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Identifying the Educational Needs of Menopausal Women: A Feasibility Study

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Abstract

Background—The goal of this project was to identify the educational needs of menopausal women and test the feasibility of an online self management program based on social learning theory.

Methods—The four stages included: (1) a needs assessment using a) focus groups with 24 women ages 40 – 55 and b) phone interviews with eight health experts, (2) the use of concept mapping methodology for quantifying qualitative data from Stage 1 to identify the core programmatic concepts, (3) development of a demonstration program, and (4) a pilot study with 35 women and nine health experts to assess knowledge gained and program satisfaction.

Results—Results show that women desire more information about normalcy of menopause and symptom management, found the program to meet a need for menopausal education otherwise perceived as unavailable, and they significantly increased their menopausal knowledge after brief exposure ($t_{34} = 3.64, p = .001$).

Conclusions—This project provides support for an online health education program for menopausal women and content ideas for inclusion in women's health education curriculum.

Keywords

Menopause; Internet-based education; midlife women

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The terms *perimenopause* and *menopausal transitions* reflect the phase of the female hormonal aging process (Soules, et al., 2001) during which women transition from a reproductive phase to the non-reproductive state. According to a 2005 report of the North American Menopause Society (NAMS), there are approximately 30 million women in the menopausal age range of 40–54, with the average age at about 51 years. Roughly 6,000 women in North America reach menopause daily.

Menopause symptoms including hot flashes, night sweats, insomnia, and vaginal dryness may cause varying degrees of physical discomfort and emotional distress (NIH, 2005). As women seek relief from these changes, information about how to manage them has also been in flux. Since the initial scientific findings from the Woman's Health Initiative (WHI) studies (e.g., Writing Group for the WHI, 2002) and from the Million Women Study (Million Women Study Collaborators, 2003), the medical landscape has experienced a shift in the medical treatment of menopausal women from widespread endorsement of hormone replacement therapy. Menopause management is now focused on the individual medical history, health risks, and management needs of each woman (NAMS, 2010).

Unfortunately, according to survey data, women reported that they do not know enough about hormone therapy (HT) and other treatments to make good choices (Cumming, Herald, Mocer, Currie, & Lee, 2007). For example, only 29% of women (ages 40–60) knew about the WHI results two years after the initial publication (Rigby, Ma, & Stafford, 2007). In a subsequent study, 39% of women who discontinued hormone therapy (HT) did so because of the WHI results but, in general, the knowledge and understanding of HT among this sample of female executives aged 35 and above was low (Simon & Reape, 2009). Similarly, a survey of over 58,000 women by the National Committee for Quality Assurance (NCQA, 2001), which used *Healthplan Employer Data and Information Set* (HEDIS) performance ratings, found the management of menopause in HMOs to be inadequate: e.g., results showed that the mean of the amount of information that the average woman in the study received was less than half the recommended information about personal characteristics that could affect her experience of menopause (a score of 47.3 out of 100), and only a third (33.2%) of these women thought they received quality menopause information (rating of 8 or more on a 0–10 scale).

More recently, millions of women have turned to the Internet for health information and support (e.g., Fox, 2007). In a summary of a multiyear market survey of online health consumers, those users identified as “eHealth Innovators” (proactive healthcare consumers), found that *menopause* was one of the top five conditions that have a disproportionate share among this segment of online users (Manhattan Research, 2004).

Clearly, there now exists the possibility for Internet-based education and support as a reasonable and expected modality for health interventions. Beyond evidence of current interest in participating in free, online tailored lifestyle programs (Verheijden, Jans, & Hildebrandt, 2006), a growing literature supports the potential for an online multimedia program to improve knowledge and attitudes about a variety of medical topics (e.g., review by Portnoy, Scott-Sheldon, Johnson, & Carey, 2008). Given that women are proactive health seekers and that millions of women experience the menopause transition, the need to develop an online health education program is great.

