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## Education of Staff on Promoting Yoga Activities in Women with Depression

Ahaoma Roselima Nnebedum  
*Walden University*

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# Walden University

College of Nursing

This is to certify that the doctoral study by

Ahaoma Rose Nnebedum

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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2021

Abstract

Education of Staff on Promoting Yoga Activities in Women with Depression

by

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MS, Walden University, 2019

BS, Towson University, 2013

Project Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Nursing Practice

Walden University

February 13, 2022

## Abstract

Major depression is a serious global health issue and one of the most common mental health problems women face in the United States. The problem in this DNP project, Education of Staff on Promoting Yoga Activities in Women with Depression, was the lack of staff knowledge in using yoga activity to treat women with depression resulting in suboptimal care of women with depression. The DNP project questions were addressed by collecting evidence-based information from the literature to develop the education and to explore if the DNP project would improve the staff knowledge of yoga allowing for the application of the newly acquired knowledge in the care of the patient with depression. Framed from the stress and depression model, this project aims to increase staff yoga knowledge and its use in reducing stress and depression. The sources of evidence were gathered through literature review and from 25 project participants through administering pre and posttest assessment. The literature showed that a combination of pharmacological intervention and yoga activities is efficacious in treating depression. The evidence from the literature to support the DNP project question showed that consistent practice of yoga activities reduces stress levels and anxiety in depressed women. The project results showed that participants' intervention was ( $M = 4.68$ ;  $SD = .49$ ) significantly higher (using One-way Inova) than the preintervention ( $M = 2.4$ ;  $SD = .95$ ), as evidenced by  $p < .001$  indicating clinical significance. The integration of yoga activities into a treatment plan for women with depression is recommended in this project. Engaging in yoga activities reduces stress, improves mood, energy, quality of life, and individual well-being, resulting in positive social changes.

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## Dedication

This piece of writing is dedicated to my husband, Mr. Anthony Kemakolam, and my two beautiful daughters Desire and Tracey, for their support.

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## Section1: Nature of the project

### **Introduction**

#### **Education of Staff on Promoting Yoga Activities in Women with Depression**

Depression is one of the mental problems that affect many people globally. For instance, it is a mental illness that impairs standard brain functionality at any given time. It affects more than 350 million people (CDC, 2016). In 2010, major depressive illnesses became the second protruding cause for years lived with disabilities (Ravindran et al., 2020). Statistic has revealed that women are more susceptible to this condition than men. Depression symptoms vary among men, women, and children, and it can interfere with daily activities and reduce an individual's productivity level. Examples of causative agents of depression include loneliness, medical conditions like cancer or stress, and can be treated by combining medical treatments with lifestyle therapies. Depression symptoms may include tiredness, loss of concentration, and loss of energy, and in severe cases, individuals may experience weight loss or gain.

One of the most critical aspects of countering depressive symptoms is the performance of yoga activities. Yoga is a category of exercise that involves body measure into various spots to make the body flexible and physically fit. Yoga exercises have different advantages to the body; for instance, they relax one's mind and improve breathing (Ng et al., 2019; Aurora-James et al., 2020). It is believed that yoga activities and meditation help individuals claim their mental status at any given time (Malkovsky 2017). However, depression is a severe medical condition associated with sadness,

loneliness, or anger, leading to physical and emotional problems. Many interventions have been enacted to treat this condition within different populations.

Consistent practice of yoga activities can prove to reduce stress levels and anxiety disorders in women. Although various yoga activities are safe, others are strenuous and may not be advisable for a particular individual, for instance, those with mobility conditions or the aged. One should consult with the clinician before deciding on yoga as a therapy treatment option (McCall et al., 2019; La Rocque et al., 2021). One of the yoga exercises is stretching postures, and this activity improves autonomic activities; however, a more extended therapeutic period will be needed for effective results. According to Chhugani et al. (2018), yoga exercises have various health benefits like improving sleep quality and reducing stress and anxiety levels, especially in insomnia patients. Therefore, healthcare staff should promote yoga activities to supplement the therapy type of treatment to their patients who suffer from depression.

On different occasions, women, compared to men, suffer from depression. The reason is the hormonal change in women, for instance, during puberty, pregnancy, and before menstruations. Health care workers require education on why and when to promote yoga activities. Combining yoga exercise and treatment medication with women suffering from depression is important because yoga has other health benefits to depressed women. The various health benefits of yoga exercise include decreasing lower back pain, stimulating brain function, and preventing heart diseases. Yoga is also essential to health care workers because it reduces burnout and stress to individuals who

overwork and strain during work hours. Yoga also helps reduce the symptoms associated with depression and increases individuals' physical activity.

Regarding the application of yoga activities in treating patients, the educating staff on promoting yoga activity in women with depression (ESPYAWD) program examines how to educate the nurses on the appropriate mechanism of applying yoga activities to relieve depressive disorders. ESPYAWD offers various benefits to the nurses. To begin with, their understanding of yoga has deepened. They have understood how, when, and why to take different postures and stretches. Secondly, it helps inhibit identification, physical capabilities, and increased proficiency in identifying the need of others (Kraft et al., 2017). Additionally, due to the awakening world to the therapeutic yoga health care benefits, trained staff forms part of the movement that brings to attention the benefits of integrating yoga in medical settings. Finally, learning more about yoga and practicing it has enhanced a more profound transformation of one's health and developed the interest in integrating the standard medical treatments with yoga principles in the workplace.

### **Problem Statement**

Major depression is a serious global and local health issue. Major depression is one of the most common mental health problems women face in the United States. The main problem that this project addressed is the uncertainty surrounding yoga. While Yoga-based interventions claim effectiveness in resolving physical and mental issues, practitioners remain uncertain of the mechanisms perpetuating this effectiveness (Hemant et al., 2021). The high proportion of women attending the outpatient clinic is ranked in

increased numbers of major depressive disorders, and a city in the mid-Atlantic is ranked highest. Physical inactivity is a significant contributor to the high prevalence of depression. Physical activity such as yoga is an effective intervention in managing depression in women. (ESPYAWD) the purpose is to plan, implement, evaluate and educate the staff on the benefit of using the yoga activity program to treat depression among women. (ESPYAWD) aims to bring evidence-based practice to the staff nurses, thus bridging the gap created for lack of knowledge to the staff on the treatment of depression. The literature review has helped improve the staff team's ability to benefit from yoga activity and ensure they can access appropriate information on time. (ESPYAWD) presents a purpose statement, nature, conceptual model, and literature review of a project that has to explore staff education's capacity to benefit from yoga activity program in treating major depression among adult women. Notably, implementing yoga interventions would be beneficial as, unlike pharmacological options, this approach has no side effects (Sharma et al., 2017). Therefore, practitioners may embrace it to resolve mental health issues without the challenges of treating unexpected outcomes as conventional drugs induce. Hence, the ESPYAWD is significant to the nursing practice and staff education on patient care.

