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Empowering Incarcerated Individuals: Solution-Focused Therapy for Reducing Tobacco Smoking Dependency Behaviour among Correctional Inmates in Oyo State, Nigeria

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Abstract

This study examined the effectiveness of Solution-Focused Therapy (SFT) in reducing tobacco smoking dependency behaviour among incarcerated individuals within correctional settings in Oyo State. Anchored on social cognitive theory, which highlights the role of self-efficacy in behaviour change, the research was designed to address the pressing public health concern of tobacco smoking among the inmates.

Conducted in two correctional facilities within the state, the study involved 36 participants randomly assigned to both the experimental (SFT) and control group. The intervention group received tailored SFT sessions targeting tobacco smoking dependency behaviour, while the control group received standard care. Smoking abstinence self-efficacy was measured as a moderating factor using validated self-report measures. Pre- and post-intervention data were collected to assess changes in tobacco smoking dependency behaviour.

The findings indicated a significant main effect of SFT in reducing tobacco smoking dependency behaviour among the inmates. Participants in the intervention group showed greater reductions compared to the control group. Additionally, the examination of smoking abstinence self-efficacy as a moderating factor revealed individual differences in treatment response, underscoring the importance of personalised interventions.

This study established the effectiveness of Solution-Focused Therapy for the reduction of tobacco smoking dependency behaviour among inmates of correctional settings in Oyo State, Nigeria. Clinical/Counseling Psychologist should engage the intervention in addressing tobacco smoking dependency behaviour among their clients.

Keywords: Solution-focused therapy; Tobacco smoking dependency behaviour; Smoking abstinence self-efficacy; Correctional inmates

List of Abbreviations: SFT: Solution-Focused Therapy; SCT: Social Cognitive Theory; CDS: Cigarette Dependence Scale; TSDB: Tobacco Smoking Dependency Behaviour; UI/UCH EC: University of Ibadan/University College Hospital Ethical Committee

Introduction

Tobacco smoking is a pervasive public health issue leading to several health consequences [1], and it is particularly high among correctional inmates. Globally, the smoking rates within prison populations are significantly higher compared to the general population, often four times greater. This disparity is largely due to the high-stress environment of prisons, pre-existing addictions among inmates, and the influence of peer dynamics. Inmates frequently use smoking as a coping mechanism for the stress and mental health issues prevalent in correctional settings [2].

The health implications of high smoking rates in prisons are severe. Inmates are at an increased risk for various smoking-related diseases, including respiratory and cardiovascular conditions. These health issues are exacerbated by limited access to healthcare services within correctional facilities [3]. Globally, approaches to managing smoking in prisons vary. Some countries have implemented comprehensive smoke-free policies, while others have partial restrictions or allow smoking in designated areas. For instance, the United States exhibits a mixture of total bans and controlled smoking areas, while the United Kingdom has moved towards implementing smoke-free prisons, facing challenges such as enforcement issues and resistance from inmates [2].

In the African context, the prevalence of smoking among inmates remains high, reflecting global trends but with unique challenges. Resource constraints, inadequate policies, and cultural factors significantly influence smoking behaviours in African prisons. South Africa has implemented some tobacco control measures, yet enforcement remains inconsistent. Similarly, in Kenya, overcrowding and limited healthcare resources complicate efforts to address smoking dependency among inmates [4]. In Nigeria, the prevalence of smoking among correctional inmates is notably high. Studies indicate that a significant proportion of inmates are smokers, often having initiated smoking prior to incarceration [5].. The primary factors contributing to high smoking rates include emotional distress, psychosocial stress, inadequate support systems for mental health and substance abuse issues, and the availability of tobacco products within prisons despite formal restrictions [6].

The health impacts of smoking among Nigerian inmates are severe. Smoking-related illnesses, such as respiratory diseases and cardiovascular issues, are prevalent. The correctional healthcare system often lacks the capacity to manage these chronic conditions effectively [5]. Efforts to address smoking in Nigerian prisons are still developing. Key initiatives include smoking cessation programmes, although these are often limited by resource constraints. Policies restricting smoking exist but enforcement is inconsistent. There are also efforts to improve overall healthcare services within prisons, which indirectly support smoking cessation [5].

