

Nicotine-Tobacco Use Among Young Adolescents

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### **Health Behavior Introduction**

The term “behavior” is a powerful word that can have a major impact in the life of a human being. Behavior is defined as a conduct or reaction of a person toward other individual, situations, and to internal or external stimuli. This term does not only target the general aspects of situations that happen daily in life but also to the health of one. Behavior is considerably important regarding health because it will determine if actions will be taken upon improvements of health, for example making changes in life, making modifications for better towards the type of food you consume, and begin any type of exercise to become physically active. Modifying the health behavior of one by accomplishing better decisions and making changes could not only improve the health of a person but as well decrease the possibilities of having any risky sexual behaviors, expand the chances to any type of diseases such as heart disease, and obesity. In addition, modifying behaviors could improve the health by decreasing the addictive use of tobacco or drugs, and the excessive intake of alcohol for those who consume it.

The health behavior that will be discuss on this analysis is the use of tobacco but more specifically on cigarettes that contain nicotine. The target population for this study will be young adolescents. Nicotine is a type of drug that serves as a stimulant which increases and speeds up the messages traveling between both brain and body of users. This drug is a highly addictive chemical or ingredient that is primarily found in dried leaves from tobacco plant. Nicotine can be used in multiple products such as in cigarettes, cigars, pipe tobacco, chewing tobacco, and lastly in wet and dry snuff. Electronic cigarettes also contain nicotine. Nicotine is a very toxic chemical. As previously mentioned, this type of drug can lead to extreme addiction, changing the development and the process of how the brain works making users to crave for more each time. The purpose of cigarettes is designed to transport nicotine to the brain within seconds increasing

the chances of making users to easily become dependent on this drug. Nicotine does not only affect the brain of those who consume it but also their general health.

### **Significance to Public Health**

The use of nicotine is a serious issue that can concern the family of users and the public health. The reasons of concerns are because nicotine is a dangerous drug that can change the normal and social functionality of an individual or those who surround them. Regarding public population, smoking nicotine using a cigarette or other products like mentioned before can directly increase the chances of exposing smoke to airborne. Secondhand smoke is called the involuntary smoke that is spread after a tobacco product is burnt. It is significantly important to seek for professional help if you are involved or know of someone who abuses the use of nicotine and other tobacco substances. Secondhand smoke does not only affect the consumer but also people that surround them in their community such as children, pregnant women, other adults, elderly people, and people who have serious health conditions such as lung diseases.

This health behavior is an important topic that the public should create awareness of in their communities, and in schools for example with middle to high school, and college students, soon to be parents, and on social media. Creating awareness will alert and help the community understand how dangerous the abuse of nicotine is, and the side effects that can result in their body and overall health. Nicotine should be a concern for the public health because drug use is an action that can be easily influence or promoted among young adolescence, such as with friends in school, cousins, or with family members depending on the culture.

Social smoking is an easy start to begin the abuse of a certain behavior speaking of cigarettes use with nicotine. Peer pressure is another risky way to begin this behavior. Studies have shown that most young adolescents abuse from tobacco to fit in a specific group in school.

### **Relevance to HSC 421**

The abuse of tobacco respectively on nicotine is substantially relevant to this health behavior course. The behavior models and theories or constructs that are presented throughout the course can be applied to explain how and why users act the way they do to certain situations. The behavior theories in lectures could be used to help a consumer quit or bring their smoking behavior to an end. Models of health belief are another great source that can be relevant to this topic for example having the belief of how important a health problem is and the consequences demanding immediate medical attention.

### **Focus and Original Thoughts about Paper**

This analysis will be focusing on the behavior of tobacco use more specifically on nicotine. How it was previously thought out it will primarily focus on young adolescents. By doing this research, the beliefs of users will be analyzed to understand why those who use this type of drug usually do it for. Understanding the intentions of those who follow this behavior will provide sufficient details and knowledge of the reasons that need more attention on ways to prevent the continuation of the behavior.