A Theoretical Approach to Developing an Online Health Education Program

The research team used the principles of social learning theory to inform the development of the demonstration of the proposed online program online for women going through the menopausal transition entitled *Chart the Change*. Social learning theory (SLT) posits that a

number of variables interact to motivate behavior, including self-beliefs (self-attribution, self-evaluation, and self-efficacy) and personal characteristics, behaviors, and the environment (Bandura, 1997). A central component of any support program is facilitating a sense of personal control and self-efficacy with regard to something unfamiliar, in this case, the menopausal transition. In SLT, self-efficacy and confidence in one's ability to perform a particular behavior in a specific situation are thought to mediate actual behavior. Thus, a person must believe in her capability to perform a behavior, perceive incentives to do so, and value the resulting outcomes. Providing education, support, and the opportunity for personalized skill development facilitates higher levels of self-efficacy and positively influence attempts to actively cope with stressful situations (Bandura, 1997). Research by Reece and Harkless (2002) confirmed that as women journey through to the end of perimenopause, they evidence higher self-efficacy, suggesting they have adapted to the physical and health challenges associated with menopause. *Chart the Change* was conceived of as a theory-based psycho-educational program using the innovative capabilities of the Internet, including the personalization and tailoring of information through online assessments, research-based information about the menopausal transition, and positive role modeling via the sharing of peer stories. To test the feasibility of this program idea and gather information about program content, we conducted a needs assessment and satisfaction testing of a demonstration version of our proposed online program, *Chart the Change*, with input from middle-aged women and menopause experts.

METHODS

This IRB-approved study involved several stages: (1) a needs assessment of a. the target audience (i.e., women ages 40 through 55) and b. menopause experts, (2) Concept Mapping analysis (Kane & Trochim, 2007) to further investigate the qualitative results from Stage 1, (3) development of a demonstration version of the proposed online program, and (4) satisfaction testing with a. women and b. menopause experts.

This first stage involves focus groups with middle-aged women and interviews with experts to gather ideas about desired features for the proposed online program. In the second stage, we use concept mapping (CM) as a method to quantify aspects of the narrative information gathered in Stage 1. CM offers a quantitative process for structured analysis of qualitative data (Jackson & Trochim, 2002) and has been used in the area of online health curriculum development with other health audiences (Cousineau, Franko, Ciccazzo, Goldstein, & Rosenthal, 2006; Cousineau, Houle, Bromberg, Fernandez, & King, 2008).

STAGE 1a: Needs Assessment of Women between Ages 40 and 55

Participants—Twenty-four women were recruited through postings in health clinics, a local free daily newspaper (*Boston Metro*), online (Craigslist.org), as well as through convenience sampling. All met the following inclusion criteria: a) between the ages of 40 and 55, b) use of the Internet at least once per week, c) computer access, and d) a personal email address. A researcher screened potential participants for the study via telephone. If a person met the inclusion criteria and wanted to participate in the study, she was sent a consent form to review, sign, and return. Twenty nine percent of the women were non-White (e.g., Black or Hispanic), the average age was 50.16 ($SD = 3.46$), and more than half ($n = 13$) had at least a 4-year college degree. They were compensated \$50.00 each for participating in a focus group. See demographic data in Table 1a.

Procedures—The research team conducted four 1½ -hour focus groups with approximately six women in each group. After consenting to participate and filling out a demographic questionnaire, participants were asked to indicate the menopause symptoms

they had experienced and the treatments they had tried to manage symptoms. They then participated in an open-ended discussion about a series of menopause-related questions designed to elicit current menopause-specific health education issues, e.g., what information they desired about menopause and how they have searched for information about menopause on the Internet. They were also asked to write down at least ten responses to a focus prompt as part of the CM procedure: “On a website like *Chart the Change*, I would like to be able to learn see or do.” A thematic analysis of the discussion summaries for each focus group was conducted.

STAGE 1b. Needs Assessment of Menopause Experts

Participants—Four clinical experts (i.e., one physician, one naturopathic doctor, one psychologist, and one nurse) and four health research consultants were recruited through snowball sampling of our co-investigators, health consultants, and other health professionals in our network. They were compensated \$100.00. See demographic data in Table 1b.

