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Relationship Between Perceived Social Stigma and Relapse Risk: The Moderating Role of Perceived Social Support

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Abstract

The study investigated the relationship between perceived social stigma and relapse risk: The moderating role of perceived social support social support. The study was guided by three hypotheses The participants in the study were sixty-five (65): 22 (33.85%) inpatients and 43 (66.15%) out-patients Nicotine dependent patients in Neuropsychiatric hospital Nawfia, situated in Anambra state. The ages of the participants ranged from 18 to 42 years, with a mean age of 22.35 years and a standard deviation of 6.34. Three instruments were used for data collection in this study. They included the multi-dimensional scale of perceived social support (MSPSS) (1988), the perceived stigma of substance abuse scale (PSAS), and the stimulant relapse risk scale (SRRS). The design adopted for this study was a correlation. Pearson's product moment correlation coefficient and Conditional process for moderated multiple regression were used as the appropriate statistical tools to establish the relationship among the variables and the moderating effects of the moderator in the relationship respectively. The result proved that there was a significant as well as positive correlation between perceived social stigma and relapse risk among Nicotine dependent patients at $r = .23, p < .05$. Thus, hypothesis 1 was accepted. There was also a significant but negative correlation between perceived social support and relapse risk among Nicotine dependent patients at $r = .11, p < .05$. Thus, hypothesis 2 was as well, accepted. Similarly, *B* showed that perceived social support had a significant moderating effect on the relationship between perceived social stigma and relapse risk among Nicotine dependent patients $\beta = .52, p = .98$. The study therefore recommended that perceived social stigma directly may contribute to a decrease in relapse risk by fostering a more supportive and inclusive environment for individuals seeking to overcome nicotine dependence.

Keywords: social stigma, relapse risk, social support

Introduction

Nicotine addiction is a significant public health challenge, particularly among individuals seeking both outpatient and inpatient treatment for nicotine dependence (Krebs et al., 2017). The prevalence of nicotine addiction is alarmingly high worldwide, contributing to significant morbidity and mortality rates. According to the World Health Organization (2010), tobacco use is responsible for more than 2 million deaths annually. The detrimental health effects of nicotine addiction are well-documented and include various forms of cancer (such as lung, oral, and throat cancer), respiratory diseases (such as chronic

obstructive pulmonary disease), cardiovascular diseases, and even adverse reproductive outcomes. It is estimated that tobacco-related healthcare costs and productivity losses exceed trillions of dollars globally. The addictive nature of nicotine is a result of its ability to produce physical and psychological dependence. Physical dependence refers to the physiological changes that occur in the body when nicotine is regularly consumed (Ekpu & Brown, 2015). Over time, the body adapts to the presence of nicotine and develops a tolerance, requiring higher doses to achieve the desired effects. When nicotine levels in the body decrease, withdrawal symptoms emerge, including irritability, anxiety, difficulty concentrating, increased appetite, and intense cravings for nicotine. As a result of prior addiction, nicotine use becomes deeply ingrained in individuals' routines, habits, and rituals, smoking, or using tobacco products becomes intertwined with various activities, such as socializing, dealing with stress, or seeking comfort. The association between these activities and nicotine use creates strong psychological cravings that can be triggered by environmental cues or emotional states. The addictive nature of nicotine and the challenges associated with quitting make smoking cessation a difficult process for many individuals, even with the desire to quit, nicotine dependence is often characterized by cycles of attempts and relapses. Perceived social support and perceived social stigma have emerged as critical determinants of substance use outcomes in various contexts, yet their role in the context of nicotine dependence remains understudied. Therefore, a study geared towards a deeper understanding of factors influencing relapse risk among nicotine dependent patients is invaluable. There is obvious need for these set of individuals to be supported.

Perceived social support refers to an individual's subjective perception of the availability and adequacy of support from their social network. It encompasses emotional, informational, and instrumental support received from family, friends, and significant others (Karaer & Akdemir, 2019). Emotional support is an important aspect of perceived social support. It involves the provision of empathy, understanding, and care from others, having individuals who are emotionally available and provide encouragement and reassurance can be immensely beneficial for individuals trying to quit smoking. Social support helps individuals navigate the challenges and emotional turmoil that often accompany the quitting process. It provides a safe space for individuals to express their

concerns, fears, and frustrations, reducing feelings of stress and isolation (Karaer & Akdemir, 2019).

Supportive individuals can offer knowledge about effective quitting techniques, such as the use of nicotine replacement therapy (NRT), counseling services, or support groups. Access to accurate and helpful information empowers individuals, enhances their decision-making abilities, and equips them with the necessary tools to quit smoking successfully (Bock et al., 2013; Thompson et al., 2022). Social support refers to the tangible assistance provided by others. It includes practical help in the form of transportation to appointments, childcare, or financial support to access cessation resources.

