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Improving Nurse's Knowledge of Alcohol Use Disorder

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Improving Nurse's Knowledge of Alcohol Use Disorder

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Master of Science in Adult Gerontology Primary Care Nurse Practitioner

Thesis Approval Form

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Abstract

Alcohol Use Disorder (AUD) can have devastating consequences such as seizures and substance withdrawal delirium, so it is crucial for nurses to recognize alcohol withdrawal syndromes and start appropriate interventions in a timely manner to avoid further deterioration of the patient's health, hospitalization risks and costs. The significance of this study is to allow health care providers, and other professionals in healthcare services to gain a better understanding about the withdrawal symptoms experienced by those recovering from AUD or those experiencing alcohol withdrawal. The PICOT question for this project is: For nurses at a detox facility and hospital in Punjab, India, does the use participation in an educational program on alcohol withdrawal syndrome improve their knowledge and confidence level when treating patients undergoing alcohol withdrawal, compared with nurses who do not participate in such an educational program? The proposed clinical change is an effective educational program presented to the participating nurses to increase their knowledge on the screening of and treatment for alcohol withdrawal syndrome, eradicate any stigmatized perceptions they may have of patients with AUD, and increase their confidence when caring for patients suffering from alcohol withdrawal syndrome. The desired outcome is a significant difference in the post survey scores of the experimental group compared to those of the control groups. This outcome will support implementing an educational program to improve nurses' knowledge and self-efficacy levels when dealing with individuals suffering from alcohol abuse.

Improving Nurse's Knowledge of Alcohol Use Disorder

Background

Alcohol use disorders (AUD) have been prevalent across all societies. The pattern of alcohol use varies depending the individual's age, religion, education, and other socio-demographic characteristics. The consumption pattern also varies between different cultures and societies. Alcohol use is known to be increasing in developing countries but reliable data is not yet available. Since 1970, 47% of developing countries, and 35% of developed countries have an increased rate of consumption of absolute alcohol per adult. In the pursuit of improving public health, it is important to estimate the amount of alcohol consumed and gather information on the pattern of drinking and the withdrawal symptoms experienced after in order to better understand and solve alcohol-related health and social consequences (Maulik, Pednekar, Saxena, & Gupta, 2003).

In India, there is a need for research to help individuals suffering from AUD, however not much research has been conducted to help towards understanding the spread of the disease across the country and forming effective treatment strategies. Despite India being ranked as a 'low-alcohol consuming' country, it is still categorized as a 'medium risk' pattern of alcohol consumption as a country. "The prevalence of heavy episodic drinking (HED) among individuals aged 15 years or more is 1.7%, while episodic drinking among those with an alcohol problem is 11%" (Gupta, Lal, Rao, Mishra, & Ambekar, 2018). The Indian Government is taking steps towards helping individuals suffering from AUD, but the steps are not adequate enough to address the scope of this issue. The government has spoken out about developing a new Alcohol Policy for the country, yet there is still a lack of research which accurately displays the severity of AUD. More research is needed related to the actual magnitude of this alcohol problem and

proved effective interventions to guide a rational, scientific and evidence-based National Alcohol Policy (Kaur & Gill, 2015). It is imperative that research is conducted on alcohol abuse in India to address this issue.

Nursing staff employed in detoxification centers should have adequate knowledge on how to assist those recovering from AUD, who may be experiencing alcohol withdrawal symptoms. These symptoms arise at the very initial stages of detoxification at 6 to 8 hours after the last drink and are most intense at 24 to 48 hours after (Jones, 2015). Due to this fact, it is essential that health care providers are able to quickly identify alcohol withdrawal symptoms and assists patients accordingly. There are three defined stages of alcohol withdrawal syndrome; however, all stages are not always experienced by all patients. The first stage begins at 4 to 8 hours following the last drink and includes symptoms of nausea, insomnia, anxiety, restlessness, diaphoresis, nausea, hypertension, fluctuating tachycardia and mild cognitive impairment. The second stage approximately 24 to 72 hours following the last drink and includes symptoms of Stage 1 that are more accentuated. The third stage begins at roughly 72 to 96 hours after having the last drink. Symptoms include severe hypertension, severe tremors, tachycardia, delirium, fever, and drenching sweats. Death is also a possibility due to fluid and electrolyte imbalances, arrhythmias, aspiration, infection or pneumonia. Patient who do not receive treatment are at a 25% risk of having grand mal seizures 1 to 5 days since the last drink. (Jones, 2015). Due to the potential severity, high risk and immediate onset of alcohol withdrawal syndrome, it is important for health care providers to be able to recognize patients who may be in one of these stages and address their symptoms accordingly.

Providing education to nurses and health care workers on AUD, proper management and treatment methods for AUD increases their knowledge and self-efficacy levels when caring for

patients suffering from AUD. For example, a study conducted by Luis Medina (2017) analyzed the effects of providing an alcohol education program on improving the knowledge and attitudes of nurses caring for patients using a one-step pretest posttest study design and found a significant improvement in the knowledge and quality of care provided by the nurses for patients with alcohol withdrawal. A study by (Rajaraman, 2017) examined the knowledge of the nurses in alcohol dependence syndrome and management of withdrawal symptoms using a structured questionnaire, with a pretest posttest study design also found a statistically significant improvement in the knowledge, and self-efficacy of the nurses. However, it is not known whether providing an educational program to nurses on alcohol withdrawal syndrome at a detoxification facility in Punjab, India will yield similar results because no study of this type has ever been done in this region before.

Alcohol withdrawal can have devastating consequences such as seizures and substance withdrawal delirium, so it is crucial for nurses to recognize alcohol withdrawal syndromes and start appropriate interventions in a timely manner to avoid further deterioration of the patient's health, hospitalization risks and costs. It is essential that health care providers in detoxification centers understand alcohol withdrawal thoroughly and apply their knowledge expeditiously when treating patients. If the withdrawal symptoms are left untreated, they can lead to further deterioration of the patient, possibly to a life threatening state. India, specifically the state of Punjab, has been chosen for a project focus because there are no studies which have been conducted on those suffering from AUD in the region. This is an interesting finding as over 80% of the population is addicted to some sort of illegal substance, with alcohol being the in top two substances of choice among abusers (Kaur & Gill, Punjab, 2015).

Significance of the Clinical Problem

The significance of this study is to allow health care providers, and other professionals in healthcare services to gain a better understanding about how to assist those individuals experiencing withdrawal symptoms from alcohol and suffering from AUD by implementing an educational program.

This project will also discover and emphasize the importance of increasing knowledge among health care providers of alcohol withdrawal syndrome. The educational program will cover AUD and alcohol withdrawal syndrome by incorporating education on AUD, alcohol withdrawal and as well as a review of the- Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar), a screening tool used in daily practice in nursing care to assess patients undergoing alcohol withdrawal (Rajaraman, 2017). This will help nurses be more confident in assessing patients suffering from alcohol withdrawal syndromes and potentially improve patient outcomes by using appropriate screening forms.

EBP Proposal Purpose

The problem of AUD in Punjab, India is a significant public health concern in that world region (Kaur & Gill, 2015). The purpose of this proposal is to present a project aiming to the assess knowledge among nurses in a detox facility in Punjab, India, to facilitate their understanding of alcohol withdrawal symptoms, and bolster their confidence while applying this information during patient encounters.

PICOT Question

The PICOT acronym stands for Population, Intervention, Comparison, Outcome, and Time. The PICOT question for this proposal is: For nurses at a detox facility and hospital in Punjab, India does the use of an educational program on Alcohol Withdrawal Syndrome improve their knowledge and confidence level when treating patients undergoing alcohol withdrawal compared with those not participating such an educational program? The population of this project will include all nurses and nursing students at the detox center in both in-patient and out-patient areas who are willing to participate and are above the age of 18 years. The intervention will consist of an educational program. The program will cover the following information: definition and physiology of AUD, symptoms of alcohol withdrawal syndrome, function, use and scoring of the Clinical Institutes Withdrawal Assessment- Alcohol Revised (CIWA-Ar), medications for alcohol withdrawal syndrome, how to increase patient comfort, and the importance of providing patient education. This program will consist of a presentation on Alcohol Withdrawal Syndrome including a PowerPoint lecture allowing for discussion, questions and answers, with hard copies of the presentation available for the participants to take as a reference. A comparison will be done between the posttest scores of experimental group who will receive the educational program and the posttest scores of the control group who will not receive the educational program. The expected outcome will be improved patient care quality by providing the nurses with adequate knowledge on proper screening and treatment strategies.

Definition of Terms

The following terms have been defined in accordance with this project:

Alcohol Use Disorder (AUD): A disease with symptoms of alcohol craving characterized by inability to control the amount of alcohol consumed, continued dependence on alcohol despite negative consequences in various aspects of life, experiencing alcohol withdrawal symptoms after ceasing consumption, and needing to drink increasingly larger amounts to attain a desired effect or eliminate symptoms of withdrawal (Jones, 2015).

Alcohol Withdrawal Syndrome: A set of syndromes which take place after ceasing alcohol consumption. Symptoms can begin as mild and have potential to prove to be fatal if not managed on time. Symptoms include: tremors, sweating, anxiety, vomiting, delirium, tachycardia, fast heart and breathing rates, seizures among others. Symptoms typically begin 5 to 8 hours since the last drink and can last 1 to 5 days since the last drink.

CIWA-Ar: Clinical Institutes Withdrawal Assessment- Alcohol Revised, is an assessment tool based on withdrawal symptoms which include tremors, agitation, anxiety, paroxysmal sweats, auditory and visual disturbances, altered level of consciousness, among others. CIWA-Ar allows the user to determine the severity of alcohol withdrawal symptoms. It consists of 10 questions which indicate the level of withdrawal. (Berl, et al., 2015)

Summary

AUD is a problem of significance for the population in the Punjab Province, India. This proposed research is of importance because it will assess clinical staff/participants current knowledge and provide education on AUD and alcohol withdrawal which will help patients' adjustment for those undergoing alcohol withdrawal syndrome. This project will be focused on working with nursing staff in Punjab, India. Chapter 1 presented the project introduction,

background on alcohol and withdrawal symptoms, the PICOT question and the significance of the project. It also provided an overview of the methodology which will be used to carry out the project. Definitions of key terms, and assumptions were also discussed.

Chapter Two Synthesis of the Evidence

Search Strategies

The search strategy included using the following search engines to find scholarly quantitative and qualitative experimental studies: PubMed, Google Scholar, Daemen College Library Search Engine, and Erie County Medical Center Library HubNet Search Engine. The following phrases were typed into each of the search engines: "Alcoholism in Punjab", "Alcohol in India", "Nursing Interventions Alcohol", "Alcohol Withdrawal Syndrome Nursing Education", "Nurses Educational Program", and "Education on Alcoholism". The search was modified to include only articles published before 2010. Articles were then selected which had titles including terms similar to "Educational Program to Nurses", "Training nurses for Alcohol Misuse Disorders", "Training or Intervention Programs", etc. Using this method 21 articles were selected. These articles were further reviewed by analyzing their abstracts to determine if their research was applicable to the Problem Statement of this EBP proposal. If the abstract discussed implementing an educational program to nurses or even nursing students, or if it discussed improving the knowledge, perceptions, or confidence of nurses or nursing students treating patients with AUD, the article was then selected and analyzed in detail. The article was selected if it had a research focus. Using this process, 15 articles were selected and used in this EBP proposal. Appendix A provides a tabulated summary of each of the 15 articles selected to be analyzed for this proposal.

Matrix of Evidence

Ten out of the 15 studies were quantitative experimental designs which examined the effects of providing some form of educational program/experience to either practicing nurses or nursing students on alcohol misuse disorders (pathology, screening, brief intervention, treatment techniques, medication, etc.) (Berl, et al., 2015; Fitzgerald, Molloy, MacDonald, & McCambridge, 2015; Holt, Dearmon, Lawrence, Lewis, & Skotzko, 2017; Mahmoud, et al., 2019; Medina, 2017; Nash, et al., 2017; Rajaraman, 2017; Rosenthal, Barnes, Aagaard, Cook, & Weber, 2018; Serafico, Jarvis, & Eckhardt, 2019; Smyth, Hutchinson, & Searby, 2019). Most of these experimental studies utilized a pretest posttest design (Medina, 2017; Berl, et al., 2015; Serafico, Jarvis, & Eckhardt, 2019; Fitzgerald, Molloy, MacDonald, & McCambridge, 2015; Mahmoud, et al., 2019; Rosenthal, Barnes, Aagaard, Cook, & Weber, 2018). One study was a qualitative interview with the participants to understand their opinions and experience with the educational programs (Fitzgerald, Molloy, MacDonald, & McCambridge, 2015). Examples of variables tested in these studies include knowledge of the disease and management, self-efficacy levels of the nurses/nursing students, clinical practice skills, and change in perception regarding alcohol or drug misuse patients (Mahmoud, et al., 2019; Rajaraman, 2017). All of these experimental studies had results indicating there is improvement in the nurses/nursing students knowledge, skill level, confidence, and patient perceptions from the educational program.

Three of the 15 studies had quantitative experimental designs and analyzed the prevalence of AUD in India (Gupta, Lal, Rao, Mishra, & Ambekar, 2018; Kaur & Gill, 2015; Rathod, Nadkarni, Bhana, & Shidhaye, 2015). These studies looked at the severity of the participants drinking habits and all noted the same result: there is a high prevalence of alcohol

consumption that was considered hazardous in this country. The participants of these studies were randomly selected for and were from small districts or towns. These studies also explained the lack of treatment and intervention available for these populations, as well a lack research on the problem. The remaining study (Kaur & Gill, 2015) was also experimental in design and assessed the effectiveness of specific interventions on alcohol use for a community in Punjab India. The results of this study indicated that that patients suffering from alcohol abuse in India are indeed receptive to education on this topic, and further research should be conducted on such techniques to help these individuals.

<div align="center">**Synthesis of the Evidence**</div>

Analysis and synthesis of the scholarly papers selected for in the Matrix (Appendix A) indicated predominant themes. Three themes were evident in review of these studies.

Theme One: Nurses lack of knowledge and confidence regarding AUD.

It was noted that nurses' prior perceptions about patients suffering from AUD are barriers for nurses providing care to patients (which include alcohol withdrawal syndrome). These barriers were explored in the research studies selected.

In ten of the selected studies in this EBP project, it was identified that a lack of knowledge and prior stigmatized perceptions of those patient suffering from an AUD contributed to overall poor confidence, and ultimately made the participants feel inadequate or unsatisfied in the level of care they provided to these patients. (Berl, et al., 2015; Fitzgerald, Molloy, MacDonald, & McCambridge, 2015; Holt, Dearmon, Lawrence, Lewis, & Skotzko, 2017; Mahmoud, et al., 2019; Medina, 2017; Nash, et al., 2017; Rajaraman, 2017; Rosenthal,

Barnes, Aagaard, Cook, & Weber, 2018; Serafico, Jarvis, & Eckhardt, 2019; Smyth, Hutchinson, & Searby, 2019). The use of early screening using tools like the Clinical Institute Withdrawal Assessment for Alcohol Revised (CIWA-Ar) or Alcohol Use Disorders Identification Test (AUDIT), proper treatment methods (inadequate care protocols) and correct types of medications to use were identified by the participants as topics on which they did not feel knowledgeable enough. For example, a quality improvement project by Rosenthal et al (2018) implemented an educational program to help improve nurses' knowledge and skills when treating patients suffering from substance abuse and withdrawal to identify the barriers of nurse delivered alcohol screening, intervention, and treatment. It was found that level of comfort with proper knowledge on screening and brief intervention skills was a commonly perceived barrier for the nurses. It was proposed that nurses should be trained on the tools used for proper screening and assessment of substance use and withdrawal (Rosenthal et al. 2018). A study by Smyth et al (2019) explored the relation between knowledge, assessment and referral practices of nurses for individuals with problematic Alcohol and other Drugs (AOD) use. The results indicated the need for improved rates of assessment of AOD use in the nursing profession, especially for nurses with limited knowledge of AOD use. Nash et al. (2019) questioned if providing an educational experience would improve nursing students attitudes regarding patients with AOD use problems; it was stated that "Some nurses perceive AOD-affected patients as being manipulative and report poor regard for these patients, along with feelings of frustration, anger, fear and intolerance" (Nash, et al., 2017). These types of perceptions hinder nurses' to adequately care for patients with AOD problems and are a barrier to achieving the best possible patient outcomes.

Theme Two: Educational Program Overcomes Barriers for Nurses

Studies have shown the barriers mentioned above are overcome by providing the nurses with educational programs. For example, in an experimental study by Luis Medina (2017), the effects of an educational program on improving knowledge, attitudes and satisfaction of nurses for caring for patients undergoing alcohol withdrawal were analyzed. It was concluded that not only did nurses' knowledge on screening, managing and treating of alcohol withdrawal syndrome improve, but "their ability to engage an alcoholic patient and feel satisfaction, both on a professional as well as personal level improved as well" (Medina, 2017). Similarly, a study by Serafico et al. (2019) measured registered nurses' knowledge of Alcohol interactive (AI) medications. It used the Jarvis Nursing Knowledge of AI Medications (JaNKAM) survey, which was developed for the study and based on the results, it was noted that more AI medication content should be incorporated into nursing curricula and continuing education programs on this topic (Serafico, Jarvis, & Eckhardt, 2019). A study by Holt et al (2017) employed a pretest post-test design to study the effectiveness of providing nurses with an educational program (an evidence-based alcohol withdrawal protocol). Implementation resulted in significant reduction of restraint use, transfers to critical care, 1:1 observation, and length of stay, whereas no reduction was seen in rapid response calls. Nurses' knowledge post–alcohol withdrawal protocol education increased and the level of satisfaction with patient care improved. The conclusion made was that education and the implementation of a symptom-triggered alcohol withdrawal protocol can improve patient care outcomes, care costs, and nurses' knowledge and professional satisfaction (Holt, Dearmon, Lawrence, Lewis, & Skotzko, 2017).

