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Knowledge/Attitudes of RNs Toward Veterans with PTSD/SUD

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KNOWLEDGE AND ATTITUDES OF STAFF NURSES TOWARD VETERAN

PATIENTS WITH A DIAGNOSIS OF POST TRAUMATIC STRESS AND

SUBSTANCE USE DISORDER

by

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Abstract

The purpose of this paper is to explore the knowledge and attitudes of staff nurses toward veteran patients with a diagnosis of post-traumatic stress disorder (PTSD) and substance use disorders (SUD).

PTSD has long been associated with military service. According to recent studies conducted by the U. S. Department of Veterans Affairs, veterans of the Iraq and Afghanistan wars experience PTSD regardless of deployment status. Additionally, there is a significant correlation between veterans with PTSD who also have comorbid substance use disorders, further complicating their care. As first line caregivers, nurses often experience the unique challenges these patients present. This study sought to evaluate the attitudes of nurses who care for this population and to determine whether a brief educational PowerPoint presentation would affect those attitudes and improve knowledge regarding treating these patients.

An informational email describing the purpose of this study was sent to all staff nurses working on inpatient units. Prior to reading through educational materials, staff nurses were asked to complete a pre-test and the Medical Condition Regard Scale (MCRS) in order to establish baseline knowledge and attitudes regarding this population. Participants were then instructed to review an educational PowerPoint. Finally, participants were asked to complete a post-test and the MCRS in order to evaluate the effectiveness of the intervention. Results were analyzed and presented to the Rhode Island College School of Nursing.

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Background/Statement of the Problem

According to the American Psychiatric Association, Post-Traumatic Stress

Disorder (PTSD) is a psychiatric disorder that is the result of a traumatic event, whether

accidental or environmental, resulting from an assault or combat (American Psychiatric

Association, 2017). Post-Traumatic Stress Disorder is characterized by a group of

symptoms including intrusive thoughts that sometimes manifest in dreams or flashbacks;

avoidance of people, places, and situations that remind the person of the trauma; negative

thoughts and feelings, including shame, guilt, fear, and anger; and hypervigilance,

leading to disturbed sleep patterns, a heightened sense of arousal, and irritability

(American Psychiatric Association, 2017).

Although the negative after-effects of trauma have been observed through time,

the term PTSD has only been in use since 1980. Prior to the use of PTSD, terms such as

"shell shock" or "combat fatigue" were used to describe combat veterans who were

traumatized by what they had witnessed or experienced in war. Often these terms were

associated with cowardice and those suffering were quickly returned to the war zone

(Jones, 2012). Recent research conducted by the U. S. Department of Veterans Affairs

indicates that veterans of the Iraq and Afghanistan wars experience PTSD regardless of

deployment status, although those who were deployed have a slightly higher incidence of

PTSD; 15.8% of deployed veterans and 10.9% of non-deployed veterans of the overall

13.5% of veterans who screened positive for PTSD (Dursa, Reinhard, Barth, &

Schneiderman, 2014). Additionally, there is a significant correlation between veterans

with PTSD who also have comorbid substance use disorders, further complicating their care (Seal et al., 2011). These challenges can lead to increased frustration among nursing staff attempting to care for veterans with PTSD who may also be suffering from alcohol intoxication or withdrawal, or from the effects of other substances.

Nurses are often the health care professionals responsible for providing the most care and support to hospitalized patients and their attitudes can tremendously impact patients' treatment outcomes, positively or negatively. An integrative review of nursing attitudes toward mental illness explored the impact of nurses' attitudes on the delivery of optimum care (de Jacq, Norful, & Larson, 2016). Nurses in some of the studies reviewed were fearful of their patients and believed that mental illness contributed to violent behavior of patients. The authors propose that a significant reason patients left care prematurely was due to dissatisfaction with their healthcare providers. Perceived stigma associated with mental illness was a factor that prevented people from seeking treatment. When patients felt that their therapists had negative feelings related to caring for them, they were less likely to begin or return to treatment.

Literature Review

A literature search was conducted using CINAHL Plus with full text, Medline Complete, ProQuest Nursing & Allied Health Database, and ProQuest Veterans Affairs PTSD Database. Key search terms included Post Traumatic Stress Disorder or PTSD; PTSD and substance use disorder; PTSD, SUD, and military veterans; nurses' attitudes, perspective, understanding of PTSD. An additional search was conducted using Google Scholar. The phrase, "Prevalence of PTSD in substance abusing military veterans" was used. Results were initially limited to 2015 but were expanded to include pertinent data related to the immediate post-9/11 time period.

Post-Traumatic Stress Disorder

According to Shalev, Limerzon, & Marmar (2017), PTSD is the most common psychopathological result of experiencing a traumatic event, with an estimated lifetime prevalence of 1.3-12.2% worldwide. It can result from any kind of traumatic event; in the United States the most common traumatic events associated with PTSD are physical and sexual assaults and accidents or fires. Generally, signs of PTSD include a strong sense of fear, intrusive thoughts, flashbacks, vivid dreams, and avoidance of thoughts or activities that may evoke memories of the traumatic event (American Psychological Association, 2017).

A retrospective analysis of the 2007 Adult Psychiatric Morbidity Survey was conducted by Jacob, Haro, and Koyanagi (2018) and looked at the association of PTSD and multimorbidity among 7,403 respondents to an online computer-assisted personal interview (CAPI) and computer-assisted self-interview. The ten question Trauma Screening Questionnaire was used to determine the presence or absence of PTSD. The

researchers considered a respondent to have multi-morbidity if they reported having greater than or equal to two physical diseases. This study found a strong correlation between PTSD and multimorbidity and emphasizes the importance of screening for PTSD to better treat physical illness. Among the study participants, the percentage of those without physical comorbidities who experienced PTSD was 2.1%, compared to 5.4% in the group with more than four physical comorbidities.

Substance Use Disorders

Substance use disorder (SUD) is defined by the World Health Organization (WHO, 2019) as "the harmful and hazardous use of psychoactive substances, including alcohol and illicit drugs." Data collected by the Substance Abuse and Mental Health Services Administration (SAMHSA) indicate that more than 20 million American adults over the age of 18 had a SUD, 16.3 million suffered from alcohol abuse or dependence, 6.2 million had dependence or abuse of illicit drugs, and 2.3 million had dependence or abuse of both alcohol and drugs in 2014 (Lipari & van Horn, 2019).

Military Veteran

Traditionally, the term Military Veteran referred only to Active Duty members of the Air Force, Army, Navy, Marines, and Coast Guard, provided they were discharged under any classification other than dishonorable. Reserve and National Guard members could only receive veteran status if they served on active duty for at least 180 days during their enlistment. In 2016, Congress signed into law that Reserve and Guard members who had completed 20 years of service would be considered Veterans regardless of time on active duty (Soucy, 2016). According to the Department of Veterans Affairs, there were 20.4 million U. S. military veterans living in 2016, most of whom served during or

after the Gulf War Era. While the overall number of Veterans is expected to decrease, the number of female and minority veterans is expected to increase (National Center for Veterans Analysis and Statistics, 2019). Overall, it is estimated that less than 10% of adults in the United States are veterans of the military.