Procedures—We interviewed eight menopause experts via the phone for 1½ -hours using a semi-structured question format. The questions pertained to: professional health experience; the problems practitioners face while treating patients and the symptom management options they offer menopausal women (including HT and complementary and alternative options); the educational needs of women during the menopausal transition; and their current views on HT. They were also asked to generate at least 10 statements to the focus prompt. A content analysis of the interviews was conducted.

STAGE 2. Concept Mapping with Participants and Experts

Participants—Seventy-one percent of the women who participated in the focus groups (n = 17) and 75% of the experts who were interviewed (n = 6) completed a sorting and rating task using the Internet-based program for the Concept Systems™ (2007) software. For their time and input, the 17 women each received \$50 and the six experts each received \$100.

Procedures—Participants were instructed to sort the final list of 84 unique statements into groups “in a way that makes sense to you.” After sorting, participants were asked to rate all statements on a seven point scale in regard to their perceived importance given the described purpose of the program (i.e., 1 = “Not important” through 7 = “Extremely important”).

Concept Systems software (version 4.0.140, 1996/2007) uses multidimensional scaling and cluster analysis to analyze these data. The main statistical procedures and their application to concept mapping have been well-described (Davison, 1983; Everitt, 1980; Kruskal & Wish, 1979; Trochim, 1989). Each statement is located as a separate point on a “map.” Statements that sorted together more frequently are shown as closer on the map. Clusters with higher average importance ratings across statements have more layers.

STAGE 3: Development of the Demonstration of the Proposed Online Program

Procedures—A brief demonstration of the proposed online program was developed by web and graphic designers in consultation with the research team. Information from the concept mapping results, as well as survey data from the focus groups and data from the expert interviews informed the selection of features and content areas to highlight in the demonstration.

The content for the demonstration program was written by our team with health consultants. The program was designed using Macromedia Flash Basic 8.0 (Adobe Systems, 2005) and included several working online tools to provide the end user with a unique experience. The

content and tools were included to teach and make use of role models in symptom management.

STAGE 4a. Satisfaction Testing with 35 Women between Ages 40 and 55

The next step was to present the brief demonstration to women and menopause experts for evaluation. The goal was to find out if the research team succeeded in developing an outline of the *Chart the Change* program from the needs assessment conducted during Stage 1 (focus groups and interviews) of this project.

Participants—Thirty-five new female participants were recruited in this stage of the study using the same procedures as Stage 1 (recruitment methods, inclusion criteria, consenting process). Forty percent of the participants were non-White (e.g., Black, Hispanic, Biracial, Asian-American), the average age was 47.69 ($SD = 4.43$), and 66% ($n = 23$) had at least a 4-year college degree. Participants received \$50 their participation. See demographic information in Table 1a.

Measures—A brief demographic measure, including questions pertaining to their use of the Internet for health information, was presented via an online link. In addition, a 10-item menopause knowledge test was developed to reflect the menopause management guidelines at that time (NAMS, 2007) and was pre-tested with 29 women between the ages of 40 and 55 (unpublished data, Trudeau, 2007). The 29-item satisfaction survey included questions about the acceptance of the demonstration of the proposed online program (e.g., web tools and health strategies presented), the quality of the information, design, and graphics, and their overall impression of *Chart the Change* (Likert scale, 1=“didn’t like it at all” to 7=“liked it a lot”).

Procedures—Participants were emailed a link to the pretest (demographics and knowledge test) and then directed to the online demonstration. The online assessments were created with a software program Perseus Survey Solutions (2003), located on a secure server. At the end of the online demonstration, participants received another link to the post-test (the knowledge test and satisfaction survey). The entire process took about one hour.

STAGE 4b. Satisfaction Testing with Menopause Experts

Participants—In addition, nine menopause experts (i.e., two nurse practitioners, two clinical psychologists, two gynecologists, one practitioner-researcher, one naturopathic physician, and one nutritionist) -- including four experts who participated in the interviews and CM tasks -- were invited to review the demonstration. Again, experts were recruited through snowball sampling of our co-investigators, health consultants, and other health professionals in our network. They received \$100 for their input.

