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# Planning a Smoking Cessation Program in a Mental Health Hospital

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# Walden University

College of Health Sciences

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Victoria Omuson

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Walden University 2015

#### Abstract

Planning a Smoking Cessation Program in a Mental Health Hospital

by

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MSN/PMHNP, California State University Long Beach, 2011
MSN/Ed, California State University Dominguez Hills, 2009
BSN, University of Phoenix, (2005).

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

Walden University

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#### Abstract

The incidence of smoking among mentally ill people is very high. Smokers have a 50%, rate of mental illness diagnosis compared with 23% rate for general population. To address this problem, the purpose of this project was to plan a smoking cessation program for patients in a mental health facility. The theoretical foundation for this project was based on the theory of planned behavior, which identifies the predictive nature of smoking and the benefits that can be derived from implementing a systematic approach for change. The project question examined the effectiveness of smoking cessation program using educational support, pharmacological strategies, and bi-weekly meetings to help patients in a mental health hospital to decrease smoking behavior. The project design was based on use of smoking questionnaires, the Hooked on Nicotine Checklist (HONC), effective pharmacological strategies, educational support, and counseling treatments to evaluate symptoms of dependency. The key results of this project included the creation of a plan that could foster reduction in illness, improved quality of life, and reduced costs related to the onset of major illness in this vulnerable population. This data collection process focused on a qualitative design in which selected professionals were asked to review the materials and answer questions. This project could increase awareness of the issue of smoking; in addition, this project could equip nurses with the tools to deliver evidence based interventions for tobacco dependence that may significantly reduce tobacco use. This project has the implications for positive social change through its potential to improve the health of people with mental illnesses. It also creates a safe and healthy environment in mental health facilities for patients who do not smoke.

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# **Dedication**

This project was lovingly dedicated to my parents, who have been my constant source of my inspiration. They have given me the drive and discipline to tackle any task with enthusiasm, determination and believe that I will be victorious. Also to my husband and five children, without their love and support this endeavor would not have been possible. I especially want to thank my professional colleagues who were the inspiration and reason for this effort.

# Acknowledgments

I am thankful to the Lord almighty that makes all things possible for me. Many people contributed to the success of my education. I am thankful to my parents who made me to understand that I will be victorious over every obstacle and that I can do all things through Christ who strengthens me. I am thankful to my husband and five children who gave me constant support, encouragement and always believed in me. Finally, I would like to thank Dr. Taylor and my committee members for their support and contribution to my project. Thanks to the smokers who took on the task of trying to quit.

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#### **Section 1: Nature of Project**

#### Introduction

Individuals with mental illnesses also have very high rates of smoking (Soloway, 2011). According to Soloway (2012) and Parker, McNeill, and Ratschen (2012) people with mental illness are two to three times more likely to be tobacco-dependent than the general population. The difficulty of smoking cessation has been compared to stopping heroin use. (Morris, 2009). People with mental illnesses may be confused and disorganized, which may make it even harder for this population to quit. Morris (2009) argued that people with mental illness are disproportionately affected by tobacco use. They are not receiving accurate and adequate information about quitting. Clinicians are so overworked that they focus only on treating the mental illness and do not consider tobacco use as an important issue (Morris, 2009). Smoking is a hazard to the smoker's health. Adverse health problems, or harmful effects of smoking include increased risk of cardiovascular and cancer diseases. The health impacts of tobacco use are factual even though tobacco advocates may argue differently (Crawford, 2010). Smoking is the most significant link between osteoporosis and lung cancer (Crawford, 2010). It is a major contributor to other lung diseases such as emphysema and bronchitis (Crawford, 2010). Smoking contributes, at least in part, to a variety of other conditions, ranging from cervical cancer to hypertension and heart disease (Crawford, 2010). Cough and phlegm production are prominent for smokers of all ages. Physical problems specific to adolescent smokers include more frequent and serious respiratory illness, compromised physical condition, and unhealthy lipid profile (American Lung Association, 2010). Cigarette smoking is the leading cause of preventable death in the United States. (American Lung Association, 2010). The negative health impacts of smoking include heart disease, lung disease, hypertension, and cancer are cumulative over the

lifespan of the smoker. Smoking cessation earlier in life directly correlates to a reduction of negative health impacts.

#### **Problem Statement**

Many mental health patients smoke, and have a difficult time quitting. Tobacco smoking is the act of burning the dried or curved leaved of the tobacco plant and inhaling the smoke for pleasure, for self-medication, or out of habit and to satisfy addiction. Tobacco use is the most preventable cause of illness and death in the United States, accounting for 20% of all deaths (440,000) in the country each year (Morris, 2009). It is also the most lethal substance use disorder, killing more than four times as many Americans as alcohol use. Between 33% and 45% of smokers will die from tobacco-related illnesses. Smoking shortens men's lives by 13.2 years and women's lives by 14.5 years. (American Lung Association, 2010). Individuals with mental illness are highly affected by use of tobacco. About 50% of individuals diagnosed with serious mental illness are also smokers compared with 23% for society at large. (Morris, 2009). The Center for Disease Control (2014) estimated that 18.1% of the adult population smokes cigarettes. 42.1 million people. Of those, 20.5% are men and 15.8% are women. The age breakdown is this: 17.3% are between the ages of 18 and 24 years; 21.6% are between ages of 45-64 years; and 8.9% are age 65 years and older (CDC, 2014). In terms of race and ethnicity, the top three are American Indians/Alaska Natives (non-Hispanic), Whites (non-Hispanic), and Blacks (non-Hispanic (CDC, 2014). Individuals with a GED are the largest group of smokers. Soloway (2012) stated that about 80% of depressed persons want to guit and about 25% of were ready to quit in the next month. They did not all succeed. The American Cancer Society reported that \$98 billion dollars were spent on tobacco-related health care costs between 2000 and 2004. Smoking can cause cancer of the lips, throat, larynx and many other places; impaired sense of

taste, chronic obstructive pulmonary disease and many other diseases (American Cancer Society, 2014).

# **Purpose Statement and Project Objectives**

The purpose of this Doctorate in Nursing Practice (DNP) project was to plan a smoking cessation program for patients in a mental health facility. The overall goal of the DNP project was to plan a smoking cessation program for hospitalized patients in mental health hospital. The objective of the project was to plan the delivery of documentation and educational materials to support smoking cessation program in the mental health facility. This educational program will encourage participation in a twice-weekly support group that will help to provide foundational support for long-term cessation (Appendix F).

#### **Significance of Project**

# **Reduction of Gaps**

Existing research identified a number of different approaches for reducing smoking in the general population and for reducing smoking in at-risk or vulnerable populations (Doubeni, C., Reed, G., & DiFranza, J, 2010). Smoking cessation programming in mental health facilities were studied, but interventions were not widely applied in a systematic manner. The Joint Commission has yet to apply the standard ensuring smoke-free environments in mental health facilities. The current capstone project will include a plan for implementation and evaluation to take place after the project, to be accomplished by others.

#### **Implications for Social Change**

People with mental illness are part of a subpopulation that is vulnerable to the effects of smoking and the long-term ramifications for health. People with mental illness are more likely than other populations to smoke, and are less likely to see treatment for smoking-related illnesses or smoking cessation support services (CDC, 2013). In a 2013 report, the CDC maintained that about one fifth of the population of the United States has some form of mental illness, and over one third of those people are smokers. In contrast, just over one fifth of the general population smokes cigarettes. The planning of smoking cessation program in mental health facilities has the potential to improve the health of a large segment of the population of people with mental illnesses. It also creates a safe and healthy space in mental health facilities for patients who do not smoke. This can result in a reduction in illness, improved quality of life, and reduced costs related to the onset of major illness in this vulnerable population.

# **Evidence-Based Significance of the Project**

This project was significant because it addresses one of the major health indicators for patients with mental illness. The incidence of smoking among people with mental illness is very high (Ebbens & Crane, 2011; Parker, McNeill, & Ratschen, 2012). Parker, McNeill, and Ratschen (2012) reported that people with severe mental illnesses are three times more likely to smoke than the general population. They are most often heavy smokers, which makes them even more dependent on smoking. Further, smokers who have major depressive disorder are the most likely to smoke. They have the least success when trying to quit (Parker et al, 2012). The relationships between smoking and mental illness are complex and include genetic factors, psychosocial factors, and neurobiological factors. Smoking is a means of social interaction, it

reduces social inhibition; it reduces feeling of isolation, and it relieves boredom in many settings (Parker et al, 2012).