### **Purpose Statement**

The purpose of this project was to assess the impacts of the Educating staff on promoting yoga activity in women with depression (ESPYAWD) program on improved staff knowledge on the benefit of yoga activities in treating depression in women. The ESPYAWD questions are (a) What evidence in the literature shows that yoga activities

effectively treat Depression in Women? (b) Will the yoga education of staff increase staff knowledge of yoga activities in treating women with depression? The ESPYAWD purposes to bring evidence-based practices to the site and bridge the practice gap created by the staff team's lack of knowledge.

Previous observations guide the indulgence in this project and the accompanying evaluation of yoga activities' implications for reducing depression. Uebelacker and Broughton (2018) explain that there is an increasing interest in Yoga as an approach to tackle depression, but the extent of its professional viability remains limited. There is still an information paucity on Yoga's ability to function as an effective intervention for mental and physical healthcare challenges (Ciezar-Andersen et al., 2021). These perspectives reflect the persistent gap in existing research justifying yoga's applicability in professional settings as an approach to resolve depression. The ESPYAWD significance is in the potential benefits and contribution to the healthcare system and patient care practices. The application of yoga activity has become a solution associated with features that facilitate real-time information sharing, guidance, and reminders (Yu & Huang, 2020; Snaith et al., 2018). Therefore, the use of Yoga to instruct staff has ensured that they have access to appropriate information on time and instructions from the provider. ESPYAWD findings could enhance the staff education's convenience and satisfaction of Yoga's positive impacts.

### **Nature of the Doctoral Project**

The ESPYAWD was a mixed-method study. The sources of evidence for the first practice-focused question, which concerns proof for the efficacy of the yoga treatment



intervention, is literature from credible databases. A systematic literature review was the primary source of evidence indicating the effectiveness of current treatment interventions such as yoga activity therapy. The critical databases used were CINHAL Complete, PubMed, ProQuest, MEDLINE, and Cochrane. The sources of evidence for the second practice-focused question, which concerns the nurses' education on the importance of promoting yoga activities among depressed women, were the target clinics' staff nurses constituting the doctoral project's context. Qualitative and quantitative approaches were used to get evidence. The qualitative approach was used immediately after the education intervention to assess the yoga activities knowledge of the nurses. Over thirty days, the quantitative method was applied to determine treatment-seeking behavior changes in the population with depression and the Yoga activities' overall impacts. It helped to demonstrate the long-term effects of the yoga activity intervention while addressing depression. This doctoral project has helped improve the staff knowledge on the benefit of depression among women by increasing the competencies of staff nurses as first-line health professionals engaged in addressing mental health concerns through yoga activities. The anticipated findings from this project were to demonstrate whether the education adequately empowered nurses to address the current problems relating to yoga activities.

### **Significance**

The ESPYAWD has contributed to increasing knowledge of the primary stakeholders on the benefit of yoga in treating women with depression. Research indicates that about 10%-19% of pregnant women will experience depression in their

lives, while an additional 9-14% experience these issues postnatally (Ahmed et al., 2017). The choice of this age group of childbearing age is due to hormonal changes, and most women who visit the outpatient clinic in Mid-Atlantic areas are pregnant. Secondly, most women who had passed their childbearing age reported that their depression manifested first during pregnancy. Women prone to depressions often experience different challenges within their life. The prevalence of these mental health issues compromises the mother's health and the infant's welfare (Lebel et al., 2020). Depression is a common phenomenon that affects women yet, and there is a lack of proper procedure on how to offer quality care within the facilities.

Most of these interventions focus on enhancing women's mental status to avoid depressive elements within their lives. There is a need to encourage them to adopt the yoga activity routines as the critical intervention of addressing this condition with this element. Staff nurses who offer the training process have also benefited through professional development. The intervention has advanced their competencies in managing depression among various groups within healthcare. The ESPYAWD has proved significant in nursing practice by emphasizing the role of nurses in addressing depression among women. It aims to empower nurses, ensuring they are better placed, eliminating barriers to treat depression. Health professionals from various disciplines, including physicians, pharmacists, and therapists, often treat depression. The reason implies that the proposed doctoral project has the potential of transferability into the practice of the other clinicians. Quite often, patients with various symptoms face rejection from accessing medical services in the acute setting. The reason indicates that the post-

acute medical care practice area could benefit from the discrimination project. The enhancement of the nurses' competencies in yoga activities as the depressive treatment options have empowered women to handle the significant life challenges that might alter their mental functionality. The findings that respond to this question may guide practice in psychological therapy institutions and healthcare institutions that focus on the provision of primary healthcare. Besides, practitioners whose patients exhibit limitations in their responses to conventional interventions, such as pharmacological care and therapy, could benefit from the implications of this study.

### **Summary**

This first section of the doctoral project has laid the basis of the research, which relates to the nurse education on effectively utilizing yoga practice as an intervention towards depression. Depression disorder has led to a series of adverse effects, including significantly high mortality and morbidity rates. Thus, the project proposed a yoga exercise education program for staff nurses to increase their competencies as first-line professionals to eradicate depression among women.

The following section focuses on the background and context of the project. It involves the theoretical basis of the research prospectus, the models, and the sources paramount for this study.

## Section 2: Background and Context

### **Introduction**

Depression is a significant public health concern that has remained prevalent for several years despite implementing various interventions. The rate of hospitalizations, morbidity and mortality constantly rise due to this problem. One significant gap jeopardizes ending this menace with little competence to apply the self-determinant intervention to help patients. People with depression are likely to face more challenges in their life. The applicability of yoga activities can adequately help to eradicate this problem.

The adverse effects and the doubted efficacy of antidepressants have created the need to identify other viable types of therapy that can either be used alone or as supplements to the medication. In a randomized controlled trial of 62 subjects, Ghaffarilaleh et al. (2018) investigated the efficacy of yoga in the process of managing major depression. They found that the difference between the control and the intervention groups in terms of improvement in their respective health conditions was statistically significant with  $p < 0.036$ . The yoga-based intervention reduced the diastolic pressure as well as the depression. Ghaffarilaleh et al. (2018) concluded that yoga could be an alternative or complementary remedy. However, the study did not reveal whether participants were on medication during the data collection. Yoga worked as a mindfulness intervention that lowered depression by enhancing body awareness and reducing muscle tension and stress.

Therefore, the practice-focused questions derived from the issue include: (a.) What evidence in the literature shows that yoga activities effectively treat depression in women? (b). Will the yoga education of staff increase staff knowledge of yoga activities in treating women with depression? The research purpose is to evaluate practitioner insights on the viability of Yoga as an intervention for depression among women. Hence, this section will cover the concepts, models, and theories, relevance to nursing practice, local background, the role of the DNP student and the project team, and a summary of the chapter.

