

Quantitative critique

[Psychology](#), [Psychotherapy](#)



The title is specific and concise, it is representative of the research report. From the title the focus of the study is understood including what was studied, who was studied, and where the study took place. It is also accurate and unambiguous. The title also described the study design, therefore the reader was not misled on the data presented. Researcher credibility Each of the three researchers credentials and affiliations are disclosed on the first page of the article.

All of the researchers have credentials in nursing research, however none of them disclosed any information on their expertise in the area of depression, interventions to decrease depressive symptoms, or working with incarcerated women. According to Coughlan, Cronin, & Ryan (2007) “ an authors qualifications and job title can be a useful indicator into the researchers knowledge of the area under investigation and ability to ask the appropriate questions. The first author held a clinical position in the institution, this was not disclosed until further into the article, I feel that this information could have been disclosed sooner in the article. This could possibly hold a conflict of interest, especially if the incarcerated women were familiar with the first author. The first authors clinical position in the prison enhances the study findings as he has worked with the population. However, this could be conflict of interest since he is an employee of the institution.

Abstract The abstract is concise and summarizes the whole study.

Also read this Critique of Stuff Is Not Salvation

It is divided into subsections of background, objectives, methods, results, discussion, and key words. The objective is clearly stated, which is to

determine the feasibility of providing a gender-responsive exercise intervention within a correctional facility and observe the effects of the exercise program in respect to levels of depression symptoms, anxiety symptoms, and perceived stress among incarcerated women. The methods are listed and clearly stated which include 3 self-administered instruments which were completed before treatment and during treatment.

This section allowed the reader to fully understand how the authors conducted the study. The results section highlighted the findings from the study and makes the reader want to continue reading the article. Even though the sample size was very small. The discussion section reviewed the findings. Introduction/ background and literature review “ The introduction communicates the research problem and its context” (Polit & Beck, p. 63). In this article, a good background description of what the problem is (incarcerated women and mental illness) with supporting evidence is presented.

The article provides a thorough description on why this research is important, one reason states is that most treatment modalities are often based on male treatment models or models that have shown success in community-based populations rather than incarcerated populations (Harner, et. al. , p. 390) The review begins with stating evidence on depression, anxiety, and stress within the prison system, especially among women. It also provides a detailed description of Iyengar yoga and health. The section is well organized with good transitions.

Several sources were reviewed by the authors in order to establish a need for the study. The literature reviewed by the authors dates from 1996 to 2009, with mainly primary sources and all were relevant to the topic of mental illness, incarcerated women, or Iyengar yoga. The articles reviewed that were not recent gave statistical data and may have been more relevant if the statistics were more recent. All the articles were relevant to the problem and stressed the degree of mental illness in incarcerated women.

The article also noted that most research available has examined the effect of yoga and yoga-based exercises on mental health outcomes using a variety of different yoga styles, thus making it difficult to determine what aspect was most beneficial (Harner, et. al. , p. 390). Thus this research study being done fills a gap to the existing knowledge and will hopefully provide better treatment options for incarcerated women with mental illness. The use of direct quotes was minimal throughout the article. The research problem has significance to nursing, however this was not made very clear in the article.

Purpose/ Research Question/ Hypothesis The purpose of the study was explicitly stated, “ testing the feasibility of implementing a group format exercise intervention, specifically a 12-week Iyengar yoga intervention, in a woman’s correctional facility” (Harner, et. al. , p. 389). The phenomenon of interest was clearly defined, as was the study population. The articles reviewed showed key evidence to support yoga and decreased levels of depression. The authors clearly described the limitations of the literature review to the reader, there was no published studies that reviewed Iyengar yoga and incarcerated individuals. **Theoretical framework.** The theoretical

framework is based on the gender-responsive framework. It is unclear whether this is a nursing or non-nursing framework as it is not clearly defined. The gender-responsive framework is not clearly explained, thus making it difficult to determine its appropriateness for the study. This is one limitation of the study and could be addressed by clearly explaining the gender-responsive framework. Sampling The study population (incarcerated women) using non-probability purposive sampling was clearly stated and defined. The article discussed that this study was part of a larger study and a small sample size was expected.