### **Main Points**

Beginning with the introduction, the definition of health behavior will be furtherly defined by providing examples of how a health behavior highly impacts the general life and the health of an individual. Following with a brief explanation given to understand how this behavior is an issue today, and how it is concerning the public health, and the community. Then, a background on the behavior with statistics will be demonstrated of the affected targeted population between gender, and socioeconomic status. Thereafter, the paper will move over into two health behavior theories, Health Belief Model (HBM) and Social Cognitive Theory (SCT),

being of much help to explain the behavior and interpretation of how the individual takes control over it. The two models, HBM and SCT, will be reviewed individually to understand their concepts, and constructs. Lastly, the analysis will conclude with a concise explanation of the main points of the health behavior that was considered, and state recommendations for future studies on this topic.

### **Health Behavior Background**

The topic of smoking tobacco has risen for decades affecting multiple people in different group ages. The use of cigarettes is a common substance all over the world allowing addicted people to believe that smoking is pleasurable. The use of nicotine in tobacco has two versions of what it is really classified. Most young adolescents who smoke have a poor understanding of the real consequences of smoking but instead they focus on the pleasing effects of smoking. Serious consequences in health can result in cancer in bladder, blood (AML), colon, esophagus, kidney, lung, mouth, pancreas, and stomach, and many others (CDC, 2021). Smoking nicotine can make users feel happy because nicotine activates a specific part of the brain by stimulating the release of dopamine and increases the feelings of pleasure. The feelings of pleasure, and reward can motivate a person to repeat the behavior continuously.

In general, there is no safe levels of how drugs should be used. Nicotine is the most common addiction in the United States. According to The Center of Disease Control and Prevention (2021), the brain of an adolescents is more vulnerable or in other words not fully developed not until around the age of 25. The use of nicotine by young adolescents impairs their brain to develop correctly and may harm some parts of the brain that controls attention, learning, mood, and impulse control. In addition, they shared, “Each day in the U.S., about 1,600 youth smoke their first cigarette and nearly 200 of youth start smoking every day...In 2020, 85% of

high schools students and 74% of middle school students who used tobacco products in the past 30 days reported using a flavored tobacco product during that time” (Center of Disease Control and Prevention, 2021). Based on the statistics presented by the CDC (2020), the rate of students under the age of 18, attending both middle and high school range on an unreasonable percentage. The use of tobacco varies depending on the socioeconomic status. The prevalence results among male and female who uses tobacco from a journal article were the following, “In low-income countries, 18.48% of male and 11.41% of female adolescents consumed tobacco (p 0.006). The prevalence of tobacco use was higher in males (24.18%) than females (13.37%) in lower-middle-income countries (p < 0.001). Upper-middle-income countries had prevalence estimates tobacco use in 22.97% of male and 15.29% of female adolescents (p < 0.001). Adolescents in high-income countries showed no statistically significant differences in the prevalence of tobacco use (p 0.052)” (Nazir et al., 2019). The study reported that adolescents in higher-income countries have a higher prevalence of tobacco use with higher result on male than female. Compare to adolescents who live in higher-income countries, those in lower-income showed lower prevalence of use.

### **Health Determinants**

Many times, adolescents lack the proper education of side effects of drugs. It is more common for an adolescent to begin drugs by the influential of others for example by observing parents or guardians smoking at home, have the use of tobacco approved by peers at school or siblings. It is unusual for a young adolescent to seek for tobacco themselves when no type of drugs is promoted around them. They can be influenced to try tobacco by looking at promotion campaigns such as on T.V., YouTube Ads, social media, and signs in public places that promote any sort of “life changing” for better. Adolescents may begin the use of tobacco if they have low

self-esteem or have arguments with their parents or others believing that tobacco could make them forget that moment. To fit in a group, adolescents may begin to smoke tobacco to show their peer how they are self-dependence, and they could make their own decisions.