Mahmoud et al. (2019) examined screening, brief intervention, and referral treatment (SBIRT) education and clinical exposure efficiency as an intervention to reduce nursing students' stigma toward patients affected by alcohol and/or opioid use problems. A quantitative,

one step pretest-post-test design was employed and it was concluded SBIRT education and clinical exposure are each effective at reducing bachelor nursing students' stigma toward caring for patients with mild to moderate alcohol and/or opioid use problems, and are most effective when both strategies used together (Mahmoud, et al., 2019). A study by Fitzgerald et al. (2015) looked at the impact of providing nurses training on ABI (Alcohol Brief Intervention) via a qualitative interview study. Based on the responses of the nurses during the interviews, it was concluded that the training program was effective in improving the nurses' knowledge and confidence levels (Fitzgerald et al 2015). Similarly, Berl, Melson, Mooney, Muffley, Glover (2015) conducted a study which assessed the knowledge of the nurses before and after implementing a new care protocol Care Management Guideline for Alcohol Withdrawal Symptom Management (CMG) and providing them with an educational program via a pretest-posttest design. The study found an improvement of the nurses' comfort and confidence when caring for patients with alcohol withdrawal by increasing their knowledge, nurses are more confident in caring for patients suffering from alcohol withdrawal, potentially improving multidisciplinary communication and clinical outcomes (Berl, et al., 2015).

Theme Three: High rate of AUD in India

There is a high level of AUD in India, but not enough facilities to help those who are suffering (Gupta, Lal, Rao, Mishra, & Ambekar, 2018). This was seen in a number of studies. For example, Gupta et al. (2018) assessed the pattern of drinking among problem alcohol users in a slum community setting in North India using a cross sectional, observational study design and found the median amount of alcohol consumed in a typical day was about 80 g, which is above the maximum recommended levels (Gupta et al 2018). The authors concluded that the results show an urgent need to expand treatment services for people suffering from substance-use

disorders, including problem alcohol users. Similarly, a study by Rathod et al (2015) estimated the proportion of adults in Sehore District, India, who consumed alcohol, and the proportion who had behaviors consistent with AUDs as determined by the Alcohol Use Disorders Identification Test (AUDIT). Forty-two percent of the participants were found to have either hazardous, harmful or dependent drinking habits (Rathod, Nadkarni, Bhana, & Shidhaye, 2015). It was concluded that a need exists for effectively identifying and treating adults with AUDs.

In a descriptive study by Kaur & Gill, (2015), the prevalence of alcohol use in a selected community area of Punjab, India was assessed. Drinking patterns of the participants were categorized as either hazardous drinking, harmful drinking, low risk drinking or possible alcohol dependence. The results showed there was a high number of individuals in the area who exhibited hazardous drinking levels, harmful drinking levels and possible alcohol dependence. This study highlighted the large amount of individuals suffering from AUD and the dire need for further research in India on alcohol use disorders. A follow up study was then conducted by Kaur and Gill (2015) on the same participants to assess the effectiveness of specific interventions on alcohol use. The specific interventions "were specific to the level of drinking of each alcohol user and included simple advice, alcohol education and brief counseling for low risk drinking, hazardous drinking and harmful drinking respectively" (Kaur & Gill, 2015). The study found a significant decrease in alcohol use among alcohol users in the experimental group who received the specific alcohol education interventions, in comparison to the control group who did not. It was concluded that those patients suffering from AUD in India are indeed receptive to improved treatment techniques.

Synthesis of the Whole

Themes One, Two, and Three are mentioned and described in the section above. Themes identified included: Nurses lack of knowledge and confidence regarding AUD, Educational Program Overcomes Barriers for Nurses, and High rate of AUD in India. These themes were drawn after an analysis of the literature that nurses feel that they have a lack of knowledge on AUD and its management as a barrier to their confidence and skills when treating such patients. However, providing some sort of educational program is seen to significantly improve the nurses' knowledge, confidence and skill levels as they are able to learn more effective treatment strategies. Finally, it was found that India has a high number of individuals suffering from AUD and there is a strong need for further research to be done in this country, regarding this issue. These findings support this project's aim to the assess knowledge among nurses in a detox facility in Punjab, India, to facilitate their understanding of alcohol withdrawal symptoms, and bolster their confidence in dealing with patient suffering from AUD in India. A lack of knowledge and confidence, and prior stigmatized perceptions inhibit nurses' ability to provide the best quality care to patients with alcohol withdrawal, but this can be remedied by providing the nurses with an adequate educational program.

A limitation identified in a number of studies was the lack of a control group to which to compare to the results of the experimental group. This comparison will further highlight the effect of any designed intervention (Rajaraman, 2017). Therefore, this project will include a control group which will not receive the educational program but will take both the pre survey and post survey like the experimental group. The post survey results of the experimental and control groups will be compared to better assess the effectiveness of the program. Likewise, the

evidence from the results of the studies analyzed in the Matrix (Appendix A) support the effectiveness of the proposed educational program in improving nurse's knowledge and capacity for better care for those patients suffering from an AUD.

Proposed Clinical Change

The proposed clinical change is an educational program with the purpose of increasing the knowledge of nurses on the screening and treatment of alcohol withdrawal syndrome, eradicate any stigmatized perceptions they may have of patients with AUD disorder, and increase nurses' knowledge and confidence when caring for patients suffering from alcohol withdrawal syndrome.

The proposed educational program will be delivered in a classroom-like setting. The program will consist of a PowerPoint presentation lecture on alcohol withdrawal. The participants will be given copies of the PowerPoint presentation for reference, and will have the opportunity to ask questions afterwards to clarify any of the topics discussed. The effectiveness of this clinical change will be assessed by a post education survey, which will be taken by the control group (did not receive educational program) and the experimental group (who did receive educational program). The comparison of the control and experimental groups' post surveys will indicate the effectiveness of the educational program.

The proposed educational program will cover the following topics:

- Background information on AUD and Alcohol Withdrawal Syndrome: AUD is a disease whose signs and symptoms include: desire for alcohol, loss of control, intolerance of alcohol, physical dependence, causing alcohol withdrawal symptoms (such as nausea, anxiety, tremors, and diaphoresis) after alcohol intake ceases. Alcohol withdrawal

symptoms arise six to eight hours after the last drink and include: anxiety, restlessness, nausea and or diarrhea, anorexia, insomnia, diaphoresis, fluctuating tachycardia, hypertension, cognitive impairment, seizures, etc (National Institute on Alcohol Abuse and Alcoholism, 2005).

- How to properly use the CIWA-Ar scale: The CIWA-Ar is an assessment tool based on withdrawal symptoms. It helps gauge the dosage of medication to administer and assesses the patient's response to the treatment. This tool quantifies the severity of alcohol withdrawal symptoms, and consists of 10 questions which indicate the level of withdrawal symptoms the patient is demonstrating who is in alcohol withdrawal.

- Effective and correct medications for managing alcohol withdrawal symptoms: Benzodiazepines are the drugs of choice (Diazepam, Chlordiazepoxide, Oxazepam, and Lorazepam).

- Other interventions designed to augment the treatment of for managing alcohol withdrawal symptoms will be discussed in terms of implementation: Improving patient comfort by providing a quiet, dark environment by dimming lights, limiting environmental stimulation, keeping patient's body temperature comfortable, providing an adequate diet, etc.

- Disease process including physiology of AUD and alcohol withdrawal. Alcohol enters the body and is absorbed through the bloodstream in the stomach. A majority of the alcohol moves on to the small intestine. Alcohol is oxidized by the liver at 0.5 ounces/hour, when the alcohol is converted into water, carbon dioxide, and energy (National Institute on Alcohol Abuse and Alcoholism, 2005).

See Appendix B for the PowerPoint presentation to be delivered to the study participants.

It is theorized this proposed educational program will be highly effective in improving the nurses' ability to provide better care leading to improved patient outcomes. In a study by Rajaraman (2011), an educational program was provided to nurses to successfully improve their knowledge on AUD disorders and covered the following topics "Arriving at a diagnosis of alcohol dependence syndrome, identifying alcohol withdrawal symptoms, alcohol related medical and psychiatric problems, management of withdrawal symptoms, introduction to Clinical Institute Withdrawal Assessment for Alcohol, revised (CIWA-Ar) and training in the administration of the scale" (Rajaraman, 2017). From this study, it was decided to include an introduction to AUD and alcohol withdrawal syndrome in the educational program, and the decision to include information on the CIWA-Ar screening tool was reinforced. Holt et al (2017) also concluded that there was benefit in providing nurses with an educational program in improving their knowledge, clinical skills, and confidence levels. The educational program included the following topics: use of the the Modified Severity Assessment Scale (MSAS) (an alternative to the CIWA-Ar) for guiding treatment on the basis of withdrawal symptoms, and the use of benzodiazepines based on MSAS patient scores (Holt, Dearmon, Lawrence, Lewis, & Skotzko, 2017). This educational program was also analyzed and further supported the proposed educational programs sections on the CIWA-Ar test, and definitions of AUD and alcohol withdrawal syndrome.

Thus, the literature supports the effectiveness of implementing an educational program for nurses who are caring for patients suffering from alcohol withdrawal. The materials in the educational programs implemented in the studies further highlighted the topics included in this proposed educational program.

Summary

Chapter 2 discussed the search strategies employed to find the 15 analyzed in the Matrix of Evidence (Appendix A) and briefly discusses overarching themes across all the studies. The evidence from these studies was distilled into three themes which were applied to the proposed project. The proposed clinical change (implementation of an educational program on Alcohol Withdrawal Syndrome for the nurses) was also explained and the reasoning behind it was supported with evidence from the results and methods of the selected studies.

Chapter Three Framework

Theoretical Framework

The theoretical framework adopted for the study is based on Sister Callista Roy's Adaptation Model (RAM). Sister Callista Roy's theory focuses on the process by which a person adapts to his/her environment. Sister Roy conceptualizes the human system from holistic perspective, as a living system, as persons are in constant interaction with their environment. The core of adaptation model is the belief that a person has an adaptive being and the person's adaptive responses are a function of stimuli and adaptation level (McEwan, 2014).

The human adaptive system has inputs of stimuli and adaptation level outputs as behavioral responses that serve as a feedback and control process known as coping mechanisms. Stimuli and control processes comprise the factors that interact in this system.

As an open living system, the person receives input or stimuli from both the environment and the self. The adaptation level is determined by the combined effect of the focal, and residual stimuli. Stimuli is conceptualized as falling into 3 classifications (McEwen 2014).
Focal stimuli are demands requiring the highest awareness for the human system. The internal or external stimuli most immediately confronting the person, the object, or the event attracts one's attention. Contextual stimuli are all other types of stimuli in the person's internal and external world that can be identified having psychological, psychological or sociological problems. In this study, it refers to the problem faced by alcoholics. Residual stimuli are those factors that are relevant but that cannot be validated.

Roy used the term coping mechanism to describe the control processes of the person as an adaptive system. Some coping mechanisms are inherited such as white blood cells defense against microorganisms. Other coping skills are learned like use of antiseptics. The process

consists of: 1. Regulator mechanisms 2. The Cognator Coping mechanism. Roy has used term coping mechanism to describe the control process of the human as an adaptive system.

Roy presents concepts of regulator and cognator. The regulator has the components of input, internal process and output. The transmitters of the regulator system are chemical, neural or endocrine in nature. The cognator is related to higher brain functions of perception or information, processing, learning and emotion. Roy identified 4 modes for assessment of behavior that results from coping mechanisms as follows: (1) Physiological mode. It represents the human systems physical responses and interactions with the environment. (2) Self-concept mode. It is related to the basic need for psychic and spiritual integrating or a need to know self with a sense of unity. In the present study self-concept modes are spiritual. (3) Role function mode: It consists of set of expectations of how a person in a particular position will behave in relation to a person who hold another position. The foundational concept-underlying this model is social integration. The coping used involves decision making, accepting new image, and is considered as a natural phenomenon. (4) Interdependence Mode: Behavior is assessed as it relates to interdependent relationships of individual and groups. Strategies include involvement in social organizations, involving family members and one's dependence on others. (McEwan, 2014).

EBP Model

The Brown and Ecoffs Bringing Evidence to Practice: Clinicians Guide EBP model (2007) was used to develop the proposed project plan. The model components are shown below in Figure 1. This model takes systematic approach to evidence-based design and consists of nine steps followed in an orderly fashion. The first step of the Brown and Ecoff's EBP model is

determining the importance of the catalyst, which can be a problem, issue, or concern emerging

from a practice or setting (Brown & Ecoff, 2011). Examples of a catalyst include an ineffective

design or protocol setting, new technologies, new published literature, etc. The second step of the

model is assessing the problem. Assessing involves "exploring the context of a given problem

and gathering preliminary information about it" (Brown & Ecoff, 2011) and helps confirm the

existence of the problem and if it is in line with the organization's priorities. The third step of the

model is asking the PICOT question to lead an evidence-based inquiry. The PICOT acronym

stands for Population, Intervention, Comparison, and Outcome and Time. The PICOT question

narrows the scope of the problem and allows for a more a focused literature review. The fourth

step of the model is acquiring the best data to answer the PICOT question, using the question as

a roadmap (Brown & Ecoff, 2011). This can be done using various search engines like PubMed

or meta-search engines like SumSearch. The fifth step of the model is appraising the quality of

the evidence collected and determining whether it is sufficient to move forward with the inquiry

process.

According to Brown and Ecoff (2011) appraising the researched literature "centers on

three questions: Are the results and conclusion of this evidence valid? Are the results reliable?

and Is the evidence relevant and transferable to my setting?" (Brown & Ecoff, 2011). Appraising

the data also includes analyzing for any bias, determining the reliability and applicability of the

data. The sixth step of the model is applying the evidence to practice by formulating an

implementation. This depends upon the availability of valid reliable research to the PICOT

question. It is important that the implementation plan should be "incremental, allowing for short-

term as well as long-term successes" (Brown & Ecoff, 2011). The key stakeholders are also

engaged in the process of creating an implementation plan. The seventh step of the model is

analyzing, which involves answering the question "Did you accomplish what you set out to, and were there any unintended consequences from what you did?" (Brown & Ecoff, 2011). This is typically done by collecting baseline data before implementing any changes and then at intervals following the change. The differences (if any) between baseline and outcome data are compared which will indicate the effectiveness the initiative. The eighth step of the model adopting which involves moving the project ideas to a broader scale. The ninth and final step of the model is advancing which includes sharing the findings and lessons learned with others. The dissemination of the findings may occurs in local, national, and international contexts (Brown & Ecoff, 2011).

The first step in developing the project plan was determining the clinical importance of the catalyst. The catalyst is defined as "a trigger that sets the evidence based decision-making process in motion" (Brown & Ecoff, 2011). The catalyst in the proposed project is nurses who identified having insufficient knowledge on alcohol withdrawal syndrome to make them more competent care providers and effectuate better patient outcomes. After determining the clinical importance of the catalyst, to discover and emphasize the importance of increasing knowledge among health care providers of alcohol withdrawal syndromes, the assessment step of the model was carried out. This involved assessing if the problem being studied will align with the key stakeholders priorities. Focusing on the catalyst, a PICOT question was formulated. In this project, the Population being studied is the nurses; the Intervention is an educational program on alcohol withdrawal syndrome which will provided to an experimental group and to compare effectiveness in improving nurses' knowledge on the disease; The expected outcome will be improved patient care quality by providing the nurses with adequate knowledge on proper screening and treatment strategies. To summarize, the PICOT question for this project is: For

nurses at a detox facility and hospital in Punjab, India does the use of an educational program on alcohol withdrawal improve their knowledge and confidence level when treating patients undergoing alcohol withdrawal, compared with nurses not provided such an educational program? The acquiring step of the model involves using the PICOT question to guide a search for the literary evidence to support the project.

The PICOT question "provides a roadmap to the next step in an evidence-based design inquiry: acquiring the best evidence to answer the question" (Brown & Ecoff, 2011). This will be done via an extensive search using search engines like Google Scholar, PubMed, HubNet and others. In the Appraisal step of the model, the data will be assessed for quality, validity, reliability, and amount of evidence. During the application phase, the studies will be reviewed and synthesized from the data to develop recommendations, measurable outcomes, and an implementation plan (Brown & Ecoff, 2011). The Analyzing phase involves comparing the results of the pre change data to the post change data, and to the evidence collected. The question "Did you accomplish what you set out to, and were there any unintended consequences from what you did?" (Brown & Ecoff, 2011) is answered in this step. Next the Advancing step will include sharing the findings and lessons learned from the results of the project with others in local, national, or international contexts. This could be done in different forms, such as by publishing or presenting. Finally the Adopting step of the model involves moving the project findings/ideas to a broader scale, and determining how they can be adopted by the organization or other interested groups (Brown & Ecoff, 2011). In this project, the findings may be adopted by the facility and may encourage to facility staff to implement similar educational programs for nursing staff on other related substance use disorders.
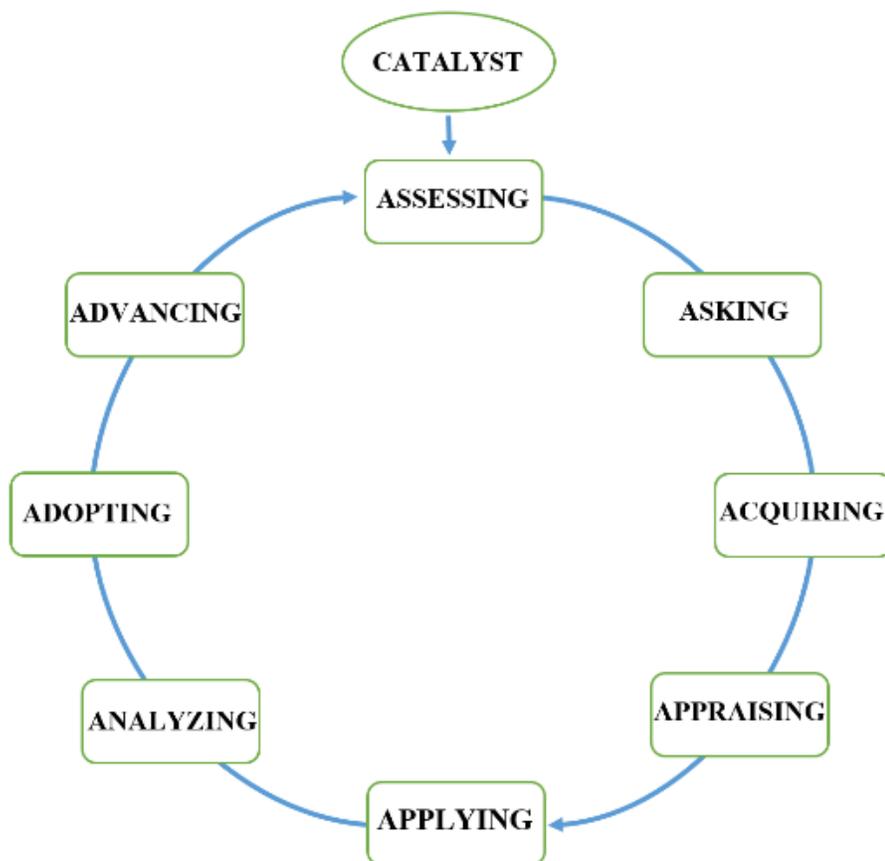
Figure 1: Brown and Ecoff's EBP Framework (Brown & Ecoff, 2011).