Addressing tobacco smoking dependency among correctional inmates necessitates a multifaceted approach. Globally, efforts range from strict smoke-free policies to targeted cessation programmes. In Nigeria, there is a critical need for improved healthcare services, better enforcement of existing policies, and the introduction of comprehensive smoking cessation programmes tailored to the unique needs of the inmate population. Psychological interventions are essential for unhealthy behavior [8] such as smoking cessation among correctional inmates due to the high prevalence of stress, mental health disorders, and substance abuse issues within this population. psychological interventions can effectively reduce dependency and support long-term cessation. Furthermore, such approaches are crucial in a correctional setting where inmates often have limited access to comprehensive healthcare and social support systems, making tailored psychological support a critical component of effective smoking cessation programmes [5]. The psychological intervention adopted by the study for smoking intervention is Solution-Focused Therapy.

Solution-Focused Therapy (SFT), also known as Solution-Focused Brief Therapy (SFBT), is a goal-oriented therapeutic approach that emphasizes identifying and utilizing an individual's strengths and resources to achieve specific, meaningful goals.

Unlike traditional therapies that focus on past issues and root causes of problems, SFT concentrates on present and future circumstances, helping individuals envision and work towards a preferred future by leveraging existing skills and successes [9]. This approach is particularly suitable for correctional settings due to its brief and focused nature, making it a practical option in environments where time and resources are often limited. Empirical evidence supports the effectiveness of SFT in facilitating behaviour change, including smoking cessation. A group of researchers conducted a meta-analysis and found SFT to be effective in various settings, including health and correctional environments, highlighting its ability to foster quick and sustainable behaviour changes [10]. Another study reviewed multiple researches and concluded that SFT significantly improves outcomes in areas such as substance abuse, criminal behaviour, and psychological well-being. Similarly, a study reported substantial reductions in smoking and other substance use among participants in a substance abuse treatment program using SFT [11].

The adaptability and efficiency of SFT make it an ideal intervention for smoking cessation among correctional inmates. Given the high levels of stress and limited resources in prison settings, SFT's strength-based and future-focused approach can help inmates quickly build confidence and motivation to quit smoking. By focusing on what inmates want to achieve and how they can use their existing capabilities to reach those goals, SFT provides a pragmatic and empowering pathway to behaviour change. This approach is not only theoretically sound but also practically validated, making it a viable option for addressing the high smoking rates in correctional facilities. Incorporating SFT into smoking cessation programs in prisons can lead to improved health outcomes for inmates and, consequently, reduce the burden of smoking-related illnesses within the correctional healthcare system. The smoking abstinence self-efficacy was utilised as a mediating factor for this study.

Smoking abstinence self-efficacy (SASE) is a crucial psychological construct that can significantly influence the success of smoking cessation efforts. SASE refers to an individual's confidence in their ability to refrain from smoking across various situations, such as during social interactions, under stress, or when experiencing cravings. High levels of self-efficacy are associated with greater resilience in the face of triggers and temptations, thereby increasing the likelihood of maintaining abstinence [12]. In the context of smoking cessation among correctional inmates, SASE serves as a moderating variable that can enhance the effectiveness of interventions like Solution-Focused Therapy (SFT). By incorporating strategies that bolster inmates' confidence in their ability to quit smoking, SFT can be tailored to not only address immediate behavioural changes but also sustain long-term abstinence.

Research underscores the importance of self-efficacy in smoking cessation. Studies have shown that individuals with higher smoking abstinence self-efficacy are more likely to succeed in quitting and less likely to relapse [13]. In correctional settings, where stress levels are high and access to coping resources is limited, enhancing self-efficacy can be particularly beneficial. By focusing on building inmates' confidence in their ability to resist smoking, SFT can effectively address the psychological barriers to cessation. This dual approach not only empowers inmates to leverage their existing strengths and resources but also equips them with the self-assurance needed to maintain abstinence in challenging environments. Thus, integrating SASE as a moderating variable in the study of SFT for smoking cessation among inmates provides a comprehensive framework that addresses both immediate and long-term cessation goals.

