EFFECT OF ALCOHOL USE ON MENTAL HEALTH OF PERSONS WITH PHYSICAL DISABILITY: A CASE OF MEMBERS OF ASSOCIATION FOR THE PHYSICALLY DISABLED OF KENYA (APDK)

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DECLARATION

Student Declaration

I declare that this research proposal is my original work, and it has not been presented in any other university for academic credit.

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16M03EMCP004

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DEDICATION

I dedicate this study to my daughter and granddaughter who have been pillars of strength and source of encouragement as I began this journey to achieve academic self-actualization throughout the entire process.

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First and foremost, I would like to give thanks to the Almighty God for how far He has brought me since I began this academic journey. It has not been easy, but He made it possible for me to get this far in the proposal preparation.

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ABSTRACT

Alcohol abuse is a global issue that affects many people from diverse backgrounds, professions, social status among others. This study analysed the effect of alcohol use on the mental health status of persons living with physical disabilities in Kenya, with a specific focus on individuals in Nairobi County. The research aimed to determine the prevalence of alcohol use, examine the social effect of alcohol among persons with physical disability, investigate the emotional effect, and assess the overall mental health status among persons with physical disabilities registered with the APDK in Nairobi, Kenya. Guided by social learning theory, the biological model, and the theory of rational addiction, the study employed a descriptive correlational research design using both quantitative and qualitative approaches. Data was collected through socio-demographic and structured validated questionnaires, the Alcohol Use Disorders Identification Test (AUDIT), the General Health Questionnaire (GHQ-12), and Focus Group Discussions (FGDs). Sampling methods included purposive sampling to select participants from specific Nairobi County areas and stratified sampling based on APDK registration data, resulting in a sample size of 108. Three FGDs were conducted to gather qualitative insights until data saturation was reached.

The study found a high prevalence of alcohol use among persons with physical disabilities in Nairobi County, with many participants consuming 3 to 6 drinks daily and incurring substantial weekly alcohol expenses. Majority represented age group were males aged 31-40 years representing (47.6%) of the respondents. Behaviorally, alcohol abuse led to increased aggression (88.6%) among the respondent and 85.7% of respondents reported negative effects on their relationships with significant others. This suggested that alcohol use among PWPDs was particularly prevalent in this demographic population. The alcohol consumption led to significant mental health issues, including high psychological distress, and severe health problems like liver diseases and ulcers. Behavioural issues such as aggression, violence, and frequent accidents were common, negatively affecting social relationships and overall quality of life. The study concluded that alcohol use greatly worsened the mental health and well-being of PWPDs. The study beneficiaries include United Disabled Persons of Kenya, APDK, alcohol recovery, rehabilitation and treatment centres and Africa Mental Health Foundation as well as related policy makers. Recommendations include enhanced psychoeducation on alcohol effect, robust support systems and counselling services, economic empowerment initiatives, and community engagement to create supportive environments for PWPDs. The study suggested further research in conducting longitudinal studies to track the long-term effect of alcohol abuse on the mental health, physical health, and social outcomes of PWPDs, in-depth personal interviews to draw underlying motivations, comparative studies against normal populations and policy analysis to check prevention, treatment and intervention gaps.

OPERATIONAL DEFINITION OF TERMS

Alcohol use: refers to the consumption of alcohol, wine, spirits, beer, and other alcoholic drinks. Operationally defined as the consumption of alcoholic beverages.

Assistive devices: assistive devices refer to the equipment used to make mobility and operation easier for individuals with disabilities. Operationally defined as any piece, item, or adaptive equipment used to help the elderly and persons with disability to accomplish everyday tasks and activities to assist in improving their quality of life.

Mental health status: a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to contribute to his or her community. Operationally defined as emotional, psychological, and social well-being.

Physical disability: a physical or mental impairment that has substantial and long-term adverse effect on a person's ability to carry out day-to-day activities. Operationally defined as any physical limitations or disabilities that inhibit the physical function of one or more limbs of a certain person.

Self-reliance: it refers to an individual, community, or household's well-being and social ability to meet essential needs. Operationally defined as the effort and ability to depend on oneself in providing the necessities of life such as basic needs like food, shelter, clothing, and education.