Application of Framework to EBP Proposal

The Brown and Ecoffs EBP model relates to this project as education is seen as input for the nurses which they can adapt into their clinical practice. The concept model from Roy's Adaptation Theory can be applied in identifying the obstacles that patients suffering from alcohol withdrawal may face and importantly help nurses in providing better care for better patient outcomes. The core of adaptation model is the belief that a person is an adaptive being and the person's adaptive responses are a function of stimuli and adaptation level. This is applicable to the project as the nurses are viewed as adaptive beings who should adapt the

material from the educational program into their practice. RAM has four adaptive modes: physiologic, self-concept mode, role function mode and interdependence mode. The physiologic mode applies to this project as the nurses are first to assess the patients physiologic state using an appropriate screening instrument like the CIWA-Ar scale. The self-concept mode applies as the nurses' self confidence levels in their skills and knowledge on AUD influences their confidence in treating for patients with AUD. The role function mode applies as the role of the nurses' at the facility is to provide effective care to the patients. The educational program will allow the nurses' to expand upon their knowledge and skill level in order to provide higher quality care to the patients and thus adequately fulfilling their role. The interdependence mode applies as the nurse and patient relationship is that of trust. The patient trusts the nurse to provide him/her adequate care to help him/her overcome illness. Nurses are only able to fulfill this relationship if they have adequate and efficient skills which are only gained by knowledge. It is the nurses' duty to gain knowledge on treatment strategies. Roy's model relates to the last stage of the Brown and Ecoff's EBP framework of 'Advancing and Adopting'. Both frameworks emphasize the importance of adapting to better and more efficient practice methods. In this project, the practice methods will be provided via an education program for the participating nurses which they will be able to adopt in their practice for improved patient outcomes.

Congruence of Framework to EBP Proposal

According to RAM, the separate parts of the person are impacted by various stimuli. The individual responds to influences or stimuli and once they become known, their reactions or behaviors that result can be measured. This model recognizes the unique role of the innate and acquired coping mechanisms (the regulator and cognator) in adaptation. Adaptation through the

regulator or cognator are processes that can affect the person negatively or positively and enhance the well-being of the self. Adaptation is the core of RAM theory, and the adequacy of cognator or regulator has the greatest impact on the adaptation process.

Congruence is defined as a process of maintain a holistic and effective relationship between the health care provider and patient. RAM provides a systematic framework for treating AUD, and education via its congruence with its logical sequence of concepts, and nursing values and beliefs. The RAM's conceptual framework is consistent with the project plan of providing nurses education on AUD to improve patient outcomes. The six step layout of the RAM (McEwen 2014) can be applied to the project as:

1. Assess the behaviors manifested from the four adaptive modes (physiologic, self-concept, role function, and interdependence).

2. Assess and categorize the stimulus for those behaviors: Pretest to collect data on the nurses existing levels of knowledge. This will help the researcher assess whether providing the education session was effective in improving nurses' knowledge to determine gaps in knowledge.

3. Make a nursing diagnosis based on person's adaptive state: Analysis of the data will help determine whether lack of knowledge hindered nurses from providing adequate care. An educational program will be presented to help remedy it.

4. Set goals to promote adaptation: Goal setting within the framework of Roy's model will involve aiming to implement better knowledge programs for nurses allowing for effective care in a timely manner to those with an AUD by recognizing early withdrawal syndromes.

5. Implement an intervention aimed at managing stimuli to promote adaptation: After analyzing the results from pretest, an education session will be given to assist the nurses in attaining the goals mentioned above.

6. Evaluate achievements of adaptive goals: Posttest survey results will allow for an evaluation of the effectiveness of the education program to nurses. According to RAM, nursing process is a problem slowing by collecting data, identifying needs, capacities of human adaptive system, selecting and implementing approaches and then evaluating.

Setting

This project will be conducted in a detox facility in Punjab, India (Sampardai Sant Baba Tara Singh Ji Sarhali, District Tarn Taran 143410, Punjab non-profit/charity). This project will include all the out-patient and in-patient staff nurses, and nursing students. This organization manages several historical Gurdwaras (Sikh temples), schools, colleges, hospitals and other public welfare institutions in Punjab in several other States of India. This detox facility consists of a detox clinic which is outpatient, and a hospital which is inpatient. Typically, severe patients are transferred from the clinic to the hospital for stay. Permission was gained from the facility administration at institution (Appendix – C). This facility is a private organization and is not affiliated with the Indian government healthcare system, and has an accompanying in-patient hospital. Typically, such clinics are found across the state and admit patients who are willingly seeking treatment for AOD disorders. Patients come to this facility when they require help/treatment in managing their AUD. All patients come willingly, whether it is out of self-interest or at the recommendation of friends and family. The average stay time of a patient in the

facility is 35 minutes, including 15 minutes meeting with a physician, 10 minutes meeting with a nurse, and waiting time. This facility has three possible channels for incoming patients:

1. Patient is assessed by a physician to be in a stable condition with care support at home, and is discharged with benzodiazepines for self-medication.

2. Patient is assessed by physician to be at low risk, not stable without an adequate care giver, and is sent to accompanying hospital to be kept overnight for observation. If patient is seen to improve and judged to be stable, he/she will be sent home the following day, if not then a care plan is devised.

3. Patient is assessed by physician to be at high risk, not stable, with comorbidities and no adequate care giver. The patient sent to the accompanying hospital and care plan is devised.

Population

Population of this project will include all nurses and nursing students who are employed at the detox facility (which consists of the outpatient clinic and inpatient hospital

0 who are willing to participate and are above the age of 18 years. Both full time and part-time staff will be able to participate in this study.

Human Rights Assurance

Permission will be gained from facility administration at institution (Appendix F). This study will be categorized as Institutional Review Board (IRB) exempt per Indian Research Organizations and Medical Schools involved in research or clinical trials take their own guidelines and supervising committee and are exempt from Independent Ethics

Committee/Institutional Review Board (IEC/IRB) per E6 Guideline of schedule Y. Schedule Y, established under the Drugs and Cosmetics Act 1945, is the current regularly enforced law in India to provide a safe and healthy environment to conduct clinical research in India (James Lind Institute, 2011). The project organizer will need to write and submit this proposal to the Institutional Review Board (IRB) of Daemen College. The project will be organized and conducted with the help of the nurse in charge at the facility.

With permission from IRB and the aforementioned institute, the pre and post-surveys will be conducted to assess the nurses and nursing students' understanding of AUD and associated withdrawal symptoms. The surveys will be organized and conducted with the help of the nurse in charge at the facility. There will be an informational letter (see Appendix E) before the survey with information about the study that the participants needed to know before filling out survey. The information letter will prompt the participants to accept or decline the survey.

System Focus

The Micro level focus of this project will be improving the confidence and knowledge of the participating nurses and removing any stigmatized perceptions they may have of patients with AUD disorders. This will allow the individual nurses to apply their new found knowledge and skills and take better care of their patients leading to improved patient outcomes. The micro level focus will be to improve the functioning of the microsystems of the clinic. The Macro level focus of this project will be the impact this project will have upon the functioning of the clinic, and the associated nursing school. The macro level impact will be upon the facility administration's desire to provide education to nurses on managing and treating AUDs. This project may cause the facility to begin implementing educational programs for other diseases

which are treated at their location, like opioid or other drug use disorders. The macro level impact on the nursing school will be upon their curriculum for AUD, with potential adoption of other healthcare institutions in the country. The project may cause the associated nursing school to re-evaluate their curriculum on AUD and consider adding more information on alcohol withdrawal syndrome, intervention techniques, and medications into the core nursing curriculum.

All the subcomponents, such as microsystem, mesosystem, and macro system of a system have to work synergistically to achieve a desired aim. Clinical microsystems will be the first step in helping to redesign strategies. Hospitals and healthcare organizations are all made up of hundreds of microsystems. In this project, the microsystem includes nurses, facility staff, and physicians involved in direct patient care. Team members can support education sessions to improve care quality, thus making the staff more competent. Microsystems can help gather data by developing multidisciplinary teams. Teams can identify opportunities to use, and discuss alternative ways to prevent patient relapse associated with alcoholism. Learning from microsystems usually leads to transformation via macrosystem strategies. Macrosystems regulate and influence microsystems. Macrosystems will include higher administrators, payment regulators, policy makers, political systems and the larger healthcare system in general. Financial support is always required to make any improvements, but it is only available via the support of the macrosystems. Clinical coleaders of microsystems can communicate with macrosystems by sharing outcomes of data, and-patient satisfaction information to advocate for change. Micro level leaders can find knowledge gaps which can be improved by educational programs, and present these findings on the macro level to ask for adequate resources to implement the educational programs. New care strategies implemented at the micro level, acquired from the educational program, will lead to earlier identification of the disease, and allow for quicker and

better patient outcomes. Hence, it is very important for micro and macro systems to develop alignment, and have a clear channel of communication. This will unify all levels of healthcare systems with a clear focus to improve patient outcomes, and allow both systems to work in tandem.

Contextual Factors

Contextual factors consist of the whole atmosphere by which the project is surrounded, including internal and external circumstances, and any force which can influence the health care provider's ability to attain resources which will allow to effective care to alcoholics. Internal contextual factors may include the institutes' mission, philosophy, culture, financial resources, programs and policies, and infrastructure. External contextual factors may include forces outside the institute such as demographics, politics and economics, technology and health care system (Iwasiw, Andrusyszyn, & Goldenberg, 2020).

The internal factors include inadequacy of essential resources, lack of financial funding for the institute and the lack of availability of staff to receive education to help the nurses from overcoming barriers. Clinical education plays an important role in preparing novice nurse. Lack of funding can impact the clinic's ability to provide adequate education, and this could mean by a lack of professional nurses available to teach or lack of proper resources. Nurses' education is limited on medications and effective treatment strategies, which is why the assistance and financial support from the facility administration is necessary to better prepare nurses with knowledge by providing the nurses with educational programs. Limited funding can lead to limited staff availability causing a shortage of staff. This will mean that there will be no extra

time for the educational program, since the nurses will be occupied attending the patients in the little time they have. This will lead to nurses' ineffective training and increased workload causing stress and burnout. Another internal factor acting as a barrier may include the communication system between the nurses at the clinic and the hospital of the detox facility. An efficient, computerized system should be in place to relay information between the clinic and hospital regarding patients' treatment status and other data. A lack of such a system may lead to miscommunication of the treatment plan and/or misdiagnosis.

External factors include the economic situation of the state. Developing countries like India may not have enough resources, budget and finding to support clinical advancement in contrast to developed countries like the United States. According to a report by Batra and Pall (2016) the state of technology integration is dismal in the Indian healthcare sector as compared to its peer nations, with sluggish adoption of Hospital Information Systems (HIS) (Batra & Pall, 2016). Other external barriers health care facilities in the state of Punjab include poor governance, dysfunctional role of the state and lack of a strategic vision for healthcare in general (Batra & Pall, 2016). The lack of proper technology, and proper governance to oversee management of the health care system contributes to detox facilities not receiving adequate funding and materials required to provide care to patients. The internal and external contextual factors must be taken into account when preparing the project plan as they will influence key aspects such as timeline of the project, number of possible participants and acquiring funding for the project.

Summary

Chapter three explains the RAM which will be used as the project's framework, and the Brown and Ecoff's Evidence Based Proposal model which will guide the development of the project plan. The RAM applies to the Brown and Ecoff's EBP as it relates to the last stage of the Brown and Ecoff's EBP framework of 'Advancing and Adopting'. RAM is used as the theoretical framework because the importance of the nurses being able to learn new educational material and apply it in their practice is studied. The Micro focus of the project is be improving the confidence and knowledge of the participating nurses and removing any stigmatized perceptions they may have of patients with AUD disorders. The Macro focus of the project is functioning of the facility as impacted by change in the professional intervention of the nursing staff. The setting of the project will be detox clinic and the associated hospital in Punjab, India (Sampardai Sant Baba Tara Singh Ji Sarhali, District Tarn Taran 143410, Punjab non-profit/charity), and population will be willing nurses and nursing students above the age of 18. Permission will be gained from facility administration at institution, and IRB before asking willing participants. The contextual factors include inadequacy of essential resources, lack of financial funding for the institute and the lack of education for staff for AUDs.

Chapter Four Proposed Clinical Change

The proposed clinical change is the implementation of an educational program for the participating nurses. The educational program will cover the topic of AUD and alcohol withdrawal syndrome including topics like the pathophysiology of the disorder, treatment techniques, screening tool, medications, and how to increase patient comfort for those who are afflicted by this condition.

Description of Proposed Clinical Change

The educational program will address the elements of alcohol treatment. A reference sheet will be created for nurses to utilize after the presentation. This program will take place in a private conference room similar to a class room type setting, after the participants will be given the opportunity to ask questions following the presentation. The following topics will be covered:

1. Alcoholism: Definition and Physiology

2. Alcohol Withdrawal Syndrome: Symptoms

3. Clinical Institutes Withdrawal Assessment- Alcohol Revised (CIWA-Ar): Function, When and How to use, and Scoring

4. Medications for Alcohol Withdrawal Syndrome: Benzodiazepines, how to properly administer them and risk factors for addiction.

5. Patient Comfort: How to increase it by adjusting the environment, diet, fluid intake, etc.

6. Patient Education: Importance of to providing education on alcohol abuse, dependency, and withdrawal to the patient and family

7. Points for Nurses: Providing nonjudgmental supportive care, and exercising patience

The PowerPoint presentation is provided for in Appendix B

Role of Stakeholders

The stakeholders of this project will the facility management and possibly the associated nursing school faculty responsible for the alcoholism related curriculum.

The facility management will be not only be granting permission to conduct the project with their nursing staff, but they may also be interested in the hypothesized outcomes (increasing nursing knowledge will lead to better patient outcomes). By improving the nursing staff's knowledge on the treatment and management of alcohol withdrawal syndrome, they will not only have better treatment tools and techniques but also have higher self-efficacy in their abilities, enabling them to provide better quality care to patients. This will hopefully facilitate better patient outcomes, and allow them to discharge patients in a more timely manner, facilitating a cost advantage. Patients may also demonstrate more satisfaction with their experience in this process. These proposed positive outcomes will encourage the detox facility management to research other gaps and barriers nurses may face in their practice and implement such educational programs more frequently to overcome those gaps.

The detox facility has an associated nursing school, Guru Gobind Singh Nursing Institute and Hospital Goindwal Sahib, Tarn Taran (Punjab), from which nursing students come to practice and learn in a clinical setting. If the proposed educational program has a positive outcome, it may signal the nursing school to implement the topics covered into their educational curriculum on AUD. This will better equip the nursing students to graduate well prepared in

terms on treatment and screening techniques pertaining to AUD and also greater professional confidence in dealing with patients with this condition.

Project and Sample

Project sample will be a convenience sample of all the registered nurses (RN's) Licensed Practical Nurses (LPN's), and nursing students at the facility. The group will be randomized into an experimental and control group. The experimental group will receive the educational program. In the surveys, RN's and LPN's will not differentiated to protect confidentiality. The pre-survey will be distributed to the sample after gaining approval from the IRB at Daemen College and institutions administration. The surveys will be anonymous without any names or other forms of identification.

Instrument

The instrument to be used in this project will be a survey with three different types of questions, for a total of 15 questions. The survey was developed by the researcher. The three categories of questions include participant demographics, knowledge based questions and self-efficacy questions. Demographic questions will ask about the participants' gender, age and whether they are a student or practicing nurse. Knowledge-based questions will ask participants about the symptoms, medications, and physiology of alcohol withdrawal syndrome. These questions will include multiple choice answer and true/false formats. The self-efficacy question types will ask the respondents' about their confidence and comfort levels when treating patients with AUD and their confidence and comfort with their knowledge levels. The survey is included in Appendix B.

This survey will be distributed to both the experimental and control groups. Upon completion of the preliminary survey, the educational program will be given to the experimental group only. The educational program will be administered in a classroom setting. Instruction will provided with the use of a PowerPoint presentation; following this presentation, an outline of the information provided will be distributed for the participants for reference. Three days after completion of the educational program the same survey given before will be administered again to both the experimental and control groups.