PTSD and Military Veterans

Post-Traumatic Stress Disorder, has long been associated with military service, particularly after deployment to areas of combat. A meta-analysis by Xue, Ge, Tang, et al. (2015) sought to identify risk factors, which may contribute to combat veterans developing PTSD. Thirty-two articles were included in the meta-analysis. Results indicated that the overall prevalence of PTSD ranged from 1.09 to 34.84% among military personnel and veterans. When looking at specific risk factors, the researchers found 18 predictors of the development of PTSD and divided them into three categories: pre-, peri-, and post-trauma. Pre-trauma risk factors included prior trauma, mental illness, and socio-demographic factors, such as lower level of education and female gender. Peri-trauma risk factors included experiencing combat or long deployments. Post-trauma risk factors included lack of post-trauma/deployment support, loss of family support, and co-morbid psychological illness (Xue et al., 2015). Based on these research findings, recognizing the risk factors associated with developing PTSD may enable practitioners to mitigate some of the negative effects.

Another meta-analysis by Fulton, Calhoun, Wagner, et al. (2015) sought to determine a more accurate prevalence of PTSD among Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) veterans. Operation Enduring Freedom (OEF) is the official name of the War in Afghanistan which began in response to the 9/11

attacks in the United States in 2001. Operation Iraqi Freedom (OIF) refers to the war in Iraq which began in 2003, also in response to 9/11. Previous estimates of PTSD in this population ranged widely from 1.4 to 60%. Thirty-three research articles were reviewed, with most of the research occurring at a VA Hospital. This meta-analysis revealed that a more accurate prevalence rate was closer to 23% but noted that a limitation to the study was not all OEF/OIF veterans seek treatment at VA Hospitals. Fulton et al. (2015) noted that this figure is lower than the rate of PTSD associated with Vietnam era veterans but is much higher than the rate among the general population.

Substance Use Disorders and Military Veterans

Heavy alcohol consumption is often encouraged in the military and that normalization may contribute to high rates of alcohol use disorder (AUD) among military members and veterans. Fuehrlein et al. (2018) cited research that showed the lifetime and past-year prevalence of AUD among combat veterans to be 42.2%, and 14.8% among non-combat veterans. Kelley, Bravo, Votaw, et al. (2019) found that when compared to the general population, combat wounded veterans misused opiates at a rate of 11 times greater, and sedative misuse at a nine times greater rate. Veterans who reported misuse of sedatives were also more likely to abuse alcohol, increasing the risk of overdose (Kelley et al., 2019). A common theme in both of these studies was the link between SUD and PTSD.

Post-Traumatic Stress Disorder, Substance Use Disorder, and Military Veterans

When conducting a literature search for PTSD and SUD, most articles included data on military veterans. A secondary data analysis study by Kelley et al. (2019) observed that combat wounded veterans with concurrent pain and PTSD were more often

prescribed opiates and benzodiazepines than their non-combat wounded counterparts. This study also determined that combat wounded veterans tended to misuse the opiates and benzodiazepines they were prescribed, in part because of difficulty sleeping and other symptoms of PTSD. When compared with the civilian population, misuse among veterans was 11 times higher for opioids, and 9 times higher for sedatives.

Heinz, Makin-Byrd, Blonigen, Reilly, and Timko (2015) examined the connection between aggressive behavior, impulsivity, and PTSD among 133 military veterans entering treatment for a substance use disorder at a VA Medical Center in their cross-sectional and longitudinal study. Increased aggression and SUD presented a unique challenge for practitioners responsible for the treatment of these patients. An initial assessment was conducted at intake to the treatment center and a follow-up assessment was conducted four months later. Aggression was measured using the Revised Conflict Tactics Scale (RCTS), substance use patterns and severity were assessed using the Addiction Severity Index (ASI), PTSD was assessed using the PTSD Checklist (PCL), and impulsivity was assessed using the Multidimensional Personality Questionnaire – Brief Form (MPQ-BF) – Control Subscale. Heinz et al. (2015) found that participants with PTSD, SUD, and aggressive behavior, had higher rates of impulsivity than the general population. The researchers also discovered that aggressive behavior was more likely to occur at the beginning of treatment than at follow-up. Heinz et al. (2015) proposed that the aggressive behavior could be attributed to abstinence from substances while in treatment.

Nurses' Attitudes and Knowledge of PTSD

As noted by Najavits (2002), treating patients with comorbidity of SUD and PTSD presents a more challenging situation than either SUD or PTSD alone. Interestingly, according to Najavits, studies have shown the role of the clinician may play a larger role in patient outcomes than patient presentation or treatment modalities. In a 2002 study of 147 clinicians, Najavits sought to determine perceived degree of gratification or difficulty and types of gratification or difficulty in treating patients with either SUD or PTSD, and with both SUD and PTSD. Najavits presented three workshops on PTSD and SUD and asked attendees to voluntarily anonymously complete the Clinician Survey on PTSD and Substance Abuse at the completion of the workshop. Additionally, an open-ended questionnaire asking respondents to describe their most difficult emotions and situations in their workplace when caring for these patients. This study found that clinicians perceived treating patients with the dual diagnosis of SUD and PTSD to be more difficult than treating either condition individually (Najavits, 2002). Some reasons cited for the increased difficulty were fear of the patient when becoming angry, personal stress from hearing about the trauma that led to PTSD, lack of knowledge on how to treat patients with the dual diagnosis, and feelings of failure when the substance abuse worsens in spite of treatment.

It is estimated that approximately 73% of military veterans will seek medical treatment outside the Veteran's Health Administration (VHA) (McMillan et al., 2017). Recognizing the need for civilian nurses to identify current of past military personnel and understand the possible complexities of treating this population, Walter Reed National Military Medical Center, Auburn University, and Auburn University Montgomery

baccalaureate nursing programs collaborated to create a training curriculum to teach nursing students about the unique experiences and challenges facing this population. The purpose of Project SERVE (Students' Education Related to the Veteran Experience) was to provide a knowledge base to ensure new nurses could provide compassionate and competent care to military veterans (McMillan et al., 2017). Although this study focused on improving knowledge related to military veterans of civilian nurses, there is room to improve on the knowledge of nurses caring for veterans at VA hospitals.

Theoretical Framework

The theoretical framework used for this research project was the Logic Model as described in the W.K. Kellogg Foundation Logic Model Development Guide (2004). This model clearly lays out the path from planning, intervention, and evaluation of the proposed research project. There are five steps to the logic model: Resources/Inputs, Activities, Outputs, Outcomes, and Impact. In this model, Resources/Inputs refers to all the elements that go into implementing the project, including people, financial, organizational, and community assets. Activities describes what will be done with the resources in order to bring about the desired outcomes of the project or study. Outputs are the results of the activities or interventions and lead to the desired changes that encompass the outcomes. Outcomes can be short, mid, or long term, with time frames ranging from one to ten years. The Impact represents long term changes, whether intended or unintended, that influence the behavior of the Resources (W. K. Kellogg Foundation, 2004).