### **Concepts, Models, and Theories**

The primary issue used to derive the conceptual model and theoretical perspective of this doctoral project is depression. As explained in section one of the paper, depression is a significant disorder that affects many people worldwide. The stress and depression framework highlight that depression is manifested among women, as illustrated in Figure 1. In their study, Kinser and Lyon (2018) developed the conceptual framework for stress and depression and how the two-issue relates. The framework identifies stress as a process that occurs across the socio-ecological spectrum. It is initiated and propelled by drivers and facilitators such as vulnerabilities, temperament, socio-economic elements, and diseases. They assert that if a person can efficiently manage their stress, it is easier to handle depression. Accordingly, they identify yoga as the primary process of countering this element at any given time. They also influence how stigma affects specific groups. The essence of this framework is that it allows for identifying the root cause of stigmatization and indicates the point to intervene to address it.

The ESPYAWD theoretical perspective is based on a biomedical model which offers hope to people with mental health. The model focused on three essential theories: the dual coding theory, the narrative paradigm theory, and Piaget's adaptation and equilibrium theory. Even though the focus was on mental disorders, it is still relevant and applicable for this project due to the close association between depression and mental disorders. Noted a trend of co-occurrence of mental disorders and acting performances. The model is comprehensive, and it entails three constructs for addressing stigma, i.e., learning, persuasion, and stage of development.

The dual coding theory developed by Allan Paivio in 1970 suggested that learning is at an optimal state when both visibility and hearing are involved. The reason is that the second nature of the information activates two cognitive subsystems, such as image and language. The yoga education program encompassed in this project will incorporate the two aspects. Secondly, the narrative paradigm theory developed by Walter Fisher explains the persuasion construct in the model. The theory explains that human beings are natural storytellers and learn through telling and acting to stories. For this doctoral project, the theory justifies therapeutic communication and sound reasoning to persuade the health professionals to boost their competency towards yoga activities. The second theory that will apply in this project is the adaptation and equilibrium theory developed by Jean Piaget, which explains that cognitive development is a continuous process occurring through the lifespan. Also, it entails constant construction and reconstruction of information based on what people learn from the environment. This theory will help enlighten the staff nurses on how to practice this activity through the developmental

stages of the affected individuals. Complete eradication of the problem would, for instance, call for nurses to emphasize the need to teach the culture of inclusivity in individuals when they are still young to reduce depression at any given time.

### **Relevance to Nursing Practice**

Depression affects more than 350 million people (CDC, 2016). In 2010, primary depressive conditions became the second bulbous cause of years lived with disabilities (Ravindran et al., 2020). In 2003, it emerged that depression led to a \$44 billion budgetary loss inefficiency in the U.S. for instance, nearly 90% of persons with chronic depressive elements have difficulties in their work, both within the firm and home, and social activities (Ravindran et al., 2020). The primary treatment for depression is pharmacological therapy. However, half of the patients did not recover fully or remission from a pharmacological agent and needed physical exercises (Gallagher et al. 2020; Klainin-Yobas et al. 2018; Ghaffarilaleh et al., 2019; Hussien et al., 2017)

Notably, the economic problem of depression in 2010 reached \$210.5 billion, while the health care expenditure for ambulatory care for people with depression averaged 8 million in 2009-2010 (CDC, 2016). The chronic nature of the disease situations, the high level of sickness burden, the economic commitment to the world, and unsatisfactory treatment efficiency. Depression invariably affects people's ability to perform their daily tasks and the efficiency of their income to handle treatment (Baranov et al., 2020). Therefore, these challenges motivate an evaluation of potential interventions to alleviate social and individual losses.

Studies must focus on alternative and non-pharmacological means of boosting the effectiveness of current treatment, alleviating complications, and improving the quality of life for people living with depression (Gallagher et al., 2020). The ESPYAWD supports Walden University's social change through knowledge and ethics. The plan is to incorporate the Walden University mission to educate staff on the benefit of using yoga activity to alleviate depression. The difference will include applying evidence-based practice and past work experience to help change the stereotype related to the treatment of depression. The ESPYAWD will help the staff gain helpful information to inspire other staff teams by leaving an exemplary life in their workplace. Knowledge is power; educating staff and nurses about new knowledge and social change is crucial because it will create a trusting relationship between staff nurses and patients.

### **Local Background and Context**

The setting of the ESPYAWD was an outpatient psychiatric clinic in a city in a mid-Atlantic state. Most patients who attend the clinic are depressed, and the available treatment at the site is antidepressants. The selected outpatient clinic has a census of 486 patients and 110 staff members. The number of patients that attend the clinic that is depressed is primarily women, and they are over 60% of the population (Lewis et al., 2019). The facility staff has no stipulated education program that will help them manage the diverse population of patients that are depressed. Treating a patient diagnosed with mental health in an outpatient clinic reduces readmission to the hospital. Most of these patients tend to relapse; providing education to the staff has helped the patient minimize readmission and proper management of the disease. Treating mental health patients in an



outpatient setting is less expensive for both the patient and the state. Most mental health disorders are chronic and can only be managed but not cure. The project has helped educate the staff in the outpatient clinic. The leadership of the site agreed, supported, and sign the project. The administration approved the project and gave their support to start with staff education.

### **Role of the DNP Student**

The DNP student acts as a principal researcher or project developer in this doctoral project. Therefore, as the project developer, I assumed a more participatory role in the project by collaborating with experts in medical staff to enlighten the nurses on how to apply yoga activities as a treatment method for depression among women. I was involved in staff education at the clinic. As the researcher, I was interested in qualitative and quantitative data collection phases by administering the surveys after the education programs, collecting data using standardized procedures, and verifying the validity and reliability of data collection instruments.

### **Role of the Project Team**

The project team constitutes the principal project developer, the DNP student, other co-investigators, an expert in yoga activities issues, a regulatory coordinator, and a data coordinator. The regulator coordinator was responsible for ensuring the project protocol adheres to ethical standards. The members draft the informed consent for the participants and issue them after informing the study participants. The expert in yoga issues provided expertise in designing the training programs. Co-investigators worked

together with the project developer to ensure ethical conduct was observed. The data coordinator developed the scheme for data retrieval and analysis of collected data.

### **Summary**

Section two of the project discussed the theoretical basis of the doctoral project. It also highlighted the implications for underlying gaps in practice and how the DNP project targets addressing the gaps and decreasing the prevalence of depression among women. Yoga exercises provided useful platforms based on which healthcare was delivered. The emerging trend in mental healthcare is that more research is needed to confirm where Yoga effectively executes treatment plans developed to manage significant depression. Therefore, the project outcomes had provided insights into how yoga exercise can be utilized to support depressed adult women.

## Section 3: Collection and Analysis of Evidence

### **Introduction**

The focus problem of this project is educating staff on promoting yoga activity in women with depression (ESPYAWD). This section concerns evidence to justify the DNP project.

### **Practice-Focused question (s)**

The DNP project questions are (a) What evidence in the literature shows that yoga activities effectively treat Depression in Women? (b) Will the yoga education of staff increase staff knowledge of yoga activities in treating women with depression?

The utilization of the dual methodology involving secondary data and primary data collection fit the requirements of this study's questions. The first query explored the intervention's capacity to resolve depression in women. Therefore, assessing background knowledge from secondary sources would provide previous evidence supporting or refuting the approach. Besides, the primary data analysis would form a contextual explanation of this strategy's capacity to influence staff perceptions of its applicability to resolve depression.