Stigma: refers to the beliefs and attitudes that make people reject, fear, or avoid individuals they perceive as different. Operationally defined as being treated with disgrace due to a particular circumstance or situation such as disability.

Effect: Operationally defined as the result of a particular influence; something that happens because of something else.

APDK: Association for People with Physical Disability Kenya. This formed the respondents for the study

ABBREVIATIONS AND ACRONYMS

AMHF	Africa Mental Health Foundation
APDK	Association for People with Physical Disabilities
AUDIT	Alcohol Use Disorders Identification Test
CRPD	U.N. Convention on the Rights of Persons with Disabilities
DPO	Disabled Persons Organization
KNBS	Kenya National Bureau of Statistics
KPDP	Kenya Programmes of Disabled Persons
KSH	Kenya shillings
MGSCSS	Ministry of Gender, Sports, Culture and Social Services
MOEST	Ministry of Education, Science and Technology
MOH	Ministry of Health
NACADA	National Authority for the Campaign against Alcohol and Drug Abuse
NACOSTI	National Commission for Science, Technology and Innovation
NCAPD	National Coordinating Agency for Population and Development
NCPWD	National Council for People with Disabilities
NGO	Non-governmental Organization
PWPDs	Persons with Disabilities
SPSS	Statistical Package for Social Sciences

UDPK	United Disabled Persons of Kenya

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter provides an overview of the study, including the background, problem statement, study purpose, research questions, and objectives. The study aims to assess various aspects related to mental health and alcohol use among individuals living with physical disabilities within the context of the APDK (Association for the Physically Disabled of Kenya). Specifically, the objectives include determining the mental health status of individuals with physical disabilities, assessing the prevalence of alcohol use among APDK members, exploring the social and emotional impacts of alcohol use on their mental health, and evaluating the mental health status of individuals with physical disabilities engaging in alcohol and substance use/abuse within the APDK community.

Furthermore, the chapter delves into the significance of the study in addressing the intersection of mental health and alcohol use among people with physical disabilities, highlighting its potential implications for interventions and support services. It also discusses the scope and limitations of the study, acknowledging the boundaries within which the research was be conducted and the potential constraints that may impact its findings and generalizability.

1.2 Background of the Study

The issue of alcohol abuse transcends geographical boundaries, affecting diverse populations. Alcohol abuse is a global issue that affects people across all demographics (Park & Kim, 2020). When it comes to people with physical disabilities (PWPD), there may be special circumstances influencing their abuse of alcohol in relation to their disability. While the prevalence and patterns of alcohol consumption

vary, studies conducted in Western countries shed light on the pervasive nature of alcohol-related challenges. In Western societies, including the United States, the United Kingdom, and others, alcohol abuse is a significant public health concern with far-reaching implications for various demographic groups (Khamis et al., 2022); (Creswell et al., 2024).

Research conducted by organizations such as the Centers for Disease Control and Prevention (CDC) in the United States indicates that alcohol misuse contributes to a substantial burden of disease and societal impact. The CDC reports that excessive alcohol use is responsible for approximately 95,000 deaths annually in the United States, making it a leading preventable cause of mortality (Tappero et al., 2017). Moreover, the economic cost associated with alcohol-related problems, including healthcare expenses and productivity losses, amounts to billions of dollars annually.

In the United Kingdom, studies conducted by the National Health Service (NHS) and other research institutions highlight the prevalence of alcohol consumption and its associated effect on mental health. The relationship between alcohol use and mental health is a growing area of concern, and interventions are continually being developed to address these interconnected issues (Burns et al., 2021). While Western countries have well-established support systems and interventions for individuals facing alcohol-related challenges, it is crucial to understand how these issues manifest in different cultural and socio-economic contexts. The experiences of persons with physical disabilities in Western countries, in comparison to those in Kenya, may offer valuable insights into the complex interplay between alcohol use and mental health within diverse global contexts.