In this study, Inputs/Resources refers to the nurses who will be surveyed and educated regarding veterans with PTSD and SUD, financial concerns regarding required materials to accomplish the study, and the institution where the research occurred. Institutional support was required in order to acquire the time and space needed to gain access to the nursing staff and allow for study materials to be stored. Activity refers to presenting the study, questionnaires, pre and post-test, and educational presentation. Once these tasks were completed, the results were evaluated and measured to determine if there was any change in knowledge or attitudes, comprising the Outputs and Outcomes components of the framework. The final step in the framework is Impact. Results were

further evaluated to determine whether the changes, presumably increased knowledge

and more positive attitudes, are sustainable over time.

Methods

Purpose

The purpose of this research study is to evaluate the knowledge and explore the attitudes of staff nurses toward veteran patients with a diagnosis of PTSD and substance use disorder.

Research Question

Will a brief educational intervention regarding military veterans with PTSD and SUD increase knowledge and have a positive effect on nurses' attitudes toward treating this challenging population?

Design

The design of this research project is a quality improvement project consisting of a pre-intervention quiz (See Appendix A) and a measure of attitudes, the MCRS (See Appendix B), to determine the knowledge and perspectives of nurses who care for veteran patients with PTSD and substance use disorders. Participants were also asked to complete a demographics questionnaire (See Appendix C). A brief educational PowerPoint presentation was made available to all inpatient nurses on medical floors. The same cohort of nurses was then asked to complete the same quiz to determine if knowledge had improved or attitudes had changed after the educational intervention.

Sample

Participants included inpatient staff nurses on a general medical/surgical/telemetry, step-down, intensive care, and psychiatric units, which represent all the inpatient units at the Providence Veterans Administration Medical Center (VAMC). All inpatient staff nurses were invited to participate, totaling

approximately 120 staff nurses. No vulnerable populations were included. There were no identified benefits or risks to participants. Demographic data collected was limited to age, veteran status, medical or psychiatric unit employment, gender, level of education, and years in nursing.

Site

This project was conducted at the VAMC in Providence, RI. The Providence VAMC is a large urban hospital with a focus on primary, preventive, and outpatient services including mental health, substance abuse, and PTSD. Surgical services are also provided, including both outpatient and inpatient procedures. There are 62 inpatient beds, 50 of them are on medical/surgical floors and the remaining 12 in mental health. The patient population includes veterans, many of whom have been involved in combat in wars ranging from WWII through the ongoing conflicts in the Middle East and Afghanistan. According to the Pew Research Center (2017), 15% of living veterans are female, although that reflects an increase from 7% prior to 1990 to 24% post-1990. The majority of the patients seen at the VA are male. Many of these patients have a diagnosis of PTSD presenting unique challenges to nursing staff, making the VAMC an ideal location for this type of research.

Procedures

Institutional Review Board (IRB) approval was sought and received from the Providence VAMC IRB and the Rhode Island College IRB. Additionally, support was obtained from Nurse Managers of the units to be sampled prior to commencement of the study. A description of the project, along with a pre-intervention quiz was left on each unit, in a location determined to be appropriate by the managers, for staff nurses to

complete. An introductory email was sent containing an informational letter explaining the purpose of the project, the location of the study materials, and instructions on where to leave completed quizzes, which was designated to be in a locked box on each unit. To allow time for most staff nurses to complete the pre-test, it remained on the unit for ten days in order to encompass two consecutive weekends. An educational PowerPoint presentation in paper form was also placed on each unit and will remain there indefinitely at the discretion of the Nurse Manager. After the ten days, a post-intervention test was made available on the units for staff nurses to complete. Pre- and post-intervention data were not linked; instead trends in changes of knowledge and attitudes were evaluated.

Measurement

Responses to the pre- and post-education interview responses were compared to determine if the educational intervention increased knowledge and impacted nurses' attitudes. Knowledge was assessed using a 10-question quiz based on the content of the PowerPoint presentation. Attitudes were assessed using the Medical Condition Regard Scale (MCRS). The MCRS is a validated, reliable tool that was first developed in 2002 by Christison, Haviland, and Riggs as a means of determining the regard medical students had for patients with particular conditions. The instrument consists of eleven questions aimed at assessing the respondent's enjoyment of treating patients with a particular condition, whether the condition is considered treatable, and if it is considered to be worth treating. Responses are then rated on a 6-point Likert Scale. The MCRS has been determined to be valid for assessing any medical condition.

Demographic data was analyzed to observe for differences in age, gender, time in nursing, type of inpatient unit (medical vs. psychiatric; general medicine vs. step-down

vs. ICU), and veteran status. Data was stored on a private computer that only the primary researcher had access to. Quizzes and surveys were stored in a locker at the VA with access limited to the primary researcher. No identifiable information was collected.
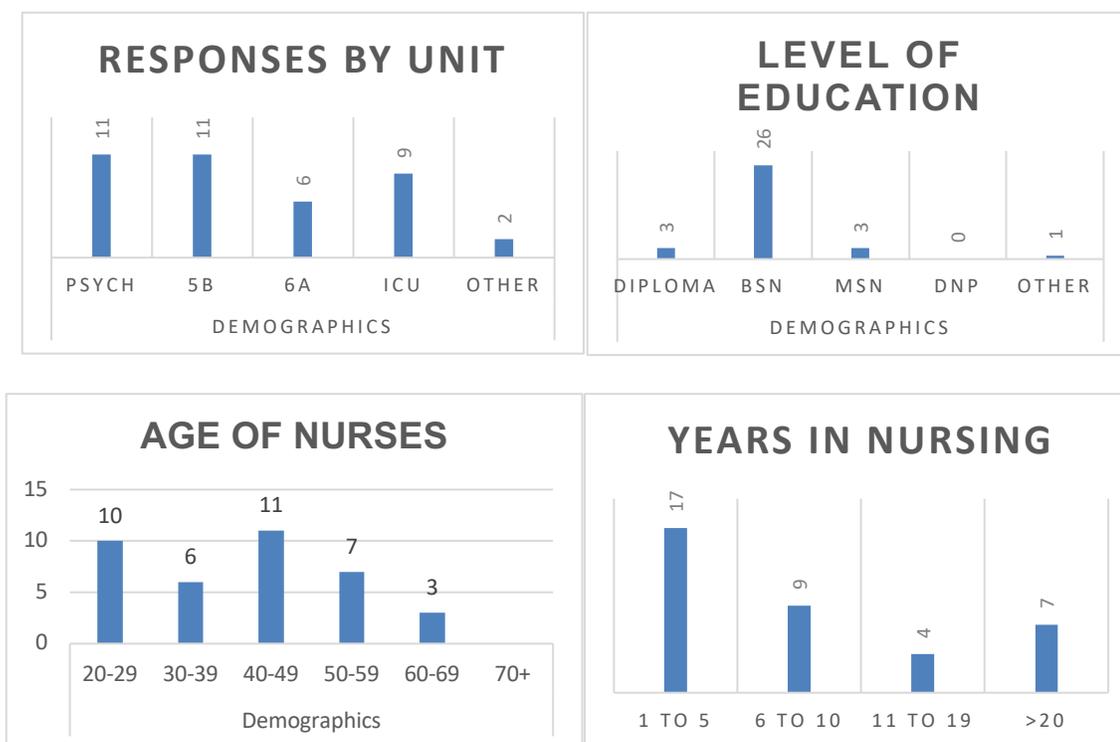
Ethical Concerns and Barriers

There were no ethical concerns related to this study however several limitations and barriers were identified. Although the Providence VA has many male nurses, the majority is female. Of the 37 respondents who completed the demographics questionnaire, only 6 were male. The relatively small sample size of male nurses limits statistically significant data analysis related to gender. Additionally, it was hoped that differences in attitude between Veteran and non-Veteran staff would be examined. Unfortunately, this sample size was also too small to meaningfully evaluate.

