

Reviewer Comments:

Reviewer #2: This study is an evaluation of the factor structure of the BDI-II using exploratory and confirmatory factor analyses with data from low-income women. The manuscript is very well-written and easy to follow. The authors provide substantial background regarding previous research in this area, justification for sample size, evaluation of missing data and imputation, rationale for type of rotation used in the analyses, and factor selection approach. The authors do an exemplary job describing the nuances of factor analysis. Although I have one major question regarding the analysis, my critique has more to do with context and meaning than methods and analysis.

My primary concern, that is likely addressable by the authors, is the lack of information regarding the timing of the data used from a randomized trial. If the authors used only baseline data from the RCT, the fix in the manuscript should be easy. However, if the authors used data from participants over time where half of the sample may have been involved in an intervention of some sort during that timeframe (data are from Feb, 2006-Sept, 2008), the authors must control for condition in the analyses or somehow take into account the effect of the intervention on half of the sample. Depending on the type of intervention in the RCT (which is not described), responses to depression could have been altered and make interpreting the findings very difficult.

Other considerations for clarity of the manuscript include the following:

- 1) Title: Is the study really a validation of the inventory itself or a validation of its factor structure? Lines 10-11 on page 3 appear to be more accurate in terms of the study's purpose, and that should be reflected in the title.
- 2) Abstract: Define EFA prior to first use. R2 should be R2. The discussion could be enhanced with a statement regarding the relevance/importance of testing the BDI-II factor structure in low-income women. Perhaps text from lines 6-8 on page 4 or text from lines 12-14 on page 15 could be used in the abstract.
- 3) On page 8, the description of the selection of factors using eigenvalues compared against random data generation is quite interesting; however, based on Figure 1, does the eigenvalue for factor 2 really exceed the criterion? It looks very close.
- 4) Lines 22-23 on page 8 are confusing. Are the authors referring to NON-zero loadings? If so, what criteria are used as many are above zero.
- 5) The authors could help readers understand factor analysis better if they commented on why the G-S-C factor structure is best, but the internal consistency reliability is so high (.94) for a one-dimensional construct.

Minor comments include:

- 1) Missing or extra words on lines 2 and 21 on page 3.
- 2) Which university Health Science Center IRB approved the study? Indicating the university name would not compromise author anonymity.
- 3) Typically, the order in a manuscript is text, references, all tables, all figures rather than tables and figures mixed followed by references.

Reviewer #3: Problems Statement. Because nurses work with and study low income populations, because the BDI-II is often used with these populations, and because of the high depression rate among low income women, the establishment of the validity of the BDI-II used with low income women is of importance to nursing. The problem statement is clear and relevant to developing the body of knowledge related to the BDI-II because it fills a gap about how appropriate the BDI-II is for use with low income, female populations. The problem statement appears in the appropriate place in the manuscript, i.e., before the design and methods.

Background Literature. The background literature is appropriate for this paper and provides a context for understanding the need for a study of the validity of the BDI-II with low income women. As stated, no other research has investigated this, and therefore this study fills a gap in knowledge. The literature presented sets the context but also gives crucial background on the BDI-II, as well as current disagreements on the factor structure of the BDI-II.

Theoretical framework. No theoretical framework is used. The concept of "confirmatory factor analysis" was defined. However, the concept of "exploratory factor analysis" could have been defined in the paper to enhance readers' understanding.

Research design and method. While a statistician should review this paper to more specifically address this, the design and methodology of this study seemed appropriate. The sample was gleaned from an ongoing RCT and the study was approved by the IRB. However, we are not informed as to how many and which scales were included in the "battery of standardized" instruments that were completed by the women along with the BDI-II. We are not informed if the women received an incentive for completing the BDI-II or the rest of the "battery of standardized" tests as part of the ongoing study (the RCT).

Data analysis. A statistician should be consulted for this, however, it is noted that in Table 1, no values are given for the "mean age of children".

Results. The report of the results was extensive, well written, and complete. Factor Analyses are very complex, but the authors of this paper managed to report the results effectively for reader comprehension.

Discussion. The discussion section is relevant to the results and background literature presented. Results are discussed and evaluated in relation to relevant literature. The interpretation of the results is reasonable and insightful. For example, the insight that depressive symptoms may show up in different clusters across groups is helpful and insightful. The suggestion that inquiry about how clusters of items show up in different ways for different groups holds potential to deepen our conceptual understanding of the role of depression on health outcomes. Similarities and differences between results of this study are discussed in relation to the literature. No study limitations are mentioned, however, since these data are from a larger RCT, it is likely that some study limitations do exist.

Organization and style of presentation. The organization and writing style of this manuscript is superb. I found no extraneous information. All was pertinent and appropriate.

Summary. The strength of this paper is in the rigor of the methods, the "audience-friendly" language used to describe complex and extensive statistical analyses, and the importance of the work for nurse researchers and others who study depression among low income women. There are no real weaknesses, just some missing parts (e.g., study limitations). Overall, this research is significant for health disparities researchers who seek to use valid measures with low income populations.

CHECKLIST FOR STYLE

TITLE PAGE -- Shorten title to 12 words or less (no abbreviations).

REFERENCES --

Update IN-TEXT CITATIONS using APA 5th Ed. Format (The Publication Manual of the American Psychological Association, 5th Edition, pp. 208-209). In particular:

On first citation of a reference, list all authors if there are less than 6 (i.e., Hair...2005; MacCallum... 1999, 2001; Yang & Jones, 2008).

TABLE 3 - Include definitions for acronyms in a note at the bottom of table.