#### **Significance to Nursing**

The importance of smoking cessation to nursing is that smoking remains the primary problem in terms of death and illness that could be prevented not only in the United States but in the entire world. (U.S. Department of Health and Human Services, 2014). According to World Health Organization (2011), tobacco was completely accountable for one out the three causes of cancer related death in the United States. Mentally ill patients who smoke tend to be heavy smokers, more so than non-mentally ill people (Soloway, 2011). Because smoking is such a complex behavior, the exact causes are unknown. Nonetheless, it was valuable to offer a smoking cessation program to smokers in a mental health hospital. Prevention of tobacco-related disease, disability, and death could be achieved through the promoting of tobacco control. Nurses are the health professionals who are consistently with the patient at all hours of the day, giving them the opportunity to provide the constant support needed to be successful in this difficult behavior change (Rice & Stead, 2009).

#### **Definition of Terms**

*Electronic cigarettes:* battery-operated devices that deliver nicotine without any combustion or smoke. (Soloway, 2011).

*Pharmacological strategies:* nicotine replacement therapy (NRT) such as Nicotine gum, transdermal patch, (Shiffman, Dresler, & Rohay, 2013). They are most prevalent form of therapy that equally effective in maintaining smoking abstinence.

*Person with mental illnesss:* any kind of mental health problem including but not limited to altered thought process. (Soloway, 2011).

Hooked on Nicotine Checklist (HONC): an assessment tool that can be used to determine the presence or absence of habitual nicotine use and in making recommendations for cessation counseling. (Doubeni, Reed & DiFranza, 2010).

Counseling: twice-weekly smoking cessation sessions that would include one support group option in which individuals who are participating in smoking cessation programming join together to share their stories and provide support for each other, and one one-on-one therapist/patient session, in which the therapist applies a behavioral approach to supporting cessation and addressing behaviors and stressors related to smoking linked to the theory of planned behavior (Høie, M., Moan, S., Rise, J., & Larsen, E. 2012; Petry, 2006).

#### Assumptions, Limitations, Delimitations

It was assumed that it will take time and education to dismiss the myths about use of tobacco among mentally ill patients. Many of these patients are willing to quit. They gain from smoking cessation interventions. It is also presumed that changing the tradition that supports smoking will be challenging as getting the patient to quit smoking. Therefore, other health care providers will need to be tolerant while trying to promote a change and educating others in the system to be effective agents for change as well.

Providers have limited time to monitor patients' status repeatedly, respond to relapses, and pursue quitters from the program. Secondly, many suppliers, particularly primary care medical providers have insufficient training in tobacco cessation treatment for patients who have mental illnesses. Thirdly, providers may be discouraged by the reduction rate resulting from their hard work at intervention. Again, there could be lack of support from some providers because they have the beliefs that smoking cessation is not effective. There may be other provider barriers, such as the low importance of smoking in the face of competing health care demands,

the wrong perception that patients are not interested in quitting, and fear of delivering a negative message to patients that may drive them away from treatment. The delimitations of the project include the focus on a particular population (adults with mental illness) versus other potential smokers in the mental health facility (e.g. staff).

#### Summary

In section 1.1 identified the problem, purpose, question, and the overview of an evidence-based project to implement a smoking cessation program in one mental health facility.

Addressing the problem of smoking in mental health facilities through the application of tobacco use cessation strategies can provide important support for a vulnerable population of adults (18 or older) who have mental illnesses.

# Section Two: Review of Literature and Theoretical/Conceptual Framework Literature Review Strategy

An electronic search was conducted that used these databases: CINAHL, Medline, PubMed, EBSCO, Ovid Plus, Nursing Journals, and Cochrane Library. The terms used for the search includes smoking cessation, electronic cigarette, Hooked on Nicotine checklist (HONC), mentally ill patients, harmful effect of smoking, smoking assessment tool, theory of planned behavior, mental health workers and clinicians. The articles selected discussed tobacco free policies in behavioral hospitals.

The two populations that have the highest rate of smokers are veterans (Vick et al., 2012) and people with mental illness (Soloway, 2011). Soloway (2012) and Parker, McNeill, and Ratschen (2012) both reported that people with mental illness are two to three times more likely to be tobacco-dependent than the general population. Some studies have found that mentally ill people often have strong motivation to quit smoking but they tend to fail. Soloway (2011) stated

that about 80 percent of people with depression want to quit smoking and about 25 percent of those were ready to quit in the next month. They did not all succeed. Morris (2009) affirmed this comment. Morris said that people with mental illness do want to quit, they just need the right information. Morris (2009) explained that about 20 % of the American population has mental disorders in any year. Over 40 percent of these people use tobacco. Morris (2009) reported that (a) between 30 and 80% of persons with major depression smoke, (b) 51-70 percent of persons with bipolar disorder smoke, (c) between 62 and 90 % of people with schizophrenia smoke, and (d) between 32 and 60 percent of people with anxiety disorders smoke.

Research has shown that the reasons the mentally ill smoke so much were complex (Soloway, 2011). It is the result of complex personal and social experiences and phenomena that shape the motivations and opportunities related to smoking and quitting. Most people saw smoking as a stress reducer and as a coping tool for finding relief from pain, anger, sadness, grief and other strong emotional feelings (Soloway, 2011). Sometimes, it was because a good friend or a group of friends was smoking. It was also well-known and well-documented that simply providing any smoker with information about the health hazards of smoking does not work at all (Høie et al., 2012). A number of investigators have stated that in order to improve understanding of smoking cessation, the studies must be theory-driven (Høie et al., 2012). Studies and programs based on the Theory of Planned Behavior were more successful than other models. (Høie et al., 2012).

#### **Electronic cigarettes**

Electronic cigarettes (e-cigarettes) have become popular among smokers who want to cut down or quit. There is anecdotal evidence supporting the effectiveness of this device but there is very little empirical evidence. (Soloway, 2011). Research has indicated that e-cigarettes can reduce the desire to smoke traditional cigarettes and allow for the moderation of nicotine (Siegel, Tanwar & Wood, 2011). Researchers have identified a number of different approaches for reducing smoking in the general population and for reducing smoking in at-risk populations, most of which involve some form of nicotine replacement in alignment with the support of prescribing physicians (Doubeni et al., 2010). The success rate for smokers using gum, the patch, or medication was very low. Most return to smoking within a few months and at most within a year. (Soloway, 2011).

Siegel, Tanwar, and Wood (2011) reported that most of the surveys investigating the success of e-cigarettes for quitting used a convenience sample of e-cigarette users. Siegel, Tanwar, and Wood conducted an anonymous sample. It was an anonymous Internet-based cross-sectional survey with a cohort of first-time purchasers of e-cigarettes. These investigators obtained e-mail addresses from the Blu distributor. They sent recruitment e-mail invitations to those customers. Of the 4,884 valid e-mail addresses, 220 e-cigarette users responded and six of these were deleted because they did not fit the criteria. Most of these people had smoked for more than six years and two-thirds had tried to quit at least three times (Siegel, Tanwar, & Wood, 2011). More than two-thirds reported they had cut down on tobacco and nearly half had quit using e-cigarettes. The researcher concluded that e-cigarettes were effective in reducing the number of tobacco cigarettes used with 31%t quitting altogether (Siegel, Tanwar, & Wood, 2011). Other studies that identified the use of e-cigarettes are, Barbeau, Burda and Siegel (2013)

maintained that e-cigarettes were beneficial in providing nicotine replacement when compared to nicotine therapy utilizing the patch or nicotine gum. These researchers argued that the approach provides a basis for the on-demand dosing of nicotine and could be used in a monitored manner to address a variety of elements that hinder cessation efforts, including the physical addiction to nicotine, the behavioral experiences of smoking, and the social components. Bullen et al. (2013) applied a randomized controlled trial to the use of electronic cigarettes as a nicotine replacement system as opposed to the use of the nicotine patch in order to determine which would be more successful in reducing smoking. These researchers found that e-cigarettes, especially if used in conjunction with smoking cessation educational programming and counseling, actually provided greater support for reductions in nicotine use. Due to patient safety issues, patients in the program would be advised to use the devise under staff supervision and the staff would be asked to keep equipment locked in designated area after use. However, because the e-cigarette is not regulated and variations can produce different result, the decision to use is left for individual patient and their clinicians.