A totally unforeseen barrier was the Covid-19 pandemic which began to affect the East Coast of the United States in mid-March of 2020. Data collection began just as the hospital started to prepare for the potential influx of patients and many nurses were detailed to other units while some units were closed to make room for coronavirus patients. The high level of stress, combined with the distribution of nurses to other locations may have limited the completion of surveys, particularly in the post-intervention phase.

Results

Of the approximately 120 potential participants, a total of 39 nurses responded to the pre-intervention quiz and survey. Most of the respondents (79.5%, N=31) were female, six were male (15.4%), and two (5.1%) did not complete the demographics survey. Only three respondents (7.7%) reported Veteran status. The Psychiatric and Step-Down units had the largest number of responses with eleven each (56.4% combined, or 28.2% each). Six nurses (15.4%) responded from the General Medical unit, and nine (23.1%) responded from the ICU. Of those who responded, three (7.7%) reported having a Diploma of Nursing, four (10.3%) had an Associate's Degree of Nursing (ADN), twenty-six (66.7%) had a Bachelor's of Science in Nursing (BSN), and three (7.7%) had a Master's of Science in Nursing (MSN). None of the respondents had a Doctorate of Nursing Practice (DNP) and one reported education as "other."

Most nurses were either in the age group of 20-29 (N=10) or 40-49 (N=11). Seven were 50-59, six 30-39, and three 60-69 years. No nurses reported being older than 70 years old. In terms of years in nursing, the largest number, seventeen (43.6%), fell into the 1 to 5 years category. Nine nurses (23%) reported years in nursing to be between 6 and 10 years, four (10.3%) between 11 and 19 years, and seven (17.9%) reported nursing for more than twenty years.

RESPONSES BY UNIT

Unit	Count
PSYCH	11
5B	11
6A	6
ICU	9
OTHER	2

DEMOGRAPHICS

LEVEL OF EDUCATION

Education	Count
DIPLOMA	3
BSN	26
MSN	3
DNP	0
OTHER	1

DEMOGRAPHICS

AGE OF NURSES

Age	Count
20-29	10
30-39	6
40-49	11
50-59	7
60-69	3
70+	

Demographics

YEARS IN NURSING

Years	Count
1 TO 5	17
6 TO 10	9
11 TO 19	4
>20	7

Chart 1 - Results of demographic data by Unit, level of education, age, and experience. 5B = Step Down, 6A = General Medical, ICU = Intensive Care Unit, Psych = Inpatient Psychiatric Unit.

Attitude scores were analyzed using the Medical Condition Regard Scale (MCRS). This instrument consisted of eleven questions designed to determine enjoyment, treatability, and worthiness of treatment of any medical condition. For this study, the medical condition indicated was a combined diagnosis of PTSD and SUD. Overall results were analyzed, and then broken down by location of work, level of education, age of nurses, and years of nursing experience. Gender differences and Veteran status were not evaluated because of a sample size of six and three respectively.

The minimum score for this survey was 11, indicating low regard, and the maximum score was 66, indicating a high regard for this medical condition. The mean score of 38.5 indicates neither high nor low regard. The individual responses ranged from a low of 25 to a high of 63. The overall average of scores was 48.6%, indicating a

generally favorable view. However, when looking at unit specific responses, the most

favorable scores, above the hospital average, were found in the Psychiatric Unit and the

General Medicine Unit, with average scores of 53.9% and 51.5% respectively, while the

least favorable, below hospital average, were registered by the Step-Down Unit (42.6%)

and the Intensive Care Unit (45.7%).
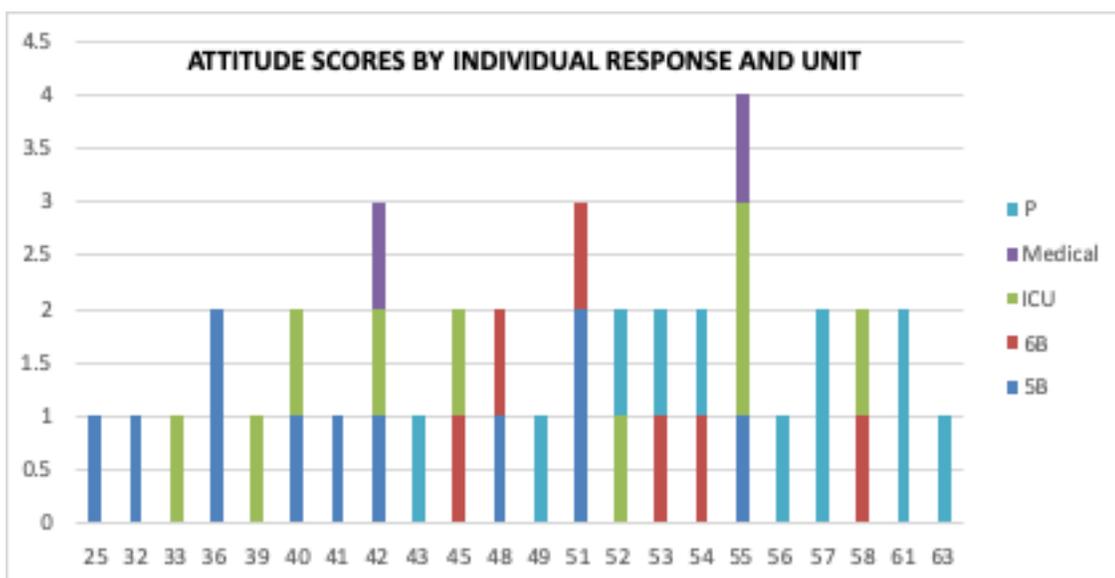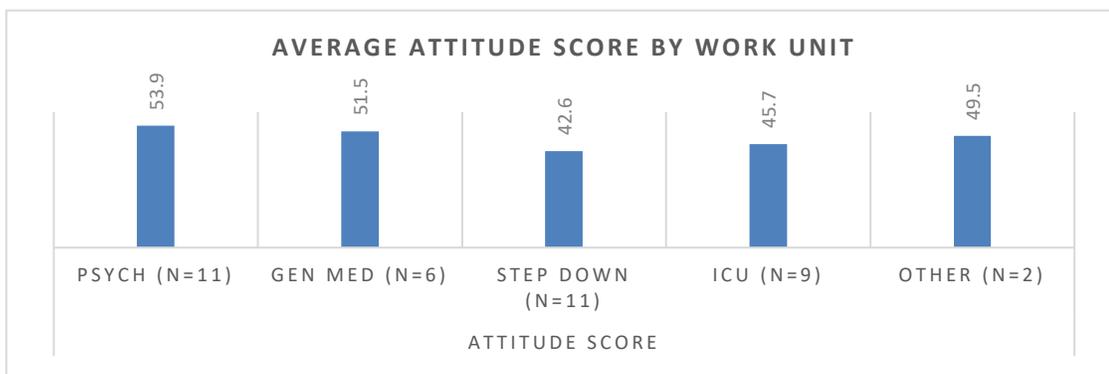
Chart 2 – Average attitude scores by individual scores and unit.