Perceived social stigma refers to an individual's perception of negative attitudes, beliefs, and stereotypes held by others regarding their addiction or substance use (Williamson et al., 2020). In the case of nicotine addiction, individuals often face social stigma due to the well-known health risks associated with smoking. This stigma can manifest as judgment, discrimination, social exclusion, and a sense of devaluation or marginalization (Williamson et al., 2020). The experience of social stigma can have profound effects on individuals struggling with nicotine addiction. It can undermine their self-esteem, self-worth, and sense of identity, making the recovery process even more challenging. The negative labels and stereotypes associated with smoking can lead individuals to internalize the stigma, believing that they are somehow flawed or morally weak because of their addiction. Internalized stigma can erode their confidence and motivation to quit, as they may feel that their efforts are futile or that they are unworthy of support and assistance.

Moreover, perceived social stigma can create significant barriers to seeking help and accessing appropriate treatment and support (Draucker et al., 2020). Individuals may fear judgment, rejection, or further stigmatization from their social environment, leading them to hide their addiction or delay seeking assistance (Lozano et al., 2020). The fear of being labeled as a smoker or an addict can prevent individuals from openly discussing their struggles and reaching out for the necessary support networks and resources. This isolation can further exacerbate feelings of shame, guilt, and hopelessness, making it even more difficult to break free from nicotine addiction. The impact of perceived social stigma on addiction recovery extends beyond psychological effect. Research has shown that stigma-related stress can trigger negative emotional states, such as stress, anxiety, and

depressive symptoms, which increase the vulnerability to relapse (Loyal et al., 2022). The constant fear of being judged or rejected by others can contribute to emotional distress and undermine an individual's resilience and ability to cope with triggers and cravings. In times of stress, nicotine addicts may be more likely to turn to smoking as a means of seeking temporary relief or escape from the stigma-related pressures they face.

Perceived social support and perceived social stigma are interrelated factors that can influence relapse risk among nicotine addicts. While support and stigma are distinct constructs, they can interact in complex ways (Väänänen et al., 2013; Loyal et al., 2022). Strong support networks can buffer the negative impact of stigma, as supportive others provide validation, acceptance, and a counterbalance to stigma-related distress (Thompson et al., 2022). Supportive relationships foster resilience, reduce feelings of isolation, and enhance self-esteem, all of which contribute to a reduced likelihood of relapse (Du & Lyu, 2021). Conversely, low levels of perceived social support can intensify the negative effects of stigma, increasing relapse risk (Karaer & Akdemir, 2019). The absence of support may leave individuals feeling isolated, without adequate coping mechanisms, and more vulnerable to the negative psychological effects of perceived stigma. This study seeks to inform the development of tailored interventions that address these factors to enhance long-term cessation outcomes among nicotine dependent patients. Additionally, the study aims to identify potential moderating effect of perceived support on the relationship between perceived social stigma, and relapse risk, ultimately providing valuable insights into personalized and effective relapse prevention strategies for this vulnerable population.

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Problem Statement

The importance of reducing the occurrence of relapse has attracted a lot of research interest on what precipitates or enhances relapse. Despite the significant research on nicotine dependence and relapse risk, there is a notable gap in understanding the specific role of perceived social support and perceived social stigma among nicotine dependent patients. Existing studies often focus on pharmacological interventions and individual-level factors while overlooking the crucial impact of perceived social factors on relapse risk.

Previous research on relapse risk among nicotine dependent patients has predominantly focused on factors such as withdrawal symptoms, cognitive-behavioral therapies, and nicotine replacement therapies. Burns et al (2017) examined the relation between social support and smoking cessation; revisiting an established measure to improve relapse. Li Liu, Meng, & Bingyuan (2021) conducted their study on the mediating role of social support in the relationship between social stigma and adolescent drug abuse identification. Struik et al (2022) investigated the assessment of social support and quitting cigarette smoking in an online community forum: A study carried out in Norway. While these studies have provided valuable insights into the treatment of nicotine dependence, few have examined the moderating effect of perceived social support in this context. Some studies have touched on the broader relationship between social support and substance use outcomes, demonstrating that positive social support networks can enhance treatment adherence and reduce relapse rates. However, there is limited research that specifically investigates the moderating effect of perceived social support in the relationship between perceived stigma experiences and relapse risk among nicotine dependent patients, and possible reasons why they return to substance use after substantial remission from their symptoms. This study is carried out therefore with the goal of adding substantially to the existing knowledge.