# **Theory of Planned Behavior**

Høie et al. (2012) conducted a project using the framework and theoretical model of the theory of planned behavior. They investigated using this theory and model with two different aged populations and their intention to quit smoking. The age groups were 16-19 years and 35 to 55 years. The adolescent group included 500 smokers and 500 nonsmokers while the adult group included 500 smokers and 250 nonsmokers. From the theory of planned behavior, the researchers used attitude towards quitting, subjective norms, which included people who meant a lot to the individual, perceived behavioral control, which measure how much control the person perceived they had, descriptive norms, past behavior, and moral norms (Høie et al., 2012). In terms of

predicting quitting smoking using the theory of planned behavior, the subjective norms were important only to the adolescent group and intention was the strongest for the adult group. They also found that attitude was the strongest predictor of intentions to quit smoking (Høie et al., 2012). This was the first project of its kind and it supported using the theory of planned behavior as a successful model.

#### Theoretical foundation

The Theory of Planned Behavior was selected as the foundation theory for the smoking cessation program for mentally ill patients in a mental health hospital. Ajzen developed the theory of planned behavior in 1988. Ajzen the social psychologist, who developed this theory, identified the constructs of the theory as: behavioral beliefs, which lead to the person's attitude towards the behavior; normative beliefs, which lead to the subjective norm; and control beliefs, which leads to the person's perceived behavioral control. Ajzen (2011) explained that according to the Theory of Planned Behavior, human behavior is guided by three types of considerations: beliefs about the most likely outcomes if the behavior was adopted, such as, cutting down or quitting smoking; beliefs about the expectations of important people and the person's motivation to meet these expectations; and beliefs about the presence of factors that might facilitate or impede performance of the behavior and the individual's perception of how much control they have. The theoretical framework for this project was the theory of planned behavior. One caveat was borrowed from transtheoretical theory as presented by Rizzo et. al. (2010), which stated that change happens over time, it was not a single event that happened at a specific time. The Theory of Planned Behavior has several components: behavioral beliefs, attitude toward behavior, normative beliefs, subjective norm, behavioral intention, control beliefs, and perceived power (Tanzi, 2012). Attitudes reflected the patient's beliefs towards a given behavior like quitting

smoking. Subjective norms involves what others think of a given behavior and whether the patient thinks important people approve or disapprove of a specific behavior. Perceived behavioral control was about whether or not the patient believes they can actually do the behavior, for instance, quitting smoking (Tanzi, 2012). The theory of planned behavior states there is a causal relationship between a person's attitudes about the behavior, intention, and the actual performance (Chang, 2013). They were sequential. Moving from attitude to strengthen intention, this would lead to actual behavior. Each of these components would be observable to the meeting leader, the registered nurse. Patients would be guided to discuss each of these aspects, which would lead to insight about their attitudes, intent, and perceived behavioral control. Smoking cessation programming was ineffective if patients were unwilling or perceived themselves as unable to seek out and participate in smoking cessation programming. The use of an assessment process was the first step that a nurse could take to support specific choices by patients to reduce smoking. This was linked to Dorothea Orem's self-care theory, the belief that nurses worked with patients to support the highest level of self-care possible. Dorothea Orem reflected on the importance of self-care and the role of the nurse in supporting self-care for patient autonomy. This has become a foundation for middle range theories that related to issues like smoking cessation, patient autonomy, patient-directed care, and the social support networks within which patient's develop self-care skills. Orem perceived the necessity for patient selfreliance as a major component of her theory, and this was applied to the work between a nurse and patient towards smoking cessation (Orem, 2010).

#### **Smoking Assessment Tool**

The CDC (2011) supported the use of screening because of the connection between parental smoking and the transference of these habits to family members including children, and the negative impacts of exposure to secondhand smoke in a range of environment. The National Institute of Health (NIH) has supported studies about the use of early intervention tools to reduce nicotine dependence through the use of the Hooked on Nicotine Checklist (Doubeni, Reed & DiFranza, 2010).

The Hook on Nicotine Checklist (HONC) was a readily available assessment tool used in many clinical settings (Hendricks, Prochaska, Humfleet, & Hall, 2009). This assessment has been used to identify nicotine dependence in a range of populations, and has been widely validated through studies of a range of levels of tobacco dependence (DiFranza, Savageau & Fletcher, 2009; Scragg, Wellman, Laugesen & DiFranza, 2009). One of the major differences between this measure and others that assess tobacco use was that the HONC measure did not actually require the participants to indicate their frequency of tobacco use. As a result, this measure was noted for its accuracy in reflecting the issue of dependence because it did not require an admission of the specific number of cigarettes or amount of tobacco used in a given period, a self-report element that was often underreported (Hendricks et. al, 2009).

#### **Smoking Cessation in General Populations**

The National Institute of Drug Abuse (NIDA) (2012) maintained that tobacco use was the leading cause of preventable death in the United States, with about 443,000 deaths annually. Though use has gone down over the past decade, in 2011, about 26.5 percent of the United States population, or more than 68.2 million people over the age of 12 used tobacco products regularly (NIDA, 2012). This includes 56.8 million cigarette smokers, 12.9 million cigar smokers, 8.2

million users of smokeless tobacco, and 2.1 million pipe smokers (NIDA, 2012). Recreational and habitual use of tobacco products in this country has resulted in a large population of people susceptible to preventable and irreversible health issues. There was also a considerable amount of evidence available to support the use of tobacco use screening and to apply strategies to support cessation for individuals who smoke. Both the Centers for Disease Control (2011) and Berg (2011), one of the primary researchers for the U.S. Preventative Service Task Force, assessed a range of research spanning over two decades that related the use of clinical prevention services to reduce the onset of smoking.

#### **Background Context**

Recommendations from many of the governmental websites, including the National Institutes of Health (NIH), Center of Disease Control (CDC) and The U.S. Preventive Services Task Force (USPSTF) reflected the value of smoking assessment in creating an impetus for smoking cessation (Berg, 2011; Doubeni, Reed & DiFranza, 2010). Berg (2011) argued that recommendations that have been in place by the U.S. Prevention Services Task Force since 1996 have called for the use of "clinical practice guidelines" designed to address the problem of smoking cessation, including consistent use of smoking questionnaires like the HONC to evaluate symptoms of dependency.

The CDC and prevention and the United States Preventive Services Task Force conducted extensive research about the approaches that were used to screen for tobacco use and to support cessation programming (Centers for Disease Control and Prevention 2013). Berg (2012) maintained that screening, including both screening for the underlying problem of tobacco use or the use of screening devices to check for disease related to tobacco use, including cancer, drove the perception of the need for screening tools. The American Academy of Family

Physicians supported this belief further by relating the fact that parents who smoke frequently raised children who smoke. (Berg, 2012). The National Institute of Health supported the use of the HONC measure in alignment with the symptomology of problematic tobacco use related in the Diagnostic and Statistical Manual of Mental Disorders in order to support early cessation programming (Hendricks, Prochaska, Humfleet & Hall, 2009). This assessment was utilized and the outcomes verified in order to produce studies of the impacts of smoking cessation programming. The incidence of smoking among mentally ill people was very high (Parker, McNeill, & Ratschen, 2012). Parker, McNeill, and Ratschen (2012) reported that people with severe mental illnesses were three times more likely to smoke than the general population.

#### Section 3: Approach

#### Introduction

A considerable body of evidence was identified that indicated a connection between smoking and mental illness. Subsequently, smoking was linked to poor health outcomes, especially in vulnerable populations (Prochaska, 2011). The creation of a smoking cessation program for patients in a mental health hospital provided a method of addressing the overall health concerns of the population of patients while also addressing concerns related to the use of nicotine as a method of self-medicating for a range of conditions.

# **Description of the Project**

The initial step in planning the implementation of a smoking cessation program in a mental health hospital included identification of need to gather information from stakeholders about their perception of the current situation and what should be included in the program. This was followed by gathering of resources necessary for the implementation of the project. The resources included the DNP student who planned the project, staff nurses who had the most

contact with patients, and others include: psychiatrists or psychologists, psychiatric nurse directors, patient's families, psychiatric department directors, and the hospital directors. All of the caregivers needed to be involved for the program planning for the outcomes to be successful. The site for this program was an inpatient psychiatric unit. Also, this program proposed the use of electronic cigarettes to assist in reducing nicotine dependence as determined by individual clinician and patient assessment and hooked on Nicotine tool to determine the presence or absence of habitual nicotine use. The DNP student was responsible for the step by step planning of the project. The overall goal of this project was to plan a smoking cessation program for patients in a mental health facility. In alignment with these goals, this project also included the development of facility-based policies. The first policy the DNP student planned to develop was an educational initiative to improve counselor and practitioner knowledge of tobacco cessation medications and their use in substance abuse programming (Prochaska, Delucchi & Hall, 2013). Another policy that was developed in order to expand upon the smoking cessation initiative was one that supported education materials, and counseling to support the program (See Appendix D). The plan for implementation of policies began with a conversation with the director of the mental health facility. In order to determine the impacts of the policy proposals, the director requested that any policy changes or proposed policy changes be addressed within their multidisciplinary practice council so that policies could be viewed and questions about implementation strategies could influence policy development. The project was designed to assess the policies, the cessation program, and the implications for the mental health facility, where the program can be implemented.