Workflow of Project

The project proposal will be created by the researcher and presented to project director and administration for approval. If it is approved, the educational program will be designed. The educational program will cover alcohol withdrawal syndrome symptoms and management using effective screening tools by using a PowerPoint lecture format. The specific topics covered in the program include:

- Background information on AUD and Alcohol Withdrawal Syndrome: AUD is a disease whose signs and symptoms include: desire for alcohol, loss of control, intolerance of alcohol, physical dependence, causing alcohol withdrawal symptoms (such as nausea, anxiety, tremors, and diaphoresis) after alcohol intake ceases. Alcohol withdrawal symptoms arise six to eight hours after the last drink and include: anxiety, restlessness, nausea and or diarrhea, anorexia, insomnia, diaphoresis, fluctuating tachycardia, hypertension, cognitive impairment, seizures, etc (National Institute on Alcohol Abuse and Alcoholism, 2005).

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- How to properly use the CIWA-Ar scale: The CIWA-Ar is an assessment tool based on withdrawal symptoms. It helps gauge the dosage of medication to administer and assesses the patient's response to the treatment. This tool quantifies the severity of alcohol withdrawal symptoms, and consists of 10 questions which indicate the level of withdrawal symptoms the patient is demonstrating who is in alcohol withdrawal.

- Effective and correct medications for managing alcohol withdrawal symptoms: Benzodiazepines are the drugs of choice (Diazepam, Chlordiazepoxide, Oxazepam, and Lorazepam).

- Other interventions designed to augment the treatment of for managing alcohol withdrawal symptoms will be discussed in terms of implementation: Improving patient comfort by providing a quiet, dark environment by dimming lights, limiting environmental stimulation, keeping patient's body temperature comfortable, providing an adequate diet, etc.

- Disease process including physiology of AUD and alcohol withdrawal. Alcohol enters the body and is absorbed through the bloodstream in the stomach. A majority of the alcohol moves on to the small intestine. Alcohol is oxidized by the liver at 0.5 ounces/hour, when the alcohol is converted into water, carbon dioxide, and energy (National Institute on Alcohol Abuse and Alcoholism, 2005).

  See Appendix B for the PowerPoint presentation

After all materials have been prepared and approval is gained the project will be implemented at the Sampardai Sant Baba Tara Singh Ji Sarhali Detox Facility in Punjab, India. Figure 1 shows the workflow of the implementation of the project. All willing participants will be randomly assigned to an experimental or control. Each participant from each group will fill a

pre-survey assessing their current knowledge on alcohol withdrawal syndrome and alcoholism; this will be done with the help of the in-charge nurse at the facility in a classroom- like setting. Each group will complete the survey on a separate day, and measures will be taken to ensure the privacy of the participants while they complete the survey (such as keeping a three foot distance between individuals). The control group participants will be free to leave after completing the survey, whereas the experimental group will be provided with the educational program. Three days after completing the pre survey, each group will be asked to return and complete the post survey which will consist of the same questions as the pre survey. The pre and post survey responses of each group will be analyzed for any improvement, then the overall scores of both groups will be compared with each other to determine the effectiveness of the educational program. Pre- and post-surveys will be scored for the experimental and control groups to determine the outcome of how many questions were answered correctly. Four overall means will be calculated: pre-survey experimental, post-survey experimental, pre-survey control and post-survey control. These sample statistics will help answer the question whether the mean change in the outcome from pre-intervention to post-intervention differed in the two groups. Repeated measures analysis of variance (ANOVA) will be used to determine if there was a statistically significant difference in the outcome between the two groups across survey periods.

The determination of statistical significance will be directly measured by the survey period by group interaction term given in the repeated measures ANOVA. A p-value of 0.05 or less for the interaction term will show that there is a statistically significant difference between the two groups across survey periods. Taking into account sample size considerations, the repeated measures ANOVA can be used to compare any of the demographic subgroups proposed in the thesis.
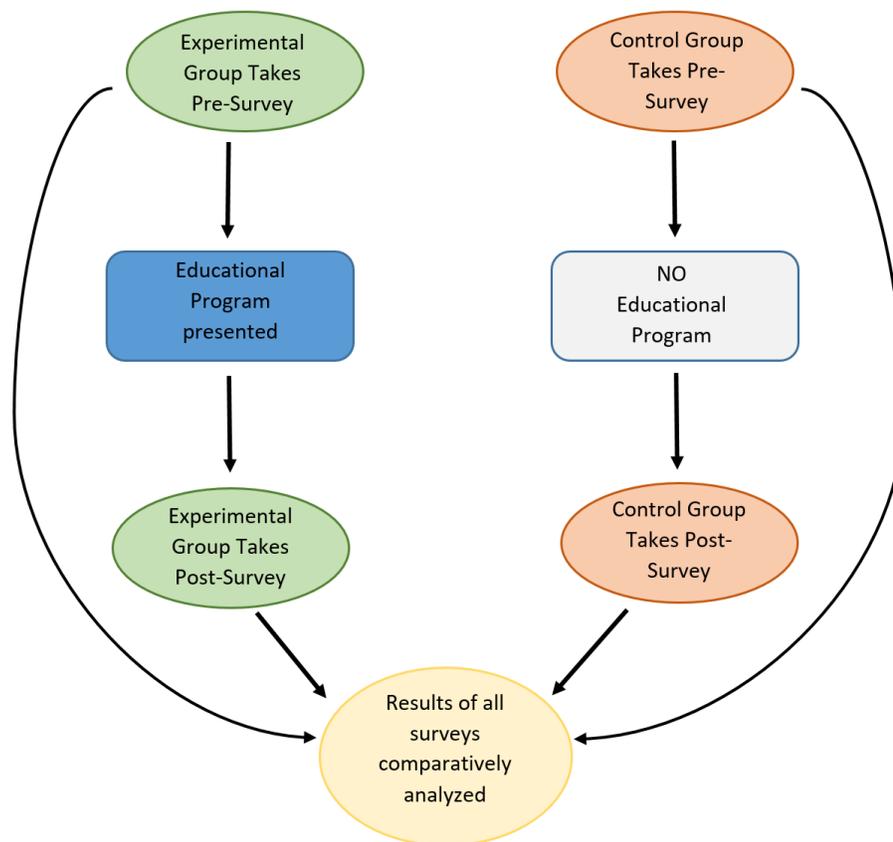
Figure 1: Diagram of Project Implementation phase Workflow

Responsibilities

The researcher will be responsible for completing the proposal and presenting it to the project director for approval. The project director will be responsible for obtaining approval from the administration. Following this step, the proposal will be submitted to the IRB at Daemen College for approval. When the project is approved, the project director and researcher will design the educational project. Following this, the researcher will be responsible for contacting the facility administration and setting a time to present the proposed project. If the facility administration consents, then the researcher will be responsible for acquiring the appropriate materials for implementing the project. The researcher will also be responsible for meeting with

the facility administration and discussing employing the charge nurses help in implementing the project.

The responsibilities of successfully carrying out this project will be carried by the researcher and the charge nurse of the facility. The researcher is responsible for providing all materials required for the implementation of the project: pens to complete the surveys, copies of the surveys, copies of the PowerPoint presentation of the education program, and presentation of the information with both presentation of the information and question and answer session. The researcher is also responsible for analyzing the completed surveys and then appropriately storing them after the completion of the project in a secure location until they are to be destroyed.

The charge nurse of the facility will organize and supervise the pre and post surveys. This will include organizing a time and day for each group (experimental and control groups), setting up the surveys for the willing participants to complete in a way which ensures privacy of the respondents (such as leaving 3 feet gaps between the participants), and most importantly collecting the completed surveys. The surveys will be collected by the in charge nurse in a manner to safeguard the confidentiality of the respondents. This will be done by instructing the respondents to place their completed surveys face down on a table (monitored by the in charge nurse); after all the respondents have completed the surveys, the in charge nurse will quickly slide them into a sealed envelope without turning them over. The most important responsibility of the researcher will be to maintain and protect the participant's privacy. It should also be noted that the survey and educational materials will first be presented to the in charge nurse and management of the facility where they will give their permission if they find the materials secure and appropriate to present to the participants, thus the facility management and in charge nurse will be responsible for checking if the materials are within their guidelines.

Education Plan

After the experimental group has completed the pre education surveys, they will be given an educational program on AUD and alcohol withdrawal syndrome. This will be done in a class room type setting in the presence of the in charge nurse. The program consists of a PowerPoint presentation of approximately 14 slides and is expected to take approximately 45 minutes to present. The participants will also be given printout copies of the presentation to keep as a reference. After the PowerPoint presentation is completed, the participating nurses will be given an opportunity to ask any questions regarding the material covered. The presentation will be given by the researcher, who will also answer the questions.

The following topics will be covered:

1. Alcoholism: Definition and Physiology

2. Alcohol Withdrawal Syndrome: Symptoms, Three Stages

3. Clinical Institutes Withdrawal Assessment- Alcohol Revised (CIWA-Ar): Function, When and How to use, and Scoring

4. Medications for Alcohol Withdrawal Syndrome: Benzodiazepines, how to properly administer them and risk factors for addiction.

5. Patient Comfort: How to increase it by adjusting the environment, diet, fluid intake, etc

6. Patient Education: Importance of to providing education on alcohol abuse, dependency, and withdrawal to the patient and family

7. Points for Nurses: Providing nonjudgmental supportive care, and exercising patience

   The PowerPoint presentation is provided for in Appendix B

Desired Outcomes

The data gathered from the survey will help enhance the staff nurses and student nurses level of understanding in managing patients with alcoholism, and assessing the effectiveness of implementing an educational program on the nurses knowledge and self-efficacy levels. The desired outcome is a greater improvement in the post survey scores of the experimental group compared to those of the control groups. This outcome will support the effectiveness of implementing an educational program in improving nurses' knowledge and self-efficacy levels in terms of working with patients with an AUD.

This outcome will lead to the nurses having improved clinical skills which will provide enhanced staff satisfaction and empowerment, as hopefully give rise to better patient outcomes. For example, an experimental study by Luis Medina (2017), analyzed the effects of providing an education program on the knowledge and attitudes of nurses caring for patients afflicted by an AUD. A similar pretest posttest design was employed and saw an improvement in the post education test scores reported "the nurses their ability to engage an alcoholic patient and feel satisfaction, both on a professional as well as personal level improved as well" (Medina, 2017).

Along with improved clinical skills, this outcome will also help eradicate any prior stigmatized perceptions of patients with AUD disorder. A study by Mahmoud et al (2019) conducted a quantitative, one step pretest-posttest design study to analyze the effectiveness of providing a screening, brief intervention, and referral treatment educational program to participating nursing students to tackle the issue of stigmatized perceptions of patients afflicted with alcohol and/or opioid use (Mahmoud, et al., 2019). The results supported the use of education as a potential intervention to target nursing students' perceptions toward caring for

patients affected by alcohol and/or opioid use problems. The desired outcomes of this project will also lead the nurses to have greater self confidence levels when caring for patients with AUD disorders. This is supported by the findings of a study by Berl et al. (2015) which studied the effectiveness of providing and educational program on the participating nurses' skill, knowledge and confidence levels. It was evident that education on proper treatment strategies is an effective method to improve the nurses' care quality and confidence when treating patients with alcohol withdrawal (Berl, et al., 2015). Thus, prior research demonstrates that an educational program has the capacity to enhance nursing staff empowerment when dealing with patient's suffering from AUD, and hopefully enhance improved patient outcomes.

The desired outcome will also encourage the stakeholders of this project, the clinic management, and Guru Gobind Singh Nursing Institute and Hospital, to seriously consider the benefits of the educational program. This will possibly encourage the clinic to begin providing similar educational programs to the nurses for other illnesses treated at their facility like opioid addictions. It will involve the facility conducting research and identifying the barriers faced by their staff nurses when treating patients suffering from such illnesses. Such research and programs will allow the facility to provide higher quality care and improve patient outcomes. The Guru Gobind Singh Nursing Institute and Hospital will be in a position to identify gaps in their curriculum on AUD and fill them promptly with the material in the projects educational program. Overall, the desired outcomes of this project will lead to greater positive changes within in the facility and the associated nursing school. These changes will lead to more knowledgeable and competent nurses capable of providing the highest quality of care possible.

Data Collection

The pre and post surveys for both experimental and control groups will be collected by the charge nurse in a manner to protect the participants' privacy. The participants will be asked to bring their completed surveys to a desk where the charge nurse will wait to collect them. The participants will be instructed to place the surveys face down, covering all the work/answers to ensure participant fidelity. After all the surveys have been completed, the charge nurse will slide them into an envelope, keeping them faced down, and immediately seal it closed. The key responsibility will be protecting the respondents' privacy, until they will be analyzed by the researcher.

Data Analysis and Evaluation Plan

The raw data (surveys) will be received by the researcher from the in charge nurse in sealed envelopes. The data will be analyzed by the researcher. There will be a total of four envelopes containing: pre surveys for experimental group, pre surveys for control group, post surveys for experimental group, and post surveys for control group. It will be ensured that the research analyzes the data in a private and secure office. Each of the four groups of surveys will be analyzed separately. The steps for counting the responses for each survey pile:

1. Tallying the number of males and female respondents from the demographics questions
2. Tallying the number of nurse and nursing students respondents from the demographics questions
3. Tallying the correct responses for each of the knowledge-based questions and indicating whether the response was from a nurse or nursing student

4. Tallying the ratings from the self-competence questions, and indicating whether the response was from a nurse or nursing student

The demographic responses will be analyzed by comparing the number of male respondents to female respondents and the number of nursing students to licensed nursing respondents. These comparisons will be represented as pie graphs to show the percentage of males to females, and nurses to nursing students. The knowledge-based questions will be analyzed by tabulating the number of correct responses to each question, and percentage of correct responses to each question. The percentage of correct responses to the knowledge-based questions given by nurse will be calculated and compared to those given by nursing students. This comparison will be shown via a bar graph, where the x axis will have bars for each of the knowledge based questions and y axis will represent the percentage of correct responses to the questions. The bars of the answers by nurses will be separate from the bars of answers by the nursing students, this will allow for a comparison between the knowledge of the nurses vs nursing students on alcoholism and alcohol withdrawal syndrome. The self-comfort rating questions will be analyzed using bar graphs, with each answer choice represented as a bar along the x-axis and frequency of the choices shown using the y-axis. The bars of the answers by nurses will be separate from the bars of answers by the nursing students, this will allow for a comparison between the levels of comfort of the nurses vs nursing students when treating patients with alcohol withdrawal.

Next the percentage of correct responses and self-comfort ratings will be compared across the pre and post surveys for the experimental group. First, the percentage of correct responses to the knowledge-based questions in pre survey will be compared to those of the post survey. This comparison will be shown via a bar graph with the each survey (pre and

post education) shown along the x axis, and the percentage of correct responses given in each shown along the y-axis. This process will be repeated for the control group' pre and post surveys as well. The results of the comparison of the correct responses in the pre and post education surveys for the experimental group and control will indicate whether the educational program was successful. This comparison will be shown by a double bar graph with each group (control or experimental) represented along the x axis, and the percentage of correct responses in the surveys shown along the y axis. Each group along the x axis will have two bars, one for the pre survey and other for the post survey.

Second, the self-comfort ratings will be compared across the pre and post surveys for the experimental group. This will be done via a double bar graph with each answer choice represented as a bar along the x-axis and frequency of the choices shown using the y-axis. The responses of the pre vs post surveys will be differentiated using different bars for each of the answer choices. This process will be repeated for the control group as well. A comparison of these two graphs will answer how effective the educational program will be in improving the comfort and confidence of the nurses in their clinical skills.

Repeated measures analysis of variance (ANOVA) will be used to determine if there was a statistically significant difference in the outcome. The determination of statistical significance will be directly measured by the survey period by group interaction term given in the repeated measures ANOVA. A p-value of 0.05 or less for the interaction term will show that there is a statistically significant difference.

Communication Plan

The findings of the project will be presented to the stakeholders via a paper report and short verbal presentation. This report will highlight the projects methodology, include all materials used (educational PowerPoint and survey), analysis of the resulting data, and conclusions of the results. The results and conclusions will allow the stakeholders to get a gauge of the effectiveness of using educational programs to help bolster nurse's knowledge and confidence. The verbal presentation will relay the findings and also include suggestions for further study if the stakeholders will be interested. For example, suggestions for implementing an educational program on opioid abuse for the stakeholders in the clinic, and for the stakeholders in the nursing school suggestions to incorporate the material covered in the educational program in to their curriculum on AUD. This short presentation will be given in a private conference room by the researcher.