Procedures—Experts were emailed a link to the online demonstration and the satisfaction survey.

RESULTS

STAGE 1a. Needs Assessment with Women between Ages 40 and 55

At least three of the four groups said that they desired information about symptoms (e.g., how long will they last, what’s happening), treatments for managing symptoms associated with menopause, and how people may experience it differently. Two of the four groups said they wanted information on alternative treatments, side effects of treatments, real stories about personal experiences, and information about the impact of menopause on

relationships. The Internet resources that they were currently using to acquire information about menopause were WebMD and GOOGLE searches.

Survey data from the 24 women indicated the following: At least 75% of them have experienced irregular menstrual periods, mood swings, sleep disturbances, and hot flashes/night sweats. To manage symptoms associated with menopause half of the women had tried exercise, almost two-fifths had tried vitamins and/or soy, and a third had tried wearing layered cotton clothing. The four most endorsed “helpful resources” for information about menopause were friends (50.0%), family (45.8%), health care providers (45.8%), and the Internet (41.7%).

STAGE 1b.Needs Assessment with Menopause Experts

Seven of the eight menopause experts acknowledged that time was their greatest barrier to assessing their female patients' needs around menopause. In addition, most (n = 5) explained that hormone therapy was still the most typical way of treating acute menopausal symptoms. As a group they promoted lifestyle changes to be another successful way of preventing menopausal symptoms, including healthful diet and physical activity. In general, the experts interviewed believed that women were generally misinformed about the menopause transition or were not provided nearly enough information. Almost all of the experts (n = 7) reported that pamphlets and hand outs are currently used to provide information about menopause in health settings but the majority (n = 5) would refer them to a website if one they liked was available.

STAGE 2.Concept Mapping with Participants and Experts

As noted above, the Concept Systems software (version 4.0.140, 1996/2007) uses multidimensional scaling and cluster analysis to analyze the data (i.e., sorted and rated statements). The researcher selects a specific number of clusters. The software organizes the statements into a map of that number of clusters by using information about how many participants sorted the statements into the same group. The team reviewed maps in which the statements were grouped into four to ten clusters. The six cluster map was selected as the most representative grouping of the statements. Each of the six clusters (i.e., content areas) in the map were named for the content area of the majority of statements in that cluster: 1. Get Support, 2. Self Management and Provider Communication, 3. Treatment Options, 4. Promoting and Maintaining Health, 5. Physical Changes during Menopause, and 6. What to Expect. See Figure 1. For example, while cluster 2 “Self Management and Provider Communication,” includes statements such as “How to talk to your doctor including important questions to ask” and “Who to ask for help for menopausal symptoms (description of the role of each type of provider), cluster 3 “Treatment Options” includes statements about hormone therapy, exercise, and herbal supplements.

Participants also rated each item for importance. These ratings are reflected in the layers per cluster. The number of layers (one to five) is equal to the average importance rating of all of the items in the cluster; i.e., multiple layers indicate higher importance ratings. In addition, the software can generate a “pattern match” for two samples (e.g., the female participant group versus the expert group). This analysis showed high agreement between these samples in importance ratings for each cluster ($r = .90$). Examination of the concept mapping results permitted the research team to view the domains of information identified by the participants and the relative importance attributed to their component statements. The average mean per cluster and the top three statements per cluster are included in Table 2.

STAGE 3: The Demonstration Program of the Proposed Online Program

This brief online, demonstration program depicts a hypothetical, middle-aged woman named Theresa and how she might navigate the proposed program. It illustrates how *Chart the Change* empowers her to take charge of healthcare decisions. Unlike most web sites, content is specifically tailored to her needs and lifestyle through feedback from tools and quizzes. The program creates a personalized profile, with targeted content, a symptom checklist, information on managing physical and emotional changes, and answers to questions from experts (i.e., menopause health care providers and researchers).

