bipolar evaluative dimension rather than separate dimensions in most studies (cf. ref. 10). Third, perceiving menstruation as natural does not negate the bothersome aspects; over 60% of the women perceived menstruation as at least slightly bothersome. Fourth, although menstrua-

<sup>5</sup>It is possible that the relationships between the MDQ symptom scales and the attitude factors of debilitation and prediction may be influenced by the fact that the first person singular items in the two attitude factors are tapping a similar dimension as the MDQ, especially when it is filled out for women in general.

**TABLE 3. Correla**

SAMPLE 1	
Simulation	pain water retention negative affect arousal autonomic concentration behavior change control
SAMPLE 2	
Self-Report	pain negative affect water retention arousal autonomic concentration behavior change control
SAMPLE 2	
Women in General	pain negative affect water retention arousal autonomic concentration behavior change control

<sup>a</sup> All correlations are

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TABLE 3. Correlations between the MAQ and the MDQ for Women in General, Simulation, and Self-Report<sup>a</sup>

	Debilitation		Bothersome		Natural		Predictable		Denial	
	M-I	P-I	M-I	P-I	M-I	P-I	M-I	P-I	M-I	P-I
SAMPLE 1										
Simulation										
pain		0.28		—		—		0.30		—
water retention		0.21		—		—		0.31		—
negative affect		0.35		—		—		0.45		—
arousal		—		—		—		—		—
autonomic		0.24		0.17		—		0.20		—
concentration		0.29		—		—		0.21		—
behavior change		0.49		—		—		0.40		—
control		0.21		—		—		—		—
SAMPLE 2										
Self-Report										
pain	0.47	0.45	—	—	—	—	0.58	0.45	-0.50	-0.37
negative affect	0.49	0.44	—	—	—	—	0.53	0.58	-0.46	-0.42
water retention	—	—	—	—	—	—	0.41	0.38	-0.37	-0.32
arousal	—	—	—	—	—	—	—	—	—	—
autonomic	0.39	0.34	—	—	—	—	0.40	—	-0.34	-0.38
concentration	0.48	0.34	—	—	—	—	0.45	0.37	-0.29	—
behavior change	0.50	—	—	—	—	—	0.50	0.31	-0.45	-0.29
control	—	—	—	—	—	—	—	—	—	—
SAMPLE 2										
Women in General										
pain	—	—	—	—	—	—	—	0.35	-0.39	-0.25
negative affect	0.39	0.27	—	—	—	—	0.42	0.53	-0.33	-0.31
water retention	—	—	—	—	—	—	—	0.29	—	-0.25
arousal	-0.36	—	—	—	—	—	-0.41	-0.40	-0.38	—
autonomic	0.31	—	—	—	—	—	—	—	-0.30	—
concentration	0.36	—	—	—	—	—	0.34	—	-0.28	—
behavior change	0.43	—	—	—	—	—	0.35	—	-0.34	—
control	0.41	—	—	—	—	—	—	—	-0.32	-0.28

<sup>a</sup> All correlations are  $p < 0.01$

tion is seen as debilitating by some, two-thirds of our women do not see it as such. And of the women who do perceive it as debilitating, only a very few perceive it as severely debilitating (3% of the women had mean debilitation factor scores of 5 to 7). Fifth, few women denied any effects of menstruation, only 12% of Sample 1 and 19% of Sample 2 (mean factor scores of above 4). Thus, our women seem to accept menstruation rather routinely and are not

likely to perceive it as overly disruptive, but at the same time do not deny its effect.

Finally, these attitude dimensions relate to expected cycle changes somewhat differently, with attitudes about debilitation and prediction relating to premenstrual and menstrual symptoms, and naturalness and bothersome attitudes not relating to these symptoms. Denying the effects of menstruation was related to lower symptomatology in Sample 2 but



not Sample 1. Nevertheless, it seems that the commonly used symptom scales do not represent all attitudes and beliefs about menstruation, and reliance on symptom scales has probably limited our examination of menstrual-related attitudes in the past.

The Menstrual Attitude Questionnaire has several potential uses. First, it may be utilized to tap differences among subsamples within a culture and among cultures. Paige (16) has reported that religious attitudes were related to menstrual symptom reports and attitudes in American Catholic and Jewish but not Protestant women and that the relationships were different for Catholic and Jewish women. Second, attitudes indirectly related to menstruation, such as attitudes about sex, one's body, femininity, or illness may be related and contribute to menstrual expectations. For example, Paige (16) finds that women who reported somatic and affective symptoms associated with menstruation were more likely to report such situations not related to the menstrual cycle, and reports of menstrual distress were associated with attitudes regarding the conventional female role.

Finally, the use of the MAQ or a similar questionnaire allows for a more individualized approach to the understanding of menstrual-related phenomenon. Individualized beliefs may differentially affect women's responses to their own cycles, both in terms of behaviors and self-evaluations, and the responses of both men and women to behaviors thought to be menstrual-related. Although others have explored the relationship between general personality variables and women's responses to their menstrual cycle, they have found weak and inconsistent relationships (cf. refs. 15 and 17), possibly because the personality variables chosen

were too global or only indirectly relevant to the menstrual experience. The use of the MAQ would allow for the study of responses as a function of individual variation in beliefs specific to menstruation. Two of the dimensions measured by the MAQ might be characterized as reactance against debilitating effects, or what we have termed denial (18), and learned helplessness, or what we have termed debilitation (19). In one study, we examined whether these dimensions were related to how a woman was evaluated in an interpersonal situation (11). College students were asked to imagine an interaction between a woman and her friend in which the woman becomes irritable and gives one of several possible reasons for her negative behavior, including menstrual distress. Subjects who perceived menstruation as debilitating were less annoyed with the woman who used the menstrual excuse, while subjects who denied the effects of menstruation were more annoyed, and blamed the woman more.

As a note of caution, these scales are appropriate for research purposes, not for classifying individuals. The item pool would need to be expanded via traditional test construction techniques to expand the MAQ beyond a clinical research instrument.

The Menstrual Attitude Questionnaire, as originally developed, was directed toward expanding the scope of menstrual-related attitudes studied. Although not all inclusive, in that other attitude dimensions probably exist, the MAQ provides a preliminary attempt at conceptualizing menstruation as multidimensional. The MAQ's factor structure has been replicated on a separate sample of women, the internal consistency of the MAQ has been demonstrated,

and it has been used in several samples, college girls.

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## THE MENSTRUAL ATTITUDE QUESTIONNAIRE

and it has been extended to two different samples, college men and adolescent girls.

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