Relevance of the Study

This study holds significance in understanding and addressing the stigma attached to problematic substance use. Substance use disorders often carry stigma, hindering recovery and fostering isolation. By investigating how different labels and models influence stigma, the research illuminates' factors shaping societal perceptions of substance use struggles. This knowledge can inform public health campaigns, policies, and interventions to reduce stigma. Identification of labels exacerbating stigma can guide empathetic communication strategies, promoting understanding. Insights into attributional judgments offer targeted intervention possibilities. This aids in creating a supportive environment for recovery.

The study's exploration of stigma, social support, and relapse offers comprehensive insights for the realm of substance use and recovery. Furthermore, the theoretical, practical, and policy-making implications, will collectively contribute to a holistic understanding of how stigma impacts individuals with substance use disorders. By addressing the cognitive processes that drive stigma, tailoring interventions based on empirical findings, and informing policy initiatives, this research holds the potential to add to the existing literature on the relapse phenomenon, particularly around nicotine dependence.

Concept of Relapse

Relapse is the recurrence of a disorder or disease after a period of improvement or apparent cure. The term also refers to recurrence of substance abuse after a period of abstinence. Relapse, as a clinical term, is the loss of ground gained toward health or the return of a bad habit following a period of cessation. Unlike a lapse, which is a single occurrence of the habitual behavior, relapse is often associated with feelings of guilt and shame and accompanied by self-degrading thoughts (Marlatt & Donovan, 2005). In the model of addiction, relapse is the return to problematic substance use following a period of abstinence. According to Bowen and Chawla (2011), relapse is a major roadblock to treatment efficacy, as most addicts who attempt abstinence will relapse.

There are four main ideas in relapse, First, relapse is a gradual process with distinct stages. Second, recovery is a process of personal growth with developmental milestones. Each stage of recovery has its own risks of relapse. Third, the main tools of relapse prevention are cognitive therapy and mind-body relaxation, which change negative thinking and

develop healthy coping skills. Fourth, most relapses can be explained in terms of a few basic rules, educating clients in these few rules can help them focus on what is important.

Stages of Relapse

The key to relapse prevention is to understand that relapse happens gradually. It begins weeks and sometime months before an individual picks up a drink or drug. Gorski (1986) broke relapse into phases, summarized into three stages of relapse: emotional, mental, and physical.

Emotional Relapse

During emotional relapse, individuals are not thinking about using. They remember their last relapse and they don't want to repeat it. But their emotions and behaviour are setting them up for relapse down the road because they are unconsciously thinking about using the substance(s) during this stage (Melemis 2015). Denial is a big part of emotional relapse, these are some of the signs of emotional relapse; Bottling up emotions, isolating, not going to meeting, going to meetings but not sharing, focusing on others (focusing on other people's problems or focusing on how other people affect them) and poor eating and sleeping habits. The common denominator of emotional relapse is poor self-care, in which self-care is broadly defined to include emotional, psychological, and physical care.

Mental Relapse

In mental relapse, there is a war going on inside people's minds. Part of them wants to use substance(s), but part of them don't. As individuals go deeper into mental relapse, their cognitive resistance to relapse diminishes and their need for escape increases (Beck et al.,1993). Some signs of mental relapse include craving for drugs or alcohol, thinking about people, places, and things associated with past use, minimizing consequences of past use, or glamorizing past use, bargaining, lying, thinking of schemes to better control using, looking for relapse opportunities and planning a relapse. Avoiding high-risk situations is an important goal of therapy. Clinical experience has shown that individuals have a hard time identifying their high-risk situations and believing that they are high-risk. Sometimes they think that avoiding high-risk situations is a sign of weakness (Diener et al., 2006). In bargaining, individuals start to think of scenarios in which it would be acceptable to use. A common example is when people give themselves permission to use on holidays or on a trip. It is a common experience that airports and all-inclusive resorts are high-risk

environments in early recovery. Another form of bargaining is when people start to think that they can relapse periodically, perhaps in a controlled way, for example, once or twice a year. Bargaining also can take the form of switching one addictive substance for another.

Physical Relapse

Finally, physical relapse is when an individual starts using substances again. Some researchers divide physical relapse into a "lapse" (the initial drink or drug use) and a "relapse" (a return to uncontrolled using). Clinical experience has shown that when clients focus too strongly on how much they used during a lapse, they do not fully appreciate the consequences of one drink. Once an individual has had one drink or one drug use, it may quickly lead to a relapse of uncontrolled using. But more importantly, it usually will lead to a mental relapse of obsessive or uncontrolled thinking about using, which eventually can lead to physical relapse.