The demonstration begins with Theresa returning to *Chart the Change*: Lately, Theresa has been having more severe symptoms including increased difficulty with irregular cycles, hot flashes, and insomnia and is more depressed and moody. She updates her Symptom Checklist and receives targeted feedback from the site based on a prepopulated algorithm of information. She receives input on areas in which she can make positive changes to help manage her menopause symptoms. She is then directed to a variety of resources and has the opportunity to set personal goals in Chart My Change and access content that she saved to My Favorites. She decides to access an article on coping with hot flashes, check out Mini Relaxations (i.e., a tool with breathing techniques for hot flash relief), a Menstrual Cycle tracker, and visit the community message board for peer support. From the message board she is directed to an Ask the Expert answer on the hormone therapy and the Women's Health Timeline recommended in her Symptom Checklist Feedback. This Timeline tool includes information about what to expect during the menopausal transition in regards to the depletion of estrogen. In sum, this demonstration shows how our hypothetical user Theresa has a supportive, virtual community of experts and peers and received targeted information to improve the quality of her life through *Chart the Change*.

STAGE 4a: Satisfaction Testing with 35 Women between Ages 40 and 55

Most of the participants (91.4%) reported using the Internet at least once a day. At least 65% of them have experienced irregular menstrual periods, fatigue, mood swings, sleep disturbances, and hot flashes/night sweats and 48.6% have looked for information about menopause online (e.g., WebMD). Other sources for menopause information include doctors (74.3%), friends (54.3%), family (51.4%), and books (40.0%).

The impact of the *Chart the Change* demonstration program was measured by comparing the correct number of items on the 10-item knowledge test at baseline and then again following participants' use of the demonstration program. These data were analyzed in two ways, parametrically, using mean number correct, and nonparametrically, examining the numbers of women whose scores improved, declined or remained unchanged from baseline to post intervention. Results showed significant improvement in this group of participating women with respect to their knowledge about menopause following use of the *Chart the Change* demonstration program. A paired *t*-test indicated that the number correct significantly increased from a mean of 5.6 correct responses to 6.6 ($t_{34} = 3.64, p = .001$). A Wilcoxon Signed Ranks Test for paired data was also significant ($Z = 3.23, p = .001$). One question that was answered correctly by 20% more of the participants at posttest was: Question 10. Which form of exercising will NOT help protect women from developing osteoporosis during the years around menopause? Correct answer: Stationary bike-riding.

The research team set an acceptability criterion for satisfaction of the demonstration program, i.e. on average, 80% of end users would rate their satisfaction with the interface on a Likert scale between 5 and 7 on a 7-point scale with 7 as "extremely satisfied"). An average of 88% of the women in the end user sample rated their satisfaction with the six items about their overall impressions of the demonstration program between 5 and 7 on a 7-

point Likert scale. Participants reported that the information in the program was relevant, of high quality, and easy to understand. In addition, participants noted that the demonstration program was “informative” and “inviting.” The lowest rated items were about how likely they would be to download software (e.g., a tool like Mini Relaxations) to their mobile phone ($M = 3.83$, $SD = 2.04$) and how likely they would be to write an article for *Chart the Change* about they had learned going through menopause ($M = 4.29$, $SD = 1.95$). Overall, the women seemed to enjoy the demonstration program; they reported that they would be likely to use the final program and would recommend it to their friends.

STAGE 4b: Satisfaction Testing with Nine Menopause Experts

An average of 88% of the experts rated their satisfaction with the six items about their overall impressions of the demonstration program between 5 and 7 on a 7-point Likert scale with 7 as “extremely satisfied”). They reported that the proposed program is likely to increase women’s confidence and help women learn more about managing menopause. Experts also reported that the information was relevant, of high quality, and easy to understand. In addition, they commented that the proposed program was “useful” and “beautiful.” Similar to participants, the experts also rated these two features the lowest: how helpful it would be to download software (e.g., a tool like Mini Relaxations) to their mobile phone ($M = 4.78$, $SD = 1.39$) and how helpful it would be to read articles by other *Chart the Change* users about they had learned going through menopause ($M = 4.56$, $SD = 1.88$). Suggestions for improvement were for content (e.g., monitor message board content, make content more accessible to women of lower socioeconomic status) and design (e.g., include images of overweight women, reduce amount of content per screen). Seven out of nine health experts reported that they would be very likely or extremely likely to recommend the final version of this program to their clients.