#### Developing a Plan, context and element of Project

The plan development was done collaboratively throughout the organization as a whole. The key to this program was to coordinate the facility-wide initiative to create a no smoking facility with coordinated efforts to assess and treat patient at-risk. As a result, representatives from each department were asked to gather educational resources and curricular contents into the creation of the program in order to ensure the best outcomes (See Appendix A). The combination of screening and educational/interventive strategies was used to reduce smoking in the overall organization. (See Appendix D and E). The plan was to be implemented in a facility that has not previously implemented a smoke-free facility policy, but desires to do so. The context of the plan was linked to the view supported in the current literature (Prochaska, 2013) that tobacco use poses health threats to people with mental illness, including exacerbating other conditions and impacting the efficacy of treatment paradigms. For at-risk populations, smoking results in additional substance use problems; for instance, poor outcomes in maintaining long-term cessation from substance use, increased negative symptoms, and depression and suicidal ideation (Prochaska, 2013). The project has the potential to address a considerable health problem for a vulnerable population and improve outcomes for vulnerable populations.

The project integrated a collaboratively developed cessation program and education recommendations proposed by the National Institutes of Health, the Centers for Disease Control and Prevention, and U.S. Prevention Services Task Force to develop an education-based intervention in one mental health facility. In order to determine the best options in regards to programming, the program was developed using the support of psychiatrists, psychologists, and substance use counselors to create a collaborative approach that can also foster interdepartmental support for the change initiative. Berg (2011) argued for the application of policy and practical

guide to reduce smoking that included a focus on patient assessments, programming, and clinical collaboration.

# Patient Population, Setting, Team and DNP Student's Role

The participant population will include patients over the age of 18 who are being treated in an inpatient psychiatric hospital program for a range of mental disorders, including depression and anxiety. The multidisciplinary team will consist of intake counselors, physicians, mental health nurses, psychologists and psychiatrists who work directly with patients in the mental health facility. The programming planning element integrated patient perspectives regarding the nature of the program, the schedule for program participation and completion, and potential costs involved. This would help to enhance the level of participation in the program and also ensure a greater connection between patient participants and the program objectives. The smoking cessation program designed by the DNP student will be conducted by substance use educators or counselors. The role of the DNP student was the development of the educational program for those who would be providing the patient program and support for the reducing smoking in the facility. This included educational curricular content and policy creation (Appendices A and B) in alignment with other members of the team. Other team members will be responsible for conducting patient assessments, determining the need for participation in smoking cessation, and evaluating patient outcomes once the patient plan is implemented. The inclusion criteria for this project will be men and women between the ages of 18-65 who are receiving treatment in the mental health facility. The patient volunteer for this project must be cognitively intact. Participants must meet minimum language proficiency requirements of being able to read and write English at a sixth grade level, and individuals must be conversationally responsive. If during the course of participation significant changes occur in a patient's mental state (e.g. they

become catatonic) that would prohibit their capacity to participate, they may be excluded as a result of this shift.

#### Time Frame

The selection of a twice-a-week counseling support element to the smoking cessation program was based on therapeutic approaches and support mechanisms for cessation that are based on the use of multiple check-ins to support program-aligned behaviors. (Appendix A). Because nicotine addiction includes two components, physical and habitual, smoking cessation programming that integrates twice-a-week component provides an environment to present educational materials while also providing therapeutic support for cessation (Doubeni, Reed & DiFranza, 2010). Because of the use of a support group approach, participants can enter the program at any point. Educational support will be provided at repeated times in the program in order to ensure that all participants receive the materials needed to support continued adherence to cessation planning. The key element of this process was to provide therapeutic support during transitional periods, including immediately following initial cessation and at intervals especially during the first 6 weeks of individual process. The setting for this program was to be a rural mental health hospital that provides support services for adult patients with a range of mental health conditions, the site for this program was to be a 30 beds capacity inpatient psychiatric unit within the facility. One of the key aspects of the program was to support individuals in smoking cessation through the transition process out of programming. People with mental illness in the inpatient setting have restraints on their access to pharmacological interventions, but the goal of most is to support their transition to self-care or return to home. These individuals often receive medication management support services as a part of their transition out of the hospital setting. The use of nicotine replacement strategies will have to be integrated as a par to their medication

planning after they leave the clinical setting. As with any other medication for people transitioning from the mental health facility, support mechanisms, including group support and medication management, can help support patient autonomy and personal care skills. With any pharmacological intervention, physician support and follow-up will be a component of the program process (Parker et al., 2012).

#### **Evaluation Plan**

There was considerable support for cessation programming for at risk populations. The DNP student will plan for staff evaluation of proposed program after the project was developed. The evaluation team will watch over the evaluation process and make sure that the program planning aligns with program goals and objectives. The evaluation plan will include formative evaluation of proposed program from staff. The formative evaluation will involve the collection of information about activities, character and outcome of the program. The evaluation team will use formative evaluation to determine if the intervention met the set goals and objectives, if the educational material is appropriate for the program, and if the timing of the intervention was adequate and suitable for the target population. The evaluation plan will also include impact evaluation of an assessment of each patient's status based on the Hooked on Nicotine selfassessment before participation and after participation in the program. The Hooked on Nicotine Assessment was provided in the Appendix D. Patients will be assessed prior to participation, at the time (if applicable) they transition out of the clinical setting, and at 6 weeks postparticipation. Patients will be guided to discuss each of these factors, which will lead to insight about their attitudes, intent, and perceived behavioral control. The theory underlying this program was the Theory of Planned Behavior, so the theory has several components such as attitude, Subjective Norm, Perceived behavioral Control, Behavioral intention, and behavior to

be evaluated on the patient (Chang, 2013). The reliability and validity of the research tool utilized was identified by researchers who have utilized this measure to determine individual level of nicotine reliance (Doubeni, Reed & DiFranza, 2010).

#### **Selection of Staff Member**

The curricular was designed to fit each patient need and knowledge level. The smoking cessation program was to be implemented to an audience. The staff members for the evaluation of educational program were selected by the facility director, who agreed to designate a team of two nurses to oversee the smoking cessation program. Team member roles included a team leader who will run and direct the program, and a facilitator, who will assume the role of team leader if the team leader is not available. Although all the nurses in the inpatient facility received instruction on the educational material of the project, the team leader and facilitator are recognized as the smoking cessation program champions in the facility. The team evaluated the proposed program using formative evaluation to determine if the intervention met the set goals and objectives, if the educational material is appropriate for the program. After their evaluation, the program champions were excited about the smoking cessation program. There was considerable support for cessation program for at risk populations in general within the mental health facility. Each of these components will be observable to the meeting leader, the RN nurse. Patients will be guided to discuss each of these aspects, which will lead to insight about their attitudes, intent, and perceived behavioral control. The DNP student provided her contact information for questions or assistance during the implementation and evaluation phase.

#### **Process of Providing Questionnaires**

Questionnaire data was collected from nurses working directly with patients and patient outcomes on the HONC assessment, with the plan of utilizing similar outcome-driven

evaluations repeatedly for the duration of the program, to determine whether overall levels in the facility reduce over time. More significantly, reports of smoking reduction and adherence by nurses to referral and smoking cessation systems proposed in this plan were utilized to support the continuation of the program. The data collection process was in alignment the views of participant members and the overall process involved in the program implementation. The selected team included two licensed vocation nurses and two registered nurses and one nurse practitioner with more than ten years experience of working with mentally ill patients. These nurses were used to determine the level of participation and the need for participation by individual patients based on questionnaire responses (Appendix C). The use of measures of nicotine dependence through the use of the HONC measure provided support for indicators of participation and as a basis for referring patients for participation. The steps of the program included conducting educational and informational meetings for all mental health patients. In addition, a needs assessment was conducted to determine the level of knowledge that counselors and practitioners had about tobacco cessation counseling and educational program to support a change initiative (Prochaska, et. al. 2013). This data collection process focused on a qualitative design in which selected professionals were asked to review the materials and answer questions in a semi-structured interview process. The qualitative data collection process was based on the creation of a framework approach. The data was collected through the interviews with nurses and the recorded information was transcribed (Smith & Firth, 2011).