According to Daniela Singh (2022), physical disability can be defined as a physical or mental impairment which has substantial and long-term adverse effect on a person's ability to carry out day-to-day activities. Physical disability can be depicted in many forms including but not limited to congenital disability which you are born with. Congenital disorders are caused by development problems before birth, example cerebral palsy. Congenital disorders are also genetic and can be passed down from one or both parents (WHO, 2011). An acquired condition that you get later on in life can include arthritis, rheumatism, cardiac conditions, and pulmonary conditions from work conditions or smoking. Neurological disability is a gradually developing disability; an example is Parkinson which is a progressive disease of the nervous system marked by tremor, muscular rigidity and slow and imprecise movement.

WHO identified over 1 billion people living with disabilities, 20% of whom live with great functional difficulties in their day-to-day lives (WHO, 2023). More than 80 million Africans are considered people living with disabilities, according to the United Nations, including those with mental health conditions as well as birth defects and other physical impairments. There is about 3 million (8%) of the Kenyan population affected by some form of physical disability which affects their ability to function and cope with a variety of challenges on a daily basis (Andolo-Kathungu et al., 2022). The Global Disability Rights puts this estimate at 10% (about 4.44 million people) of the entire population. The key areas affected include the person's visual, speech, hearing, language, physical, mental, and self-care abilities. A study by Kenya National Bureau of Statistics (2013) revealed that about 3.5% of the Kenyan population has a one or another form of disability; this includes 647,689 (3.4%) of males and 682,623 (3.5%) of the females (Eastone Owino, 2020).

According to World Health Organization (2022), there are 3.3 million deaths every year result from harmful use of alcohol; this represent approximately 5.9 % of all deaths (World Health Organization, 2022). The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions. Overall 5.1 % of the global burden of disease and injury is attributable to alcohol, as measured in disability- adjusted life years. Alcohol consumption causes death and disability relatively early in life. In the age group 20 – 39 years approximately 25 % of the total deaths are alcohol-attributable.

Alcohol abuse is a pervasive issue that affects populations across the globe, with significant impacts on various demographic groups, including people with physical disabilities (PWPD). Research has consistently shown that alcohol abuse can lead to a multitude of adverse health outcomes, including both physical and mental health problems. Among people with physical disabilities, the relationship between alcohol use and mental health is particularly complex and multifaceted.

In Western countries, substantial research has been conducted to understand the patterns of alcohol consumption and its associated effect on mental health. For example, the Centers for Disease Control and Prevention (CDC) in the United States report that excessive alcohol use is a significant public health concern, contributing to a high burden of disease and societal impact, including approximately 95,000 deaths annually (Tappero et al., 2017). The economic cost of alcohol-related problems, encompassing healthcare expenses and productivity losses, amounts to billions of dollars each year.

Similarly, in the United Kingdom, studies by the National Health Service (NHS) and other research institutions highlight the prevalence of alcohol consumption and its detrimental effect on mental health. The interconnectedness of alcohol use and mental health issues is a growing area of concern, with ongoing efforts to develop interventions

to address these challenges (Burns et al., 2021). People with physical disabilities in these countries often face unique challenges that may exacerbate the impact of alcohol use on their mental health.

In Asia, the prevalence of alcohol use among people with disabilities and its impact on mental health has been explored to a lesser extent compared to Western countries. However, existing studies suggest that cultural factors and social stigma play a significant role in influencing alcohol consumption patterns and the mental health of individuals with disabilities. For instance, in countries like India and China, societal attitudes towards disability and alcohol use may contribute to higher levels of mental distress and alcohol abuse among this population (Balhara et al., 2017).

In Latin America, the relationship between alcohol use and mental health among people with disabilities is similarly under-researched. Nevertheless, there is evidence to suggest that socio-economic factors, such as poverty and limited access to healthcare, contribute to higher rates of alcohol abuse and associated mental health problems in this region. Efforts to address these issues are often hampered by inadequate healthcare infrastructure and social support systems.

In Africa, the consumption of alcohol and its associated burden of disease are projected to escalate in the coming years. Despite this concerning trend, there is a notable lack of attention from policymakers and the general population towards addressing the growing harms linked to alcohol use. Even when new laws aimed at regulating alcohol are put forward, they often fail to be implemented. Alcohol occupies a central place in the social and cultural fabric of many nations, often evading critical scrutiny regarding its detrimental impact on society and its significant contribution to the overall burden of disease in countries (Ferreira-Borges et al., 2017).

