

Analysis of internal consistency by Cronbach's alpha of Body Image Rating Scale applied to a population of pregnant women.

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Pregnancy is a period when major changes are experienced by the female body. Although these changes can be considered as a natural part of pregnancy, many women have great difficulty in accepting them (Robertson-Frey, 2005). Research in the United States that focused on the perceptual aspects of body image has found an overestimated body size in pregnant women. Pregnant women are also more exposed to social charges, mainly from the media (Heinberg & Guarda, 2002). Another study says that body image remains stable during pregnancy. Satisfaction with body image is similar to the pre-pregnancy body satisfaction (Duncombe, Wertheim, Skouteris, Paxton & Kelly, 2008). The findings of these studies are international and include no Brazilian study. Assessing pregnant women body image is important to know how Brazilian pregnant women relate to their body.

The Body Image Rating Scale, developed by Souto in 1999 was created to be used in nursing practice for investigation and confirmation of changes in Body Image, determined as one of the diagnoses of the classification system *North American Nursing Diagnosis Association* (NANDA) in 1973 (Campana & Tavares, 2009; Souto, 1999). This scale has 23 questions, 5 with favorable meaning and 18 unfavorable. The questions are arranged as a Likert scale, rating 1-5 points, ranging from "always" to "never." In the final version, the reliability test of full scale for a population of women aged 18 years or more achieved Cronbach's alpha of 0.9091. The BR (Body Reality) component achieved Cronbach's alpha of 0.7138, the BI (Body Ideal) component achieved Cronbach's alpha of 0.8652, and the BP (Body Presentation) component achieved Cronbach's alpha of 0.6087 (Campana & Tavares, 2009; Souto, 1999).

The aim of the study is know how this scale works in a pregnant women population whereas there is no scale developed for the specific assessment of body image and body satisfaction of pregnant women in Brazil. The research

was approved by the UNICAMP Ethics Research Committee on September 6, 2007. Likewise, the Vinhedo - SP Health Office also consented the study and signed an institutional consent. A consent term was given and signed by all participants and by the researcher. For underaged women, an authorization by the legal responsible person was also requested.

The Body Image Rating Scale was applied with the consent term. The questionnaires were applied at the Vinhedo – SP Basic Health Units on the prenatal appointment days. According to the Statistical Office of the Medical Sciences College / UNICAMP, the sample size was set to a descriptive research with quantitative variable. The value obtained for a standard deviation of 23.9 with a sampling error of 5.0 and a significance level (Cronbach's alpha) of 0.05, was 88 subjects. After the collection, we obtained a sample of 93 pregnant women.

The data collected were analyzed under the guidance of the Statistical Office of the Medical Sciences College / UNICAMP. The Cronbach's alpha coefficient was used to determine the internal consistency of total body image score and its components (Body Reality, Body Ideal and Body Presentation). As results, the values obtained using the Cronbach's alpha on the Souto scale (Campana & Tavares, 2009; Souto, 1999) regarding the population of this research are in the acceptable range for both total score, which measures and evaluates the body image, and its components, which can be used separately to evaluate each unique feature or as a group to evaluate body satisfaction.

Comparing the results of Cronbach's alpha of the scale applied to the population of pregnant women and the outcome scale applied by Souto (Campana & Tavares, 2009; Souto, 1999) on women in general, it was noticed that the result is similar. The Cronbach's alpha obtained for the scale as a whole was 0.912, when applied to women of this research, and 0.909 on Souto's research (Campana & Tavares, 2009; Souto, 1999). The Cronbach's alpha for Body Reality is 0.789 when applied to pregnant women, and 0.713 on Souto's research (Campana & Tavares, 2009; Souto, 1999). The Cronbach's alpha for Body Ideal was 0.862 when applied to pregnant women, and 0.865 on Souto's research (Campana & Tavares, 2009; Souto, 1999). And for Body Presentation, the Cronbach's alpha obtained in pregnant women was 0.620 and 0.608 on Souto's research (Campana & Tavares, 2009; Souto, 1999).

In conclusion, these data show that the Body Image Rating Scale (Campana & Tavares, 2009; Souto, 1999), applied to pregnant women, has an internal consistency similar to the validation research. However, the sample size is smaller in this research than in the original validation of this scale. To validate this scale for pregnant women population, it is necessary to do a validation research in a larger population and additional statistical tests to construct validity. Therefore, the use of the Body Image Rating Scale (Campana & Tavares, 2009; Souto, 1999) showed that the scale behaved properly when applied to pregnant women. A survey to validate this tool for usage on a pregnant women population is required, since it would allow further research on Body Image during pregnancy using an instrument that assesses this construct and presents a high internal consistency, and has been produced in Brazil for the Brazilian population.

References

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