Timeline

The anticipated time of preparing, implementing and analyzing this project is expected to twelve weeks. The EBP with preparatory research and project outline will take 4 weeks. Time anticipated to gain program directors permission is one week. This proposal needs to be presented to facility administration for their review, approval and support of this project. The time anticipated to gain the facility administration's permission letter is two weeks, this includes time to send the permission letter via email to the clinic, and time needed to present the project plan (one day) and time for the facility to discuss and come to a decision (six days). The anticipated time to gain permission from the IRB is approximately two weeks, this is because

time will be needed to complete the form and be sent for processing by the IRB. This timeline will be modified if more time is needed at any step. Time to administer the project and analyze the results is anticipated to be two to three weeks, including the time to travel to the clinic. This timeline is shown below in Figure 2.
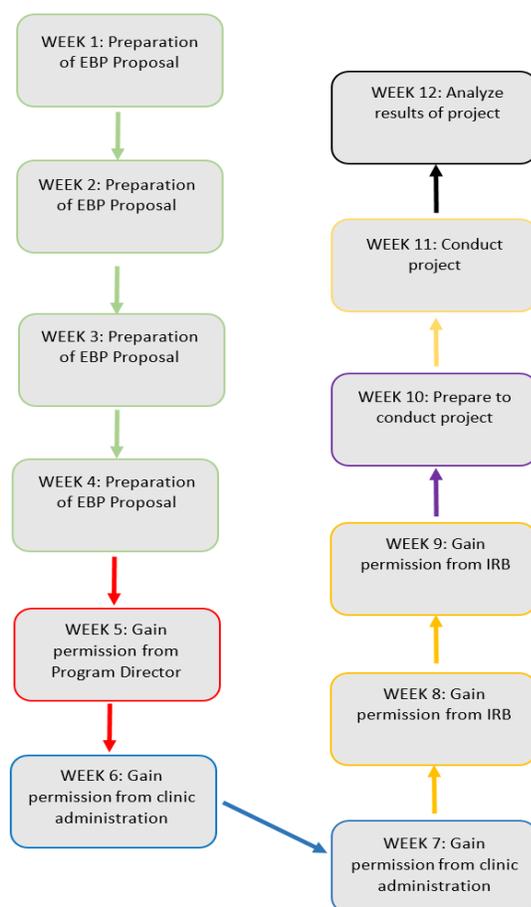
Figure 2: Timeline of Project preparation and implementation

The anticipated timeline for actual delivery of the project is five days. Day one will have the control group take the pre survey, day two will have the experimental group take the pre survey and receive the educational program. On day four, the control group will take the post survey, and on day five the experimental group will take the post survey. The three day gap is to

allow the experimental group to apply what they have learned from the educational program. After the project has been completed results will be analyzed over the course of the following two to three days and will be presented to the stakeholders in an organized manner. The timeline is shown in Figure 2 below:
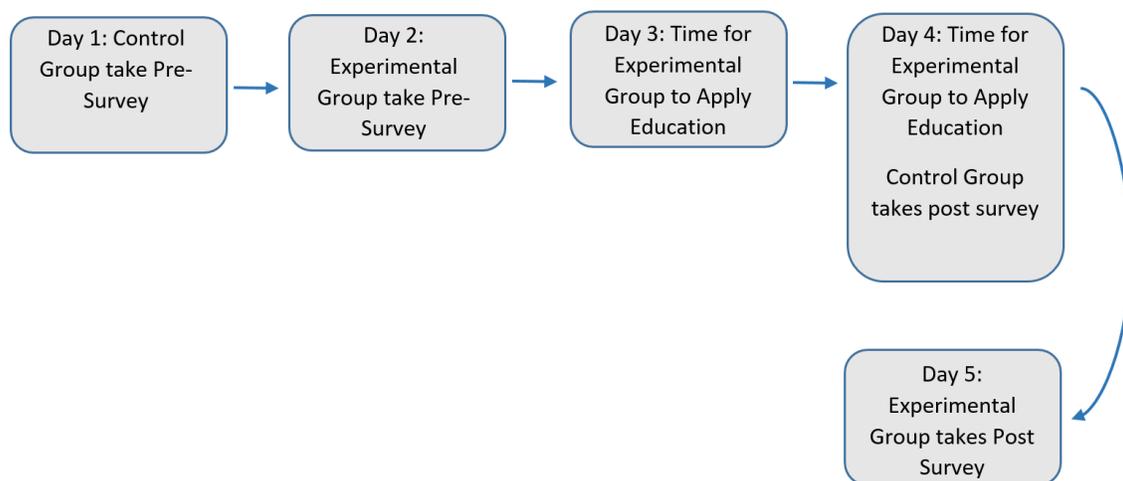
Figure 3: Anticipated Timeline for the Implementation of the Project

Budget

This project materials will be self-funded by the researcher. The costs will include printing fees for the surveys and PowerPoint slides, and pens for the participants to use to fill the surveys. The organization will be asked to assist in planning for the project, to have participants come in during break times to avoid time costs. The charge nurse and facility administration will be consulted during an arranged time which will be convenient for them to avoid time costs as well. The charge nurse will be compensated on an hourly basis by the researcher for the additional effort of assisting in the conduction of the project, the anticipated cost will be $20.USD/hour. The cost of using the clinics conference room for administering the surveys and

educational program will be discussed with the facility administration, but the proposed cost is

$100, using the cost of $20USD/hour. This is included in the budget to cover electrical bill costs,

and any inconveniences in scheduling caused to the facility administration. The cost of the

preparing the data analysis plan by a statistician will be $75. The time taken to put together an

outline of this EBP by the researcher was approximately three to four weeks, time taken to gain

permission from appropriate administration is expected to be two to three weeks, and time taken

to administer the project and analyze the results is anticipated to be two to three weeks. Total

time for this project is anticipated to be seven to twelve weeks, and the cost of the researcher will

be $166USD/week for a total of $2000USD.The budget is explained in detail in Table 1 below.

Expense	Anticipated Cost ($USD)	Funding Source
Paper Materials (PowerPoint slides and surveys)	$10.00	Researcher
Pens	$5.00	Researcher
Travel (Researchers flight to facility and stay)	$1500.00	Researcher
Data Analysis	$50.00	Researcher
Use of facility conference room and facilities	$100.00	Researcher
Time of Participants	N/A	N/A
Time and Labor of Charge Nurse	$60.00	Researcher
Time for completing project	$2000	Researcher
Cost for preparing data analysis plan	$75	Data Analyst
TOTAL ANTICIPATED COST	$3800.00 USD, over the course of 7-10 weeks	

Cost Benefit Analysis

The cost of the project will be self-funded by the researcher. The benefit of the project include improving patient outcomes at the facility by equipping the nurses with better knowledge on how to care and treat individuals suffering from AUD. The nursing students participating in the will also gain knowledge which will allow them to be better nurses upon graduation. On a macro scale, this project will bring about savings on patient costs by helping nurses provide higher quality care allowing for earlier patient discharges. This will allow the facility to admit more patients in a less time, increasing overall profit.

Return on Investment

The investment of the facility includes the time of the participants (one hour), and the time and labor of the charge nurse (three hours). The anticipated return on investment will be increased nurse satisfaction in their role with this patient population. Potentially, greater patient satisfaction, shorter patient stays, and the ability to address the needs of an overall greater number of patients are other desired outcomes. For example, if one nurse is able to attend to one patient in 10 minutes before receiving the educational plan, after the education she/he will be able to attend to more than one in that same time. The educational program will all the nurses to gain better skills on assessing the severity of alcohol withdrawal and administering the appropriate treatment. This will highlight the ability of the staff at this facility as being more knowledgeable and skilled with these patients, and potentially attract more patients to this clinic. Patients having an improved experience and better outcome during alcohol withdrawal may

contribute to drawing more patients to the facility. This will potentially generate more revenue for the facility, some of which can be invested in more educational programs for nurses.

Summary

Chapter 4 thoroughly described the proposed clinical change, implementation of an educational program on alcohol withdrawal syndrome. The stakeholders, the facility and associated nursing school, and their interests are stated. The anticipated outcomes were presented with support from literature. The materials which will be used are described, the 15 question survey and educational program. The process of presenting and analyzing the data is discussed, and communication plan for stakeholders (including suggestions for future study) is described. The budget was presented in a tabulated form to include all costs.

Chapter Five Conclusions

The purpose of project is to measure the educational needs and provide education to the nurses and nursing students on AUD. This project will assess the nurses and nursing students knowledge in AUD focusing on specific topics like the symptoms, detection tools (like the use of the CIWA-Ar test), and medication used. This will be done via a pretest posttest study design and include an experimental group which will receive the educational program and a control group which will not. All participants will receive a pre survey and post survey which will ask their profession and then continue to ask subjective questions pertaining to alcohol withdrawal syndrome. After the surveys will collected and analyzed, the results will conclude whether the educational program is effective at identifying a lack in the participant's knowledge and confidence and if they have improved on these paramters. If a lack in knowledge is identified, it could prove to be an inhibitory factor in the nurse's ability to successfully treat and care for patients suffering from alcohol withdrawal syndrome. To help rectify this, the nurses and nursing students will be provided the educational program consisting of a PowerPoint presentation lecture and handouts covering the nursing care and management of alcohol withdrawal syndrome.

Potential Impact

The anticipated impact will be improved patient care quality by providing the nurses with adequate knowledge on proper screening and treatment strategies, empowering the nurses to acquire enhanced patient care skills. This will lead to nurses providing higher quality of care and improved patient outcomes for those afflicted with an AUD. The results of this project may also

encourage the facility to implement educational programs for attending nurses and nursing students more frequently, covering proper diagnosis, intervention, treatment and medication of other alcohol or drug misuse disorders. This will impact the clinic's patient outcomes as a whole by significantly improving them. This project could potentially impact the curriculum of the associated nursing school, Guru Gobind Singh Nursing Institute and Hospital Goindwal Sahib, by pinpointing gaps in the nursing knowledge that required to be filled. Nurses with greater skills may help highlight the services at this facility, and potentially attract more patients there, potentially creating increase revenue. This project specifically assesses the knowledge on alcohol withdrawal syndrome and the material in the educational program could be added to the school's curriculum on AUD disorders.

Anticipated Outcomes

The anticipated outcome will be a significant difference in level of knowledge of nurses in Punjab, India on this topic, as compared to those nurses who did not participate in this program. The improvement in knowledge in treatment and care techniques provided by the educational program on AUD will allow the nurses and nursing students to bring about better patient outcomes afflicted with this condition by applying what they have learned.

In terms of the proposed project plan, it is anticipated that there will be a significant improvement in the experimental groups post education survey scores compared to those of the control groups. This will confirm that providing education to nurses and nursing students is an effective tool to help improve their knowledge and clinical skills. Improved patient outcomes,

patient satisfaction, with the grand goal of a decreased incidence of AUD in India are some of the potential outcomes that may be realized with this project.

Implications for Practice

The results of this project will indicate to the nursing school to revisit their educational preparation to provide more in depth lessons to students on AUD and different treatment strategies for caring for patients suffering from it. By doing so, the students will have greater confidence and techniques which will improve patient outcomes. This study, if successful, will identify a lack of knowledge on screening techniques by the staff nurses. This identifies an area that perhaps needs to be strengthened in nursing curriculums. Also, perhaps points to the need for those clinics/hospitals or other healthcare settings need to provide a comprehensive orientation program to nursing staff prior to full employment and practice.   Caring for patients with alcohol withdrawal syndrome can be challenging, so early assessment and proper treatment of withdrawals can prevent complications and improve patient outcomes. By providing the nurses with proper knowledge on AUD the facility can expect higher quality care and better outcomes for patients suffering from alcohol withdrawal.

Future EBP Project/Research

Further research is possible on other drug misuse disorders. Nurses can be given a similar pre survey to assess any gaps in their knowledge on the proper screening and treatment techniques and then be provided with an educational program which fills them. Research can also be expanded to examine the effectiveness of different types of educational programs on

alcohol or drug misuse disorders to determine what learning approaches are more effective.. For example, including questions in the survey on how the participants would like to receive the educational program; if there is a more effective method which would allow them to learn better, could also be included in a future project. The survey could also include questions asking the participants if there were certain topics/questions on alcohol withdrawal syndrome which they would like to have covered. These questions would provide insight to help form a more effective educational program specifically tailored to the respondents. Another method which can be employed to educate the nurses and nursing students in future projects could be the use of case studies of patients with alcohol withdrawal syndrome or other drug misuse disorders. This approach can help teach the application of the concepts covered in the educational slides and help better solidify the concepts. Encouraging the nurses to discuss their personal experiences i.e treatment techniques, type of approach, etc. could also help improve the patient outcomes of the facility as a whole.

Summary

This chapter discussed the anticipated impact of the proposed project, improving patient care quality by providing the nurses with adequate knowledge on proper screening and treatment strategies, and the anticipated outcomes, significantly improving the knowledge of nurses and nursing students on AUD. Results from this project will encourage the facility to implement similar programs for nurses on other drug misuse disorders to increase patient outcomes. There is also a possibility of this project making the associated nursing school, Guru Gobind Singh Nursing Institute and Hospital, revisit its curriculum on AUD disorders and add more information to the lessons. Future research can be done using a similar project plan to assess and

bolster nurses' knowledge on other drug misuse disorders. Furthermore, different types of educational programs can be studied to find a most effective method to use when providing nurses with knowledge on alcohol or drug misuse disorders.

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Drugs (AOD) in a Regional Health District: An Exploratory Study. *Issues in Mental
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Appendix A

Matrix of Evidence

Reference	Description/ Summary –	Analysis/Evaluation –	Synthesis –
Medina, L. (2017). *Effects of an Alcohol Education Program on Improving Knowledge, Attitudes, and Satisfaction of Registered Nurses Caring for Patients Undergoing Alcohol Withdrawal.* eRepository @ Seton Hall.	**Main Points:** Analyzed the effects of providing an alcohol education program on the knowledge and attitudes of nurses caring for patients experiencing alcohol withdrawal - Tested the knowledge of the nursing personnel prior to providing them with education with a 30 item questionnaire assessing their knowledge on alcoholism and alcohol withdrawal, and then providing them the same questionnaire one month after the education. -The educational material (power point lecture and handouts) covered pathology of alcoholism, alcohol withdrawal syndrome and physiology, appropriate medications and treatment strategies and proper use of the Clinical Institute Withdrawal Assessment of Alcohol Scale (CIWA-Ar). **Research Type:** Quantitative study, one step pretest-posttest design to study the effectiveness of an educational program on the participant's skill, knowledge and confidence levels. -No controls -22 participants	**Strengths:** - Educational materials used in the study were included -Survey tool used was included -Data of the affirmative scores was included along with the demographics of the participants **Weaknesses:** Data was obtained using self-report measures which may differ from participating nurses' actual behaviors -Sample size was not very large (22 participants total) **Why included:** Studied the effect of providing nurses with alcohol withdrawal syndrome education on their confidence and skill levels by using a pretest and posttest design. -Results show such educational programs are beneficial to nurses in caring for patients suffering from alcohol withdrawals **Evidence:**-9.1% improvement in affirmative answers in post education	**Light of the Whole** **How relates:** Determines the effects of providing an alcohol educational program to the nurses on their care quality and knowledge on treatment of alcohol withdrawal syndrome. **Similar:** Findings of this study are consistent with those of other related published works- providing nurses with appropriate education on alcohol withdrawal proves to improve their confidence levels and knowledge on treatment when caring for patients undergoing alcohol withdrawals **Differs:** - Does not provide a measurement on the

	Purpose: To determine if providing an alcohol educational program to the nurses would help care quality and improve knowledge on treatment of alcohol withdrawal syndrome

Main Findings: The knowledge and quality of care provided by the nurses for patients with alcohol withdrawal had improved and "their ability to engage an alcoholic patient and feel satisfaction, both on a professional as well as personal level improved as well" (Medina, 2017).
Conclusions: The effectiveness of providing nurses education on alcohol withdrawal to improve the quality of care they provide is evident in Medina's findings. | survey for role security survey questions
-10.5% improvement in affirmative answers in post education survey for therapeutic commitment survey questions
-20.6% improvement in affirmative answers in post education survey for general knowledge questions | effectiveness of educational program improving nurses clinical skills directly

Level of Evidence
VI |
| Berl, K., Collins, M. L., Melson, J., Mooney, R., Muffley, C., & Glover, A. W. (2015). Improving Nursing Knowledge of Alcohol Withdrawal. *Journal for Nurses in Professional Development, 31*(16), 328-332. | **Main Points:** Study assessed the knowledge of the nurses before and after implementing a new care protocol Care Management Guideline for Alcohol Withdrawal Symptom Management (CMG) and providing them with an educational program
- A preeducation survey was conducted to assess the knowledge of the nurses before the program. Nurses were educated following implementation of the new protocol through PowerPoint slides. The slides covered physiology of alcohol withdrawal, mechanisms, dosing and frequency of administering benzodiazepines, correct use of the CIWA-Ar | **Strengths:** -Describes the CMG protocol in detail
-Includes the themes discussed during the educational program

Weaknesses: Does not provide tabulated data of the affirmative scores as seen in other studies, and does not detail relevant calculations.

Why included: Studied the effect of providing nurses with alcohol withdrawal syndrome education on their confidence and skill levels. | **Light of the Whole**

How relates: Studies the effects of educational programs on nurse's skill level and care quality. The importance of using the CIWA-Ar screening tool immediately to assess patients is discussed in detail.

Similar |

	and AWRA forms, and mobilization of additional resources. - A post education survey was conducted to assess the knowledge of the nurses **Research Type:** Quantitative study, pretest-posttest design to study the effectiveness of an implementing the CMG protocol and providing educational program on the participant's skill, knowledge and confidence levels. -No controls -250 participants **Purpose:** To increase nurse's confidence when caring for patients with alcohol withdrawal by improving their knowledge of alcohol withdrawal syndrome and treatment strategies and implementing a new protocol **Main Findings:** Results of the program showed an improvement of the nurses' comfort and confidence when caring for patients with alcohol withdrawal by increasing their knowledge, nurses are more confident in caring for patients suffering from alcohol withdrawal, potentially improving multidisciplinary communication and clinical outcomes. **Conclusions:** From this study it is evident that education on proper treatment strategies is an effective method to improve the nurses' care quality and confidence when treating patients with alcohol withdrawal.	Concluded that educational programs are effective in improving nurses' care quality and confidence when treating patients with alcohol withdrawal.	Conclusions drawn are consistent with other related published works, educational programs are seen to have positive effects on nurses skill and confidence levels **Differs:** Involves implementing a new protocol: Care Management Guideline for Alcohol Withdrawal Symptom Management (CMG), along with providing nurses with educational materials. **Level of Evidence** VI

| Kaur, S. P., & Gill, K. (2015). A Descriptive Study to assess the Prevalence of Alcohol use in Selected Community Area of Punjab. *International Journal of Nursing Education, 7*(1), 262-267. | **Main Points:** - This study describes the need for further research on alcoholism and individuals suffering from alcohol use disorders in the India
- Sociodemographic variables (age, education level, occupation, marital status, etc.) were collected from the participants who were males between 26 to 55 years of age and had been staying in the district for at least six months.
- Drinking patterns were categorized as either hazardous drinking, harmful drinking, low risk drinking or possible alcohol dependence.