The prevalence of alcohol consumption in African countries varies widely, but it is generally associated with significant health complications, including liver cirrhosis and road accidents (Gitatui et al., 2019). In Kenya, alcohol use is a serious public health issue, particularly among vulnerable populations such as people with disabilities. Studies indicate that individuals with disabilities often turn to alcohol as a coping mechanism for dealing with stigma, discrimination, and economic challenges (Kathungu et al., 2013).

In Kenya, approximately 3 million people, or 8% of the population, are affected by some form of physical disability, impacting their ability to function and cope with various daily challenges (Andolo-Kathungu et al., 2022). The Kenya National Bureau of Statistics (2013) reported that about 3.5% of the population has some form of disability, highlighting the need for targeted interventions to address the unique challenges faced by this group.

Alcohol use among people with disabilities in Kenya has been linked to a range of negative outcomes, including financial strain, social isolation, and deteriorating mental health. A study by Kathungu et al. (2013) revealed that 35% of persons with disabilities reported using alcohol and drugs, often as a means of coping with life challenges such as stigma and health problems (Kathungu et al., 2013). This high prevalence underscores the urgent need for comprehensive strategies to address the intersection of alcohol use and mental health among people with physical disabilities in Kenya.

The Association for the Physically Disabled of Kenya (APDK) plays a crucial role in advocating for and providing services to individuals with physical disabilities. By focusing on the mental health and alcohol use among its members, this study aims

to fill a significant gap in the existing literature and inform the development of effective interventions and support systems.

It can be difficult to determine rates of alcohol use since the population of persons with physical disability is smaller than the general population. There is a wide range of data on the use of drugs and substances among the Kenyan population aged between 15 and 65 years. However, it is vital to note that there is a general absence of data on drug and substance use among people with physical disabilities in the country (Kathungu et al., 2013).

A study by Kathungu et al. (2013) conducted in Kenya revealed that 35% of persons with disabilities involved in the study had reported using alcohol and drugs. The high prevalence of use had been associated with their effort to cope with other challenges in life, such as stigma and health problems. The study also noted that most people with physical disabilities are economically challenged. Thus, patterns of alcohol use would further strain them financially (Kathungu et al., 2013).

The APDK is a nongovernmental organization that was founded in 1958 as a means to advocate for and facilitate the provision of relevant services for people afflicted by various forms of physical disabilities. The needs of persons with physical disabilities in Kenya are provided for through the National Council for Persons with Disabilities (NCPWD), which is a national body, as well as other non-governmental organizations (NCPWD, 2018). APDK has a mission of enabling the persons with disability to go beyond their physical limitations and become empowered both socially and economically. According to APDK (2018), this can help them become fully integrated and self-reliant members of the communities they are part of. The association has branches that reach over 290 outreach stations regularly to provide the relevant

services, information and sensitization of both the affected and other members of the communities they are part of. Some of the programs and services the organization offers include; outreach programs, the production of rehabilitation appliances, community-based rehabilitation, ADPK Fair Trade Shop, rehabilitation intervention, surgical intervention, and institutionalized services.

The programs are aimed at empowering the members to become independent and self-reliant members of the community. For instance, the National Council for Persons with Disabilities (NCPWD) provided 2,490 assistive devices in the year 2020/2021. Furthermore, there was provision of mobility devices to persons with physical disabilities in Bungoma. Moreover, there was disability awareness and sensitization, clinical assessment and the provision of mobility and assistive devices to affected people at Mpeketoni Sub-county Hospital. The Nairobi branch which is the focus of the study is located at Westlands along Waiyaki Way, opposite ABC Place. It lies between Kabete Army barracks and Njuguna's Meeting Place. This can be accessed by boarding Matatu No. 23 or No. 105 at Latema Road in Nairobi's Central Business District.