### **Health Behavior Theories and Models**

#### **Health Belief Model (HBM)**

The Health Belief Model (HBM) is based on the health action that people will initiate to create measurements of prevention or control over the desire of wanting to avoid an illness or recover from it. This model focuses on individual perceptions. Additionally, HBM has seven major key components which are perceived susceptibility, perceived severity, perceived threat, perceived benefits, perceived barriers, cues to action, and lastly self-efficacy (Garrido-Ortega, 2021). These are components of beliefs that are considered when wanting to make a change. All the following are defined using lecture notes. Perceived susceptibility is the belief of an individual believing that they are likely to have a problem or health issue. Perceived severity is the feeling of worrisome or seriousness on the consequences of a health problem. Combining both perceived susceptibility and severity it forms perceived threat. Perceived threat is the overall comprehension or feeling of threat towards health. Perceived benefits are the beliefs that actions of improvement will results in benefits to help reduce a health threat. Perceived benefits are defined as the beliefs or an individual perception on how making good actions could be effective to reduce a health threat. Perceived barriers are barriers that could complicate or the stop the individual from preventing a health illness such as psychological thoughts, timing, and expenses to reach the desire action of prevention. Cues to action is information from perceived threat, benefits, and barriers that convinces an individual to begin immediate action. Some examples of recommendation for external cues could be advice from family members, and

hearing experiences of others with similar health issues. Internal cues could be self-pain, and personal experience. Lastly, the confidence of an individual to have the ability to take the desire actions is called self-efficacy (Garrido-Ortega, 2021).

### **Social Cognitive Theory (SCT)**

Social Cognitive Theory (SCT) focuses on individual (internal) factors, and on environmental (external) factors. For individual (internal) there are six characteristics: self-efficacy, behavioral capability, outcome expectations, outcome expectancies, self-control also known as self-regulatory, and emotional capability. The constructs for environmental factors are vicarious learning, situation, reinforcement, and reciprocal determinism. All the following factors will be defined using lecture notes. Self-efficacy is defined an individual confidence about properly performing a behavior. Behavior capability is a person's level of knowledge on a specific behavior. Outcome expectancies is what a person expect the result will be from a particular action. Outcome expectancies is the expected outcome to result to be good or rewarded. Self-control also known as self-regulatory is the amount of control a person has over making a change on the behavior. Lastly, emotional capability is the emotions involved in a behavior change, for example depression, or fear (Garrido-Ortega, 2021).

The following constructs for the environmental factors will be defined using lecture notes as well. Vicarious learning is what a person learns by observing the behavior and the consequences that is performed by others. The second construct is situation, this is defined as a person perception of social/physical environment on which the behavior takes place. Reinforcement is the third construct defined as a negative or positive response toward a person behavior. To conclude, reciprocal determinism is the interaction of the individual, behavior, and the environment where the behavior is performed (Garrido-Ortega, 2021).



### **Compare and Contrast: HBM and SCT**

A similarity that both Health Belief Model and Social Cognitive Theory share is the focus on personal (internal) factors to implement a behavior change. Both are in the process of wanting to accomplish the prevention of a health illness. Using HBM, individuals perceive in different ways their health issues, which they begin to make actions to prevent it. In contrast, SCT uses environmental (external) factors who influence an individual to act by observing the behavior and hearing out the experience and consequence of others.

### **Health Behavior Model (HBM) Relevance to Behavior**

The constructs that are presented in Health Behavior Model are essential to help prevent any negative health illness or behaviors from occurring. The models of Health Behavior could be applied to adolescents who would like to quit smoking tobacco and nicotine abuse. An adolescent could be in the stage of perceived severity where he or she have realized how serious and dangerous smoking is. The adolescent may fear that smoking could result in any harm with negative health and social consequences. Also, not only adolescents may fear the consequences of directly smoking, but parents, and family members could be concerned about the health of their own child from secondhand smoking. An article stated, “Moreover, children exposed to second-hand smoke may demonstrate structural and functional impairment in arteries that can lead to premature atherosclerosis and adverse long-term effects on the cardiovascular system” (Nazir et al, 2019). In a situation of secondhand smoking, the parents or siblings who live within the same household as a minor should begin to make changes to quit the smoking behavior to reduce the risk of exposing a child to any structural and functional impairment in arteries.