Research Type: A population based cross sectional survey was conducted using multistage probability sampling technique.
-1000 participants
-No controls

Purpose: To determine the severity of alcohol abuse and levels of consumption among the alcohol users in Sangrur district Punjab, India. The importance of researching this issue is due to the increase in alcohol abuse and the detrimental socio-economic effects it causes among users in India

Main Findings: There is a high number of individuals in this area who exhibit hazardous drinking levels, harmful drinking levels and possible alcohol dependence. | **Strengths**
-Includes all data of the frequencies of the tested demographic variables and consumption pattern variables.
-Highlighted possible intervention techniques for nurses to use including using effective screening tools and the need for educational institutes in providing better education on alcohol abuse

Weaknesses: -Sample did not include any female nor below the age of 26 and older than 55
- The study was limited in estimating prevalence of alcohol use because it did not include individuals in the area who were admitted in de-addiction centers and hospitals for alcohol related reasons

Why included: The nursing implications of this study included inculcating alcohol screening in initial patient assessment and the importance of nurse educators strongly emphasizing alcohol abuse issues and the importance of alcohol use assessment to upcoming nursing students. | **Light of the Whole**

How relates: Provides information on the strong need for further research to be done in India, specifically in regions of the Punjab State.

Similar: This study analyzes the need for improved care for individuals suffering from AUD disorders in India.

Differs: -Does not study how to improve nurse's skills and confidence when caring for patients suffering from AUD disorders.

Level of Evidence
VI |

	Conclusions: This study highlights the dire need for further research in India on alcohol use disorders.	**Evidence:** 68.9% of the sample population consumed alcohol, and out of that group, percentage 19% of the consumers had a hazardous drinking level, 18% had a harmful drinking level, 16.2% had a low risk drinking level, and 14.9% had possible alcohol dependence.	
Kaur, S. P., & Gill, K. (2015). An Experimental Study to Assess the effectiveness of Specific Interventions on Alcohol use in Selected Community Areas of Sangrur, Punjab. International Journal of Nursing Education, 7(1), 295-301	**Main Points:** - Follow up experiment after a descriptive study experiment (above) by the same authors upon the same sample population analyzing the severity of alcohol abuse, findings served as baseline data. - The effectiveness of specific interventions to the patient's level of drinking (low risk, harmful, or hazardous) was assessed. - Interventions included simple advice, alcohol education and brief counseling sessions. - The sample population was divided into two groups, an experimental group which received the specific interventions and a control group which did not receive specific interventions. The specific interventions took place on the 45th day after the baseline data was collected, then after 3 months and 5 months after the date of collection. **Research Type:** Longitudinal experimental study conducted using cluster random sampling technique. Data was collected using AUDIT screening tool for analysis. Subjects who scored between 1-19 on AUDIT in initial screening process (discussed elsewhere) were	**Strengths:** - Randomization successfully created equivalent groups for the purposes of comparison which excludes the threat of selection bias to internal validity of study - Dropout rate of present study was 4.7% which is considered within safe limits to ensure internal validity of a study **Weaknesses:**-Since interview version of the tool was used, the social desirability bias cannot be excluded. -The specific interventions were used in groups, so it is possible that the group effect might have influenced the study results **Why included:** This study highlights the need for further research to be done in this region on alcoholism and for better treatment methods to be implemented to help those recover. The results indicate that the patients	**Light of the Whole** **How relates:** Findings of this study indicate a need for improved care techniques for individuals suffering from AUD disorders. This improvement can possibly be provided by nurses. **Similar:** This study analyzes the receptivity to improved care for individuals suffering from AUD disorders in India, and highlights the need further study. **Differs:** -Does not study how to improve nurse's skills and confidence when caring for patients suffering from AUD disorders. But focuses on

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	asked about their willingness to further participate -Control group included -1000 participants **Purpose:** To assess the effectiveness of specific interventions on alcohol use with the same sample population. **Main Findings** - A positive outcome with a statistically significant decrease in alcohol use among alcohol users in the experimental group, in comparison to the control group whose members had increased their mean alcohol use by a statistically significant amount. **Conclusions:** This study indicates that alcohol abuse patients in India are indeed receptive to improved treatment techniques, and this study has the potential to significantly help the alcohol abuse patients in Punjab by teaching the nurses adequate treatment strategies.	are receptive to improved treatment techniques. **Evidence:** -Pretest alcohol use mean score of experimental group was higher (13.95) than the posttest alcohol use mean score (8.65) p<0.001 -Pretest alcohol use mean score of control group was lower (14.11) than the posttest alcohol use mean score (15.25) p<0.001 -No statistically significant difference (at p<0.05 level) between pretest alcohol use mean score of experimental group (13.95) and control group (14.11). (Both groups did not differ with regard to alcohol use at the baseline) -The mean posttest alcohol use score of experimental group (8.65) was lower as compared to control group (15.25) p<0.001	the need for further study in the region as well. **Level of Evidence** VI
Serafico, K., Jarvis, C., & Eckhardt, A. (2019). Nurses' Knowledge of AlcoholInteractive Medications. *MedSurg Nursing, 28*(2), 93-99.	**Main Points:** - Measured registered nurses' (RNs) knowledge of AI (Alcohol interactive) medications and determined if work environment, years in nursing practice, and level of formal education contribute to AI medication knowledge. -Used the Jarvis Nursing Knowledge of AI Medications (JaNKAM) survey, which was developed for this study by one of the researchers.	**Strengths:** - Quantified all variables effectively -Showed the instrument (JaNKAM survey) **Weaknesses:** -The survey was designed for nominal collection, which limits analysis options -Responses to the JaNKAM survey also may have been influenced	**Light of the Whole** **How relates**: Determines the nurses' lack of knowledge on AUD disorders, and confirms the positive effects of providing an alcohol educational program to the

-The survey includes questions pertaining to one over the-counter medication and 15 of the most commonly prescribed medications in the United States
-The measure of AI medication knowledge was based on the number of items correctly answered.

Research Type: This study used a cross-sectional, descriptive design
-Convenience sample of 211 RNs, no control group
- 30- item survey was used with questions about 15 often prescribed medications and their interactions with alcohol.

Purpose: To measure registered nurses' knowledge of AI medications and determine if work environment, years in practice, and level of formal education contribute to AI medication knowledge

Main Findings: - Nurses correctly identified 56.3% of medications as AI or non-AI.
- No statistically significant relationship was found between AI medication knowledge and level of education, work environment, or years in nursing.

Conclusions: More AI medication content should be incorporated into nursing curricula and continuing education so nurses can educate

by an acquiescence bias; JaNKAM was introduced to respondents as a test for AI medications, which may have primed respondents to answer affirmatively to the medication questions

Why included: This study emphasizes the lack of proper knowledge on AUD disorder (AI specifically) medication. The paper also discusses the benefit in providing practicing nurses with education to help improve their knowledge which will allow them to provide better care and bring better patient outcomes.

Evidence: -Mean JaNKAM score was 56.3% (SD=19.90%, range 0-93.3%).
-Medication most often correctly classified was hydrocodone-acetaminophen (Vicodin®); 98.6% of the sample (n=208) identified this
-Medications identified least often were ciprofloxacin (Cipro®) and prednisone (n=48; 22.75%)
-Researchers observed how well participants detected AI medications from a list of exclusively AI medications, and mean score was 70.2% (SD=27.92)

nurses on their care quality and knowledge

Similar: Findings of this study are consistent with those of other related published works- there is a lack of knowledge on the proper treatment and medication techniques for AUD disorders but educational programs may remedy this gap

Differs:- Does not study alcohol intervention and screening techniques
-Does not include a pre or posttest design to assess the effectiveness of an educational program

Level of Evidence: VI

	patients better about the risks of concurrent alcohol-drug consumption	-Nurses were able to identify correctly 70.2% of AI medications from a list of AI medications - AI medication knowledge in hospital nurses (M=55.42%) did not differ significantly from clinic nurses (M=57.10%), (U=5072, z= -0.882, ns, r= -0.06)	
Gupta, S., Lal, R., Rao, R., Mishra, A. K., & Ambekar, A. (2018). Pattern of alcohol use among problem alcohol user in a community-based setting in India: A cross sectional study. *Journal of Substance Abuse, 23*(2), 10-135.	**Main Points:** -Drinking patterns of abusers in developing countries is an under-researched area. -Snowball sampling technique was used to recruit potential participants. Inclusion criteria included males 18 years and older who hadn't received any treatment for alcohol related problems in the last 3 months, and with problem alcohol scores (greater than 11 assessed by WHO-ASSIST) residing in the community. - A specifically designed questionnaire was used to collect socio demographic data, alcohol use and craving, withdrawals, daily drinking, family history of substance abuse and presence of any psychiatric or medical complications. **Research Type:** Cross sectional, observational study design was used. The project was conducted in an urban slum in a metropolitan city in India. -No controls -75 participants	**Strengths:** -Provides data values for all the variables studied, and includes relevant calculations -Discusses the need for further research to be done in India on alcoholism **Weaknesses: -**The sample was of convenience recruited through snowballing and cannot be representative of all alcohol users in the moderate- or high-risk category. **Why included:** This study highlights the need for research and implementation effective treatment methods on alcoholism in India. **Evidence:** -85% (n = 64) of the participants reported drinking alcohol daily in the past three-month period. - Three-fourth (77%, n = 58) of the participants had ASSIST score in the 'high-risk' range and less than one-fourth (23%, n = 17) had score in the 'moderate-risk' range in ASSIST.	**Light of the Whole** **How relates:** Findings of this study indicate a need for improved care techniques for individuals suffering from AUD disorders. Shows the large need of further research to be done in India **Similar:** This study analyzes the use and misuse of alcoholism in India and stresses need for improved care for individuals suffering from AUD disorders. **Differs:** -Does not study how to improve nurse's skills and confidence when caring for patients suffering from AUD disorders. But focuses on

	Purpose: To assess the pattern of drinking among problem alcohol users in a slum community setting in North India. **Main Findings:** - The amount of alcohol being used by the participants was way above the maximum recommended levels, as the median amount of alcohol consumed in a typical day was about 80 g -Results show an urgent need to expand treatment services for people suffering from substance-use disorders, including problem alcohol users. **Conclusions:** Among men drinking in a moderate- or high-risk pattern, a sizeable proportion has high rates of heavy episodic drinking and yet they are non-recipient of treatment. They demonstrate some distinct pattern of alcohol consumption, which is likely to place them at risk of various adverse acute and long-term consequences of alcohol use.	-None of the participants was in the 'low-risk' category, as this was one of the exclusion criteria	the need for further study in the region. **Level of Evidence** VI
Fitzgerald, N., Molloy, H., MacDonald, F., & McCambridge, J. (2015). Alcohol brief interventions practice following training for multidisciplinary health and social care teams: A qualitative study. *Drug and Alcohol Review, 34*(2), 185-193.	**Main Points:**- Studied the impact of training on ABI (Alcohol Brief Intervention) delivery by staff to nurses - Nine 1 day training courses were delivered to 89 participating nurses - Interviews were conducted between 6 and 19 months after the training courses -Interviews were conducted by telephone by the researcher who had no prior contact with any interviewees.	**Strengths:** -Qualitative design allows for nurses to convey opinions and information which would not have been possible in a quantitative design **Weaknesses:** -Individual differences in prior training and learning needs within teams should have been taken into account	**Light of the Whole** **How relates** - Findings strengthen problem statement of this project, a lack of knowledge on treatment methods, screening tools, etc. impeding nurses from properly caring for patients

	-Interviews were semi-structured and covered: Impact of training on skills, confidence and knowledge, Impact of training on practice, Use of system for recording and reporting ABI delivery, support to improve delivery, recording and reporting of ABIs **Research Type:** -Qualitative interview study -89 participants -No controls -15 semi-structured telephone interviews were carried out with trained practitioners and with managers to explore the use of, perceived need for and approaches to ABI delivery and recording with clients, and compatibility of ABIs with current practice. -Interviews were analyzed thematically using an inductive approach **Purpose:** To explore how, if at all, training had impacted on practice in relation to alcohol, whether or not ABIs were being delivered and recorded and why. **Main Findings:-** Very few practitioners reported delivery of any ABIs following training primarily because they felt ABIs to be inappropriate for their clients -This was reported to be because either because they drank too much or too little to benefit. -Practitioners reported a range of current activities relating to alcohol, and some felt that	**Why included:**-Provides direct evidence from nurses themselves for a need of better education improving provider knowledge, skills, communication **Evidence:**-Select quotes from various respondents to key themes of interview proved the conclusions drawn by the authors.	with alcohol abuse disorder. **Similar** - Discusses the existing perceptions of nurses when addressing alcohol abuse patients, and concludes that improving nursing knowledge is required. **Differs** - Studies the barriers experienced by nurses but doesn't include research on the effectiveness of implementing an educational program to help overcome those barriers. **Level of Evidence** VII

	their knowledge and confidence were improved following training. **Conclusions**:-Barriers to ABI delivery included issues relating to individual practitioners, their teams, current practice and the ABI model.		
Mahmoud, K. F., Finnell, D., Lindsay, D., MacFarland, C., Marze, H. D., Scolieri, B. B., & Mitchell, A. M. (2019). Can Screening, Brief Intervention and Referral to Treatment Education and Clinical Exposure Affect Nursing Students' Stigma Perception Toward Alcohol and Opioid Use? *Journal of the American Psychiatric Nurses Association, 25*(6), 467-475.	**Main Points:** This study tackled the issue of stigma perceptions of alcohol and/or opioid use acting as barriers for to screening, brief intervention, and referral treatment (SBIRT) implementation and in the quality of care provided by nursing students for such patients. A pre measurement then a post measurement after providing the students education on SBIRT. **Research Type:** Quantitative study, one step pretest-posttest design to study the effectiveness of providing the SBIRT educational program to the participants -No control group -124 participants **Purpose:** To examine SBIRT education and clinical exposure efficiency as an intervention to reduce nursing students' stigma toward patients affected by alcohol and/or opioid use problems. **Main Findings:** SBIRT education and clinical exposure are each effective at reducing BSN nursing students' stigma perceptions toward caring for patients with mild to moderate	**Strengths:** -Variables defined for their function in study and subscale measurement listed for each -Quantifies all variables values for baseline, pre and post-tests scores for the students. **Weaknesses:** **-** The findings of the study cannot be generalized because a single-sample pretest–posttest design was used, and (2) a convenience sample that was predominately Caucasian and female was used. - the extent of exposure to persons with mild to moderate alcohol and/ or opioids during the students' clinical experiences was not accounted for in the analyses **Why included**: Findings are consistent with the problem statement of this project. Studies the effect of providing education to nursing students on improving their perceptions to alcohol abuse patients	**Light of the Whole** **How relates**: This study analyzes the effects of providing educational program to nursing students to improve their confidence, diminish stigmas when treating alcohol abuse patients, which in turn will improve the quality of care which they provide to the patients. **Similar:** The findings of this study are consistent with those of other published studies, it supports the beneficial effects on providing education which can potentially improve care quality and provider confidence

	alcohol and/or opioid use problems, and are most effective when used together. **Conclusions:** The study's findings support the use of SBIRT education and clinical exposure as a potential intervention to target nursing students' stigma perceptions toward caring for patients affected by alcohol and/or opioid use problems.	which has potential for improving the quality of care provided for these patients. **Evidence:** -After SBIRT education, students' familiarity with patients affected by mild to moderate alcohol use problems increased significantly ($M_{dif.} = -.27$, SD = 1.49), $t(123) = -0.1985$, p = .049. Students' perceived dangerousness ($M_{diff} = 1.10$, SD = 4.18), $t(123) = 2.942$, p = .004; and fear perceptions ($M_{diff} = 1.05$, SD = 3.61), $t(123) = 3.231$, p = .002; decreased. Stigma perceptions toward caring for patients experiencing opioid use problems increased significantly for the familiarity subscale ($M_{diff} = -0.26$, SD = 1.39), $t(123) = -2.067$, p = .041.	**Differs: -**The participants are junior level nursing students not already practicing nurses. -Includes patients with opioid use as well as alcohol use. **Level of Evidence** VI
Rosenthal, L. D., Barnes, C., Aagaard, L., Cook, P., & Weber, M. (2018). Initiating SBIRT, Alcohol, and Opioid Training for Nurses Employed on an Inpatient Medical-Surgical Unit: A Quality Improvement Project. *MedSurg Nursing, 27*(4), 227-230.	**Main Points:** -Implemented an educational program to help improve nurses knowledge and skills when treating patients suffering from substance abuse and withdrawals - The SBIRT (Screening, Brief Intervention, and Referral to Treatment) curriculum was composed of an online learning module and optional live classroom sessions - Included content on the mechanisms behind substance use and evaluation of the patient in alcohol or opiate withdrawal	**Strengths:** - Included all data in a tabulated form -Discusses the importance of early screening using tools like CIWA-Ar **Weaknesses:** - In-person training session attendance was a limitation. Different shift times, weather conditions, and scheduling conflicts made it difficult to tailor dates and times to accommodate all nurses on the unit.	**Light of the Whole** **How relates:** Studies the effects of providing an educational program to nurses on alcohol abuse management/treatment, and screening methods. Shows a positive result of providing nurses such programs.

| | - Nurses were asked to demonstrate their competence in use of SBIRT skills, CIWA-Ar, and COWS in a simulated environment after completing the training sessions. Alcohol withdrawal and opioid withdrawal case scenarios were used

Research Type: Quality improvement project with 48 participating nurses
-No control group

Purpose: The purpose was for unit RN's to demonstrate competence in using the CIWA and COWS and in providing early intervention for patients at risk or high risk for substance use

Main Findings: - RNs self-reported increased confidence in using the CIWA-Ar and COWS in a more objective manner
- Level of comfort with SBIRT skills was a commonly perceived barriers from the nurses

Conclusions: Nurses should be trained on the tools used for proper screening and assessment of substance use and withdrawal. In addition, providing nurses the instruction for use of motivational interviewing techniques and SBIRT allows improved holistic patient care. | -Did not include a control group

Why included: -Studied the implementation of an educational program to improve nurses knowledge, confidence and clinical skills when treating patients suffering from alcohol or drug misuse disorders

Evidence: -28 nurses who attended the in-person classroom sessions, the average SBIRT simulation score was 56%.
-20 nurses who did not attend the in-person training sessions, the average SBIRT simulation score was 52%.
-Compared to community SBIRT practitioners' self-report of how often they use SBIRT skills, results showed nurses were below benchmark on substance use screening: 56% on nurse simulation outcomes vs. 63% on self-report of community practitioner practices (possible overestimate of actual screening behavior).
-Results for brief intervention for the nurse simulation outcomes were 76% for use of any motivational interviewing skills, 94% for use of empathy, and 98% for use of motivational interviewing spirit. | **Similar**: Studies the effect of providing education to practicing nurses
- Findings are consistent with similar published studies, providing nurses education on alcohol abuse and proper treatment and screening can improve confidence and clinical practice skills when caring for these patients.