#### **Staff Feedback**

The selected teams of experienced nurses working specifically with mental health populations were asked to review the materials and provide insights about the adequacy of patient education curriculum content areas, timeline used to instruct nurses working with the

patient population, and the program content itself, specifically the materials to be provided to program participants. The DNP student conducted the interview for the evaluation of proposed program (Appendix C). The interview took place in the inpatient facility and it took not more than fifteen minutes for nurses to review and provide their feedback. The experienced nurses provided different feedback to the proposed program. According to the staff member, the inpatient facility will need resources such as physical space to conduct the education, some nurses mentioned that, time for nurses to provide the education to the population will be an issue. One nurse stated, "Reimbursement policy should be in cooperated in the planning of proposed project". However, there was considerable support for smoking cessation program for at risk populations in general within the mental health facility. Evaluation of views of the potential for success or failure of the program was conducted to determine any modifications for the program plan. Based on the nurse's feedback, the modification made were to change the time to one hour session instead of two hours. Again, it is important that the DNP student investigate the criterion and process of obtaining reimbursement during the planning of the program. The initial comments regarding the scope of the educational program and the overall benefits of the program provides valuable information on key terms and definitions related to tobacco use, why it is important to quit smoking. While the curricular content was tailored to meet the needs of mental health peer counselors, it is a helpful training tool for any provider or advocate interested in learning more about mental health and smoking cessation.

#### Summary

The proposed project reflected a link between perceptions of the impetus for smoking cessation programming and internal policies in the creation of a smoke-free facility. The educational component of this project focused on addressing necessary smoking cessation

programming for at-risk populations. The subsequent policy changes in conjunction with this program were viewed as a method to support a facility-wide effort to reduce smoking. However, this paper discussed an evidenced-based project focused on program planning to reduce the incidence of smoking among the hospitalized patients in a mental health hospital. It included the overview of the evidenced-based project, the literature review strategy, and the proposed data collection to follow project implementation.

# **Chapter 4: Findings, Discussion, and Implications**

The focus of this Doctorate in Nursing Practice (DNP) project was to plan a smoking cessation program that could be implemented for patients in a mental health facility. The overall goal of the DNP project was to plan a smoking cessation program among hospitalized patients in mental health hospital. The objective of the project was that by the end of the DNP program, this DNP student was to plan the delivery of documentation and educational materials to support smoking cessation program in the mental health facility. The findings in this DNP project program reflect the connection between program process and patient outcomes, suggesting benefits that can be derived.

# **Summary of Findings**

At the onset of the project, the DNP candidate approached the director of the mental health facility to identify the area of concern and propose the development of the project. At one of four meetings, the director identified the need and rationale for the smoking cessation program in mental health facilities. The director identified the basis for any approved programming changes in the hospital setting linked to evidence-based practices and approaches that were clearly identified as successful in similar settings. Evidential support for the program extended from research findings for this DNP project that indicated that reducing smoking in vulnerable

populations (e.g. the mentally ill) was an important component of mental health treatment (Crawford, 2010; Doubeni et al., 2010). This information about documentation and educational materials was presented to the director and approval was obtained for the continuation of research into the introduction of a smoking cessation program for the facility to address the needs of the vulnerable population (Crawford, 2010).

#### **Interpretation of Findings**

Upon approval of the DNP proposal, the DNP candidate began developing the necessary educational materials, assessment tools (smoking questionnaires, the Hooked on Nicotine Checklist (HONC), and planning for counseling support to provide knowledge and understanding of nicotine addiction and treatment to patients. This included: creating a clearly outlined plan that identified the major points of the program; outlining a rationale for the program based on current studies of smoking cessation for vulnerable populations; providing a time line for program development, research, and implementation; and defining methods for evaluating program outcomes. This planning process also considered the implications of the research for future studies into smoking cessation and programming for patients with mental illness, and relating the outcomes of the research as a rationale for the continuation of the program.

In addition to these materials, the DNP candidate sought specific departmental information in order to determine the level of need in the facility. This approach used a cigarette totals document provided in Appendix E as part of the plan to determine the number of cigarettes counted for patients during each period of the day in order to assess the breadth of the problem. This approach provided some baseline observation about the level of the problem that was used as a part of the rationale documentation for the program. These were integrated into the planning

component of the DNP project, specifically in relation to the planning for program implementation. Other products were created as a basis for the program, and included a PowerPoint presentation on smoking cessation, handouts, and the Hooked on Nicotine Checklist (HONC) to be utilized with patient populations. These were integrated into the planning component of the DNP project, specifically in relation to the planning and instruction for implementation of the program. The plan also included a period of assessment that included interviews conducted of members of different departments in the facility to determine if the program documents and plan provided support for smoking cessation in alignment with evidence-based best practices. All of these elements were created as a basis for the program and information was presented to the hospital administrator as the rationale and support documentation for program approval.

#### **Discussion and Implications**

The outcome of this DNP project was a stand-alone program that can be implemented in mental health hospitals. This program already received initial approval for implementation once completed, and provides a foundation for integrating long-term programming for smoking cessation into the mental health facility. This was in alignment with the research foundations for the project and the rationale for the program as a whole.

#### **Policy**

This included guidance from the facility director in creating an effective policy to reduce smoking in the facility and a growing number of nursing and health professionals relating value in this kind of program. The implications of this project were defined in relation to specific changes and the benefits of change initiatives that were practicable and could be used to direct actions of practitioners and patients.

#### **Practice**

The DNP project will influence nursing practice by making nurses more proactive in the delivery of document and educational materials to support smoking cessation program in the mental health facility. The project will also make nurses more comfortable with smoking-cessation counseling skills and the use of more evidence-based nursing interventions to enhance the quality of care.

#### Research

The DNP project also contributed to the body of research on the best methods to address this problem in the clinical setting and the methods currently being utilized to promote successful cessation). Soloway (2012) maintained that nicotine dependence can have an impact on the effectiveness of pharmacological interventions used with patients, and this was further supported in the research by Vick et. al. (2012). The research foundation for smoking cessation to support beneficial outcomes for at-risk people with mental illness was identified within the current literature.

#### Social change

The DNP project will also influence social change for improving the health outcomes of people with mental illness by reducing nicotine use and dependence, and subsequently contributed to the growing focus on reducing nicotine dependence in vulnerable populations. The DNP project also determined a growing perspective in the mental health facility for improving health outcomes for patients.

#### **Project Strengths and Limitations**

This DNP project focused on the development of a program based on existing evidence about methods for smoking cessation that could be later applied in the clinical setting. The

project provided a substantive body of research to support the application of the program and foundational research about the importance of this type of program for mental health facilities.

These were the identified strengths in the project.

The weakness of this project was that any evaluation of the product, in this case the DNP project plan, had to relate the findings to anecdotal assessments of the content of the project and comparisons between the project and views in the existing research. The project was not designed to show the implementation process, and this was a limitation of the project. The next step in the process would be to assess the application of the DNP project in alignment with the goals identified in the project end product and evaluate the long-term impacts of the project. This project provides the foundation for an evidence-based project for another DNP candidate in the future.

### Recommendations for Remediation of Limitations in Future Work

The limitations of this project were directly related to the format of the project and the focus on creating the plan for implementation, but not actually implementing the changes. This limitation impacts the overall project because there was no foundation from which assessments of the effectiveness of the project could be determined outside of anecdotal information provided by those who might have utilized the plan. Subsequently, the recommendation for future work in this area is to implement the project and provide an assessment of outcomes relative to the success or failure of the project. Consequently, the recommendation for remediation of the limitations of the project in future work is to develop an analytical approach that includes a quantitative component through which evaluations of the setting and population can be conducted before and after project implementation.

### **Analysis of Self**

The DNP project process required a considerable amount of focus on the exploration of specific types of research and the identification of previous approaches to smoking cessation. As a nursing scholar, I applied an analytical perspective to my research and identified issues in the existing research that might have skewed results. This kind of perspective was valuable in determining which sources I included in my project and which sources I did not. By applying an analytical perspective to existing studies, I was able to gain a closer understanding of the scrutiny needed to create adequate evidence-based practices and develop programming with research support.

As a practitioner, I gained insight into the issues that can extend from the creation of a program perceived as doing good for all. From my perspective as a healthcare practitioner, I could not identify an argument against the integration of the DNP project. It was not until I explored the perspectives of other practitioners and of the patients in the mental health department that I began to see another side of the issue. For some patients, the use of nicotine was a method of self-medication for certain conditions and the idea of smoking cessation was anxiety provoking. This gave me a more sympathetic perspective about problems that patients face as a result of health conditions that could be prevented.