DISCUSSION

For the majority of women the menopausal transition is a normative, physical, and psychological milestone. Women experiencing this transition desire up-to-date information and support to navigate the often conflicting and confusing health information. Women actively seek guidance for the management of symptoms – and the Internet has become one of their main sources for information. In many ways the menopausal transition presents a unique opportunity for a woman’s life by providing an online health destination for repeated engagement, health promotion, and social networking about menopause.

The research team posed the question: What do menopausal women want to help them through this transition that can be met by a web-based health program? The individuals we spoke with in the focus groups and interviews provided the answer: information about symptoms and how to cope with/reduce them, how to communicate with providers about their experience, what to expect, and social support. These concerns are in many ways obvious, yet they persist over time suggesting that more public health education is needed as each approaching generation of women experiences this reproductive health transition. As usage of the Internet to search for healthcare topics grows so does the need for accurate educational programs that will provide users with confidence around health care topics. Our participants reported that they search for online health information almost daily, but none in our sample could name reliable resources for menopause health information. It seems women do not know where to find it, or reliable sources may not be available or known to the public.

The *Chart the Change* demonstration program was developed as a preliminary step in using several facets of Internet technology to address the concerns of women coping with menopause-related symptoms and distress during their transition that goes beyond focused

attention on HT decision making. Specifically, our participants found the information in this demonstration of the proposed online program to be relevant, of a high quality, and easy to understand. In addition, that there was a statistical, though not clinical, improvement in knowledge based on brief exposure, suggesting that the fully developed program could be successful in teaching women about a variety of methods for symptom management and self-care. Participants and experts reported that use of the proposed program would probably increase confidence and influence efforts to manage menopause and that they would share it with other women. Almost all of the menopause experts reported that they would recommend the final version of this program to patients.

Limitations

There are several limitations to this feasibility study. Due to project constraints (e.g., timeline, target enrollment for demographic groups), recruitment occurred via advertisement and word of mouth (e.g., convenience sampling of participants and snowball sampling of experts); therefore there may be a selection bias among our respondents. These findings may not generalize to women who are *not* interested or motivated to participate in a research study; however, because we are in a program development phase that is focused on program content and personalized tailoring, we are only interested in women who are indeed motivated to learn more about menopause and are seeking out information and support (i.e., our sample of mostly well-educated women). Having focus groups/acceptance test with women uninterested in the topic would not advance the program development process. A future study with a randomized sample on the completed program would be necessary to test the efficacy of the program and reduce selection bias. Because this online self management program is intended as an adjunct to partnership with a clinician, not a replacement of that relationship, we worked with a core group of experts throughout the project: Forty-four percent (4 of the 9) experts who were asked to evaluate the demonstration program had been consulted about how to develop the program; this overlap may explain the higher acceptance ratings of the program by the expert group versus the participant group.

In addition, the satisfaction survey results should be interpreted with caution given the potential for women to report socially desirable feedback. Similarly, all participants were compensated for their input, which is a potential source of bias; however, such compensation was commensurate with traditional participant fees. As noted above, the change on the knowledge test (one more question answered correctly), though statistically significant, is not necessarily clinically significant. Finally, since this was a prototype website, with limited functionality, we could not test the efficacy of the program. We hypothesize that a fully functional interactive program would have a larger impact on women's knowledge of these important issues. The results of this study represent an initial step toward the development of a theory-based, interactive program that educates and supports women experiencing menopause.