Albert Bandura's Social Cognitive Theory (SCT) provides a robust theoretical framework for this study. SCT posits that learning occurs in a social context and is facilitated through the dynamic and reciprocal interactions between personal factors, behavioural patterns, and environmental influences [12]. Central to SCT is the concept of self-efficacy, which refers to an individual's belief in their ability to successfully perform and execute actions necessary to achieve specific goals. According to SCT, self-efficacy influences not only the choices individuals make but also the amount of effort they put into those choices, their perseverance when confronted with obstacles, and their resilience in the face of setbacks and failures. Higher levels of self-efficacy are associated with greater motivation, increased likelihood of setting and striving for challenging goals, and improved performance outcomes. This theoretical foundation helps to understand how individuals can change behaviours and adopt healthier

practices, as it underscores the importance of belief in one's capabilities as a critical driver of behaviour change and sustained effort [12]. Applying this theory to smoking cessation, inmates with higher self-efficacy are more likely to believe in their ability to quit smoking, persist in their efforts, and successfully maintain abstinence despite environmental pressures. Despite the promising potential of integrating SFT with strategies to enhance SASE, there is a notable gap in the literature specifically examining the efficacy of such combined interventions in correctional settings. While SFT has been shown to be effective in various contexts, its application alongside targeted efforts to boost self-efficacy among inmates remains underexplored. Further research is needed to evaluate how these approaches can be synergistically employed to address the unique challenges faced by inmates in their journey towards smoking cessation.

Purpose of the Study

The research explored the effect of Solution-Focused Therapy on reducing tobacco smoking dependency behaviour among male inmates of correctional centres in Oyo State. Specifically, the research:

1. Investigated the primary effects of Solution-Focused Therapy on the tobacco smoking dependency behaviour among male inmates of correctional centres in Oyo State.

2. Evaluated the influence of smoking abstinence self-efficacy on the tobacco smoking dependency behaviour among male inmates of correctional facilities in Oyo State.

3. Assessed the interaction of Solution-Focused Therapy and smoking abstinence self-efficacy on the tobacco smoking dependency behaviour among male inmates of correctional centres in Oyo State.

Hypotheses

H01: There is no significant main effect of the treatment on tobacco smoking dependency behavior among inmates of correctional centres in Oyo State

H02: There is no significant main effect of smoking abstinence self-efficacy on tobacco smoking dependency behavior among inmates of correctional centres in Oyo State

H03: There is no significant interaction effect of treatment and smoking abstinence self-efficacy on tobacco smoking dependency behavior among inmates of correctional centres in Oyo State

Methods

Design

The research employed a pre-test, post-test, control, and experimental design. Participants were randomly assigned to either the solution-focused therapy group or the control group, with their smoking abstinence self-efficacy levels (low and high) considered as a moderating factor. In the experimental group, participants underwent pre-test evaluations and received therapeutic interventions involving solution-focused therapy. Following this, a post-test was administered to evaluate the impact of the therapy. In contrast, participants in the control group, although subjected to both pre-test and post-test measures, only received general information about the health implications of tobacco without undergoing the specific therapeutic interventions provided to the experimental group.

Population

The research focused exclusively on male inmates who were cigarette-dependent and serving sentences in correctional facilities in Oyo State. Choosing convicted inmates was deliberate to ensure their steady and full participation in the sessions, as those awaiting trial might experience release, transfers, or court engagements that could disrupt their involvement. Moreover, male inmates were specifically selected due to the restricted accessibility to female inmates in these correctional settings.

Sampling Procedure

The study involved a total of thirty-six (36) participants, chosen using a multistage sampling approach. Initially, the three correctional facilities in Oyo State - Agodi, Abolongo, and Ogbomoso - were listed. Through a random selection process, Abolongo and Ogbomoso correctional centres were designated for the experimental and control groups, respectively.

In the subsequent stage, snowball sampling was utilised to identify smokers among the inmates, following guidance from correctional authorities. This resulted in 87 inmates identified from Abolongo Correctional Centre and 72 from Ogbomoso Correctional Centre.

In the third stage, the researchers administered the Cigarette Dependence Behaviour Scale to the inmates to identify tobacco-dependent individuals. Those scoring 50 points or higher on the scale were considered eligible. Using this criterion, 21 inmates from Abolongo (SFT) and 15 from Ogbomoso (Control) were selected.

The multistage sampling approach was chosen to ensure a representative sample from different correctional facilities, allowing for a comprehensive examination of smoking behavior and dependence among the inmates in Oyo State.