Social Support

Social support is characterized by being cared for by others and having a reliable network to turn to when needed, in everyday situations or specific moments of crisis (Taylor, 2011). It can be perceived from three sources: family, friends, and significant others. Social support is also referred to as the frequency of support actions that are provided by others, which is why it can be understood as the subjective feeling of being supported. Additionally, the type of support can be emotional, instrumental, appraisal, and informative.

Perceived social support on the other hand is a significant predictor of life satisfaction and negative affect (Shensa et al., 2010). Perceived social support is a multifaceted and crucial concept in the realm of social psychology and health sciences. It refers to an individual's subjective evaluation of the extent to which they believe they have access to social resources and support from their interpersonal relationships. This perception is not solely based on the objective presence of supportive individuals but is influenced by the individual's interpretation of the available support and the quality of the relationships. (Siedlecki et al., 2014) Perceived social support is an essential psychosocial factor that impacts individuals' emotional well-being, coping mechanisms, and overall health outcomes.

Types of perceived Social Support

House (1981) outlines four broad classes or types of supportive behaviour or acts which he believes should be considered as potential forms of social support.

Emotional Support

This type of support involves expressions of care, empathy, and understanding from others. Emotional support helps individuals feel valued and cared for, leading to increased self-esteem and a sense of belonging. It plays a crucial role in buffering against stress and alleviating emotional distress, making it a significant component of perceived social support.

Instrumental Support

Instrumental support refers to tangible assistance and resources provided by others to help individuals cope with challenges or stressors. Examples include financial aid, help with household chores, or assistance in managing tasks related to their health condition. Instrumental support helps individuals navigate practical difficulties and enhances their ability to cope effectively.

Informational Support

Informational support involves the provision of advice, guidance, and information to individuals facing specific problems or decisions. This type of support helps individuals make informed choices, thereby reducing uncertainty and anxiety. Access to accurate and relevant information contributes to better decision-making and fosters a sense of empowerment.

Appraisal Support

Appraisal support involves feedback and guidance regarding an individual's abilities, performance, or personal attributes. Positive appraisal support reinforces self-confidence and self-efficacy, encouraging individuals to take on challenges and strive for personal growth. Constructive feedback can motivate individuals to overcome obstacles and achieve their goals.

Social Stigma

Social stigma as multifaceted construct can be considered as three separate but correlated constructs: experienced, perceived, and internalized stigma. Experienced stigma can be defined as overt discrimination towards a stigmatized person. These constructs also apply to individuals with substance abuse, especially those in treatment. (Brohan et al., 2010).

Perceived social stigma is a complex psychosocial concept that encompasses an individual's subjective perception of negative attitudes, stereotypes, and discrimination directed towards individuals with specific attributes, behaviour, or conditions, such as substance use disorders. It involves internalizing society's disapproving views, resulting in feelings of shame, guilt, and self-devaluation (Bozdağ & Çuhadar, 2021). Perceived social stigma can significantly impact various aspects of an individual's life, including mental health, self-esteem, and help-seeking behavior.

Types of Perceived Social Stigma

Self-Stigma: Self-stigma, also known as internalized stigma, occurs when individuals internalize the negative societal beliefs and stereotypes about their stigmatized condition. This internalization leads to feelings of shame, guilt, and self-blame, resulting in reduced self-esteem and diminished motivation to seek help or engage in treatment for their condition.

Perceived Stigma by Others: Perceived stigma by others refers to an individual's perception of how others view them based on their stigmatized condition. This type of stigma influences individuals' interactions with others, affecting their ability to disclose their condition and seek support from their social networks.

Implications for Individuals with Substance Use Disorders

For individuals facing substance use disorders, perceived social stigma can have profound consequences on their recovery journey and overall well-being. Perceived social stigma may lead to delays in seeking treatment, avoidance of healthcare services, and limited disclosure of their condition to others. (Barry et al., 2014) Individuals may be anxious about judgment, rejection, and discrimination, which can exacerbate feelings of isolation and impede their access to social support networks. Consequently, perceived social stigma can hinder engagement in treatment, reduce treatment adherence, and contribute to relapse risk. Understanding the various types and underlying mechanisms of perceived social stigma is essential for developing effective interventions to reduce stigmatization and enhance the well-being and recovery outcomes of those affected.

Theoretical Framework

Self-efficacy, a central concept in social cognitive theory, refers to an individual's belief in their ability to execute specific actions necessary to achieve desired outcomes. This belief

significantly influences their behaviors, choices, and responses to challenges. Applying the self-efficacy theory to the context of nicotine use, the relationship between perceived social support, perceived social stigma, and relapse risk can be understood by examining how self-efficacy moderates these associations.