As a project developer, I recognized the importance of considering the views of all of the stakeholders in the creation of a new program. This was identified in some of the research studies evaluated in the planning process for the project (Parker et al., 2012; Prochaska, 2013). Working collaboratively with other practitioners to identify information about the need for the program and the best methods for creating the program plan reflected a team approach. This corresponds with a number of other cessation and program development plans for smoking

cessation, including a plan created by Berg (2011). As a project developer, I found this information helpful and believe I took into account the views of multiple people in project planning. This project demonstrates the value of evidence-based research in directing change initiatives in the hospital setting, and also reflects the importance of creating programs that are tailored for specific settings. My process was valuable in terms of my own professional development because I developed analytical skills that will serve me in the development of programs in the future. The team approach as also important to creating usable outcomes.

### **Summary and Conclusions**

Smoking was a significant problem that has an impact on a variety of different populations. In vulnerable populations, including people with mental illness, smoking can have an impact on health, quality of life, and medication management. Subsequently, these people were the focus of the DNP project that would provide a smoking cessation program. The DNP project identified the population in need, reflected program development process, and provided a basis for evaluating the outcomes of the program once implemented. This project reflected the importance of methods for improving patient outcomes through smoking cessation and provided a program through which this goal can be achieved in the future.

# **Section 5: Scholarly Product:**

### **Project Summary and Evaluation Report**

People with mental illness comprise one of the highest risk populations for smoking and smoking-related illnesses (Soloway, 2012). People with mental illness are two to three times more likely to be tobacco-dependent than the general population (Soloway, 2012). With well-documented evidence about the long-term health impacts of smoking and the contributions of smoking to a variety of health conditions, from cancers to hypertension and heart disease, this

population is hard hit by one of the most preventable causes of death in the United States (American Lung Association, 2010; Crawford, 2010).

This DNP project focused on smoking cessation through the creation of a smoking cessation program that integrated the findings in the current literature with a program plan and implementation strategy to be used in a mental health facility. This project summary and elevation report was developed to be distributed amongst members of the staff in a number of forums to better address the value of the information in supporting specific program development and implementation across departments in a mental health facility. For nursing staff in a mental health facility was required to meet on a regular basis and participate in inservice training, and this forum was used to disseminate information in support of the evidence-based program. This approach was viewed as a means of fostering interactions amongst individuals in the organization and promoting a greater understanding of the research base for the program that will be implemented.

# Background, Purpose, and Nature of the Project

Understanding the background, purpose and nature of this project was essential to recognizing its significance in providing effective nursing services for people with mental illness. Nursing theorists like Jean Watson recognized the importance of a holistic approach to patient care, reflective of the value of supporting a range of needs for the patient (Hodges & Videto, 2011). In mental health nursing, care for the patient has to relate the mental health needs of the patient to methods of supporting wellness as a whole. Subsequently, this project is developed in recognition of the connection between mental and physical health and the struggles that nicotine-dependent patients have when attempting to implement effective mental health interventions.

### **Background**

Smoking is a significant problem negatively impacting the health of vulnerable populations. People with mental illness are two to three times more likely than the general population to be tobacco-dependent, also making them two to three times more likely to develop tobacco-related illnesses (Soloway, 2010). Soloway (2010) also recognized that people with mental illness often self-medicate with a range of substances, including nicotine, caffeine and alcohol, all of which carry risks in terms of general health and in impacting the outcomes of mental health treatments.

The Centers for Disease Control and Prevention (2013

) stated that people with mental illness are more likely than other populations to smoke, and are less likely to seek treatment for smoking-related illnesses or smoking cessation support services. In a 2013 report, the CDC stated that about one fifth of the population of the United States has some form of mental illness, and over one third of those people are smokers. The American Lung Association (2010) reports on the impacts of smoking relate the fact that between 33 percent and 45 percent of smokers will die from tobacco-related illnesses.

Specifically, smoking shortens men's lives by 13.2 years and women's lives by 14.5 years.

(ALA, 2010). The CDC (2014) also reported that 18.1% of the adult populations smokes cigarettes, totaling approximately 42.1 million Americans. These figures underscore the scope and breadth of this problem and the potential impacts, especially for vulnerable populations.

The negative health impacts of smoking include increased risk of cardiovascular disease, cancer, serious respiratory illness, lung disease, hypertension, and unhealthy lipid profile, and these conditions have a considerable impact on the quality of life for vulnerable populations (Crawford, 2010). In addition, the health impacts of tobacco-dependence significantly impact

healthcare costs, healthcare delivery, and the ability to manage the healthcare needs of individuals seeking treatment in mental health facilities. The need to improve outcomes while also reducing the high cost of health care for these individuals supported smoking cessation programming in the mental health facility (Crawford, 2010).

### **Purpose**

The purpose of this Doctorate in Nursing Practice (DNP) project is to plan a smoking cessation program for patients in a mental health facility. The goal of the DNP project is that, there would be reduction in incidence of smoking among hospitalized patients in this mental health hospital. The objective of this project will be to develop documents, necessary educational materials and provide knowledge and understanding of nicotine addiction and treatment to patients in order design the treatments that will encourage wellness and recovery. Existing research has identified a number of different approaches for reducing smoking in the general population and for reducing smoking in at-risk or vulnerable populations (Doubeni et al., 2010).

This project was significant because it addresses one of the major health indicators for patients with mental illness. Research has shown that the incidence of smoking among mentally ill people is very high (Ebbens & Crane, 2011; Parker, McNeill, & Ratschen, 2012; Siru et al., 2010). Parker, McNeill, and Ratschen (2012) reported that people with severe mental illnesses are three times more likely to smoke than the general population. They are most often heavy smokers, which not only compounds their nicotine dependences, but nearly ensures the development of smoking-related illnesses. Prevention of tobacco-related disease, disability, and death could be achieved through the promoting of tobacco control. Nurses are the health professionals who have a significant level of contact with these patients in the mental health facility, have teaching and support opportunities in direct care with patients, and can provide the

constant support needed to implement the strategies needed to ensure lasting behavioral change (Parker, McNeill & Ratschen, 2012).

### **Nature of the Project**

The plan development will be done collaboratively throughout the organization as a whole. They key to this program is to coordinate the facility-wide initiative to create a no smoking facility with coordinated efforts to assess and treat patient at-risk. As a result, representatives from each department will be asked to provide input into the creation of the program in order to ensure the best outcomes. The combination of screening and educational/interventive strategies will be used to reduce smoking in the overall organization. The plan will be implemented in a facility that has not previously implemented a smoke-free facility policy, but desires to do so. The context of the plan is linked to the view supported in the current literature (Prochaska, 2013) that tobacco use poses health threats to people with mental illness, including exacerbating other conditions and impacting the efficacy of treatment paradigms. For at-risk populations, smoking results in additional substance use problems; for instance, poor outcomes in maintaining long-term cessation from substance use, increased negative symptoms, and depression and suicidal ideation (Prochaska, 2013). The project has the potential to address a considerable health problem for a vulnerable population and improve outcomes for vulnerable populations.

The project will integrate a collaboratively developed cessation program and education recommendations proposed by the National Institutes of Health, the Centers for Disease Control and Prevention, and U.S. Prevention Services Task Force to develop an education-based intervention and aligned smoke-free facility initiative to address the issue of smoking in one mental health facility. In order to determine the best options in regards to programming, the

program will be developed using the support of psychiatrists, psychologists, and substance use counselors to create a collaborative approach that can also foster interdepartmental support for the change initiative. Berg (2011) argued for the application of policy and practical guide to reduce smoking that includes a focus on patient assessments, programming, and clinical collaboration.

### **Project Design and Setting,**

The program was based on consistent use of assessment tools and support mechanisms to reduce smoking in the mental health facility. This includes the use of smoking questionnaires, the Hooked on Nicotine Checklist (HONC), educational materials and counseling treatments to evaluate symptoms of dependency. Since cigarette smoking is the leading cause of preventable death in the United States, this program is developed with the assumption that nurses can effectively deliver evidence-based interventions for tobacco dependence that significantly reduce tobacco use. A considerable body of evidence exists that indicates a connection between smoking and mental illness. Subsequently, smoking has also been linked to poor health outcomes, especially in vulnerable populations (Prochaska, 2011). The creation of a smoking cessation program for patients in a mental health hospital provided a method of addressing the overall health concerns of the population of patients while also addressing concerns related to the use of nicotine as a method of self-medicating for a range of conditions. This was the foundational rationale in the creation of the program plan.