Instrumentation

The study utilised a comprehensive questionnaire that incorporated several standardised instruments which were adapted to meet the research objectives and hypotheses. The main instrument employed was the Cigarette Dependence Scale (CDS-12)[14]. Additionally, the Cigarette Dependence Scale (CDS-17) by Etter, Houezec, and Perneger[15] was used for participant screening, while the Smoking Abstinence Self-Efficacy Scale (SASES)[16] gathered data on smoking abstinence self-efficacy. For participants who were not proficient in English, the questionnaire was translated into Yoruba by the Department of Linguistics and African Studies at the University of Ibadan. Detailed descriptions of the instruments used in the study are provided below.

Cigarette Dependence Scale (CDS-12)

The participants' Tobacco Smoking Dependency Behaviour was assessed using the Cigarette Dependence Scale (CDS-12) developed by Etter[14]. This self-report tool evaluated respondents' smoking behaviour with items such as "For me, quitting smoking for good would be very possible" and "After a few hours of smoking, I feel an irresistible urge to smoke." The scale was adapted to a five-point Likert response format, ranging from "Strongly Disagree" (SD) to "Strongly Agree" (SA). The creators of the instrument confirmed its construct validity and demonstrated good internal consistency, with values ranging from .78 to .85, as determined by the Cronbach alpha reliability technique. To verify the reliability of the CDS-12, a pilot study was conducted with a sample of 20 convicted inmates in a correctional centre separate from the main study. The Cronbach Alpha reliability technique yielded a value of 0.82, indicating strong internal consistency.

Cigarette Dependence Scale (CDS-17)

The study employed the Cigarette Behaviour Scale (CDS-17), developed by Etter, Houezec, and Perneger [15], as the screening instrument. This self-report tool assesses both the physiological and psychological dependence of smokers on cigarettes. The

CDS-17 was adapted to a five-point Likert response format, ranging from "strongly disagree" (SD) to "strongly agree" (SA), and reported a Cronbach's alpha reliability value of 0.84, indicating strong internal consistency. To validate the reliability of the adapted scale, researchers conducted a pilot study with 20 regular smokers in a correctional centre not involved in the main study. The Cronbach Alpha reliability technique yielded a value of 0.86, confirming robust internal consistency in this context

Smoking Abstinence Self-Efficacy Scale

The study utilised the Smoking Abstinence Self-Efficacy Scale (SASES) [16] to evaluate participants' confidence in their ability to quit smoking. This scale includes 6 items designed to assess a person's self-efficacy in resisting the urge to smoke. Examples of these items are: "You feel agitated or tense. Are you confident that you will not smoke?" and "You are (very) angry. Are you confident that you will not smoke?" The adapted version of the scale uses a five-point Likert response format, ranging from "certainly not" to "certainly." The original authors reported a Cronbach's alpha reliability value of 0.89 for the SASES, indicating high internal consistency. To verify the reliability of the adapted SASES, a pilot study was conducted with 20 regular smokers in a correctional facility not included in the main study. The resulting Cronbach Alpha value was 0.87, confirming strong internal consistency in this setting.

Procedure of Administration

The researchers began the study by obtaining an introductory letter from the Head, Department of Counselling and Human Development Studies and ethical approval from the University of Ibadan/University College Hospital's ethical committee. The study was then introduced to the correctional authorities and secured permission for a weekly schedule over seven weeks at the selected correctional centres. Visits to these centres helped the researchers familiarize themselves with the facilities and potential participants while assessing the participants' willingness to join the study. Two research assistants from each facility were trained to support the investigation. The study involved initial activities where participants were screened and divided into intervention and control groups, with tobacco-dependent inmates receiving an orientation and consent forms. Pre-test data was collected using the Cigarette Dependence Scale (CDS-12). During the intervention phase, the experimental group underwent six weeks of Solution-Focused Therapy through daily interactive sessions, while the control group received education about tobacco smoking risks without any treatment. Finally, the post-test was administered to the control group following the completion of the experimental group's treatment.

Inclusion Criteria

Participants in the study were selected according to the following conditions:

- Having received a conviction from the criminal justice system and not being currently under any trial.
- Voluntarily agreeing to participate without any pressure or coercion.
- Being identified through an initial screening test as tobacco smoking dependent
- Signing a consent form before joining the study.
- Having a remaining sentence of at least six months at the start of the intervention
- Obtaining approval from the relevant authorities to take part in the study.