Differs: Does not provide a comparative analysis using a control group to assess the effectiveness of the educational program
-Assessment of the effectiveness of the program was unique, involved nurses demonstrating their learning in a simulated environment

Level of Evidence
VI |
| Kaner, E., Lock, C., Heather , N., McNamee, P., & Bond, S. | **Main Points**: - Extent that primary care nurses engaged in SBI (Screening and Brief Alcohol | **Strengths:**- Study methodology allows to analyze the effectiveness of | **Light of the Whole** |

(2003). Promoting brief alcohol intervention by nurses in primary care: a cluster randomised controlled trial. *Patient Education and Counseling*.	Intervention) was increased by the use of more intensive promotional strategies. Nurses that received just written guidelines were less likely to begin SBI than nurses who received outreach training, with or without additional support. **Research Type:** -Cluster randomized Control Trial -Group with written guidelines only was considered as Control group - 212 participants -3 different study interventions were analyzed: Control (SBI program was delivered to practices and a covering letter directed nurses to written guidelines), Training (Nurses received the SBI program during an outreach visit to the practice and also received training in how to use the program), Training and Support (Nurses received the SBI program during an outreach visit to the practice and also received training in how to use the program after, they received two-weekly telephone calls which provided support and advice about SBI. - Every nurse received a baseline questionnaire, a follow-up questionnaire after 3, and a follow-up visit at 3 months **Purpose:** To evaluate both the clinical impact and cost-effectiveness of three intensities of an intervention to promote SBI by nurses in primary care	different levels of intervention/educational programs -All variable data was provided/tabulated **Weaknesses: -**This study was only conducted on primary care and not ER specialties which may encounter more AUD patients -Perceived barriers were not adequately described **Why included:** The conclusions of this study support the benefits of providing nurses some form of education on Screening and Brief alcohol Intervention in improving their therapeutic attitudes towards patients suffering from AUD disorders. **Evidence:**-SBI was implemented in 30 (39%) control practices (95% CI ¼ 28–51%) compared to 50 (74%) trained practices (95% CI = 63–84%) and 48 (71%) trained and supported practices (95% CI=60–81%). -Noted a significant difference in median numbers of patients screened between the intervention groups (Kruskal Wallis X^2=12.37, d.f. = 2, P=0.003).	**How relates**: Conclusions support the benefits of providing nurses with some type of educational or intervention program improve their knowledge and perceptions towards patients. **Similar:** The findings of this study are consistent with those of related published works, there is a positive effect of providing nurses with some type of educational or intervention program in their perceptions towards patients suffering from AUD disorders **Differs:** This study involves different levels of intervention compared to a single intervention/educational program, and studies the effects of the three different programs **Level of Evidence:** VI

| | **Main Findings:** -After 3 months 39% of controls implemented the SBI program compared to 74% of nurses in trained practices and 71% in trained and supported practices
-Controls screened fewer patients and delivered fewer brief interventions to risk drinkers than other colleagues.
-There was a trade-off between the extent and the appropriateness of brief intervention delivery with controls displaying the least errors in overall patient management.
-Cost-effectiveness ratios (cost per patient appropriately treated) were similar between the three strategies.
-Given the potential for anxiety due to misdirected advice about alcohol-related risk, the balance of evidence favoured the use of written guidelines to promote SBI by nurses in primary care

Conclusions: This study has demonstrated a means of encouraging nurses to become involved in SBI and direct involvement with alcohol-related issues tends to improve therapeutic attitudes | -Nurses in control practices screened fewer patients (median 0, interquartile range 0–17) than nurses in trained practices (median 11, interquartile range 0–28) or trained and supported practices (median 13, interquartile range 0–37).
-Brief intervention delivery also significantly differed between the intervention groups (Kruskal Wallis X^2 =7.45, d.f=2, P=0.025).
- Controls delivered fewer brief interventions to risk drinkers (median 0, interquartile range 0–3) than nurses in trained | |
| Rajaraman, V. (2017). A training program for nursing staff to improve their knowledge and skills in the assessment of alcohol dependence syndrome- An evaluation. *University Journal of Medicine and Medical Specialities, 3*(5). | **Main Points:** -Assessed knowledge of the nurses in alcohol dependence syndrome and management of withdrawal symptoms using a structured questionnaire
-Questionnaire assessed the knowledge in all the aspects of alcohol use and withdrawal management: considered as pre-test | **Strengths:** -Included detailed explanation of the educational program
-Presented all data and calculations in a tabulated form

Weaknesses:-Only included nurses working in psychiatry ward who | **Light of the Whole**

How relates: Determines the effects of providing an alcohol educational program to the nurses on their care quality and knowledge on treatment of |

	-Educational workshop covering the following areas: Arriving at a diagnosis of alcohol dependence syndrome, identifying withdrawal symptoms, alcohol related medical and psychiatric problems, and management of withdrawal symptoms was provided following the pre survey - Questionnaire was re administered after the educational program: considered as a post-test **Research Type:** - Quantitative Experimental study -17 participating nurses - No control group **Purpose:** To study whether the educational package to the nurses would improve their knowledge on alcohol dependence syndrome and its management. ii. To evaluate whether our nurses could be trained in administering CIWA Ar scale to assess the withdrawal symptoms. **Main Findings:-** Mean post-test score was significantly higher than the mean pre-test score which means the participating group gained knowledge from the educational program **Conclusions:** The knowledge and skills of the nurses can be improved through a structured educational program and by training they can	would have gained knowledge and skills thorough their experiences. Results might not be generalized to nurses working in other medical wards -Did not include a control group **Why included:** - Studied the effect of providing nurses with alcohol withdrawal syndrome education **Evidence:** -Mean pre-test score was 18.53 (SD 4.502). -Mean post test score was 21.88 (SD 2.977). -This difference was statistically significant with p value less than 0.05. -Single measure intraclass correlation co-efficient was 0.898, indicating a high level of agreement for CIWA-Ar items	alcohol withdrawal syndrome. -Used CIWA-Ar scale as primary screening tool in educational program -Used a pretest posttest design to assess the educational program **Similar:** Studies the effects of providing nurses an educational program on AUD and treatment, with findings similar to those of related published works. Providing education does improve knowledge and confidence levels in nurses when caring for patients suffering from AUD. **Differs:** - Does not provide a measurement on the effectiveness of educational program improving nurses clinical skills directly **Level of Evidence** VI

	reliably assess withdrawal symptoms using CIWA-Ar scale		
Nash, A., Marcus, M. T., Cron, S., Scamp, N., Truitt, M., & McKenna, Z. (2017). Preparing Nursing Students to Work With Patients With Alcohol or Drug Related Problems. *Journal of Addictions Nursing, 28*(3), 124-130.	**Main Points:** Quantitatively and qualitatively reports the attitudes and knowledge of nursing students before and after an educational program that integrated an alcohol or drug (AOD) curriculum into a community/public health (CPHN) nursing clinical practicum towards patients suffering from AOD. -Quantitative measurements taken by having students complete the Short Alcohol and Alcohol Problems Perception Questionnaire (S-AAPPQ) and the Drug and Drug Related Problems Perception Questionnaire (DDPPQ), were administered on the first and last days of the clinical program. -Qualitative study by having students respond to 3 open ended questions covering their development during the program, and their opinions on it. **Research Type:** Quantitative and qualitative analysis of the effects of and AOD educational experience provided to nursing students. -No control group - 62 participants **Purpose:** To meet the required objectives for the university's CPHN clinical course, improve students' attitudes and therapeutic commitment for working with AOD affected patients, and prepare students for providing high quality	**Strengths**: -Provides the questions of the qualitative assessment and describes format of the quantitative assessment forms -Includes relevant evaluating calculations of results from quantitative assessments -Describes the education program in great detail **Weaknesses:** -The demographics of the participant sample were not described beyond just as students of a particular school program **Why included:** The study shows the negative attitudes and perceptions that nursing students and nurses may have toward AOD patients, these attitudes and perceptions can be eradicated with an educational program which provides them with the necessary skills to better treat these patients. **Evidence:** -S-AAPPQ scores improved after the CPHN practicum, in total scores (p < .001) and in the scores on all the subscales except motivation (p = .72). Improvements in	**Light of the Whole** **How relates:** Studies the effects of providing an educational program in improving the skills and confidence of nursing students when treating AOD patients. -Educational program covers screening, and brief intervention -Positive effects of providing knowledge **Similar:** Findings are consistent with other related published works- providing education on appropriate screening and treatment methods improves the knowledge and confidence of nurses. **Differs:** The participants are nursing students not already practicing nurses. -Includes patients with opioid use as well

	nursing care for individuals with AOD-related problems **Main Findings: -**Students responded positively in both quantitative and qualitative assessments indicating that AOD educational programs help nursing students overcome barriers of poor perception towards AOD patients, lack of skills and self-efficacy for addressing AOD issues. **Conclusions:** Preparing nurses to develop strong therapeutic relationships with AOD-affected patients by integrating AOD skills and experiences across clinical settings is one strategy that holds potential to improve access to care and recovery for AOD-affected patients	the composite scores of role security (role adequacy + role legitimacy) ($p < .001$) and therapeutic commitment (motivation, task-specific self-esteem, work satisfaction) $p < .001$ -DDPPQ scores improved after the practicum, in total DDPPQ scores ($p < .001$), improvement was noted in the composite score of role security ($p < .001$) and therapeutic commitment ($p < .001$). -Most students' responses to the three open-ended questions were positive. The only responses that might be considered negative were suggestions for improvement	**Level of Evidence** VI
45Rathod, S. D., Nadkarni, A., Bhana, A., & Shidhaye, R. (2015). Epidemiological features of alcohol use in rural India: a population based cross sectional study. *BMJ Open, 5*(12).	**Main Points:** This study analyzed the proportion of adults who consumed alcohol and had behaviors consistent with alcohol use disorders (AUDs), using the Alcohol Use Disorders Identification Test (AUDIT) - The interviewers orally administered a structured interview in Hindi, using a questionnaire application that had sections on: sociodemographic characteristics; recent use of alcohol or tobacco; screening for alcohol use disorders; treatment-seeking and stigma for problems with alcohol; screening for depression; treatment-seeking and stigma for depression; suicidality; healthcare usage and out-of-pocket expenditures; and disability severity	**Strengths:** - Quantifies all variables values and includes all relevant calculations - Described the sociodemographic characteristics and AUDIT scores of the full sample **Weaknesses: -**Since this was a cross-sectional study, it could not be determined whether any of the factors associated with AUDIT scores are causal relationships **Why included:** This study indicates the strong need for further research to be done in India on alcoholism. Large numbers of the population exhibit	**Light of the Whole** **How relates:** Findings of this study indicate a strong need for further research to be done on alcoholism in India. Conclusions drawn suggest health care services targeting alcoholism should explored further. **Similar:** Relates to the findings of similar published studies used, there exists a strong need

	Research Type: Population-based cross-sectional study. -3220 participants were selected for using a cluster sampling design. -No control group **Purpose:** To estimate the proportion of adults in Sehore District, India, who consumed alcohol, and the proportion who had behaviors consistent with alcohol use disorders (AUDs), using the Alcohol Use Disorders Identification Test (AUDIT) **Main Findings:** - 33.2% of the participants who drank had AUDIT scores consistent with hazardous drinking, 3.3% with harmful drinking and 5.5% with dependent drinking **-**Among men who had recently consumed alcohol, AUDIT scores were positively associated with depression, having at least one child, high-quality housing, urban residence, tobacco use and disability. AUDIT scores were negatively associated with land ownership, out of pocket healthcare expenditure and participation in the national employment program **Conclusions:** A need exists for effectively identifying and treating adults with AUDs. Health promotion services, informed by commonly-expressed stigmatised beliefs held among those affected by AUDs and which are targeted at the most affected communities, may	dangerous levels of alcohol consumption. **Evidence:** - 23.8% of men had consumed alcohol in the past 12 months, 0.6% of women were consumers. -Among drinkers, 33.2% (95% CI 28.6% to 38.1%) had AUDIT scores consistent with hazardous drinking, 3.3% (95% CI 2.1% to 5.1%) with harmful drinking and 5.5% (95% CI 3.8% to 8.0%) with dependent drinking. -AUDIT scores varied widely by village (intraclass correlation=0.052). -While 49.2% of men with AUDs felt embarrassed by their problems with alcohol, only 2.8% had sought treatment in the past 12 months	for research to be done in India on alcoholism. **Differs:** Does not study how to improve nurse's skills and confidence when caring for patients suffering from AUD disorders **Level of Evidence** VI

	be an effective step in closing the treatment gap.		
Smyth, D., Hutchinson, M., & Searby, A. (2019). Nursing Knowledge of Alcohol and Other Drugs (AOD) in a Regional Health District: An Exploratory Study. *Issues in Mental Health Nursing, 40*, 1034-1039.	**Main Points:-** This study employed a cross-sectional online survey, with descriptive and correlational analysis performed to explore relations between knowledge and both assessment and referral practices for individuals with problematic AOD (Alcohol and other Drugs) use

Research Type:- A cross-sectional online survey, with descriptive and correlational analysis performed to explore relations between knowledge and both assessment and referral practices for individuals with problematic AOD use
-180 participating nurses
- No control group

Purpose: To determine the assessment practices and confidence with management and referral processes of nurses in a regional health service in the state of New South Wales, Australia, using a quantitative survey methodology

Main Findings:- Results indicate nurses with good knowledge of the AOD service and are confident to refer to the service associated with recent contact.
-Lower satisfaction levels with the AOD service were found in nurses who had no recent contact with the service. | **Strengths:-** This study included all data and relevant calculation in a tabulated form
-The demographics of the participants were outlined
-Provided clinical implications

Weaknesses: -Small sample size and finite geographic area studied.
-The response rate of the electronic survey was low

Why included: Assessed nurses knowledge on AOD misuse disorders, specifically their knowledge on screening and if they were conducting it an appropriate amount of times when caring for incoming patients

Evidence:-Screening and intervention practices 20% ($n = 36$) of participants reporting "always" completing substance abuse screening, whilst 30% reported rarely or never ($n = 55$). When considering assessment for specific substances, tobacco was enquired about "always" by 55% of respondents ($n = 100$) with alcohol second at 52% ($n = 94$)
-Questions related to knowledge of the AOD service: 31% of respondents | **Light of the Whole**

How relates: Draws attention to the lack of proper screening for AUD disorders. Relates the present study as the importance of providing proper screening tools like CIWA-Ar are discussed.