Exclusion criteria was clearly stated. Due to security issues the Department of Corrections generated and approved the list of potential participants before being contacted by the research team. This non-random sample or convenience sample generated 60 women, in which 21 agreed to participate in the intervention. Retention of the sample population was clearly defined in the article with only 6 women completing the 12-week intervention. Due to the security concerns this method of sampling was the best approach. All factors were discussed in regards to the sample size with demographics clearly defined.

The sample size is important in quantitative research as a small sample is at risk of being overly representative of small subgroups within the target population (Coughlan, et. al. , 2007). The issue of power was addressed in the limitations section and was noted to be limited for detecting linear trends over time. Ethics Ethical issues were discussed in this article. The authors state that informed consent was obtained in each case, although the method

in which consent was obtained was changed prior to the first inmates appointment. The issue of incentive gifts was also addressed and were not used.

The inmate did receive a certificate of completion at the end of the 12-week intervention. The research protocol for this study was approved by all institutional review boards including the DOC. The site for the interviews and site for the intervention were described. Privacy of the intervention was not discussed, however for approximately 2 weeks the intervention was relocated to a different location within the institution. The treatment of Iyengar yoga is ethically and politically acceptable. The risks to the inmates were participated in the study were minimized and the benefits maximized.

Design. The design was a feasibility study or pilot study. It is based on an experimental method, where there is a manipulated intervention. According to Polit & Beck (2012) “ a pilot study is a small scale version or trial run designed to test the methods to be used in a larger, more rigorous study”. This was an effective design choice to answer the research question and to determine the need for a larger study. This design allowed the authors a chance to remove all the potential flaws before the larger study. There was no random assignment in this study as there was no control group, all participants were included in the yoga intervention.

There was a consultant used in the study, but she had experience with medical research and has also conducted yoga-related intervention research with women. This consultant's prior experience made her a trained member of the research team. The number of data collection points was appropriate.

The participants were assessed on mental health measures of depression using 3 instruments to measure they were recorded at baseline, 4, 8, and 12 weeks. Interviewer bias was removed removed with the use of the 3 self-administered instruments, however the first author was present during the time.

The use of open-ended questions was also used and supplemented the quantitative data. This was helpful as participants were able to put their thoughts into words. The intervention of yoga was properly described through various journal articles and was properly implemented. However, one part of the yoga intervention that could have been better implemented was the use of a space that was quite and free of outside interference. The article did address these issues, but didn't address what could have been done differently. This study analyzed attrition biases by comparing data to subjects who dropped out of the study.

Another factor affecting internal validity is that of maturation, the participants mental health factor could have increased or decreased over time. Blinding was not used as all participants knew they were going to participate in the intervention of yoga. Data collection All experimental research must included a method for evaluating the effects of the independent variable on the dependent variable. This study used three instruments that were identified and each was discussed in full detail. The open-ended questions were also described and examples of questions were provided.

The instruments used were appropriate for the study as each targeted a different dimension of depression, anxiety, and stress. Each of the previously designed instruments were the most appropriate. The one concern on the data collection method is that the instruments were self-administered at the end of yoga class (weeks 4, 8, and 12). It was stated that some participants felt particularly anxious about the yoga session ending late, which would result in disciplinary action. By making the data collection at the end of the yoga intervention did some participants rush, making their data less accurate.

The reliability and validity of each of the 3 instruments used in the study were discussed and each showed consistency in measuring the specific outcomes. The operational definition is congruent for the variables being studied (depression symptoms, anxiety symptoms, and perceived stress at baseline). There is no concern for subjectivity as each participant individually fills out the 3 instruments that are being used in the study. Data analysis When percentages were reported in the study, the overall numbers (n) was also reported.

The research question was appropriately analyzed and broken down into the 3 instruments used to measure mental health. The varying sample sizes are noted through the tables and were clearly defined in the article as participants dropped out of the study. There was no room for type I and II errors, as the data analysis was straight-forward. There was no chance for different interpretations on the part of the researcher. A p-value was used as one statistical methods used and it represented an overall linear decrease

over time, however the article suggests that a nonlinear model may be more appropriate.