Implications for Practice

In summary, the need for information and social support during the menopausal transition is paramount considering that over 30 million women are within the associated age range. This project helped to identify some of both specific and contextual needs and define a plan, based on input from women and health experts, for an online health intervention program. Although the Internet provides a vast resource for women's health, it is interesting that by and large women still need more education and support. In many ways information is readily available but more confusing at a time when health care is in a crisis. With the power of Web 2.0 technology that continually allows for refinement and interactivity of content, online applications (or consumer health informatics applications) are increasingly promising (AHRQ, 2009). One of the issues may be that too much disparate information is available to

online health seekers and by providing a tool that is focused on narrowing in on the biopsychosocial aspects of menopause, *Chart the Change* may offer a personally relevant resource that can help direct women to get the health care they need in an era of “patient centered health.”

Health educators can use the qualitative findings from this feasibility study to develop curriculum about the specific areas for which menopausal women desire health information. Ultimately, the intention is that programs like *Chart the Change* will contribute to public health efforts to empower women with research-based information, skills to work with their health providers, and peer support during this transitional life stage.

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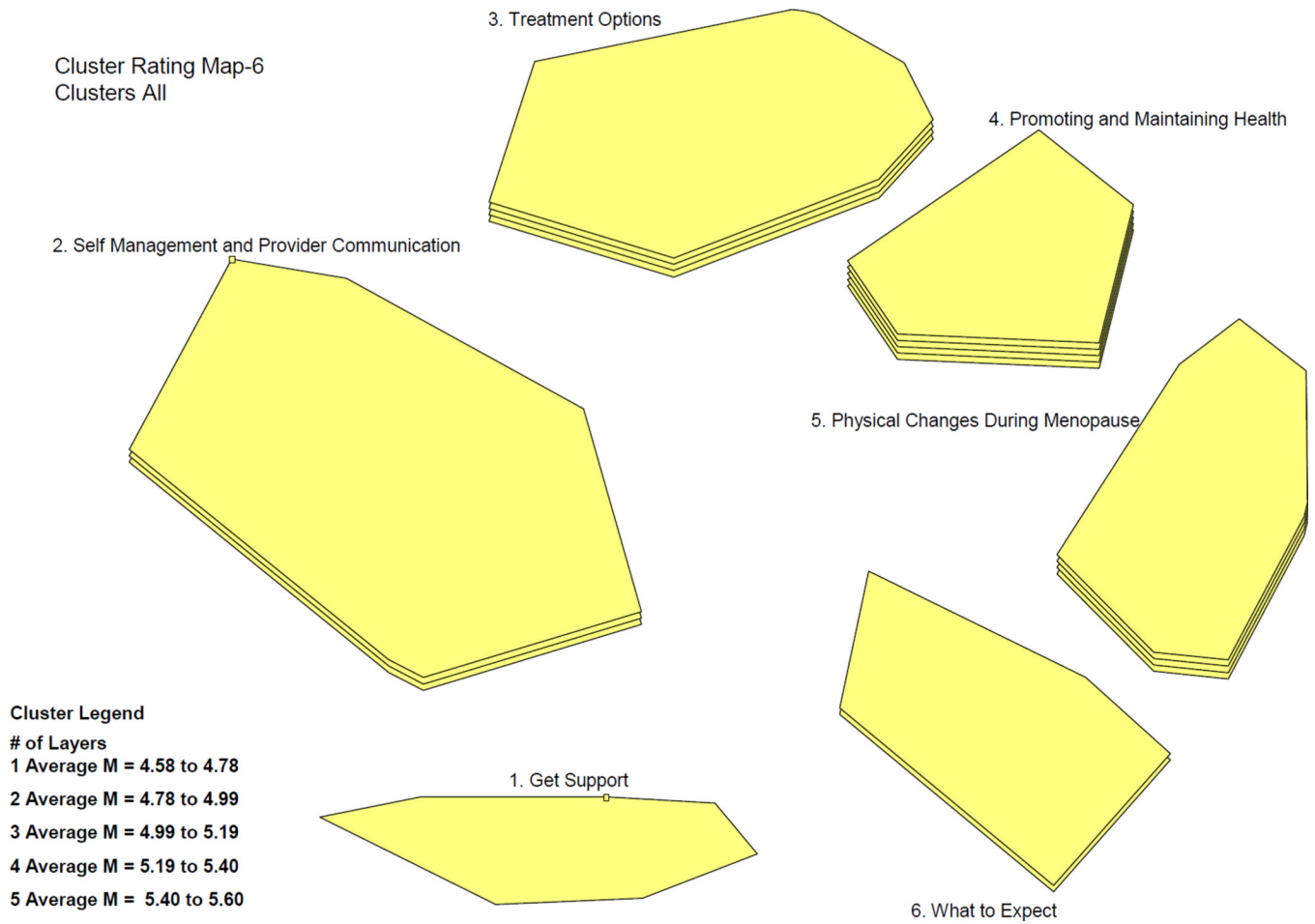


