American College of Obstetricians and Gynecologists (ACOG) 57th Annual Clinical Meeting

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ACOG 2009: New 6-Question Survey Accurately Measures Effect of PMS on Quality of Life

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Authors and Disclosures

May 6, 2009 (Chicago, Illinois) — A new 6-question survey instrument was shown to accurately measure the effect of premenstrual syndrome (PMS) on women's health-related quality of life (HRQOL) in a new survey.

The survey and its validation were described by coinvestigator Min Yang, MD, PhD, here at the American College of Obstetricians and Gynecologists (ACOG) 57th Annual Clinical Meeting. Dr. Yang is senior scientist at QualityMetric Inc in Lincoln, Rhode Island, where the study was conducted.

Up to 80% of women of reproductive age experience symptoms of physical discomfort prior to the first few days of their menstrual cycles. Premenstrual disorders can include both premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD), and can affect mood, work, and social activity. The question is: How can this be measured?

According to Dr. Yang, existing survey instruments principally document the presence and severity of premenstrual symptoms. The Pre-Menstrual Symptoms Impact Survey (PMSIS) was developed specifically to evaluate the impact of selective symptoms on women's HRQOL. Dr. Yang described the longitudinal validation of this new instrument.

The validation was designed to measure both the consistency and the test–retest reliability of the PMSIS among women with and without premenstrual disorders (either PMS or PMDD), to assess the convergent and discriminant validity of the PMSIS among women with and without premenstrual disorders, and to assess the accuracy with which the PMSIS can classify women into groups of those with and without premenstrual disorders.

Data were collected using Zoomerang, an online survey tool. Inclusion criteria limited the survey to women between 18 and 45 years who had experienced regular menstrual cycles for the previous 3 months and had at least 1 of the premenstrual symptoms listed in the 2000 ACOG diagnostic criteria for PMS.

This nonrandomized observational study was administered at 2 distinct time points approximately 4 weeks apart, referred to as time 1 and time 2. The time 1 group (n = 1100) had a mean age of 30.4 years; 377 women (34.3%) were diagnosed with PMS and 164 women (14.9%) were diagnosed with PMDD. The time 2 group (n = 770) had a mean age of 30.6 years; 251 women (32.6%) were diagnosed with PMS and 109 women (14.2%) were diagnosed with PMDD.

Dr. Yang described the statistical validation of data. She presented the mean and standard deviations for PMSIS scores at each time point and, as a measure of PMSIS internal consistency and reliability, presented Cronbach's alphas and average intertime correlations. Test–retest reliability was demonstrated with intraclass correlations between responses across time for participants with no change in group classification. PMSIS convergent validity was demonstrated by correlations between PMSIS scores and criterion variables. Known-groups discriminant validity was demonstrated with PMSIS scores across levels of criterion variables at time 1. PMSIS classification accuracy was described by overall area under the curve for PMS and PMDD groups. Dr. Yang also presented receiver operating characteristic analysis of PMSIS as a predictor of PMS for time 1.

Dr. Yang noted that the study was limited by its use of an online survey, by the use of retrospective criteria for the diagnosis of PMS and PMDD, and by the use of a symptom checklist for premenstrual symptom complaints.

Medscape Ob/Gyn & Women's Health asked Dr. Yang whether PMSIS is the only existing tool to assess the impact of PMS on HRQOL. "The short answer would be, to our knowledge, yes," Dr. Yang said. "But there are many questionnaires out there to measure premenstrual symptoms and issues, like [the Premenstrual Symptoms Screening Tool]." However, she noted that such questionnaires are usually long. This new instrument is short and easy to administer, she said.

"Tools that look at PMS are diverse, and we don't have a lot of clinical experience with them," Kurt L. Barnhart, MD, MSCE, a member ACOG's Committee on Scientific Program, told *Medscape Ob/Gyn & Women's Health*. Dr. Barnhart is director of women's health research at the University of Pennsylvania in Bryn Mawr, and served as codirector on the Papers on Clinical and Basic Investigation session. "So what's important about this is that they appropriately and in an evidence-based way validated the tools," said Dr. Barnhart.

When asked whether this survey instrument might find widespread use, Dr. Barnhart said: "I hope that it does. A survey instrument that can better quantitate the symptoms and how we might manage them would potentially have very widespread use, both for research purposes and for clinical practice."

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