The p-value was an appropriate test to run, however it doesn't tell whether the findings are important or applicable. The regression analysis was an appropriate test in answering the research question. This was appropriate because in simple regression one dependent variable (depression, anxiety, and stress) can be compared to the independent variable (weeks when instruments administered). However, there were not a lot of statistical tests run on the data, this could be due to the fact that there was no control group to compare the data with.

The least square means method and the mixed model parameters were used to treat the data. The article also charted out the descriptive statistics for mental health measures over time. This was a helpful chart as it laid out the data collected in an easy to read format. All data collected due to the small sample size and limited power, comparisons were made and hypothesis were generated to be tested in the larger study (Harner, et. al. , p. 392). A one-sided Fisher's exact test was used and p-values were less than . 20 for associations between drop-out and race, education, and current musculoskeletal problems (Harner, et. l. , p. 395). This was the correct test to be used because it tested the significance of differences in proportions (Polit, & Beck, p. 421). Results The results were cohesively presented and well organized using many tables and graphs that clearly outlined the findings of the study. The purpose of the study was referenced at the beginning of the results section making it clear was was being presented. The research

questions were answered and statistical evidence was provided to show outcomes measures. Statistical significance was found for depression, but not for anxiety or stress.

Statistical significance assists the researcher in ruling out one important threat to validity, which is that the result could be due to chance rather than to real difference in the population (Coughlan, et. al. , p. 662). The small sample size could have been a factor in this findings. Descriptive statistics were presented, then inferential statistics were discussed including a discussion on participant dropout. A figure was created to show the assessment of dropout according to baseline mental health status, this figure was a little busy and quite difficult to read.

A bar chart may have been more useful to depict this data. A post hoc power analysis was also performed. This was done so the researchers could determine whether the yoga intervention was significantly more effective than no intervention. While reading the results section of the article the descriptive results were presented last. I feel as though another header could have been added to include the logistics of the study and then proceed into the results. Discussion In the discussion section, all of the findings from the study are discussed within the original framework.

The discussion section was broken down into three sections feasibility, efficacy, and limitations. The section extended beyond the results section and addressed some unanticipated events that came up during the study and how the intervention was able to continue despite these events. The problem of retention of participants was brought up and with suggestions on

how to minimize these dropouts in further studies. Researchers referred back to literature cited in the literature review. The limitations are addressed concisely and are appropriate for this feasibility study.

The researches addressed the fact that a control group was not used due to security reasons, I feel that this could have been addressed earlier in the paper to assist the reader in fully understanding the statistical data.

Implications/ recommendations Specific recommendations for research are discussed at the conclusion of the article. The researchers defined numerous areas of improvement for future studies. Barriers to the study were also addressed. The researchers addressed that this was the first attempt in addressing a gender-responsive Iyengar yoga program to improve confidence and reduce the stress of incarcerated women (Harner, et. l. , p. 398). Recommendations were made for future studies and ways in which to improve future interventions to benefit health outcomes of incarcerated populations. Overall evaluation It was quite interesting to see how the yoga intervention affected the incarcerated women in regards to depression, anxiety, and stress. The researchers selected an important problem and one that could have strong effects in our state or federal prison system for women. Critical thinking and reflection were evident in that the researchers at one time had to change the study location due to extenuating circumstances.

The research study expanded knowledge on the effects of the Iyengar yoga intervention on incarcerated women and opened the door for future studies to be performed. The limitations were unavoidable and expected as this was

a feasibility study to determine the need for a larger study. The results leave a small amount of confidence that the yoga intervention decreased the level of depression, anxiety, and stress among incarcerated women. However, a larger study involving numerous women's correctional institutions that included both a control and experimental group may yield more confidence.

This study inspired the need for further research. This article is worthy of publication as it lays a ground work for future research. I would be proud to have my name on this research as it is groundbreaking and hopefully will create a better tool to treat mental illness in our correctional facilities than psychotropic medications alone. The findings are relevant and accessible to practicing nurses in correctional facilities. This may pave a way for nurses in these types of facilities to create interventions that help with a wide array of health problems.