When broken down by level of education, Master's level and Diploma nurses all

had scores that were more positive than the hospital average, as did the Associate's level

nurses with the exception of one with a score of 39. Among the Bachelor's level nurses,

which was also by far the largest group, scores were equally distributed between

favorable and unfavorable, however the lowest scores, 25-36, were registered by this group. There did not appear to be any correlation between age of nurses and favorable or unfavorable attitudes. With regard to tenure, nurses who had been in the profession longer than twenty years seemed to have a more negative attitude toward these patients when compared with other nurses, however, the small sample size makes it difficult to draw any meaningful conclusions.
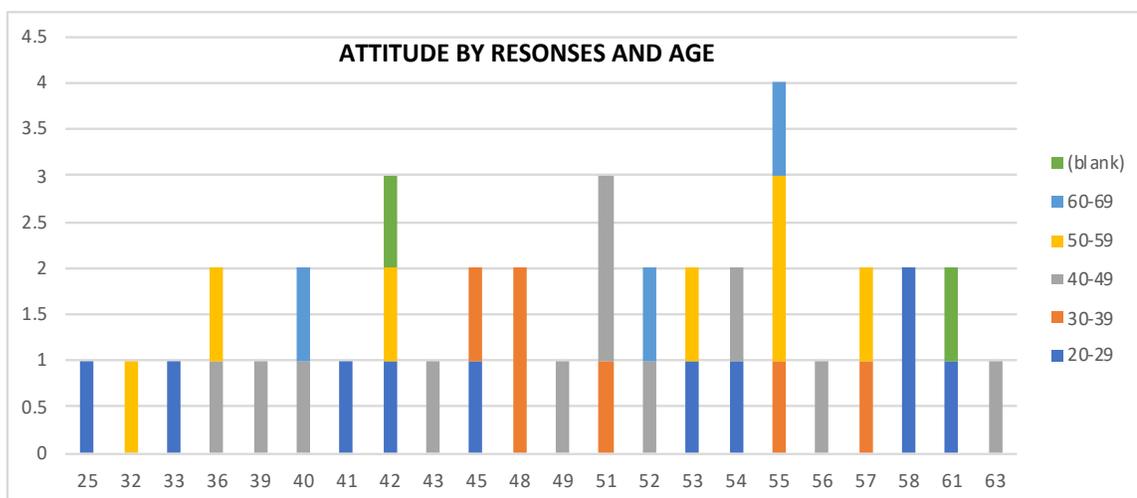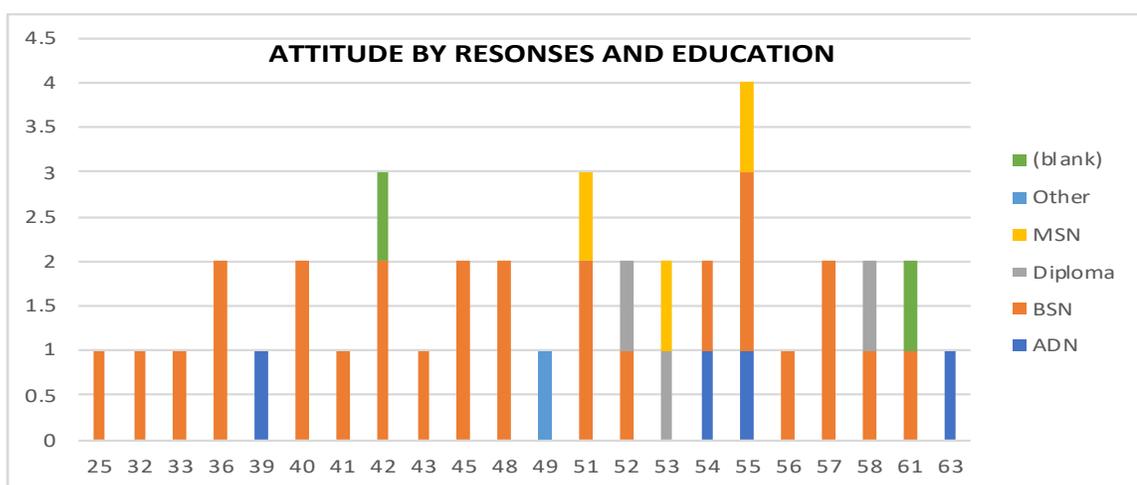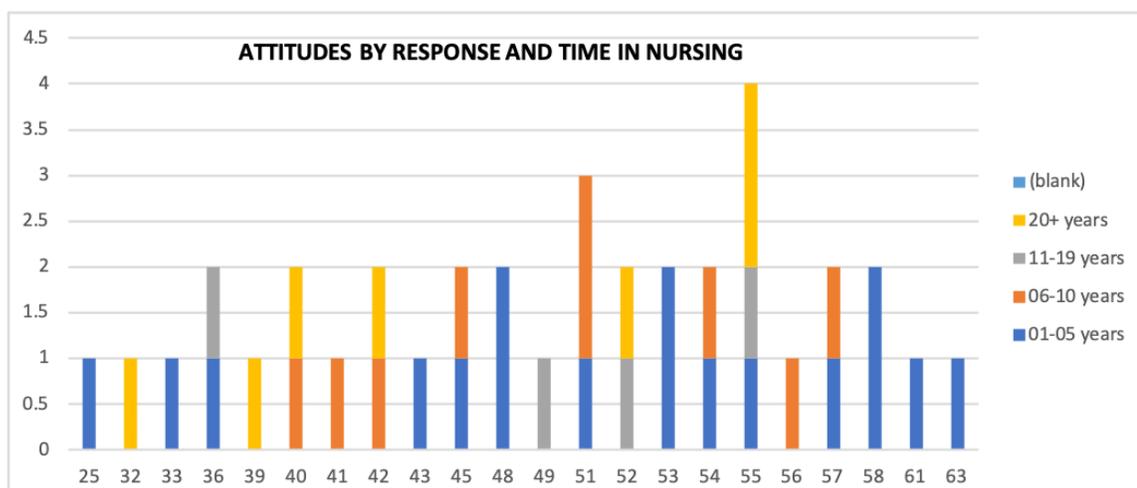
Chart 3 – Attitude scores by level of education, age, and time in nursing.