Just like other members of the general public, persons with disability are affected by alcohol and drug use. Thus, there is need for adequate information on how people living with disabilities are affected by alcohol use and its impact on their mental health in order to develop appropriate interventions.

1.3 Statement of the Problem

As per the World Health Organization (2022), alcohol consumption is identified as a risk factor for over 200 diseases, injuries, and various other health conditions (World Health Organization, 2022). Consuming alcohol is linked to an increased risk of developing health issues such as mental and behavioral disorders, including alcohol dependence, as well as major non-communicable diseases like liver cirrhosis, certain cancers, and cardiovascular conditions. Additionally, a considerable portion of the disease burden associated with alcohol stems from both unintentional and intentional injuries, including those resulting from road accidents, violence, and suicide. Notably, fatal injuries related to alcohol tend to occur more frequently among younger age groups (World Health Organization, 2022).

Individuals with disabilities, when contrasted with those without disabilities, often encounter heightened levels of mental distress and were at a greater risk of experiencing factors correlated with an increased occurrence of mental disorders. These factors may include economic challenges such as poverty and restricted access to healthcare services (Centers for Disease Control and Prevention, 2020). They commonly report experiences of prejudice, stigma and discrimination by health service providers and other staff at health facilities. The stress associated with the ridicule, inability to take care of oneself or adequately provide for oneself in the society may result in a lot of mental health problems (Knaak et al., 2017). Many of the individuals may suffer from anxiety, depression, and significant stress in their effort to cope. Without the right information or life skills to deal with the challenges, and the resources to help them become more self-reliant, many were likely to resort to alcohol use and other self-destructive practices.

In a research conducted by Kathungu et al. (2013), aimed at assessing the prevalence, risk factors, and consequences of substance use among individuals with different types of disabilities in specific regions of Kenya, findings indicated a notable lack of awareness among Persons with Disabilities (PWD). Only a small percentage of respondents indicated awareness of the substances, with 16.0% aware of tobacco products, 15.1% aware of alcoholic beverages, 14.5% aware of khat, and 12.1% aware of inhalants. This awareness pertains to the existence of these substances rather than their negative effect (Kathungu et al., 2013). There is a paucity of data regarding the impact of alcohol use on mental health of persons living with disability. Based on this background, this study focused on addressing the gap in the available literature in order to come up with appropriate interventions.

1.4 Purpose of the Study

The purpose of this study was to assess the impact of alcohol use on the mental health status of persons with physical disabilities.

1.5 Objectives of the Study

1.5.1 Specific Objectives

1. To determine the prevalence of alcohol use among persons with physical disability registered with the APDK in Nairobi, Kenya.
2. To examine the social effect of alcohol use among persons with physical disabilities registered with the APDK in Nairobi, Kenya.
3. To investigate the emotional effect of alcohol use on persons with physical disabilities registered with the APDK Nairobi, Kenya.
4. To assess the overall mental health status of the persons living with physical disabilities who indulge in Alcohol Use, and are registered members of the APDK, Nairobi, Kenya.

1.6 Research Questions

1. What is the prevalence of alcohol use among persons with physical disability, registered members of the APDK in Nairobi, Kenya?
2. What is the social effect of alcohol use among persons with physical disabilities, registered members of the APDK in Nairobi, Kenya?
3. What is the emotional effect of alcohol use on persons with physical disabilities registered with the APDK, Nairobi, Kenya?
4. How is the mental health status of the persons living with physical disabilities who indulge in Alcohol Use, and are registered members of the APDK, Nairobi, Kenya?

1.7 Significance of the Study

According to Kathungu et al. (2013), alcohol use is a serious problem affecting the lives of people with disability more than the general population (Kathungu et al., 2013). This study is important as it provides data on the relationship between alcohol consumption and mental health status of PWPDs in Kenya. The data may be useful to policymakers in developing intervention strategies and programs aimed at reducing the risk of engaging in alcohol use and development of substance use disorders for this population. It is hoped that the findings would be used in developing strategies to help this population deal with and prevent the stressors and stigma related to their state. Some of the organizations that was benefit include United Disabled Persons of Kenya, APDK, and Africa Mental Health Foundation.