### Project Design

The project was based on a qualitative design, created to develop a program for smoking cessation that utilizes a combination of existing strategies supported in the current research in a mental health facility. This program looks specifically at nursing support strategies and

adjustments/adaptations to existing treatment modalities to create an effective approach to reducing smoking in this vulnerable population.

The initial step in planning the implementation of a smoking cessation program in a mental health hospital included identification information from stakeholders about their perception of the current situation and what should be included in the program. This was followed by gathering of resources necessary for the implementation of the project. The resources included the DNP student who planned the project, staff nurses who had the most contact with patients, psychiatrists or psychologists, psychiatric nurse directors, patient's families, psychiatric department directors, and the hospital directors. All of the caregivers needed to be involved for the program to be successful. During the meeting, the DNP student elaborated on the plan to develop educational material for smoking cessation program for hospitalized patients in the mental health hospital. The student discussed how the program will benefit the target population, family members, and employees and also increased health outcome. The DNP student received approval from the facility stakeholders and Walden Institutional Review Board (IRB) to proceed with the planning of the educational program. The program consists of an educational material covering the use of the HONC tool, devised to evaluate the overall level of dependence on habitual nicotine use. The project will integrate a collaboratively developed cessation program and education recommendations proposed by the National Institutes of Health, the Centers for Disease Control and Prevention, and U.S. Prevention Services Task Force to develop an education-based intervention and aligned smoke-free facility initiative to address the issue of smoking in one mental health facility. The Theory of Planned Behavior formed the standard framework that was used to facilitate the adoption of a new approach to practice. Perceived

behavioral control was about whether or not the patient believed they can actually do the behavior, for instance, quitting smoking (Tanzi, 2012).

Setting

The setting for this program was a rural mental health hospital that provides support services for adult patients with a range of mental health conditions, including depression, bipolar disorder, schizophrenia, anxiety disorders, and substance use disorders. The site for this program is an inpatient psychiatric unit within the facility.

The target population for which the smoking cessation programming would be implemented included patients over the age of 18 years who were being treated in the hospital for a range of mental disorders, including depression and anxiety disorders. The multidisciplinary team utilized to develop and implement the program consisted of intake counselors, physicians, mental health nurses, psychologists and psychiatrists who worked directly with patients in the mental health hospital. The program planning element integrated patient perspectives regarding the nature of the program, the schedule for program participation and completion, and potential costs involved. The smoking cessation program was developed to be conducted by substance use educators or counselors. The role of the DNP student was the development of the educational program and support for cessation planning through the use of the electronic cigarettes and pharmacological interventions along with educational and counseling support. Team members were responsible for conducting patient assessments utilizing the HONC tool and a patient questionnaire which determined the need for participation in smoking cessation for individual patients.

## **Presentation of Results**

Upon approval of the DNP proposal, the DNP student used the materials, the integration

of assessment tools (smoking questionnaires, the Hooked on Nicotine Checklist (HONC), and counseling support to provide knowledge and understanding of nicotine addiction and treatment to patients in order design the treatments that will encourage wellness and recovery. Information for the step-by-step planning of smoking cessation program was compiled in a binder. The materials included a program Curricular Content Outline and Timeline (Appendix A), Policy Changes (Appendix B), Example Questions (Appendix C). The HONC (Appendix D), Number Tobacco Cigarettes Per Day (Appendix E), Educational Packet (Appendix F). Also, the project materials included the summary and evaluation report outlines the central components of this program, the implementation process, the outcomes, and the use of the program in other centers. Also a presentation on smoking cessation, Lecture, Small Group Discussion, handouts, and the Hooked on Nicotine Checklist (HONC) would be utilized. This would be a twice weekly meeting for six-week program. The steps in this program include the nurse leading a twiceweekly meeting of the participants where during the initial stages of program, the pre/post data about the number of tobacco cigarettes each person smoked per day at the beginning and end of the project will act as an evaluation. Additionally, the nurse leading the group meetings will be making anecdotal observations at each meeting and will convert these into a report. Six months after the implementation of smoking cessation program, nurses will assess how both patients and staff members felt about the program and how they perceived the benefits or barriers to program use for smoking cessation.

### **Interpretation of Findings**

The findings of this DNP project suggest that program development to support smoking cessation can occur in the hospital setting and that positive perception are associated with efforts to reduce smoking in vulnerable populations, specifically individuals in mental health facilities

seeking treatment for mental illness. The outcomes of this program can support this type of practice in other mental health facilities and can be used to improve outcomes for patients with a variety of types of mental illness. The findings in this DNP project program reflect the connection between program process and patient outcomes, suggesting benefits that can be derived.

# **Implications for Evidence-Based Practice**

The multidisciplinary team which includes the counselors, physicians, mental health nurses, psychologists and psychiatrists who worked directly with patients in the mental health hospital are trained to provide smoking cessation counseling to population of mental health patient. Nurses are the health professionals who are with the patient 24/7 giving them the opportunity to provide the constant support needed to be successful in this difficult behavior change. (Rice & Stead, 2009). The importance of smoking cessation to nursing is that smoking remains the primary problem in terms of death and illness that could be prevented not only in the United States but in the entire world. (U.S. Department of Health and Human Services, 2014). According to World Health Organization (2011), tobacco is completely accountable for one out the three causes of cancer related death in the United States. Mentally ill patients who smoke tend to be heavy smokers, more so than non-mentally ill people (Soloway, 2011). Because this is such a complex behavior, the exact causes are unknown. Nonetheless, it is valuable to offer a smoking cessation program to smokers in a mental health hospital. Prevention of tobacco-related disease, disability, and death could be achieved through the promoting of tobacco control. This DNP project will influence a social change by utilizing a set of evidence-based interventions for reducing nicotine dependence to significantly reduce tobacco use in the mentally ill being treated in mental health facilities.

### **Evaluation**

After planning the implementation and evaluation of a smoking cessation programs in the mental health facility. The DNP project identified the population in need, reflected program development process, and provided a basis for evaluating the outcomes of the program once implemented. The staffs in the facility were motivated to learn more about the smoking cessation project and willing to implement the smoking cessation program to improve patient outcomes. However, the medical directors and stakeholders had no set schedule to determine when implementation will begin.

### Conclusion

Smoking is a significant problem in populations of people with mental illness. These people not only have a higher degree of nicotine dependence, but also have a higher level of disease related to smoking and lower treatment rates for smoking-related illnesses. Subsequently, this DNP project sought to identify methods of improving smoking cessation attempts through programming in the mental health setting. The programming, along with the evaluation of patient needs and referrals to services, were utilized to improve patient outcomes. The project was reflective of the need for methods that can enhance access to cessation resources, including electronic cigarettes, nicotine replacement methods, and support mechanisms.

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# **Appendix A: Curricular Content Outline and Timeline Outline**

- Overview of the Health Impacts of Smoking
- A Stage Approach to Quitting (Not Cold Turkey)
- Anticipating Cues and Triggers
- Problem-solving and Coping Skills
- Myths and Facts about Nicotine Replacement
- Past Attempts and Support
- The Use of Counseling and Support Groups
- Contingency Management Approaches and Positive Reinforcement

# **6 WEEK. 1 HOURS SESSIONS PATIENT CONTENT PLAN:**

O WEEK, I IIC	OURS SESSIONS PATIENT CONTENT PLAN:
Week 1	1. Introduction
	2. Overview of Health Impacts of Smoking
	3. A Stage Approach to Quitting
	4. Anticipating Cues and Triggers
	5. Problem-Solving and Coping Skills
	6. Questions & Answers
Week 2	1. Introduction
	2. Myths and Facts about Nicotine Replacement
	3. Past Attempts and Support
	4. The Use of Counseling and Support Groups
	5. Educational packet activities, session 1
	6. Questions & Answers
Week 3	1. Introduction
	2. Review of week one and two activities.
	3. Educational packet activities, session 2
	4. Associated Risk factors of smoking.
	5. Constructive thinking
	6. Preparation strategies for quitting
	7. Questions & Answers
Week 4	1. Discussion and review
	2. Common symptoms of withdrawal
	3. Educational activities session 3
	4. Long term benefits of quitting
	5. Questions & Answers
Week 5	1. Facilitator introduction
	2. The Use of Counseling and Support Groups
	3. Contingency Management Approaches and Positive Reinforcement
	4. Review/Discussion

	5. Successful Quit Attempt
	6. Educational activities session 4
	7. Questions & Answers
Week 6	1. Summary
	2. Rewards of a healthier lifestyle-setting goals
	3. Educational activities session 5
	4. Positive Thinking
	5. Reminder for follow-up
	6. Questions & Answers
	7. Evaluation

**Outcome Evaluation:** Six month post implementation

**Outcome Evaluation Goal:** Reduces number of smokers in the mental health facility.

# Schedule to be used with patients for cigarette use and appointment tracking

MONTH:			
IVICALNIII.			