### **Sources of Evidence**

Depression is the most shared psychiatric disorder in the general population and the most common mental health condition in patients seen in all healthcare settings. A major depressive disorder is a common disorder that manifests from different states and circumstances, medical illness, social and economic devastation, and a lack of social structure globally (Lewis et al., 2019). While depression is avoidable, its prevalence leads to drug and alcohol abuse, suicidal attempt, social isolation, self-mutilation, the problem with relationships, and problem at work, as well as the potential for disability (Lewis et al., 2019). Refuting these belongings demands adopting various events where people stay, work, and interact. The existing standards deal with policy plans, ecological obstacles, and individuals' need to enact behavioral amendments. Some also concern with enlightening the public on the importance of engaging in yoga activities.

A study by D'Alessio et al. (2020) reveals that some evidence indicates that non-pharmacological intervention pieces of evidence with physical activity and yoga practice may add synergizing benefits to classical treatments of depression (D'Alessio et al.,

2020). Field et al. 2017, conducted a study to compare physical activity versus social support on prenatal and postpartum depression and discovered that yoga exercise treats depression and anxiety more than social support. The current literature review outcomes found that the physical activity program positively influenced the participants' depression. However, physical exercise intervention such as Yoga is said to have a significant impact on reducing depression. A comprehensive intervention involving a combination of physical activity and health education has a substantially higher impact and is increasingly more effective in treating depression than physical exercise only. Despite the various proposals to reinforce physical activity intervention's effectiveness in treating depression, it remains a viable option for containing anxiety. It is essential to mention sufficient data and nursing intervention in yoga activities to treat depression.

The evidence substantially informs the purpose of this project. Singh (2017) offers perspectives into the viability of yoga for improving mental health in the family, school, and work settings. It also can replace traditional psychotherapy in some practice contexts depending on practitioner interpretations (Singh, 2017). This perspective implies that, with adequate information, healthcare professionals may welcome the approach to resolving depression among their female clients.

This project has informed the staff team about the benefit of teaching patients to engage in yoga activities to treat depression in mental illness. Most of the project questions address the pre-and post-questionnaires. Against this backdrop, it is evident that the yoga exercise scheme is efficient in decreasing depression among adult

populations. The project has helped the staff team forge trust with their patients and be leaders with openness, competence, caring, and compassion.

### **The Approach or Procedural Steps**

The population served by the site clinic comprises female patients (18-65 years old) from a diverse race in a large city in the mid-Atlantic States. The staff team participants were from an outpatient mental health clinic that serves patients diagnosed with major depression. The outpatient clinic was in an outpatient behavioral center in a large city in the mid-Atlantic States. The participants comprise; the stakeholder panel, the project team, and staff from the clinic that participated in the education. The office staff shared a consent form before commencing the project. After obtaining the Walden IRB approval, orientations of the project teams working in the clinic began. The staff team was invited to participate in the training as participants. The training was developed to convince the participants that Yoga is beneficial and has reviewed its role in treating depression and promote public health in this state.

For this study, a total of 25 out of 60 staff team members working in an outpatient mental health clinic around the mid-Atlantic region participated in the ESPYAWD collection and intervention processes. The minimum sample size choice depends on and reflects limited resources and the ability to estimate the impact of yoga activities on depression. At the same time, 25 participants generalize the findings as they are made based on the results attained (participant responses). The ESPYAWD goal utilizes a minimum of 30 minutes yoga exercises three days a week to treat depression within 30 days.

The ESPYAWD project was divided into two groups of participants, the content experts and the participants. The content experts were responsible for evaluating the context of the ESPYAWD, validating pretest and post-test items, and summarizing and assessing the project and process of the work. An expert in the assessment participated in reviewing the structure of the pretest and post-test items. After completing the pre and post-test, the content expert evaluates the curriculum with the evidence. The content validation index score of the pretest/post-test served as the main approach. The next group of participants comprises the staff team participating in the educational program. A pretest/post-test questionnaire was administered to all staff team members on the benefit of yoga activity in treating women with depression to evaluate the staff team's knowledge before and after the educational program. Lastly, the researcher also used the evidence from both the pre and post-test results to evaluate the education program.

The ESPYAWD showed professional ethics that various models for ethical decision-making govern. The principles model applied to the project participant was based on moral principles. These principles include beneficence, nonmaleficence, autonomy, utility, and justice (McDermott-Levy et al., 2018). The project developer considered the five principles of the moral ethics of study in this project. The regulations include obtaining informed consent from the staff team and their participants, minimizing the risk of harm to participants, protect their secrecy and confidentiality, avoid using deceptive practices, and giving participants the right to withdraw from participating (McDermott-Levy et al., 2018). All these rules were the guidelines during this project's implementation. The project took place professionally, and there was a bridge of rights

for those participants. The Walden University bill of ownership was protected during the project and allowed in Walden's Institutional Review Board (IRB). The (IRB) has stipulated the rules and regulations to guide all the clinical project participants. The project followed the rules teaching of Walden University students carrying out in this project. All the materials for pretest/post-test were confidential, including the names, contact information used during the testing time, and protection. All the information was kept in the facility, locked, and key.

### **Analysis and Synthesis**

SPSS software version 27 was used to analyze the descriptive statistic data. On the other hand, Fisher's exact and t-tests were the statistical tools for understanding statistically significant differences influenced by the education program. The results were presented through tables, charts, and graphs to provide the inferential effect of the study variables.

Moreover, the project was essential to completing the case analysis, available case analysis, and imputation analysis to manage the missing information. The comprehensive case analysis uses the only data variables observed at each time point for the project after eliminating the missing values. To accomplish this, the SPSS software version 27 was essential to analyzing the collected data. The project developer used descriptive statistics to analyze the participant. Secondly, the available case analysis utilized only a single set for analysis. At the same time, the lays outlier analysis was imputation which demands replacing the missing values with the substituted value obtained from the statistical analysis.

## **Summary**

Section three outlined above explained the data extraction process for the literature review and the statistical tools which helped to establish the significance/impact. The following section has shown how the extracted information was interpreted under different facets. It also provides other insights into the project and offers further suggestions for another research where needed.

## **Data Collection**

### **Questionnaire Validation**

The utilization of questionnaires for the data collection process requires establishing the validity and reliability of the instrument. Therefore, the approach applied two distinct phases, confirming the face validity before assessing the internal reliability. At the initial stage, the project developer gave the instrument to several experts to review the questions for clarity and any double-edged contents. This submission accompanied a guide for rating each question, allowing a consistent rating by the three experts in this subject area. The manual included a scale of 1-4, with one representing "not clear" items while 4 was for "very clear." The project would maintain any questions that got a 3-4 rating from these expert reviewers.