### **Social Cognitive Theory (SCT) Relevance to Behavior**

Multiple constructs that are presented within the Social Cognitive Theory for individual characteristics are relevant to the topic of tobacco use. Adolescents may have a high self-efficacy meaning that they may have confidence and are capable of smoking cigarettes with nicotine with their group of friends. The second construct, “behavioral capability” defines the young adolescent level of knowledge and skills among the use of nicotine cigarettes. Some teenage may not be informed of the type of dysfunction the chemical can do to their brain or the risks to a particular type of cancer. Another constructs that can be relevant to the behavior of this analysis is “outcome expectations”. As outcome expectations, adolescents may expect to escape from their struggles by smoking tobacco, also they may expect to be accepted into a group of friends who are “cool”.

### **Health Belief Model (HBM) Health Behavior Application**

Using Health Belief Model (HBM) is great source to help adolescents understand the inadequate decisions that are made upon the use of tobacco. The application of belief models has multiple stages/constructs that encourages the adolescent to begin changes on their high-risk behavior. Therefore, the constructs could encourage to make changes but also it could help to prevent health issue from continuing. HBM could be applied to a study that focuses on correlating the dependence of nicotine among adolescents. The constructs that are identified are perceived severity, threat, and barriers. In the following, “Our results show that specific psychological characteristics (depressive symptoms, lower self-esteem), waterpipe-related use patterns (e.g., smoking a whole waterpipe head without sharing), believing that cigarette smoking is harmful to health, enrollment in public schools, and having at least one sibling who smokes a waterpipe were associated with ND (Nicotine Dependence) among waterpipe smokers. Furthermore, this study highlights two modifiable factors uniquely associated with ND among

adolescent waterpipe smokers: believing that cigarette smoking is harmful to health and longer smoking sessions of a waterpipe” (Bahelah et al., 2016). The results from this study were recorded by the collected data of 160 smokers who smoked in the past 30 days. The adolescents that were interviewed knew their severity; it was believed that smoking is harmful to their own health. A serious threat was the risk factors of the behavior such as the symptoms that result from nicotine. Based on the study, the use of nicotine could result in depressive symptoms, and it could lower the self-esteem of a person. Perceived barrier is the third construct that could be identified in this study. The barriers pointed out in this study is the enrollment to public schools, and the association of a sibling promoting the use of waterpipe and are considered Nicotine Dependence.

### **Social Cognitive Theory Application**

Multiple constructs presented in Social Cognitive Theory can be applied to the following study. Data was collected from high schools’ students who were within 100 miles of the program offices in Claremont, California. Recruiters visited a total of 29 schools. The interest forms for collection of data were given to a total of 6,870 students, but only 2,726 returned the form completed how it was required. Adolescents who tend to begin the use of nicotine products tend to believe that they will be rewarded positively. The results from the study were the following, “This suggests that adolescents experiencing negative affect are at elevated risk of trying nicotine products. Our results point to the belief in negative affect reduction as an explanation for this phenomenon. Adolescents who believe that smoking will help to alleviate feelings of negative affect may be more willing to try nicotine products” (Miller et al., 2017). Unfortunately, as an outcome expectancy smoker believes that the use of nicotine will reward them by alleviating their negative feelings such as anxiety, depression, or any other struggles.

### **Conclusion and Recommendation for Further Study**

The utilization of nicotine products and tobacco is an ongoing topic which are commonly used by young adolescents, adults, and by adults of older ages. For decades, the use of drugs, tobacco, and these harmful chemicals have been known to be seriously dangerous which could increase the risks to any illnesses or health conditions. Applying the strategies of Health Belief Models (HBM), and Social Cognitive Theory (SCT) can assist in preventing and recognizing the use of these harmful substances. To conclude, additional investigation must be done to understand why people who acknowledge the consequences, continue to use these unhealthy substances. These substances could be pleasurable but, it only results in worst outcomes. In addition, further research needs to be completed to understand why the parents or guardians of the child allow them to abuse from tobacco substances, and what are specific reasons that prevents them from not finding out what their children do behind their backs.

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