The average score for the pre-intervention quiz was 68% with scores ranging from 40 to 100%. Perhaps not surprisingly, the Psychiatric Unit scored the best with an average score of 74.1%, followed by the ICU (69.4%), the Step-Down Unit (63.2%), and the General Medicine Unit (55%). Two quizzes did not have a unit designation and although the average score of those two quizzes was 77%, the sample size was too small to be considered significant.
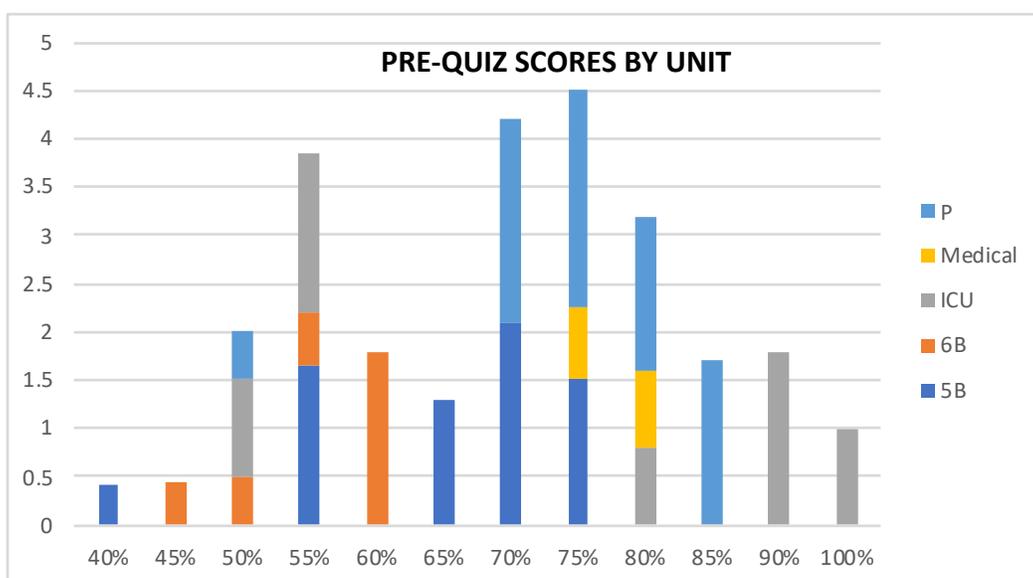

Chart 4 – Pre-intervention quiz scores by unit. P=psych, ICU=Intensive Care Unit, 6B=General Medical Unit, 5B=Step Down Unit.

The level of education a nurse attained did not appear to correlate with superior knowledge of PTSD, although accurate interpretation could be limited by the sample size.
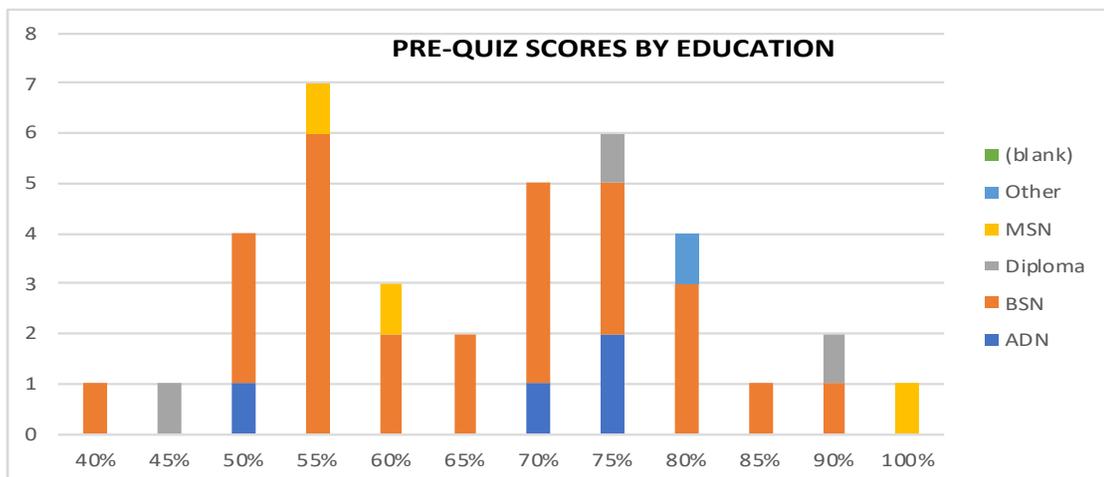

Chart 5 – Pre-intervention scores by level of education.