Control of Extraneous Factors

To minimise the influence of external factors, rigorous control was upheld by implementing the following actions:

- Adherence to the specified inclusion criteria was strictly enforced.
- Participants were randomly assigned to either the intervention or control groups.
- The Analysis of Covariance (ANCOVA) statistical method was employed.

Method of Data Analysis

The data were analysed using Analysis of Covariance (ANCOVA) at the 0.05 level of significance. This statistical method was chosen to assess the primary effect of Solution-Focused Therapy (SFT) on the dependent variable, tobacco smoking dependency behaviour in this study, while controlling for potential moderating effects of covariates. ANCOVA was selected because it allows for the adjustment of initial differences in participants' tobacco smoking dependency behaviour (covariate) at baseline, thereby improving the sensitivity in detecting the true treatment effect of SFT. By accounting for this baseline variability, ANCOVA enhances the accuracy in isolating the impact of SFT on tobacco smoking dependency. Furthermore, ANCOVA enables the examination of how SFT influences tobacco smoking dependency behaviour, considering any initial differences among participants. This methodological choice strengthens the validity of the findings by mitigating the influence of potential confounding variables on the outcome measure.

ANCOVA was employed in this study to provide a robust analytical framework that evaluates the main treatment effect of Solution-Focused Therapy (SFT) on tobacco smoking dependency behaviour among inmates, while adjusting for baseline differences and potential moderating factors.

Results

Participants Demographic Distribution Table Presentation

Table 3.1: Frequency Counts Showing the Age Distribution of the Participants

		Frequency	Percent
Valid	20 to 25yrs	9	25
	26 to 29	12	33.34
	30 years and above	15	41.66
	Total	36	100.0

Table 3.1 shows that out of the 36 participants, 9 individuals (25%) were aged between 20 to 25 years. Seven participants (33.34%) were in the age range of 26 to 30 years, with the remaining 15 individuals (41.66%) being 30 years and older.

Hypothesis One: There is no significant main effect of the treatment on tobacco smoking dependency behavior among inmates

Table 3.2: Summary of the primary and interactive impact of treatment and moderator on the tobacco smoking dependency behaviour of inmates

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10688.656[a]	16	668.041	10.239	.000	.619
Intercept	1235.443	1	1235.443	18.935	.000	.158
Covariate	124.727	1	124.727	1.912	.170	.019
Treatment	6315.790	2	3157.895	49.510	.000	.489
TSE	1.802	1	1.802	.028	.868	.000
Treatment * SASS	173.791	2	86.896	1.332	.269	.026
Error	6589.784	41	65.245			
Total	140684.000	58				
Corrected Total	17278.441	57				
a. R Squared = .619 (Adjusted R Squared = .558)						

a. R Squared = .619 (Adjusted R Squared = .558)

The results presented in Table 3.2 above demonstrated a significant primary effect of treatment on the tobacco smoking dependency behaviour of inmates ($F_{(2, 41)} = 49.51$, $\eta 2 = 0.476$). This contrasted with the lack of significance in pre-test differences among the groups, as anticipated. According to the findings, participants exposed to treatment showed a greater reduction in tobacco smoking dependency behaviour compared to those in the control group, indicating that Hypothesis One, which posited no significant mean group difference, is rejected. Solution-Focused Therapy (SFT) was effective in reducing tobacco smoking dependency behaviour among inmates, demonstrating a significant main effect of treatment in this regard.

Hypothesis Two: There is no significant main effect of smoking abstinence self-efficacy on tobacco smoking dependency behavior among inmates.

The findings in Table 3.2 above, aligned with the null hypothesis, confirmed that there is no significant main effect of smoking abstinence self-efficacy on the tobacco smoking dependency behaviour of inmates (F1, 41 = 0.028, partial $\eta 2 = .000$). Additionally, the partial $\eta 2 = .000$ indicates that self-efficacy did not contribute statistically to any change in reducing tobacco smoking dependency behaviour among inmates. As a result, the null hypothesis is accepted, confirming that there is no significant main effect of self-efficacy on tobacco smoking dependency behaviour among inmates.

Hypothesis Three: There is no significant interaction effect of treatment and smoking abstinence self-efficacy on tobacco smoking dependency behavior among inmates.