Perceived social support encompasses the belief that individuals possess a network of people who care about their well-being and are available to provide assistance. High self-efficacy regarding nicotine use cessation enhances an individual's perception of their ability to resist cravings and overcome challenges. When individuals believe they have strong social support, they are more likely to interpret the encouragement and assistance from their network as affirmations of their own capabilities (Bock et al., 2013). This reinforcement strengthens their self-efficacy, contributing to their resilience against relapse.

Perceived social stigma refers to the awareness of negative judgments and attitudes held by others towards individuals who engage in nicotine use. Donny and White (2022) opined that high self-efficacy in nicotine cessation helps individuals counteract the detrimental impact of perceived social stigma. Those with strong self-efficacy are more likely to possess coping strategies and assertive communication skills, allowing them to manage and mitigate the influence of stigma. Their confidence in their abilities enables them to respond effectively to potential triggers without succumbing to relapse.

Relapse risk in nicotine use is influenced by an individual's perceived ability to cope with cravings, triggers, and stressors. Self-efficacy plays a critical role in shaping these perceptions. Individuals with high self-efficacy are more resilient in the face of challenges, exhibiting perseverance and determination in their efforts to abstain from nicotine use. Their confidence in their capacity to manage situations that could lead to relapse diminishes the appeal of nicotine and increases their commitment to abstinence.

The relationship between perceived social support, perceived social stigma, and relapse risk is dynamic and interdependent. Self-efficacy serves as a mediator and moderator in this relationship. Strong self-efficacy enhances the positive effects of perceived social support, as it reinforces the belief that support can be effectively utilized to overcome challenges. Simultaneously, self-efficacy acts as a buffer against perceived social stigma,

empowering individuals to confront stigma-related stressors without compromising their cessation efforts.

Through the lens of self-efficacy, the theoretical framework provides insight into how perceived social support and perceived social stigma influence relapse risk for nicotine use. High self-efficacy acts as a catalyst for utilizing support and managing stigma, ultimately enhancing an individual's capacity to maintain nicotine cessation. Understanding this framework can guide interventions aimed at bolstering self-efficacy, thereby increasing the likelihood of successful nicotine use cessation and relapse prevention.

Hypotheses

The following hypotheses have been formulated to guide the present study:

1. Perceived social stigma will positively and significantly correlate with relapse risk among nicotine dependent patients.
2. Perceived social support will negatively and significantly correlate with relapse risk among nicotine dependent patients.
3. Perceived social support will significantly moderate the relationship between perceived social stigma and relapse risk among nicotine dependent patients.

Method

This chapter focused on the method used in carrying out the study under the subsections of participants, instruments (including reliability and validity), procedure, and design and statistics.

Participants

The participants in this study were sixty-five (65): 22 (33.85%) inpatients and 43 (66.15%) out-patients Nicotine dependent patients in Neuropsychiatric hospital Nawfia, situated in Anambra state. The ages of the participants ranged from 18 to 42 years, with a mean age of 22.35 years and a standard deviation of 6.34. Majority of participants were male (67.1%), while other proportion were female (32.9%). Christians constituted 96.5% while 3.5% were Muslims. The majority of participants had tertiary level education (74.1%), while a

smaller percentage had completed SSCE (Secondary School Certificate Examination, 25.9%). The sample was composed of (69.4%) single and (30.6%) married individuals.

Instruments

Three instruments were used for data collection in this study. They included the Multi-Dimensional Scale of Perceived Social Support (MSPSS) by Zimet et al (1988), the Perceived Stigma of Substance Abuse Scale (PSAS) by Link et al (1997), and the Stimulant Relapse Risk Scale (SRRS)Ogai et al (2007).

Multi-Dimensional Scale of Perceived Social Support (MSPSS):

The Multi-Dimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al (1988) is a 12-item scale designed to gauge the extent to which individuals feel supported by three specific sources: family, friends, and significant others or a special person. Sample of item measuring family support include: a) My family really tries to help me" and "I can talk about problems with my family"; item measuring friendship include: "My friends really try to help me" and "I can count on my friends when things go wrong"; item measuring significant others include: "There is a special person who is around when I am in need" and "I have a special person who is a real source of comfort to me." The MSPSS was rated on 7-points likert response format, where participants are asked to rate their agreement with each item. The response format ranged from 1 (Very strongly disagree) to 7 (Very strongly agree). The scale yielded a Cronbach alpha reliability coefficient of 0.86 and has shown good construct validity in previous studies (Jeong, et al., 2013; Kong, et al., 2015; Zhao, et al., 2013). However, the researcher subjected the scale to pilot testing with twenty-five (25) patients drawn from Neuro-psychiatric hospital, Nawfia, Anambra state, and obtained a Cronbach Alpha Coefficient of .75.