The validity index for clarity and item relevance (I-CVI) was the primary measure to assess each item's validity. This approach reflects the proportion of agreement regarding each item's relevance, ranging from 0-1 (Rodrigues et al., 2017). Item CVI, where the rating is above 0.79, confirms the item's relevance, while scores below 0.70 require elimination. Scores in between these 0.70 and 0.79 require slight revisions,



suggesting the applicability of the questions but not in their current forms (Rodrigues et al., 2017). For this project, the developer identified the number of experts reporting a 3-4 score for each questionnaire item and divided it by the total (3) to gain the proportion. Therefore, considering only three reviewers completed this task, the expectations were that scores above 67% would be acceptable. On the other hand, the researcher noted the number of items that accomplished this rating within the entire questionnaire. The consequent computation would determine questions to remove from the instrument and those that would potentially remain. All ten items of the final questionnaire achieved the scoring above 3, allowing its consequent utilization for data collection.

However, the project developer also sought to establish the instrument's internal validity. This approach utilized Cronbach's alpha, which was derived from participant responses to the pilot test. This measurement is one of the most critical indicators in studies that require the construction and implementation of tests (Taber, 2018). It is significant as an indicator of the discriminating power, especially in scales that lack prior validation and assessment. Hence, internal consistency remains synonymous with the instrument's reliability, based on the resulting alpha value. From the analysis of responses from 25 participants, the questionnaire scored 0.92 (Table 3). This score was considered acceptable. Indications from research are that an alpha above 0.7 demonstrates an internally reliable instrument. Therefore, based on the previous face validity and the outcomes of the internal reliability, this questionnaire was viable for the consequent data collection process. The project developer utilized the same tool for the pre-and post-implementation. However, the assumption is that the participant characteristics change

after the intervention. Consequently, the process also involved assessing the internal reliability post-intervention, utilizing a different respondent set. The outcomes of this evaluation form part of the results' reporting in the session four.

### **Data Collection Process**

The pre- and post-implementation questionnaires were used to collect the data required in the study. Before starting on data collection for the study, the project developer sought approval from the Walden Institutional Review Board in summer 2021. The researcher also obtained authorization to conduct the study at the outpatient clinic in the mid-Atlantic. The participants were invited to sign an informed consent before data collection in the fall of 2021. The data were collected in two phases: before and after the implementation of the intervention. In the first phase, the objective is to assess the current knowledge of the benefit of yoga to reduce depression and the yoga activity behaviors of the participants. The current position of the respondents in terms of depression is evaluated to warrant any form of intervention. The yoga exercise questionnaire was administered seven days before, weekly, and a week after the intervention to assess improvement in depressive symptoms. All the administrative staff and therapists underwent training and participated in data collection. During the initial phases, the administrative staff collected demographic data (race, marital status, education, and employment status). Data recording followed, after which the project developer inputted the data into the Statistical Package for Social Science (SPSS) grad pack version 27 for analysis. In the next phase, the objective is to ascertain whether the recommended

intervention (yoga) has led to any significant changes in the depression and behaviors of the participants.

The data collected in the second phase influenced the conclusion and recommendations for future practices on yoga exercises and control of depression in women. The project was conducted professionally, and there was a bridge of rights for those participants. The Walden University bill of ownership was protected during the project and allowed in Walden's Institutional Review Board (IRB). The (IRB) has stipulated the rules and regulations to guide all the clinical project participants. The project followed the rules teaching of Walden University students carrying out in this project. All the materials for pretest/post-test were confidential, including the names, contact information used during the testing time, and protection. The researcher also stored all the information in the facility under a secure safe.

## Section 4: Findings and Recommendations

### **Introduction**

Depression is a significant problem in society. According to DSM-5 (American Psychiatric Association, 2013), the prevalence of major depressive disorder in the United States is 7%, with females having at least a 1.5 times higher rate than males. There, therefore, exists a need to provide cheap and accessible treatments for depression that will be offered alongside psychotherapy and medication. One possible treatment is yoga, which research has shown can reduce the symptoms of depression (Bridges & Sharma, 2017; Saeed et al., 2019). However, there is a problem of implementation from a clinical perspective, where medical professionals do not know yoga's benefits in treating depression. The problem can potentially resolve by giving nursing staff yoga sessions to experience the benefits for themselves. The problem can then test the efficacy of Yoga by comparing attitudes before and after the intervention.

### **Sources of evidence and analysis plan**

The critical databases used were CINHAL Complete, PubMed, ProQuest, MEDLINE, and Cochrane. The sources of evidence for the second practice-focused question, which concerns the nurses' education on the importance of promoting yoga activities among depressed women, were the target clinics' staff nurses constituting the doctoral project's context. Qualitative and quantitative approaches were used to get evidence. The study's intervention was a series of yoga sessions, taking place over 30 days. The dependent variable was participants' satisfaction with the yoga sessions and appreciation of their benefits. The data collection was measured with responses to 10

statements about yoga, all worded positively. There were five possible responses, ranging from strongly disagree to agree strongly. Reactions to the ten statements were averaged to create the pre-and post-intervention scores. Cronbach's alpha was reported as a reliability statistic for the pre-and post-intervention responses. The ESPYAWD 's hypothesis that there would be an increase in participants' rating of yoga post-intervention was tested with a within-subjects test, with a paired t-test as the default. Before the trial, the difference scores were calculated and tested for normality using a Shapiro-Wilk test. The project developer calculated difference scores by subtracting the preintervention scores from the postintervention scores.

The ESPYAWD results have a descriptive element, which is displayed using a table; see appendix A. The continuous variables of age and number of yoga sessions report here as a mean and a standard deviation; ethnicity, marital status, and position (type of health practitioner) present as counts and percentages. Inferential statistics served to test relationships and differences between pre-intervention attitudes to yoga and the sample characteristics. For age and number of sessions, Pearson's correlation was used, and for ethnicity, marital status, and position, the research utilized the one-way ANOVAs. An alpha of .05 applied to all inferential tests employed in the study.

### **Findings and implications**

There were 25 participants. They were staff of outpatients in a single geographical area, urban in nature, and treated patients with major depressive disorder. All of them were female, and the mean age was 35.56 ( $SD = 9.75$ , range: 22-55 years); eight (32.00%) participants were married, 12 (48.00%) were single, and five (20.00%) were

divorced. Fourteen (56.00%) participants were registered nurses, four (16.00%) nurse practitioners, four (16.00%) therapists, and three (12.00%) counselors. The participants' mean number of yoga sessions during the intervention was 13.92 ( $SD = 1.58$ , range: 10-15). Table 1 shows the characteristics of the sample.

**Table 1**

*Characteristic of the sample (n=25)*

Variables	n (%)	<i>M(SD)</i>
Age		35.56(9.75)
Yoga Sessions		13.92(1.56)
Ethnicity		
White	4(16.00)	
African American	11(44.00)	
Others	5(20.00)	
Declined to answer	5(20.00)	
Position		
Nurse Practitioner	4(56.00)	
Nurse	13(16.00)	
Therapist	4(16.00)	
Counselor	3(12.00)	
Marital status		
Married	8(32.00)	
Single	12(48.00)	
Divorced	5(20.00)	

The mean response to the 10 preintervention statements was 2.40 ( $SD = .95$ ), to the postintervention statements 4.68 ( $SD = .49$ ). Cronbach's alpha for the ten statements preintervention was .92, postintervention .91. These results indicate a high level of reliability (Taber, 2018). There was no significant correlation between preintervention satisfaction with yoga (the mean of the ten items) and age or number of yoga sessions. Using one-way ANOVAs, it was found that there were no significant differences in preintervention satisfaction in terms of race, marital status, or position.