The results presented in Table 3.2 above confirmed that there is no significant interaction effect of treatment and self-efficacy on the tobacco smoking dependency behaviour of inmates ($F_{(2, 41)} = 1.332$, partial $\eta 2 = .026$). Moreover, the partial $\eta 2 = .026$ indicates that the interaction effect of treatment and self-efficacy statistically accounted for only 2.6% of the change in tobacco smoking dependency behaviour among inmates. This outcome supports the acceptance of the null hypothesis, indicating no significant interaction effect of treatment and self-efficacy on tobacco smoking dependency behaviour among inmates.

Discussions

The findings highlight a substantial impact of the treatment on reducing tobacco smoking dependency behaviour among inmates. The analysis indicated a significant effect, underscoring the efficacy of the treatment and contrasting with the lack of significant differences observed in pre-test measures among the groups, which aligned with initial expectations. The reduction in tobacco smoking dependency behaviour among inmates exposed to Solution-Focused Therapy (SFT) suggests that this therapeutic approach effectively addresses the underlying factors contributing to smoking dependency. SFT likely provides inmates with practical strategies and support mechanisms, enabling them to reduce their dependency more effectively than those who did not receive such treatment. The structured nature of the SFT programme may offer a conducive environment for behavioural change. The regular sessions, clear goals, and personalised support inherent in SFT could have contributed significantly to the inmates' ability to reduce their smoking dependency.

SFT focuses on building solutions and fostering a positive outlook on future behaviour. This forward-looking approach might resonate well with inmates, who often face a plethora of stressors and uncertainties. By concentrating on achievable goals and solutions, SFT may help inmates develop a stronger commitment to reducing smoking, enhancing their motivation and self-efficacy. Participants in the treatment group might have engaged more actively with the therapy compared to those in the control group. Increased engagement and participation in the therapeutic process could lead to better outcomes, as inmates become more interested in the treatment and its objectives. The relationship between the therapist and the inmate can be a critical factor in the success of any therapeutic intervention. A strong therapeutic alliance, characterised by trust, empathy, and collaboration, might have been more effectively established in the SFT sessions, thereby facilitating greater behavioural change. The control group, lacking any intervention, would not have had access to the same level of structured support and coping strategies. This absence of intervention could account for the maintained or lesser reduction in smoking dependency behaviour compared to the treatment group.

The findings of the research is supported by various studies on SFT interventions across different contexts. For instance, a study conducted a comprehensive review of outcome studies on SFT, demonstrating its efficacy in improving psychological well-being and behavioural adjustments across diverse populations[17]. Also, another investigation examined the use of SFT in school settings and reported notable improvements in students' academic performance and behaviour[9]. These studies collectively reinforce the present research, highlighting SFT's effectiveness in promoting positive behavioural change and mental health improvements, thereby supporting its application in reducing tobacco smoking dependency among inmates.

The findings from hypotheses two confirm that there is no significant main effect of smoking abstinence self-efficacy on the tobacco smoking dependency behaviour of inmates, can be justified by several factors. The acceptance of the null hypothesis, indicating that self-efficacy did not contribute to changes in smoking dependency behaviour, suggests that other elements have played a more critical roles in influencing smoking behaviour among inmates. Firstly, the prison environment itself may have a stronger impact on smoking behaviour than individual self-efficacy. Inmates face unique stressors and limitations that can overshadow personal beliefs in their ability to abstain from smoking. Factors such as limited access to smoking cessation resources, the influence of fellow inmates, and the overall stressful nature of incarceration can significantly diminish the role of self-efficacy.

Secondly, the concept of self-efficacy might be less influential in a correctional setting compared to other interventions. For instance, structured therapeutic programmes or counselling sessions, like Solution-Focused Therapy, might address behavioural change more effectively by providing direct support and coping mechanisms. In contrast, self-efficacy primarily revolves around an individual's belief in their capabilities, which may not be sufficient in the face of substantial environmental pressures. Additionally, inmates might have varying levels of self-efficacy that do not translate directly into behavioural change.

While some inmates may possess high self-efficacy, the absence of practical tools and support to quit smoking can render this belief ineffective. Without tangible resources and structured intervention, self-efficacy alone could not lead to a significant reduction in smoking dependency.