Although education did not seem to have any influence on quiz scores, age did. Nurses over the age of 50 had scores of 75% and greater, whereas nurses in the 20 to 29-year age group scored 70% or lower. Significantly, there were ten respondents in each of these age groups, making the comparison seemingly valid. Additionally, those who were older were generally in the nursing profession longer, which was probably a contributing factor to this group also tending to have higher initial scores. The following chart shows the breakdown of each group in terms of age, years in nursing, and pre-intervention quiz scores.
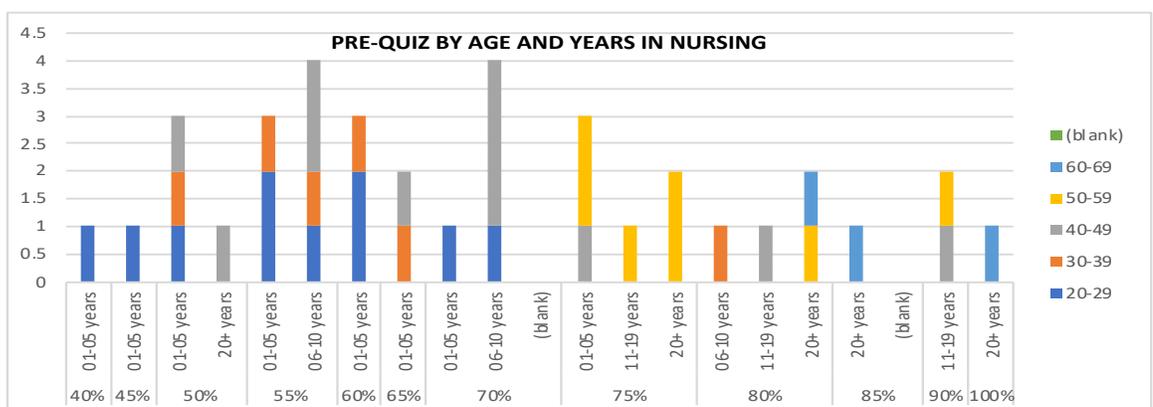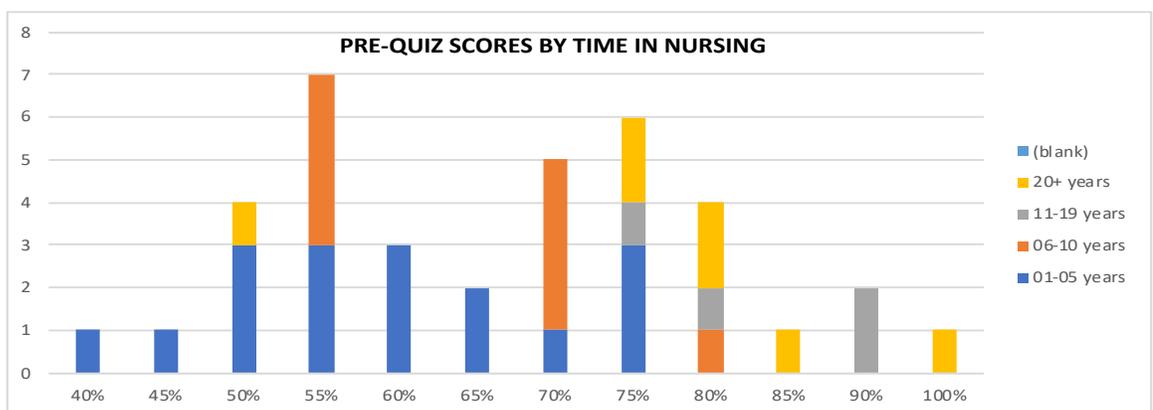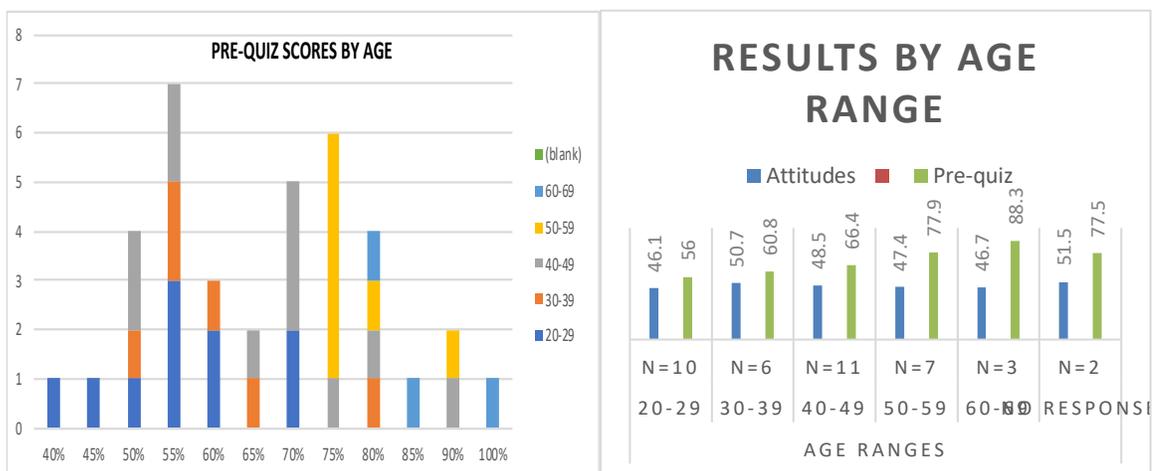
Chart 6 – Breakdown of results according to age, pre-intervention quiz scores, and time in nursing.

Unfortunately, the collection of the post-intervention quiz and attitude data

coincided with the beginning of the coronavirus pandemic's impact on the research site.

As a result, only nine respondents completed the post-intervention attitudes survey and

quiz. Of those, one response was from the Psych Unit (4A), one from the Step-Down

Unit (5B), three from the General Medicine Unit (6B), two from the ICU, and two from

the newly formed COVID-19 Unit. The COVID-19 Unit was formed during the second

round of data collection and was comprised of nurses from various inpatient units, as well

as the Post Anesthesia Care Unit, who had been reassigned to assist with the hospital's

pandemic response. The Step-Down Unit had been temporarily closed and many of those

nurses were assigned to the new Unit.

Although the sample size was too small to make any definitive conclusions on

trends, some patterns did emerge. The average post-intervention attitude score decreased

slightly from 48.6 to 45.4 while the average post-intervention quiz scores increased from

68% to 88.5%. Because of the small sample size, further research is necessary to

determine whether or not these trends would continue with a greater number of

respondents. Demographics were not analyzed beyond noting that six respondents

reported having a BSN, two reported having a MSN, one did not complete the

demographics survey. Two nurses were in practice for >20 years, one 6 to 10 years, and

five had been in practice for 1 to 5 years. All but one was female, and one indicated

Veteran status.
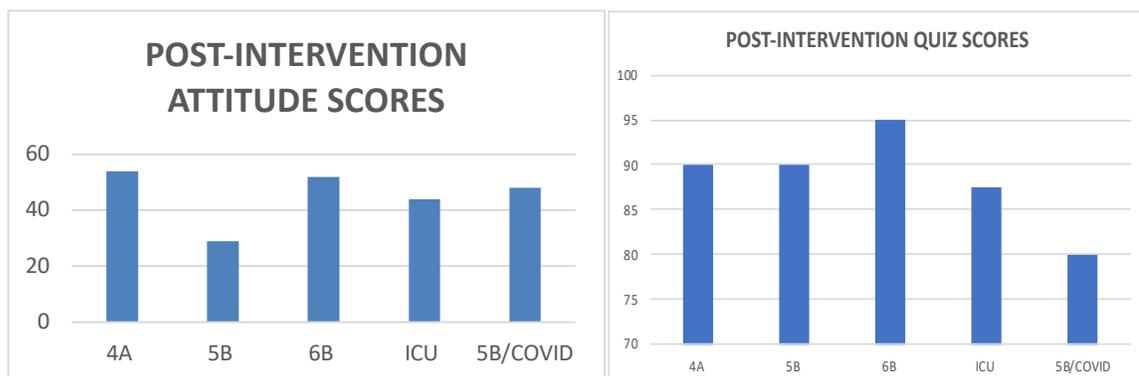
Summary and Conclusions

Post-Traumatic Stress Disorder is the most prevalent psychopathologic response to experiencing a traumatic event and affects approximately 6.1 to 9.2% of the population of the United States (Sareen, J., 2020). It can result from any kind of trauma including assaults, adverse weather events, accidents, illnesses, or even witnessing a traumatic event. Symptoms include flash backs to the trauma, insomnia, intrusive thoughts, fear, and avoidance of places or thoughts evocative of the trauma (American Psychiatric Association, 2017). Often, those suffering from PTSD resort to drugs or alcohol as a means of coping with these symptoms.

Veterans of the military have historically been affected by PTSD related to deployment and combat, although not all Veterans with PTSD experienced first-hand combat. It has also been observed that military veterans experience PTSD in larger numbers than the general population. Military Veterans with PTSD are also more likely than the general population to abuse alcohol, opioids, and sedatives, leading to increased risk of overdose and hospitalizations for substance related health issues. Compounding the problem is the Veterans' sense of stigma associated with seeking treatment for either PTSD or SUD.

Research conducted by Najavits (2002), showed that clinicians found treating patients with the comorbidities of PTSD and SUD to be more challenging and complicated than treating either of the conditions alone. Among the challenges noted were increased agitation, anger, fear of the patient while angry or agitated, experiencing secondary trauma, and not knowing how best to treat these patients.