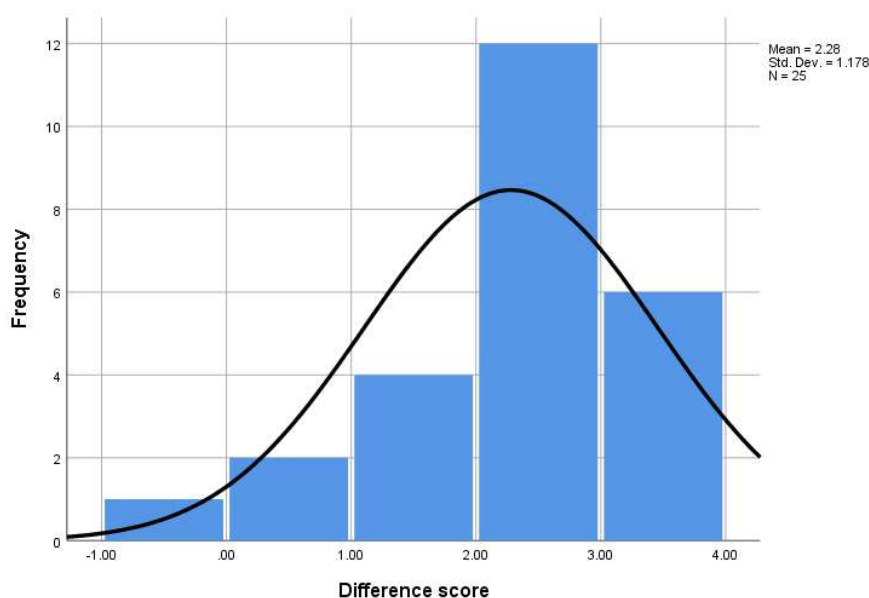
The yoga difference satisfaction scores underwent tests for normality and satisfaction. A Shapiro-Wilk test was not statistically significant,  $W(25) = .925, p = .07$ .

See Figure 1 for a histogram of the difference scores.

---

**Figure 1**

*Histogram of the Difference Scores, Between Pre-Post intervention Satisfaction with Yoga*



As a result, the hypothesis that the difference scores are not normally distributed should be rejected. The rejections indicate that a parametric test, namely a paired t-test, can be performed. Participants' postintervention satisfaction with yoga was significantly higher than preintervention,  $M_{diff} = 2.28$  ( $SD = 1.18$ ),  $t(24) = -9.68$ ,  $p < .001$

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## Figure 2

### *Paired-Sample Tests for Pre-Post intervention Satisfaction with Yoga(S)*

Variable	Preintervention		Postintervention		Statistics			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M<sub>diff</sub></i>	<i>Df</i>	<i>t</i>	<i>p</i>
Yoga.S	2.40	.95	4.68	.49	2.28	24	-9.68	<.001

Figure 2 shows a boxplot of the pre-and post-intervention satisfaction scores. Therefore, the study's hypothesis that the experience of yoga would increase health staff's satisfaction with this activity is supported.

### **Unanticipated limitations and outcomes**

While the study's findings are statistically significant, the apparent strength of the significance was not fully anticipated and may highlight a limitation of the study. While the results did not show that all the participants benefited from Yoga, quite a significant number saw a great change in their conditions. The limitations of the data outcome may be due to personal traits or lack of effort on a few of the participants. Overall, the *t* statistic was -9.68, which indicates a considerable movement. The move was so strong that one must consider the possibility that many participants may have been trying to please the experimenter or perhaps felt that it was in their professional interests to be optimistic about Yoga – even though there were assurances of confidentiality.



### **Implications of the findings**

Nonetheless, there is evidence that direct exposure to yoga by medical staff increases their confidence in its therapeutic use. The benefit, in turn, makes it easier for medical staff to effectively introduce yoga to patients suffering from a major depressive disorder. Yoga activities have broader implications for practice, especially in a psychiatric setting. Those advocating lifestyle changes should be speaking from an experiential and not just theoretical perspective. It may not be enough for nurse practitioners to read a journal article about the significant benefits of Yoga; they must experience it for themselves. The results demonstrate this. Participants appeared skeptical about yoga's benefits preintervention, with a mean satisfaction score of 2.8. Postintervention, the mean score was 4.68, suggesting genuine enthusiasm.

### **Implications to social change**

Traditionally, healthcare is hierarchical, with physicians at the top of the pyramid, nurses at a lower level, and patients at the bottom. The patient obeys the instructions, and health professionals' hand down treatment. The ESPYAWD challenges this hierarchical structure. The nurse does not just prescribe a cure but accepts the treatment as a natural lifestyle modification, which can benefit people at all levels of "the pyramid," not just the patient. The study, in turn, empowers patients and enables them to take control of their treatment.

### **Recommendations**

The ESPYAWD has created a link between the literature review and the attitudes of health practitioners. The literature has shown that there is evidence that practicing

yoga can reduce the symptoms of major depressive disorder. At the same time, yoga has the advantage of being relatively cheap and not having a high level of adverse side effects. The standard of proof of yoga's benefits does not have to be as high as for medications and one-to-one therapy. One can therefore recommend that yoga functions potentially as an adjunct to medication and psychotherapy. It should be clear that this study is not suggesting that yoga is perceptible as a replacement for either medication or psychotherapy.

The organization should incorporate yoga activities as part of their skill training of staff in the treatment of patient with depression. Yoga activities should be integrated in patient treatment of depression. The integration of yoga activities into a patient's treatment plan with depression will increase the faster recovering of patient with depression. The organizational managers should encourage the frontline workers to recognize the benefit of yoga activities in the treatment of patient with depression.

However, religious, and cultural sensitivity is required. Some Christians believe that yoga is at odds with their faith. It comes from India, and it has its roots within the Hindu religion. Staff and patients uncomfortable with yoga should be respected and not be forced to practice it or advocate its use. At the same time, in educational material should be made clear that yoga, in a health setting, is not being taught as a religious practice.

### **Strengths and limitations**

The project recruited a range of health practitioners and enabled them to experience yoga for themselves. Each participant responded to 10 statements about yoga,

pre-and post-intervention. These statements were composed for this study, and they showed high internal consistency, with Cronbach's alpha being over .9, both pre-and post-intervention. The ESPYAWD 's design demonstrated that the intervention was adequate, with the mean satisfaction rising significantly post-intervention. This outcome indicated that the yoga sessions provided to participants were sufficient to establish their benefits.