Perceived Stigma of Substance Abuse Scale (PSAS):

The Perceived Stigma of Substance Abuse Scale (PSAS) developed by Link et al (1997) is an 8-item self-rated scale looking at stigma towards the substance users. All items are marked on a Likert type scale with four options ('totally disagree' to 'totally agree'). Six of the eight items are reverse scored. The scale's total score ranges from 8 to 32: a higher score indicating greater perceived stigma. The questions describe how people readily perceive individuals who struggle with substance abuse for example, "Most people would willingly accept someone…" Most people believe that someone who has been treated for

substance...” The PSAS scale has been validated across 25 addiction treatment programs in the United States, yielding an acceptable internal consistency at a coefficient of 0.84 Cronbach alpha reliability. Onwuakagba, et al. (2020) has also used PSAS among Nigerian Samples at RISE Clinic at Adazi-Ani, Anambra State; Nnamdi Azikiwe University Teaching hospital at Ukpo, Anambra State; and Neuropsychiatric Hospital, Nawfia with 70 consenting adults living with epilepsy, and obtained reliability coefficient of .79. However, in this study the researcher subjected the scale to pilot testing with twenty–five (25) patients drawn from Neuro-psychiatric hospital, Nawfia, Anambra state, and obtained a Cronbach Alpha Coefficient of 0.70.

Stimulant Relapse Risk Scale (SRRS)

The Stimulant relapse risk scale by Ogai et al (2007) is a 35-item self-rating scale developed to predict the risk of stimulant reuse multilaterally in patients with drug dependence. The SRRS comprises of 5 subscales, namely Anxiety and Intention to Use Drug (Al), Emotionality Problems (EP), Compulsivity for Drug (CD), Positive Expectancies and Lack of Control over Drug (PL), and Lack of Negative Expectancy for the Drug (NE).It is rated on five points likert response pattern, with scale ranging from 1, “strongly disagree” 2, “disagree” 3, “neither agree or disagree” 4. “Agree” to 5, “strongly agree”. Sample item measuring Anxiety and Intention to Use Drug include: “The feeling I used to have while using the drug sometimes comes back” and “Thinking about my family, I can no longer use the drug (Reverse)”, items measuring Emotionality Problems include: “I feel a constant need to put something in my mouth” and “I cannot control my feeling”, item measuring Compulsivity for Drug include “I would do almost anything in order to use the drug” and “I want to obtain the drug even by working illegally”, item measuring Positive Expectancies and Lack of Control over Drug include: “If someone holds the drug under my nose, I would not be able to refuse it” and “If I use the drug, I would feel everything is going well”, and item measuring Lack of Negative Expectancy for the Drug include: “I feel easier than before (Reverse)” and “ If I use the drug, it would badly influence my study/work (Reverse).”

In Nigerian population, Ogai et al (2007) recorded Cronbach alpha for each of the subscale and all items were .82, .80, .73, .79, .55 and .86 respectively, and reversely for four reversed items under subscale lack of negative expectancy for drug. High total score indicates higher chances of relapse risk, and vice-versa. For this study, the researcher subjected the scale to

pilot testing with (25) patients drawn from Neuro-psychiatric hospital, Nawfia, Anambra state, and obtained a Cronbach Alpha Coefficient of 0.73.

Procedure

The researcher obtained a letter of introduction from the Head of Department of Psychology, Nnamdi Azikiwe University, Awka which was presented to the Medical Director of the Neuropsychiatric hospital Nawfia. The researcher then sought and got the approval of the ethics committee to undertake the study in the hospital. Also, the researcher approached three male and two female psychiatric nurses, who were briefed on the nature of the study and were thus involved as research assistants to help identify the patients who met the inclusion criteria and to also administer the questionnaire to the participants.

Design and Statistics

The design adopted for this study was a correlation. The design is suitable in providing the nature of a relationship and the strength between paired variables. However, Conditional process is adopted because the result of the Pearson analysis conducted showed a reciprocal causation between the mediator (perceived social support) and dependent variable (relapse risk).