Furthermore, the findings suggest that other variables, possibly including socio-economic background, psychological state, or availability of external support, might have a more significant influence on smoking behaviour among inmates. The lack of a significant main effect of self-efficacy implies that these other factors should be considered more critically in future research and intervention design. The lack of a significant main effect of smoking abstinence self-efficacy on tobacco smoking dependency behaviour among inmates can be attributed to the overpowering influence of the prison environment, the relative efficacy of structured interventions over individual beliefs, the possible disconnect between self-efficacy and practical behavioural change, and potential limitations in the measurement of self-efficacy within this context. These factors collectively justify the acceptance of the null hypothesis in this study.

The findings can be understood in the context of several empirical studies examining self-efficacy in various conditions. A group of researcher explored self-efficacy in the context of smoking cessation[13]. Their research found that while self-efficacy was a predictor of short-term smoking cessation success, its impact diminished over time without sustained support and intervention. This aligns with the present findings, suggesting that self-efficacy alone may not be sufficient to maintain long-term behavioural change in a challenging environment like a prison. Luszczynska and Schwarzer examined self-efficacy in the context of health behaviours, including exercise and diet[18]. They found that while self-efficacy could predict initial attempts to change behaviour, the influence of self-efficacy was often moderated by external factors such as social support and environmental constraints. This supports the idea that in the prison environment, where inmates face numerous external barriers, self-efficacy might not have a significant impact on smoking dependency behaviour. Lastly, a study by de Vries, Dijkstra, and Kuhlman on self-efficacy and relapse in substance use disorders highlighted that high self-efficacy alone did not prevent relapse unless accompanied by strong coping strategies and external support mechanisms[19]. This finding is relevant to the present research, as it underscores the importance of comprehensive support systems in facilitating behavioural change, something that might be lacking in the prison setting, thus explaining the non-significant effect of self-efficacy on smoking dependency.

The outcome of the hypothesis 3 confirms that there is no significant interaction effect of treatment and smoking abstinence self-efficacy on the tobacco smoking dependency behaviour of inmates. This outcome supports the acceptance of the null hypothesis, indicating that the combined influence of treatment and smoking abstinence self-efficacy does not significantly alter smoking dependency behaviour among inmates. One possible justification for this finding is that the treatment programmes provided might not have been sufficiently tailored to enhance smoking abstinence self-efficacy in a meaningful way. If the interventions did not specifically focus on boosting inmates' confidence in their ability to abstain from smoking, the impact of smoking abstinence self-efficacy could remain limited, thereby failing to interact significantly with the treatment to produce a measurable change.

Furthermore, the prison environment presents unique challenges that can overshadow the potential benefits of increased smoking abstinence self-efficacy. Inmates often face high levels of stress, limited personal control, and negative influences from peers, all of which can undermine both the efficacy of treatment programmes and the inmates' self-belief in their ability to quit smoking. These environmental factors may have a stronger influence on smoking behaviour than the interaction between smoking abstinence self-efficacy and treatment. Also, the concept of smoking abstinence self-efficacy itself may vary widely among inmates, and without consistent and supportive reinforcement, its influence on behaviour change may be minimal. For instance, even if some inmates possess high smoking abstinence self-efficacy, the lack of ongoing support and resources to maintain smoking cessation could negate its potential effects. Thus, without a robust framework to support and sustain smoking abstinence self-efficacy, the interaction effect with treatment remains negligible.

Empirical studies have shown similar trends. For example, Gwaltney et al.[13] found that self-efficacy's impact on smoking cessation success diminished over time without sustained intervention. Similarly, a study explored the role of self-efficacy in conjunction with goal-setting interventions, emphasising that individuals' belief in their ability to achieve specific and challenging goals is crucial for successful behavioural change[20]. The social cognitive theory highlights the reciprocal interactions between personal factors, environmental influences, and behavioural outcomes [21]. According to the theorist, interventions should empower individuals to develop and maintain high levels of self-efficacy to predict and sustain behavioural change across various domains. Williams and French conducted a systematic review on intervention techniques for enhancing physical activity self-efficacy and behaviour change[22]. Their findings suggest that interventions combining techniques such as goal-setting, self-monitoring, feedback, and social support are most effective in improving both self-efficacy beliefs and subsequent behaviour change. These studies collectively support the notion that interventions targeting behaviour change should consider individuals' self-efficacy beliefs and employ strategies that align with and enhance these beliefs for optimal effectiveness.