One limitation of the study was that the sample size was small ( $n = 25$ ) and restricted to outpatients' staff in a single geographical area. As a result, it isn't easy to generalize the findings to other settings. At the same time, it is uncertain whether the participants were genuinely positive about yoga or were responding in the way they did to please the experimenter or because they felt it was in their professional interests to be positive. Further, even if they were genuinely positive about yoga, it is unknown how persistent this positivity is. For example, it may wear off after a few months.

Given these limitations, a future study should involve more participants, spread over a wider geographical area. The participants should also be more diverse. The participants in the present study were all women, and 44% were African Americans.

Also, future studies should consider a more comprehensive age range. In the present study, the oldest participant was 55, so it does not feel more senior staff.

Given that some Christians are uncomfortable with yoga, it might also be good to record participants' religious beliefs. Finally, the study only included health staff, and future studies should consider patients as well.

## Section 5: Dissemination Plan

The ESPYAWD took place in an area covered by several clinics' members of a single health care organization. As the project has shown the value of giving direct staff yoga experience, the project developer will summarize the project and incorporate it into a leaflet distributed to all clinics. Further, she will present the findings in person, both to clinic directors and weekly staff meetings. The project developer, as a yoga teacher, will give demonstrations of yoga to interested staff regularly. As a psychiatric nurse practitioner, she will advocate for yoga's incorporation as an option for usual care for patients with major depressive disorder. At the same time, the project developer is mindful of the possibility of religious objections to yoga. With the help of theologians at the local university, she will prepare material that seeks to demonstrate that yoga does not conflict with Christian teachings.

As part of the dissemination plan, the project developer will prepare video material demonstrating yoga practice and show some of the yoga postures used. These videos will be put on Youtube and will include interviews with people who have benefitted from yoga. There will be a video that considers yoga from a Christian perspective and will include an interview with a pastor who is also a yoga practitioner.

### **The audience for dissemination**

The previous section has outlined the broad dissemination plan. It will begin at the top of the organization by focusing on clinic directors. Then, through weekly meetings and demonstrations, the focus will be on clinic staff. This approach is essential – without the staff's support, yoga is unlikely to become part of the tools available for

treating major depressive disorder. The final audience is the patients themselves, and the expectation is that as the staff becomes more confident about yoga's benefits, they will tell their patients about it.

### **Analysis of self**

For me, ESPYAWD has been very challenging, and it has made me ask serious questions about what it means to be a psychiatric nurse practitioner. It has been part of doing things by the book and not asking why we do things the way we do. At the same time, I often found it challenging to find and research the material – the complexity of journal articles often put me off. However, I realize that I have a responsibility to my patients to give them the best possible treatments. It is only through an open-minded approach that I can accomplish these outcomes. I just read and follow what other people say, but I have learned not to be afraid of rocking the boat.

In terms of yoga, I have personally found it beneficial for many years. For a long time, discussing yoga in a work setting was somewhat uncomfortable, fearing mocking from peers. However, it has become clear that yoga can have real benefits for those suffering from a major depressive disorder. My moral responsibility is to incorporate yoga into my practice and tell my colleagues and patients about it.

### **Completion of the project**

The ESPYAWD was daunting and time-consuming. Collecting the data and analyzing it was hard work. It was also a huge challenge to write much about yoga and its benefits. The statistics were not easy at all. YouTube videos help me to understand exotic

concepts such as normality, parametric adequacy, and t-tests. But at last, I was able to meet all the challenges.

### Summary

The ESPYAWD sought to evaluate practitioner perspectives on the applicability of yoga activity intervention to reduce depression among women. Notably, utilized the ESPYAWD dual coding theory, the narrative paradigm theory, Piaget's adaptation, and equilibrium theory to inform the potential outcomes and direction of the project questions. The project addressed multiple questions: (a) What evidence in the literature shows that yoga activities effectively treat Depression in Women? (b) Will the yoga education of staff increase staff knowledge of yoga activities in treating women with depression? Consequently, the project utilized a single-cohort approach, utilizing a 30-day intervention of yoga sessions to assess changes in behavior and mental state. Data collection during this analysis involved a pre-and post-test questionnaire, assessing the views among participants regarding the viability of yoga for improvements to their mental and physical states. The ESPYAWD participants were the healthcare professionals, involving the staff working in an outpatient clinic in the mid-Atlantic region, with 25 respondents completing the instrument at both project phases. The results of the intervention reflected the comparative findings of the pre-and post-intervention questionnaire. Primarily, the difference between the participant perception means before and after the intervention was  $M_{diff} = 2.28$  (SD = 1.18),  $t(24) = -9.68$ ,  $p < .001$ . This outcome implied that 30 days of Yoga invariably improved the perceptions of its benefit to women's mental health. Based on these results, this project concludes that yoga staff

education could improve the staff's awareness of the method's utilization in treating women with depression. The project outcomes imply that yoga and yoga education could serve as an effective approach to tackling the challenge of depression among women in the current society. Therefore, an awareness of the health benefits of yoga among healthcare professionals may perpetuate an increase in its application to treat major depressive disorder.

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## Appendix A: Title of Appendix

*Characteristics of the sample (n = 25)*

Variables	<i>n</i> (%)	<i>M</i> ( <i>SD</i> )
Age		35.56 (9.75)
Yoga sessions		13.92 (1.58)
Ethnicity		
White	4 (16.00)	
African American	11 (44.00)	
Other	5 (20.00)	
Declined to answer	5 (20.00)	
Position		
Nurse practitioner	4 (56.00)	
Nurse	13 (16.00)	
Therapist	4 (16.00)	
Counselor	3 (12.00)	
Marital status		
Married	8 (32.00)	
Single	12 (48.00)	
Divorced	5 (20.00)	

**Table 2***Paired Sample Tests for Pre- and Postintervention Satisfaction with Yoga (Yoga.S)*

Variable	Preintervention		Postintervention		Statistics			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M<sub>diff</sub></i>	<i>Df</i>	<i>t</i>	<i>p</i>
Yoga.S	2.40	.95	4.68	.49	2.28	24	-9.68	<.001

**Table 3****Reliability Statistics Pre-Intervention**

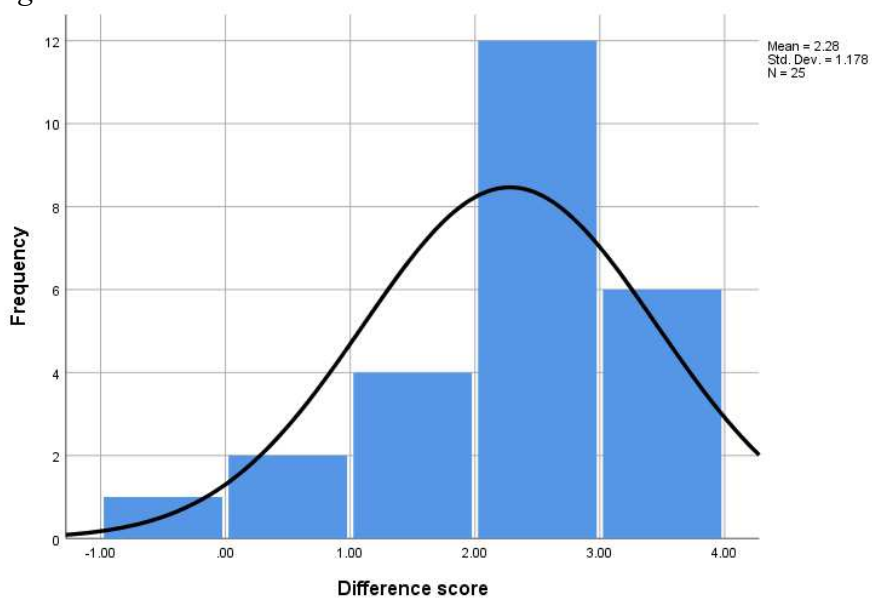
<i>Cronbach's Alpha</i>	<i>Cronbach's Alpha Based on Standardized Items</i>	<i>N of Items</i>
.92	.891	10