Similar: -Findings show there is a deficit in nursing knowledge and confidence when treating patients with AOD misuse disorders

Differs: Does not provide a measurement on the effectiveness of educational program improving nurses clinical skills directly
-Does not study the effectiveness of implementing an educational program for nurses, only suggests it based on results

Level of Evidence |

	-Awareness of the service was also positively associated with completion of the electronic AOD assessment. **Conclusions:** The results indicate the need for improved rates of assessment of AOD use in the nursing profession and provides direction for improvement of specific AOD management concerns in this population. This study also demonstrates that the presence of a dedicated AOD team and clinicians resulted in higher levels of completed screening and documentation	($n = 57$) reporting contact with the service in the past six months for advice and assistance -38% ($n = 68$) of respondents reported having once or twice-yearly contact with the service, and 34% ($n = 60$) never having contact with the AOD service -Relationship between the AOD service and the respondent's service was rated more favorably by those with recent experiences with the service: 73% of respondents who rated the AOD service as fair or poor not having referred to the service in the preceding six months -Awareness of the AOD service was significantly associated with both referral to the AOD service (25.066, df 9, $p = .003$) and completion of the Adult Assessment - Social Histories in eMR (26.575, df 9, $p = .002$).	VI
Holt, C., Dearmon, V., Lawrence, S., Lewis, C. L., & Skotzko, C. E. (2017). Implementing an Alcohol Withdrawal Protocol: A Quality Improvement Project. *Wolters Kluwer Health, 32*(3), 234-241.	**Main Points:** -Evaluated the effectiveness of implementing an evidence-based alcohol withdrawal protocol (AWP) in an acute care setting - A 10-question assessment was administered to nurses to determine their knowledge of alcohol withdrawal detection and treatment as pre- and posttest after the implementation of the educational protocol.	**Strengths:-** Included description of the educational protocol -Included all data in a tabulated form, along with relevant calculations **Weaknesses:** -Project size was small –Educational effects were monitored for a brief period, limiting generalizability	**Light of the Whole** **How relates:** This study analyzes the effectiveness of providing educational program to nursing students to improve their competence, knowledge and skill levels

	-Nursing satisfaction with the care of the alcohol-dependent patient was also assessed using a 4-question electronic survey **Research Type:-** Quantitative quality improvement project -220 nurse participants -No controls **Purpose**: To evaluate the effectiveness of implementing an evidence-based alcohol withdrawal protocol in an acute care setting. **Main Findings:** - Implementation resulted in significant reduction of restraint use, transfers to critical care, 1:1 observation, and length of stay, whereas no reduction was seen in rapid response calls. Nurses' knowledge post–alcohol withdrawal protocol education increased and satisfaction with patient care improved. **Conclusions:** -Education and the implementation of a symptom-triggered AWP can improve patient care outcomes, care costs, and nurses' knowledge and satisfaction.	**Why included:** Studied the effect of providing nurses with alcohol withdrawal syndrome education on their knowledge, skill levels and satisfaction -Used a pretest and posttest study design **Evidence:**- Nurses' knowledge was 37% higher after the protocol (M=89) than before the protocol (M=56). -Ninety-eight of 220 (44.5%) nurses completed the survey prior to the protocol implementation, and 66 (30%) completed the survey after the protocol implementation. - A statistically significant difference was found in nursing satisfaction between pre- (Mdn=3.5) and post implementation (Mdn=4.25)(U=5370.5,P<.001) -Satisfaction was reported on a Likert scale from 1 (strongly disagree) to 5 (strongly agree).	-Uses a pretest posttest study design to assess the educational programs effectiveness **Similar:** Findings of this study are consistent with those of other related published works- providing nurses with appropriate education on AUD disorders proves to improve their competence levels and knowledge on treatment when caring for patients suffering from AUD disorders **Differs:** Does not use a control group to assess the effectiveness of the educational program -Did not measure nurses clinical skills directly **Level of Evidence** VI

Appendix B

Educational Program presentation

Slide 1

G3
G4

Alcohol Withdrawal Syndrome

Slide 2

Alcoholism Definition

The US National Institute on Alcohol Abuse and Alcoholism describes alcoholism as a disease whose signs and symptoms include:
- **craving for alcohol**
- **loss of control, with difficulty or inability to stop drinking once alcohol consumption begins, intolerance of alcohol**
- **physical dependence, causing alcohol withdrawal symptoms (such as nausea, anxiety, tremors, and diaphoresis) after alcohol intake ceases**
- **alcohol tolerance—the desire or need to consume greater amounts of alcohol to obtain the same effect**.

Slide 3

Alcoholism: Physiology

- •Alcohol enters the body through the mouth
- •Some enters the bloodstream in the stomach, most goes to the small intestine
  - • Alcohol enters the bloodstream through the walls of the small intestine
- •Alcohol reaches the brain
- •Liver oxidizes alcohol at a rate of about 0.5 oz/hour
- •Alcohol is converted into water, carbon dioxide, and energy.

Slide 4

Physiologic effects of alcohol consumption by blood

Blood alcohol concentration	Physiologic effects
0.02%	Mild alteration of feelings, slight intensification of mood
0.05%	Feelings of relaxation, giddiness, lowered inhibitions, slight impairment of judgment and motor skills
0.08%	Impaired muscle coordination and reaction time, tingling and numbness of face, hands, arms, and legs
0.10%	Flushed appearance, ataxia (imbalance and difficulty walking), impaired fine muscle coordination, impaired mental abilities, judgment, attention span, and memory. More improvement in mood, increased sociability and self-confidence
0.15%	Irresponsible behavior, euphoria, and delayed reactions
0.20%	Slurred speech, staggering, measurable effects on motor and emotional control centers, loss of balance, blurred or double vision, urinary incontinence, sedation and amnesia
0.40%	Lapses in and out of consciousness, amnesia, vomiting (with the risk of pulmonary aspiration), reduced heart rate, decreased circulation to extremities, causing cold or numb extremities, respiratory depression, depressed eye reflexes
0.45%	Life-threatening respiratory depression and possible cessation, markedly decreased heart rate, and coma
0.50%	Death

Slide 5

Alcohol Withdrawal Syndrome

- **Arises at the very initial stages of detoxification at 6 to 8 hours after the last drink**

- **Symptoms include:**
  - **Anxiety**
  - **Restlessness**
  - **Nausea and or Diaherrea**
  - **Anorexia**
  - **Insomnia**
  - **Diaphoresis**
  - **Mild Tremors**

  - **Fluctuating Tachycardia**
  - **Hypertension**
  - **Cognitive impairment**
  - **Seizures**
  - **Delirium**
  - **Drenching sweats**
  - **Severe tremors**

Slide 6

Stages + Symptoms of Alcohol Withdrawal

1. **Stage 1: 5- 8 hours after last drink**
   - Anxiety, restlessness, mild nausea, anorexia, insomnia, diaphoresis, mild tremors, fluctuating tachycardia and hypertension, and mild cognitive impairment.

2. **Stage 2: 24- 72 hours after the last drink**
   - Increased restlessness and agitation, tremors, hallucinations, disorientation, diaphoresis, nausea and vomiting, diarrhea, tachycardia: heart rate <u>faster than 120 beats/minute</u>, systolic pressure above 160 mm Hg, and seizures

3. **Stage 3: 72 to 96 hours after the last drink**
   - Fever, severe hypertension, tachycardia, delirium, drenching sweats, and severe tremors.
   - Death possible from arrhythmias, fluid and electrolyte imbalances, aspiration pneumonia, or infection.

Slide 7

Treating Alcohol Withdrawal Syndrome

- •ASSESS, STABILIZE, AND INTERVENE
- •Every healthcare facility should have a management protocol for acute alcohol withdrawal
  - WHY? So nurses can properly intervene without having to constantly consulting the physician
- •ASSESS: Administer CIWA-Ar test if any alcohol abuse is suspected
  - MOST IMPORTANT STEP!
- •STABALIZE: Obtain vital signs, blood samples for testing, and radiologic tests
- •INTERVENE: Based on assessment administer medications and fluids

Slide 8

CIWA-Ar Scale for Alcohol Withdrawal Syndrome

Clinical Institutes Withdrawal Assessment- Alcohol Revised

- •Assessment tool based on withdrawal symptoms: Helps reduce the risk of under- or overmedicating and evaluates the patient's response to treatment
- •Quantify the severity of alcohol withdrawal symptoms.
- •Consists of 10 questions which indicate the level of withdrawal
- •Takes 5 to 10 minutes to complete
- •Administer the CIWA-Ar hourly and give medications as ordered until the CIWA-Ar score is below 10 for 3 consecutive hours
- •After that assess the patient and administer the CIWA-Ar every 4 hours
  - If the score rises above 10, resume hourly CIWA-Ar assessment
  - If needed, titrate medications as ordered and expect to withhold sedatives for lethargy, abnormal vital signs, or neurologic abnormalities.

Slide 9

CIWA-Ar Scale Scoring

- Clinician assigns a score of 0 to 7 in each of 10 categories
- Maximum score is 67 points; higher the score = more severe the AWS symptoms
- Score of 10 or lower = mild symptoms that don't always need medication
- A score of 15 or higher suggests increased risk of seizures and DT
- Score 10 or higher should receive medications (benzodiazepines or anticonvulsants)

Slide 10

Medications for Alcohol Withdrawal Syndrome

- Benzodiazepines are the drugs of choice
  - Diazepam, Chlordiazepoxide, Oxazepam, And Lorazepam
- Benzodiazepines are addictive they must be used carefully to avoid cross-addiction
- Most alcoholics have a high alcohol tolerance
  - This means they might need larger or more frequent dosages
  - If a too low dosage is administered patient may experience unwanted side effects of alcohol withdrawal and under treatment.

Slide 11

Patient Comfort

•Important for leading to a better patient outcome

•Provide a quiet, dark environment by dimming lights, and limiting environmental stimulation

•Keep body temperature comfortable: apply or remove blankets as needed and adjust room temperature

•Offer fluids hourly while the patient is awake and record fluid intake

•Provide an appropriate diet as tolerated by the patient.
  • During times of nausea or vomiting, restrict oral intake. If the patient has epigastric distress, encourage deep breathing and relaxation

•Administer antiemetics as needed and offer ice chips, cool cloths, and a fan for comfort if the patient desires.

•Change the patient's position as needed and use pillows for support.
  • Adjust the head of the bed often.
  • If the patient is restrained, check skin around the restraints hourly.

Slide 12

Patient Comfort

•Check the patient's temperature frequently

•Allow rest or sleep between assessments.

•Avoid disturbing the patient, especially during the acute withdrawal phase

•Help the patient to the bathroom and record output

• Keep the patient oriented to time, place, and person

•Place family photos and familiar items from home, and a clock and calendar

•Provide reassurance, and reinforce the patient's progress: Provide non judgmental AND supportive care

•Allow only family visitors, but limit them if needed.

Slide 13

Patient Education

- **Very important to provide education on alcohol abuse, dependency, and withdrawal to the patient AND family**
  - **Will help them understand the disease and cope better**
- **Education can be provided verbally or by pamphlets, handouts, videos, and even Internet sources**
- **Can provide the patients and family members additional information on the topic of alcohol abuse being able worsen associated diseases (such as infectious diseases, cancer, diabetes, neuropsychiatric disorders, cardiovascular conditions, and liver and pancreatic disease)**

Slide 14

Important Points for Nurses

- **Main goal of nursing care is to <u>manage symptoms</u> by <u>keeping the patient safe and comfortable, giving drugs as ordered, and minimizing complications</u>**
- **Provide nonjudgmental supportive care**
- **Exercise patience**
- **Perform a general assessment, evaluate nutrition and hydration status, and implement the management protocol.**

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National Institute on Alcohol Abuse and Alcoholism. (2005). National Institute on Alcohol Abuse and Alcoholism. Helping patients who drink too much. Retrieved from National Institute on Alcohol Abuse and Alcoholism: http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

Understanding and managing alcohol withdrawal syndrome. (2013, June 11). Retrieved from American Nurse: https://www.myamericannurse.com/understanding-and-managing-alcohol-withdrawal-syndrome/

Appendix C

Alcoholism and Alcohol Withdrawal Knowledge Assessment Survey

1. What is your age?

2. What is your gender?

3. What is your profession?
    o Registered Nurse
    o LPN
    o Nurse Aide
    o Nursing Student

4. How comfortable do you feel with your skills when treating patients with alcohol withdrawal syndromes?
    o Very comfortable
    o Fairly comfortable
    o Cannot answer
    o Fairly uncomfortable
    o Very uncomfortable

5. How well do you understand alcohol withdrawal symptoms and their management?
    o Very comfortable
    o Fairly comfortable
    o Cannot answer
    o Fairly uncomfortable
    o Very uncomfortable

6. The symptoms of Alcoholism include:
    o Difficulty in trying to stop consuming alcohol
    o Physical dependence and craving for alcohol
    o Intolerance of alcohol
    o All of the above
    o None of the above

7. True or False: Patient undergoing alcohol withdrawal is at risk for seizures
    o True
    o False

8. After approximately how many since having the last drink does a patient experience severe alcohol withdrawal symptoms?
    o Less than 12 hours
    o Less than 24 hours
    o More than 24 hours but less and 48 hours
    o More than 24 hours but less and 72 hours

9. When assessing a patient's alcohol withdrawals which of the following scales is the best to use?
   - o COW
   - o CIWA-Ar
   - o FAST
   - o AUDIT

10. Which of the following are alcohol withdrawal symptoms:
    - o Anxiety
    - o Hypertension
    - o Tachycardia
    - o Tremors
    - o All of the above

11. How many stages are in Alcohol Withdrawal Syndrome (AWS):
    - o 1 stage lasting from 5 to 8 hours
    - o 2 stages lasting from 5 to 72 hours
    - o 3 stages lasting from 5 to 96 hours
    - o 4 stages lasting from 5 to 112 hours

12. True or False: Hallucinations may be experienced by patients in alcohol withdrawal
    - o True
    - o False

13. True or False: Excessive alcohol consumption does not suppress neural excitability and impulse conductions
    - o True
    - o False

14. Is it necessary to provide patients and their family with education on alcohol abuse dependency and withdrawals?
    - o Yes
    - o No
    - o I don't know

15. Benzodiazapines are:
    - o Non addictive and is the drug of choice
    - o Addictive and is the drug of choice
    - o Non addictive but not the drug of choice
    - o Addictive but not the drug of choice

Appendix D

Survey Cover Letter

Date

Dear Potential Survey Respondent,

My name is Kanwarbir Kaur and I am a graduate student enrolled in the Masters of Science/Gerontology Primary Care Nurse Practitioner program at Daemen College, Buffalo, New York, USA. I am conducting a study to evaluate Nurses knowledge and educate nurses on Alcohol Withdrawal.

This will take approximately 10 minutes to complete 15 Questions and your responses are completely voluntary. You may stop filling out the survey at any time. The answers to your questions will remain anonymous as your name is not recorded. If the results of the survey are presented in a public forum or published, your identity will remain anonymous as it is not recorded. All data will be reported in summary (rather than individual) form. Education session will be offered and participation is voluntary.

Thank you in advance for your participation in this research. If you would like a summary of the survey findings, or if you have any questions about this study, you can contact my thesis chairperson, Dr. Ryan (dryan@daemen.edu)

Thank you,

Kanwarbir Kaur

Graduate Nurse Practitioner Student

Daemen College Department of Nursing

Appendix E

Informational Letter for Survey

Title of Research Project: Evaluation and Education on Improving Nurse's Knowledge of Alcohol Withdrawal

Researcher(s): Kanwarbir Kaur RN

Faculty Research Advisor: Dr. Diane Ryan

Dear Participant,

We are inviting you to be participate in a research study entitled, "Evaluation and Education on Improving Nurse's Knowledge of Alcohol Withdrawal ". The research is being conducted by Kanwarbir Kaur, a Master's of Science in nursing student at Daemen College. The research is supervised by Dr. Diane Ryan Professor of Nursing at Daemen College.

The purpose of this informational letter is to give you information you will need to help you decide whether to be in the study or not. Please read the letter carefully. You may ask any questions about the purpose of the research, what I (we) would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this letter that is not clear. When we have answered all your questions, you can decide if you want to be in the study or not. The process is called "informed consent." We will give you a copy of this form for your records.

Your participation in this research is voluntary and confidential. If you refuse to participate, there are no penalties or loss of benefits or services that you are otherwise entitled. Whether or not you choose to participate in this project will have no effect on your relationship with Daemen College now or in the future.

1. DESCRIPTION OF RESEARCH PROJECT:

The purpose of the study is to bring an increase in knowledge among health care providers of alcohol withdrawal symptoms. Once the knowledge deficits have been identified through this research, strategies will be developed to meet the educational needs of the participants.

2. EXPLANATION OF PROCEDURES:

As a participant in this study, you would be asked to answer questions on the survey. All questions are related to your knowledge on Alcohol Withdrawal.

3. CONFIDENTIALITY

All information will be published in group form and there will be no publication that could link your participation with the data. Confidentiality of each participant will be maintained and no identifying data will be linked to the surveys. We are not collecting any email addresses or names or any other identifying information in this survey. After a period of 3 years all data will be destroyed.

4. BENEFITS/COMPENSATION:

There will be no direct benefits but education will be provided on Alcoholism and associated withdrawal symptoms. There will be no compensation to you related to being a participant in this study.

5. RISKS:

There are no known risks to you beyond that encountered in usual daily life related to being a participant in this study.

6. RESEARCH PARTICIPANT'S STATEMENT:

This study has been explained to me in writing. I volunteer to take part in the research. I have had a chance to ask questions. If I have any questions later about the research, I can ask one of the researchers listed above. If I have any questions about my right as a research subject, I can contact the Human Subjects Committee (HSRRC) Chairperson at hsrrc.chair@daemen.edu, (716) 839-8508, or Dr. Diane Ryan, the study chairperson at dryan@daemen.edu, or the researcher Kanwarbir Kaur, kkaur@daemen.edu. I have received a copy of this consent form.

□ Yes

□ No EDUCATIONAL

Appendix F

Permission Letter sent to Institute

Date:

Sampardai Sant Baba Tara Singh Ji

Head of **GURU GOBIND SINGH KHALSA GROUP**

Sarhali, District: Tarn Taran 143410, Punjab, India

RE: Permission to Conduct Research Study

Respected Mr. Sandhu,

I am writing to request permission to conduct a research study at your institution or (e.g., after school center). I am currently enrolled in the Masters of Science in nursing at Adult Gerontology program at the Daemen College in Buffalo, NY, and am in the process of writing my masters project. The study is entitled Evaluation and Education on Improving Nurse's Knowledge of AUD.

I hope that the facility and nursing college administration will allow me to conduct a survey of about 2-page questionnaire (copy enclosed) on about 40 health care providers including general duty nurses your alcohol detox facility and nursing students at your education institute. Due to the nature of the study, I hope to recruit of these anonymously and survey process should take no longer than five to ten minutes. The survey will be conducted to both control and experimental groups as a pre-survey, then again to both groups after the experimental group receives the

educational program. This project will not cost anything to the individual respondents or your institute.

The educational program will be a PowerPoint lecture to increase their knowledge on AUD. Survey will take about 10 minutes and education will be provided via handout and PowerPoint presentation of about 30 minutes. The survey results will be collected and analyzed for the thesis project, but the individual responses of this study will not be released, and will be kept confidentially. If the study will be published, it is guaranteed that the individual responses won't be published, only the analysis of the pooled results.

Your approval to conduct this study will be greatly appreciated. I will follow up with a telephone call next week and would be happy to answer any questions or concerns that you may have at that time. You may contact me via phone or email.

If you agree, kindly sign below and return the signed form in the enclosed self-addressed envelope. Alternatively, kindly submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this survey/study at your institution.

Sincerely,

Kanwarbir Kaur,

Ph: 716-622-0576-USA

   9878508005- INDIA

Email: Kanwarbir.kaur@daemen.edu.