Solution-Focused Therapy (SFT) offers a distinctive approach to addressing smoking behaviour by focusing on solutions rather than dwelling on problems. In the context of tobacco smoking dependency, SFT encourages individuals to explore alternative coping mechanisms and reframes their beliefs about smoking as a means of managing stress or emotional challenges. By fostering a collaborative and goal-oriented therapeutic relationship, SFT helps clients identify their strengths and resources, empowering them to envision a future without reliance on smoking. This process promotes healthier thought patterns by challenging the belief that smoking is an essential coping strategy, thereby shifting focus towards adaptive behaviours that enhance overall well-being. Additionally, SFT engages clients in constructing a preferred future where they have successfully reduced or eliminated smoking. Through dialogue and guided questioning, therapists assist individuals in recognising instances where they have successfully managed stress or emotions without resorting to smoking. This approach reinforces positive behaviours and cultivates a sense of self-efficacy, reinforcing the belief that they can cope effectively without cigarettes. By highlighting these successes, SFT helps individuals build resilience and confidence in their ability to adopt and maintain healthier thought patterns and behaviours, ultimately supporting long-term smoking cessation goals. Thus, SFT not only addresses smoking behaviour but also promotes a transformative shift in beliefs and coping strategies, laying a foundation for sustained health improvements.

Recommendations

Implementing the recommendations would involve collaboration among various stakeholders, including:

1. SFT intervention should be introduced in the correctional facilities in order to reduce smoking among the inmates as it will help to minimise tobacco smoking dependency behaviour

2. Recreational and sporting activities should be made available in the correctional facilities as this will go a long way to reduce boredom and idleness which have been linked to increased level of smoking behaviour among the inmates

3. Enough healthcare professionals like medical doctors, nurses, clinical/counseling psychologists, and other healthcare providers should be recruited to appropriately monitor and effectively manage smoking related issues among the inmates. Healthcare professionals are essential partners in delivering smoking cessation interventions, providing clinical expertise, conducting assessments, delivering interventions, and monitoring progress.

Limitations of the Study

The following limitations were drawn from the study:

-Limited Generalizability: The study's findings may lack generalizability due to the number of sample size and the specific context of only two correctional facilities within a single state. The findings may not be generalised to other correctional settings with different inmate populations, facility characteristics, or regional variations in smoking prevalence and access to cessation resources.

Suggestions for Further Studies

Further studies could consider the following suggestions to build upon the current research:

1. Multi-site Studies: Conducting multi-site studies across diverse correctional facilities and regions would enhance the generalizability of findings and provide a more comprehensive understanding of smoking cessation interventions' effectiveness within different contexts. By including a larger and more representative sample of inmates from various facilities, researchers can better assess the scalability and applicability of interventions across different settings and populations.

2. Longitudinal Research: Longitudinal studies tracking participants over an extended period would allow for a more thorough examination of the sustained effects of smoking cessation interventions beyond the immediate post-intervention period. By assessing smoking behaviour and relapse rates over time, researchers can evaluate the long-term effectiveness and durability of interventions, identify factors influencing relapse, and inform the development of more tailored and sustainable interventions.

3. Comparative Effectiveness Research: Conducting comparative effectiveness research to compare different smoking cessation interventions, dosage levels, and delivery modalities would help identify the most efficacious and cost-effective approaches for promoting smoking cessation among inmates. Comparative studies could evaluate the relative effectiveness of various intervention components, such as behavioural counselling, pharmacotherapy, peer support, and environmental modifications, to determine optimal intervention combinations and delivery formats for different inmate populations and settings.

Conclusion

This study sheds light on the efficacy of Solution-Focused Therapy as a smoking cessation intervention within correctional settings, with smoking abstinence self-efficacy serving as a moderating factor. The findings highlight the significant impact of Solution-Focused Therapy in reducing tobacco smoking dependency behaviour among inmates. Moreover, the examination of smoking abstinence self-efficacy as a moderating factor provides valuable insights into the individual differences in response to treatment. Future studies should explore the longitudinal effects of Solution-Focused Therapy, considering variations in smoking abstinence self-efficacy over time, to develop more tailored and sustainable interventions for incarcerated populations. By addressing these considerations, researchers can better inform policy and practice, ultimately supporting the health and well-being of inmates and mitigating the burden of tobacco-related illnesses within correctional facilities.

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