Figure 1.

Table 1

a. Demographics of Participants					
Sample	Task	Race	Age	Level of Education	
24 women between the ages of 40 and 55	Focus Groups/Concept Mapping Tasks	17 Caucasian 6 Black 1 Hispanic	<i>M</i> = 50.16 <i>SD</i> = 3.46	1 Some H.S. 3 H.S. 6 Some College 1 Two-year College Degree 6 Four-year College Degree 2 Some Graduate School 5 Graduate Degree	
35 women between the ages of 40 and 55	Satisfaction Testing	21 Caucasian 8 Black 1 Asian American 4 Hispanic 1 Biracial	<i>M</i> = 47.69 <i>SD</i> = 4.43	2 Some H.S. 1 H.S. 6 Some College 3 Two-year College Degree 7 Four-year College Degree 5 Some Graduate School 11 Graduate Degree	

b. Demographics of Experts						
Sample	Task	Race	Level of Education	Years in Practice		
				<i>M</i>	<i>SD</i>	Range
8 Menopause Experts	Expert Interview/Concept Mapping Tasks	7 Caucasian 1 Asian American	1 MD, RD, Ph.D. 1 Ph.D., N, NP 1 Ph.D., MScN, FCAHS 1 DNSc, RN, NP 1 ND 3 RN, NP	20.87	10.01	2–33
9 Menopause Experts	Expert Satisfaction Testing	7 Caucasian 2 Multi-racial	3 MDs 2 PhDs 1 PhD, RN, NP 1 MS, NP 1 MA 1 DNSc	21.67	9.57	2–35

Table 2Top three statements per cluster¹

	Mean
Cluster 1: Get Support (M=4.58), 13 Statements	
List of resources for books and other websites	5.61
A section where women can enter in suggestions and solutions of things that have helped them	5.36
On-line tutorial about women's health/menopause	5.07
Cluster 2: Self- Management and Provider Communication (M=5.15), 16 Statements	
How to talk to your doctor including important questions to ask	5.89
Best way to beat the blues when menopausal changes get you down	5.86
What health providers should be doing to promote a healthy menopausal transition	5.61
Cluster 3: Treatment Options (M=5.38), 18 Statements	
Information on side effects of medications/remedies that can make menopause symptoms worse	6.14
Preventive strategies that can help ease symptoms and ease the transition to menopause	6.11
A decision aid to help choose the right treatment	6.00
Cluster 4: Promoting and Maintaining Health (M=5.60), 7 Statements	
Information about hot flashes and solutions	6.54
How to relieve night sweats	6.25
Information about the safety of different medications, including HRT	6.00
Cluster 5: Physical Changes During Menopause (M=5.26), 19 Statements	
Information about the changes occurring in your body	6.25
How to maintain/cope with symptoms, e.g., hair loss and weight gain	6.14
Information on signs of menopause and reasons	6.00
Cluster 6: What to Expect (M=4.83), 11 Statements	
When to be concerned about being depressed	6.11
Information about life after menopause	5.57
Positive aspects of going through menopause	5.50

¹The full list of 84 statements is available from the authors.