Result

In this chapter, the results of the Descriptive Statistics, Correlation Coefficients and Conditional Process Matrix for Moderated Regression conducted on 'Perceived social support as a moderator of the correlation between perceived social stigma and relapse risk among Nicotine dependent patients' are presented in tables 1 and 2 below:

Table 1

Descriptive Statistics and Correlation Coefficients for Study Variables

Variables	***M***	***SD***	***1***	***2***
1. Rel. Risk	28.03	6.06	-	
2. Perc. Soc St.	3.23	6.58	.230**	-
3. POS			.113	-

	58.91	11.71	.280**

The result in the above table revealed a significant as well as positive correlation between perceived social stigma and relapse risk among Nicotine dependent patients at *r = .23, p <.05.* Thus, hypothesis I, which stated that "perceived social stigma would positively and significantly correlate with relapse risk among nicotine dependent patients," was upheld.
Similarly, the table showed a significant but negative correlation between perceived social support and relapse risk among Nicotine dependent patients at *r = .11, p <.05.* Thus, hypothesis II, which stated that perceived social support would positively and significantly correlate with relapse risk among nicotine dependent patients," was accepted.

Table 2

Moderation Regression Matrix for perceived social support as a moderator of the correlation between perceived social stigma and relapse risk among nicotine dependent patients

Variables	**R^2**	**df(df2)**	**F**	**Beta (β)**	**T**	**Std error**	**LLCI**	**ULCI**
Model I	.74	3(61)	.65					
Perceived Social Stigma (X)				.71	.38	.18	.42	.17
Perceived Social Support (W)				.15	.11	.41	.89	.80
X*W (Int_1)				.52	.98	.26	.03	.07

The result of conditional process matrix above shows that model summary which contributed to 54% of the variance was significant at *f(3,61) = .30, p=.00.* Likewise, the matrix table showed that the *beta* coefficient for the first hypothesis was significant *β = .79, p =.38.*

Similarly, the table also shows that *beta* coefficient for the second hypothesis was significant *β = .15, p =.11.*

Furthermore, the *beta* coefficient shows that perceived social support had a significant moderating effect on the relationship between perceived social stigma and relapse risk among Nicotine dependent patients *β = .52, p =.98.*

Summary of Finding

The result of the Pearson Product Moment Correlation Analysis conducted showed that at the probability level of *p<.05,*

1. Perceived social stigma positively and significantly correlated with relapse risk among nicotine dependent patients. This implies that when nicotine dependent persons believe that they are viewed, judged, discriminated against or stigmatized, this increases the likelihood or probability that they would go back to addiction.
2. Perceived social support significantly but negatively correlated with relapse risk among nicotine dependent patients. This indicates that with the availability and adequacy of support from their social network, and significant others, nicotine dependent persons are less likely to go back to addiction.
3. Perceived social support significantly and positively had a moderating effect on the relationship between perceived social stigma and relapse risk among Nicotine dependent patients. This infers that the extent to which nicotine dependent persons who have quit smoking would go back to addiction because of discrimination or ill-judgment from the society, could be controlled or moderated by their perception of adequate and sufficient social support network.

Discussion

The study examined the relationship between perceived social stigma and relapse risk: The moderating role of perceived social support. The statistical output from the analysis indicated that there is a significant and positive relationship between perceived social stigma and relapse risk, it also showed a significant but negative relationship between perceived social support and relapse risk. Likewise, perceived social support had a significant moderating effect on the relationship perceived social stigma and the risk of relapse.

Hypothesis 1, which stated that perceived social stigma will significantly and positively correlate with relapse risk among nicotine dependent patients was accepted. This infers that nicotine dependent persons are likely to relapse, in the event of perceived stigma or discrimination from their environment. However, the findings of this study is in contrast with the findings of Lozano et al. (2020) on the relationship between perceived smoking-

related stigma and relapse risk among smokers in Uruguay. With tobacco control policies and denormalization strategies potentially stigmatizing smoking, the researchers sought to understand if this stigma influenced a smoker's decision to quit. Lozano et al. (2020) revealed intriguing nuances in the relationship between perceived smoking-related stigma and smoking cessation outcomes in the two countries. In Uruguay, smokers who perceived higher levels of smoking-related stigma were more likely to attempt quitting, indicating that stigma might motivate quit attempts in this context. These findings underscore the complexity of the impact of smoking-related stigma on smoking behaviour and cessation, suggesting that the effectiveness of stigma in motivating quitting might vary across different cultural and policy contexts. This therefore implies that tailored interventions, accounting for these cultural variations, might be crucial in designing effective strategies. Furthermore, Hypothesis 2 which stated that perceived social support will negatively and significantly correlate with relapse risk among nicotine dependent patients is confirmed. This suggests that the conscious awareness or perception of the availability of support from social network, reduces the likelihood or probability that he/she would resume smoking. Thus, describing a statistical relationship that moves in opposite directions from one another.