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	GROUP		INDIVIDUAL			
	COUNSELING		COUNSELING	-		
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# **Appendix B: Policy Changes**

**Policy #1:** Counselors and practitioners working directly with patients will participate in educational programming to improve knowledge of tobacco cessation mediations and their use with psychiatric patients.

**Policy #2:** Psychiatric patients who smoke will be offered an opportunity to participate in smoking cessation programming, including the use of education materials and counseling to support smoking cessation.

# **Appendix C: Questions and Answers**

- 1. What is the general level of smoking in the patient population in your department? **Answer;** Majority of the nurses answered that level of smoking is high.
- 2. Of the population with nicotine dependence, about how many are receiving pharmacological support through nicotine supplementation?

  Answer; Two out the nurses answered that most patients are using pharmacological support, while other nurses stated "I don't know"
- 3. What is your view of the impacts of smoking cessation programming for this population? **Answer;** All nurses answered, it will improve the health of their patients.
- 4. Why will patients continue to participate after they have left the clinical setting? **Answer;** Four nurses answered, they will continue if there is incentive to motivate them. One nurse stated, "Our patients are unreliable and might not continue".
- 5. What are the challenges you face in implementing this kind of program? **Answer;** All nurses answered, they will face the challenge of physical space to conduct the education, and time for nurses to provide the education to the population.

# QUESTIONS FOR SMOKING CESSATION For Use with Patients

### **GETTING READY**

Why do I WANT to quit smoking? Why do I want to quit now? If I've tried in the past, what worked? What did not work? Was I ready to quit before? Am I ready to quit now?

### **REVIEW YOUR HABITS**

How many cigarettes do I smoke each day?

When do I smoke?

Are there any antecedents to smoking?

Do I smoke after I eat?

Do I smoke in the car?

Do I smoke while drinking coffee?

Do I smoke when I'm stressed?

Do I smoke when I'm angry?

Do I smoke with friends?

Do I use other substances when I smoke?

### THINK ABOUT THE CHANGE

What can I do instead of smoking?

What will I do with my hands?

What can I put in my mouth?

How will I feel about the change?

Will I miss the activity of smoking?

How will I deal with the withdrawal symptoms?

### **MOVING FORWARD**

How can I keep track of my habits?

What can I do to keep myself on track?

Who can I turn to for support?

How can I make the change stick?

# **Appendix D: The Hooked on Nicotine Checklist (HONC)**

YES

1. Have you ever tried to quit, but couldn't?	
2. Do you smoke now because it is really hard to quit?	
3. Have you ever felt like you were addicted to tobacco?	
4. Do you ever have strong cravings to smoke?	
5. Have you ever felt like you really needed a cigarette?	
6. Is it hard to keep from smoking in places where you are not supposed to? When you haven't used tobacco for a while OR When you tried to stop smoking?	
7. Did you find it hard to concentrate because you couldn't smoke?	
8. Did you feel more irritable because you couldn't smoke?	
9. Did you feel a strong need or urge to smoke?	
10. Did you feel nervous, restless or anxious because you couldn't smoke?	
TOTAL SCORE:	

Excerpted from: DiFranza, J., Savageau, J., Fletcher, K., Ockene, J., Rigotti, N., McNeill, A., Coleman, M., & Wood, C. (2002). Measuring the loss of autonomy over nicotine use in adolescents: The Development and Assessment of Nicotine Dependence in Youths (DANDY) Study. Archives of Pediatric Adolescent Medicine, 156, 397-403.

- Scoring the Hooked on Nicotine Checklist (HONC) The HONC is scored by counting the number of YES responses. Dichotomous Scoring- The HONC as an indicator of diminished autonomy.
- Individuals who score a zero on the HONC by answering NO to all ten questions enjoy full autonomy over their use of tobacco.
- Because each of the ten symptoms measured by the HONC has face validity as an indicator of diminished autonomy, an individual has lost full autonomy if any symptom is endorsed.
- In schools and clinics, individuals who have scores above zero can be told that they are already hooked. Continuous Scoring- The HONC as a measure of severity of diminished autonomy
- The number of symptoms a person endorses serves as a measure of the extent to which autonomy has been lost. Source: http://fmchapps.umassmed.edu/honc/TOC.htm

**Appendix E: Number Tobacco Cigarettes Per Day** 

Patient #	Begin	End

# **Appendix F: Educational Packet**

### **Nicotine and Tobacco**

(Excerpted from Vorvick, 2013)

# **SESSION 1**; Nicotine and Tobacco

Tobacco and nicotine can be addictive like alcohol, cocaine.

### Causes

Tobacco is a plant grown for its leaves, which are smoked, chewed, or sniffed.

Tobacco contains chemical called nicotine. Nicotine is an addictive substance.

Tobacco also contains more than 19 known chemicals that can cause cancer. As a group, these are called "tar." More than 4,000 other chemicals can be found in tobacco.

Millions of people in the United States have been able to quit smoking. Although the number of cigarette smokers in the United States has dropped in recent years, the number of smokeless tobacco users has steadily increased. Smokeless tobacco products are either placed in the mouth,

cheek, or lip and sucked or chewed on, or placed in the nasal passage. The nicotine in these products is absorbed at the same rate as smoking tobacco, and addiction is still very strong. Both smoking and smokeless tobacco use carry many health risks.

# **SESSION 2**; Symptoms

Nicotine use can have many different effects on the body:

Decreases the appetite (Fear of weight gain makes some people unwilling to stop smoking.)

Boosts mood and may even relieve minor depression (Many people will feel a sense of well-

being.)

Increases activity of the intestines

Creates more saliva and phlegm

Increases heart rate by around 10 to 20 beats per minute

Increases blood pressure by 5 to 10 mmHg

May cause sweating, nausea, and diarrhea

Stimulates memory and alertness (People who use tobacco often depend on it to help them accomplish certain tasks and perform well.)

Symptoms of nicotine withdrawal appear within 2 - 3 hours after you last use tobacco. People who smoked the longest or smoked a greater number of cigarettes each day are more likely to have withdrawal symptoms. For those who are quitting, symptoms will peak about 2 - 3 days later.

# **SESSION 3:** Common symptoms of withdrawal include:

Intense craving for nicotine

Anxiety

Depression

Drowsiness or trouble sleeping

Bad dreams and nightmares

Feeling tense, restless, or frustrated

Headaches

Increased appetite and weight gain

Problems concentrating

You may notice some or all of these symptoms when switching from regular to low-nicotine cigarettes or cut down on the number of cigarettes smoked.

# **SESSION 4; Treatment**

It is hard to stop smoking or using smokeless tobacco. But anyone can do it. There are many ways quit smoking.

There are also resources to help you. Family members, friends, and co-workers may be supportive. Quitting tobacco is hard if you are acting alone.

To be successful, you must really want to quit. Most people who have quit smoking were unsuccessful at least once in the past. Try not to view past attempts to quit as failures. See them as learning experiences.

### **SESSION 5; Additional Helpful Website Resources:**

George TP. Nicotine and tobacco. In: Goldman L, Schafer AI, eds. Cecil Medicine.

Hays JT, Ebbert JO, Sood A. Treating tobacco dependence in light of the 2008 US Department of Health and Human Services clinical practice guideline. **Mayo Clin Proc.** 

Stead LF, Perera R, Bullen C, Mant D, Hartmann-Boyce J, Cahill K, Lancaster T. Nicotine replacement therapy for smoking cessation. **Cochrane Database Syst Rev.** 

U.S. Preventive Services Task Force. Counseling and interventions to prevent tobacco use and tobacco-caused disease in adults and pregnant women. U.S. Preventive Services Task Force reaffirmation recommendation statement. **Ann Intern Med.** 

<u>Instructional Methods</u>: Lecture, Video/DVD, Small Group Discussion and presentation.

**<u>Length</u>**: 2 hours a week for 6 Weeks.

<u>Learning Objectives</u>: Upon successful completion of this program the participant will be able to: 1 Describe what is smoking and the associated risk factors

- 2 Identify contents of educational material on smoking cessation program
- 3 Discuss the significance of smoking cessation program.