**Table 4**  
**Reliability Statistics Post-Intervention**

<i>Cronbach's Alpha</i>	<i>Cronbach's Alpha Based on Standardized Items</i>	<i>N of Items</i>
.91	.878	10

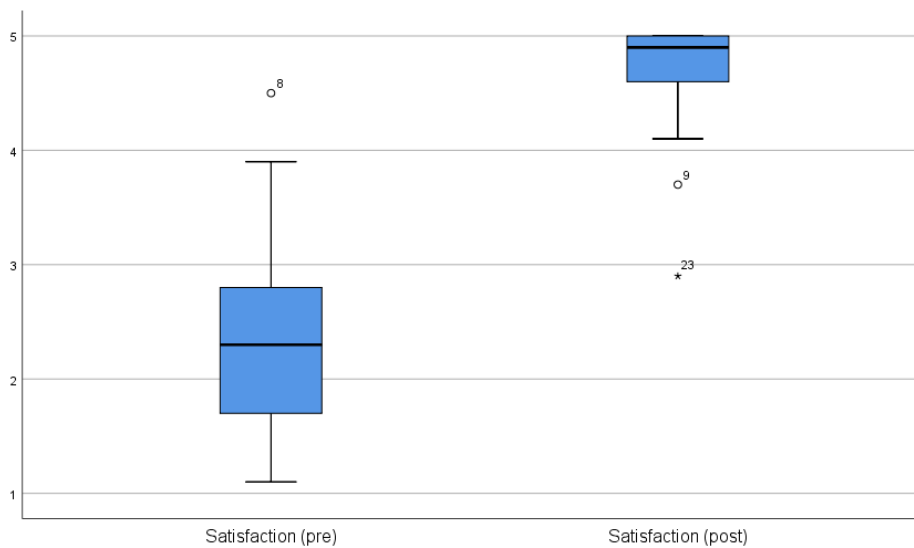
**Figure 1**

*Histogram of the Difference Scores, Between Pre- and Postintervention Satisfaction with Yoga*



**Figure 2**

Boxplot Showing the Pre- and Postintervention Scores for Satisfaction with Yoga



### Appendix B

Figure 1 The Conceptual Framework of Depression and Stressing Elements (Kinser & Lyon, 2014)

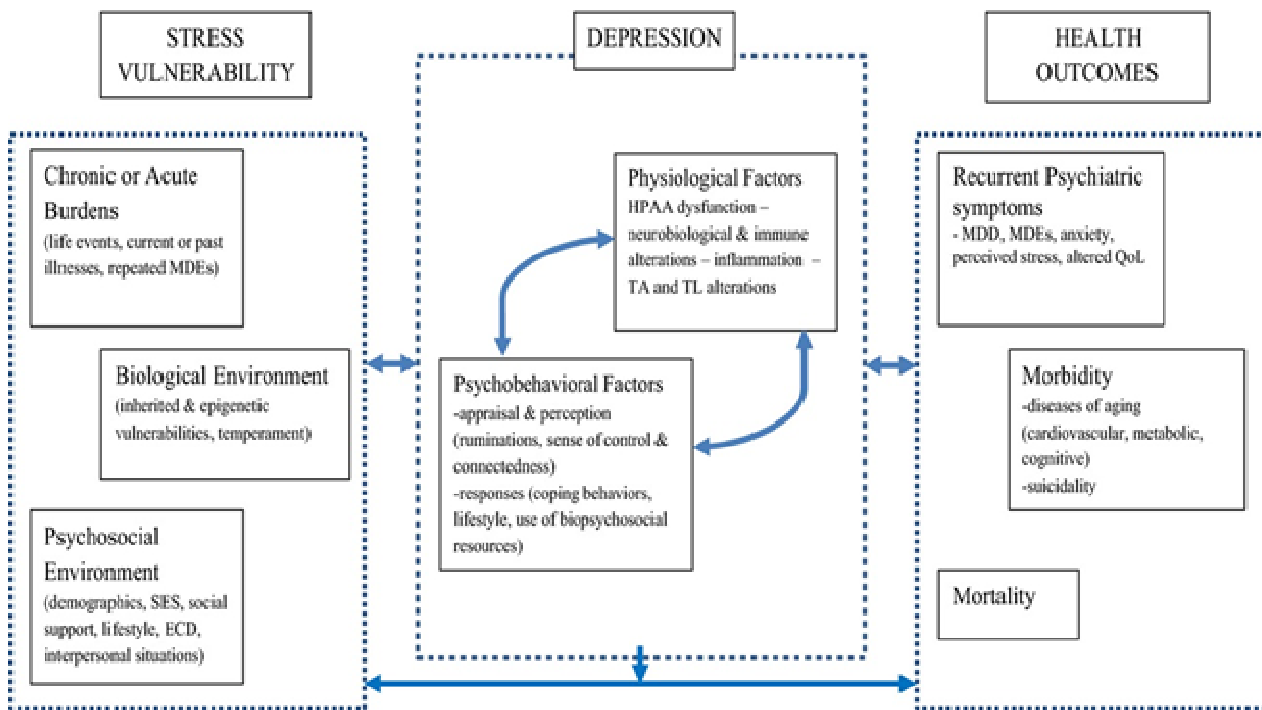




Figure 2

Pre and post questionnaires, ten questions administered before and after intervention

Questionnaires	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Yoga relaxes you and helps you sleep better.					
Yoga improves your strength, balance, and flexibility.					
Yoga increases your self-esteem, reduce your anxiety, agitation, and restlessness					
Yoga increases your energy and brighter moods.					
Yoga helps you manage stress and reduces your depression					
Yoga promotes better self-care, reduce irritability, anger, and improves your well-being					
Yoga makes you feel happy, improves your thinking, speaking, and					

body movements					
Yoga exercise creates mental clarity, relaxes your mind, and increases calmness.					
Yoga increases body awareness; relieves chronic stress, increases your attention; and sharpens your concentration,					
Yoga improves circulation in your body and enhances the functions of hormones that play a primary role in depression. This results in a reduction in depression and improved overall mood.					