Results showed that nurses who worked in either the Psychiatric Unit or the General Medical Unit had more favorable attitudes toward treating this group of patients when compared to nurses who worked in the Step-Down and Intensive Care Units. This could possibly be attributed to the case that as patients begin to experience more negative symptoms of withdrawal from drugs or alcohol, such as increased agitation and ager, they tend to be transferred to either the Step-Down Unit or the ICU for more intensive treatment. There did not appear to be any significant differences in attitude based on age or level of education. Nurses who had been in the profession twenty years or longer did appear to have a more negative attitude, but the sample size was not large enough to produce reliable data.

Knowledge was assessed using a 10-question quiz that assessed nurses' general understanding of the causes, signs and symptoms, treatment strategies, and statistics of PTSD and SUD. The average pre-intervention score was 68% across all units but when each unit was evaluated independently, the Psychiatric Unit scored the highest with an average of 74.1%, followed by the ICU at 69.4%. The General Medical Unit had the lowest average score at 55%. Level of education appeared to have no effect on quiz scores, but age and time in nursing correlated with generally higher scores, possibly indicating that nurses tend to learn more about these conditions through experience, even when formal education is not offered.

Post-intervention data was extremely limited (N=9) but did show that education scores increased from an average of 68% for the pre-intervention quiz to 88.5% post-intervention. However, attitudes remained consistently low, dropping from 48.6 to 45.4. Based on these findings, increased knowledge did not appear to translate to more

favorable attitudes toward these comorbid conditions. Although the sample size was too small to accurately assess whether these trends would continue, it does indicate that further research is warranted.

Recommendations and Implications for Advanced Nursing Practice

The results of this research study indicate that there is room for improvement regarding nurses' knowledge and attitudes toward patients with the comorbidities of PTSD and SUD. The attitude scores show that there are differences between attitudes among nurses working in different areas. The cause of these differences should be explored further to better understand why some nurses tend to have more negative attitudes than others. Knowledge did not seem to have a bearing on attitude, but the pre-intervention quizzes showed that, overall, nurses had a relatively limited understanding of PTSD prior to the intervention. Perhaps more education could lead to more positive attitudes, but this would require a much larger sample size than the one in this study.

The Advanced Practice Registered Nurse (APRN) is in a uniquely advantageous position to work with staff nurses and patients being treated for PTSD and SUD to facilitate the best outcomes for each. As a nurse and patient advocate, the APRN can work with the nursing and medical staff to ensure that appropriate and adequate resources are provided to the nurse to ensure the best treatment outcomes. Often, nurses may find it difficult to provide patients with evidence based pharmacological interventions because of reluctance on the part of the physician. Having another resource available to advocate for the patient and nurse may provide quicker and more beneficial interventions that lead to better outcomes.

The APRN can also lead the charge in education by developing unit specific tools to enhance knowledge in specific areas in which it is lacking. For instance, the APRN can investigate possible reasons for better attitudes and knowledge in the Psychiatric Unit vs. the Step-Down and ICU regarding this population. The APRN can also explore

reasons for the more negative attitudes and develop a strategy for improvement by working with nurses across the different sites. The APRN can be instrumental in developing evidence-based nurse-driven protocols in collaboration with other disciplines to better serve patients and nurses. Educational programs can be developed to be introduced to new and more seasoned nurses and at new nursing orientation in order to standardize the knowledge base and hopefully improve outcomes.

Another area in which the APRN can provide leadership is in the role of support for nurses who may experience burn-out associated working with this challenging population. The APRN can provide support and assist in finding resources for nurses experiencing compassion fatigue or secondary trauma related to patients' experiences. These roles of educator, advocate, and leader all fall within the expertise of the Advanced Practice Registered Nurse and provide tremendous value to any institution.

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Appendix A

PTSD Knowledge Quiz   Pre- and Post-
Intervention

1. A person has to have direct experience with a traumatic event in order to develop PTSD.

   a) True
   b) False

2. Which of the following can lead to a person developing PTSD:

   a) Causing harm to another whether intentional or not.
   b) Directly witnessing an accident that resulted in or could have resulted in harm.
   c) Watching a traumatic event unfold on television or online.
   d) Hearing about an event that resulted in harm to another from friends.
   e) All of the above.

3. PTSD is entirely a psychological condition and has no physiological changes associated with it.

   a) True
   b) False

4. Only Veterans who were deployed and experienced combat have PTSD.

   a) True
   b) False

5. Combat wounded Veterans use opiates at _____ times the rate of the general population.

   a) 15
   b) 11
   c) 24
   d) 5

6. To be diagnosed with PTSD, a patient must have symptoms for at least _____
month(s).

a) 1
b) 3
c) 6
d) 12

7. Which of the following SSRIs are FDA approved for the treatment of PTSD? (choose all that apply.)

a) Paroxetine (Paxil)
b) Citalopram (Celexa)
c) Fluoxetine Prozac)
d) Sertraline (Zoloft)

8. The best treatment for PTSD is Cognitive Behavioral Therapy (CBT).

a) True
b) False

9. For Veterans with PTSD and SUD, the sequence of treatment should be

a) Substance use first, then PTSD.
b) PTSD first, the substance use.
c) PTSD and SUD at the same time.
d) None of the above.

10. Which neurotransmitter levels are increased in patients with PTSD? (choose all that apply.)

a) Dopamine
b) Serotonin
c) Norepinephrine
d) GABA

Appendix B
THE MEDICAL CONDITION REGARD SCALE

Use the scale below to rate your degree of agreement or disagreement with each of the following items regarding patients with a diagnosis of PTSD and Substance Use Disorder.

A = Strongly disagree
B = Disagree
C = Not sure but probably disagree
D = Not sure but probably agree
E = Agree
F = Strongly agree

Regarding patients with PTSD and SUD:

1. Working with patients like this is satisfying.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

2. Insurance plans should cover patients like this to the same degree that they cover patients   with other conditions.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

3. There is little I can do to help patients like this.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

4. I feel especially compassionate toward patients like this.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

5. Patients like this irritate me.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

6. I wouldn't mind getting up on call nights to care for patients like this.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

7. Treating patients like this is a waste of medical dollars.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

8. Patients like this are particularly difficult for me to work with.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

9. I can usually find something that helps patients like this feel better.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

10. I enjoy giving extra time to patients like this.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

11. I prefer not to work with patients like this.

A = Strongly disagree   B = Disagree   C =Not sure but probably disagree

D = Not sure but probably agree   E = Agree   F = Strongly agree

Appendix C

Demographics

Demographic data is being collected for research purposes only. All responses will remain anonymous and not linked to responses to quiz.

What is your age?	20 – 29
	30 – 39
	40 – 49
	50 – 59
	60 – 69
	70+

Are you a Veteran?   YES   NO

What is your gender?   MALE   FEMALE

NON-BINARY

Where do you work?

MEDICAL   PSYCHIATRIC

How long have you been a nurse?

1 – 5 years

6 – 10 years

11 - 19 years

>20 years

What is your highest level of education?

Diploma   ADN   BSN

MSN   DNP   OTHER