This affirmed the observation of Silverman (2020) that revealed by analyses of variance a statistically significant but negative relationship between perceived social stigma and perceived social support between the experimental group and the control group. In conclusion, the subjective belief regarding the availability and adequacy of support from significant others and other forms of social network, eliminates likelihood or probability of a relapse. Also, Shahid and Asmat (2023) explored the relationship between stigma, social support, and effective substance use disorder treatment that could reduce the chances of relapse. Their findings collectively revealed that stigmatization had detrimental effects on the treatment of individuals with nicotine dependence. Conversely, perceived social support was found to have a positive impact on the treatment of substance use disorders, enhancing the individuals' overall treatment experience and outcomes. This also is indicative of the inverse relationship between social support and social stigma.

Hypothesis 3 which stated that Perceived social support will significantly moderate the relationship between perceived social stigma and relapse risk among nicotine dependent

patients was accepted. This indicates that that the impact of perceived social stigma on the risk of relapse among individual's dependent on nicotine is influenced by the level of perceived social support. In other words, the strength or presence of social support is expected to have a moderating effect on the relationship between perceived social stigma and relapse risk in nicotine-dependent patients. Perceived social stigma refers to the individuals' subjective perception of being negatively judged or stigmatized by others due to their nicotine dependence. This further infers that perception alone may not directly determine the likelihood of relapse, rather its influence is contingent on the level of perceived social support that individuals feel they receive. The moderation effect suggests that higher levels of perceived social support could potentially buffer or mitigate the negative impact of social stigma, reducing the risk of relapse among nicotine-dependent individuals. Understanding and addressing the interplay between social support, social stigma, and relapse risk can inform more targeted and effective interventions for individuals seeking to overcome nicotine dependence.

This resonates with the findings of Creswell et al. (2015) in a study aimed to investigate the moderating effect of social support in the relationship between perceived social stigma and relapse. Findings indicated that individuals who feel supported by their social network exhibit a reduced vulnerability to relapse, even in the face of perceived social stigma associated with nicotine dependence. This therefore implies that strong social support serves as a protective factor, attenuating the negative influence of social stigma and contributing to better outcomes in terms of relapse prevention. And entails considering social support as a crucial factor in interventions aimed at mitigating the impact of social stigma on relapse risk among individuals dealing with nicotine dependence. Furthermore, social support was also linked to lower withdrawal symptoms and reduced depression, even after controlling for factors such as negative affectivity, depression symptoms before quitting, treatment condition, and daily cigarette consumption.

Recommendations

One key recommendation could be the development and implementation of targeted interventions aimed at reducing perceived social stigma among individuals with nicotine dependence. Such interventions may include public awareness campaigns to reduce societal stereotypes and stigma associated with addiction, as well as educational programs

to enhance empathy and understanding among peers, family, and healthcare professionals. Addressing perceived social stigma directly may contribute to a decrease in relapse risk by fostering a more supportive and inclusive environment for individuals seeking to overcome nicotine dependence. Stemming from the findings of the study, the significant moderating effect of perceived social support on the relationship between perceived social stigma and relapse risk, it is recommendable that interventions should focus on enhancing social support systems for individuals with nicotine dependence. This could involve the establishment of support groups, counseling services, and community resources that provide emotional, informational, and instrumental support to individuals facing the challenges of nicotine dependence.

Limitations of the Study

The sample size of the present study was relatively small, and was restricted to patients with nicotine dependence receiving treatment at the Neuro-Psychiatric Hospital, Nawfia. Replicating the study with a larger sample size, and even a different cultural background, could provide a more comprehensive generalizability and external validity.

Suggestion for further Studies

Accordingly, this study suggests some new directions for further research. Firstly, investigating the cultural distinctions in the impact of perceived social stigma on relapse risk would contribute valuable insights. Cultural factors can shape the experience of stigma and the effectiveness of social support mechanisms.

Conclusion

This study investigated the moderating role of perceived social support in the relationship between perceived social stigma and relapse risk among nicotine dependent patients. Sixty-five (65) Psychiatric patients at the Neuro-Psychiatric Hospital, Nawfia were participants in the study. Three instruments were used in the study, and they include The Multi-Dimensional Scale of Perceived Social Support (MSPSS), The Perceived Stigma of Substance Abuse Scale (PSAS), and The Stimulant Relapse Risk Scale (SRRS). Statistical analysis conducted indicated that there is a significant and positive relationship between perceived social stigma and relapse risk, it also showed a significant but negative relationship between perceived social support and relapse risk. Likewise, perceived social support had a significant moderating effect on the relationship perceived social stigma and

the risk of relapse. The significant moderating effect implies that interventions enhancing social support systems may be instrumental in buffering the detrimental influence of perceived social stigma, offering a potential avenue for more effective relapse prevention strategies in this population.

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