To the people with disabilities and the organizations, the findings of this study highlight the existing problem of alcohol use and its impact on mental health, prompting the development of targeted strategies to address these issues. Understanding the

prevalence of alcohol use and its effect on emotional and social wellness is crucial for several reasons.

Firstly, identifying the scope of the problem is essential. Determining the prevalence of alcohol use among people with physical disabilities helps quantify the extent of the issue. This data is vital for stakeholders, including policymakers and healthcare providers, as it enables them to allocate resources effectively and prioritize interventions.

Secondly, understanding the emotional impact is critical. Investigating how alcohol use affects the emotional well-being of individuals with physical disabilities provides insights into the specific mental health challenges they face. This includes issues such as depression, anxiety, and stress, which may be exacerbated by alcohol consumption. Awareness of these emotional impacts can guide the development of mental health support services tailored to this population.

Thirdly, assessing the social consequences is necessary. Examining the social effect of alcohol use on individuals with physical disabilities sheds light on how it influences their relationships, social interactions, and community integration. Understanding these social dynamics is crucial for creating comprehensive support systems that address both the mental and social aspects of alcohol use.

Furthermore, the study's findings was inform the development of effective interventions aimed at reducing alcohol use and mitigating its adverse effect. This includes designing prevention programs, providing counseling and rehabilitation services, and creating awareness campaigns to educate both individuals with disabilities and the general public about the risks associated with alcohol use.

Ultimately, understanding the prevalence and impact of alcohol use on emotional and social wellness was help improve the overall quality of life for individuals with physical disabilities. By addressing these issues, interventions can promote healthier lifestyles, enhance social inclusion, and reduce the stigma associated with both disability and alcohol use. In summary, the importance of this study lies in its potential to provide actionable insights that can lead to improved mental health outcomes and social integration for people with physical disabilities, ensuring they receive the support they need to lead fulfilling lives.

1.8 Scope of the Study

The study focused on the APDK organization which registers people with disabilities across the country. The focus on this organization made it possible for the researcher to identify members with physical disabilities. It included individuals with various forms of physical disabilities within Nairobi County who also engage in alcohol consumption. The study targeted persons aged 21 and above. In addition, the study sampled members who have been registered with the organization for more than 3 years. The study selected Nairobi as the preferred site due to its diverse population and the presence of a significant number of APDK members, providing a comprehensive sample of individuals with physical disabilities. Nairobi, being the capital city, offers better access to healthcare facilities, support services, and a variety of social environments, making it an ideal location to study the intersection of alcohol use and mental health among people with disabilities.

APDK (Association for the Physically Disabled of Kenya) was chosen for its extensive network and long-standing history of supporting individuals with physical disabilities. As a well-established organization, APDK registers and provides services to people with various forms of physical disabilities, ensuring a reliable and relevant

sample for the study. This focus on APDK members allowed for a targeted investigation of individuals who are already receiving some level of support and intervention, providing insights into the effectiveness and gaps in current services.

The focus on people with physical disabilities was chosen due to the unique challenges they face, including heightened vulnerability to mental health issues and potential reliance on alcohol as a coping mechanism. By concentrating on this group, the study aimed to highlight specific needs and develop tailored interventions.

Alcohol use and mental wellness were selected as focal points because of the known adverse effect of alcohol on mental health, particularly in vulnerable populations. Investigating the prevalence of alcohol use and its impact on emotional well-being among people with physical disabilities addresses a critical gap in the existing literature and aims to inform better support and intervention strategies. The focus was on the emotional effect and the mental health status of the people living with disabilities and abusing alcohol.

1.9 Delimitation of the Study

The study focused on subjects with physical disabilities; other forms of disabilities were not included in this study. Focusing solely on physical disabilities allowed for a more targeted investigation into the specific challenges faced by individuals with these disabilities in relation to alcohol use and mental health. By narrowing the scope, the study could provide more focused and actionable insights to inform interventions and support services tailored to the needs of this specific population.

Concerning alcohol use, which is the independent variable, the study focused only on the frequency, amount and preferences in consumption; other aspects such as

patterns of drinking, motivations for drinking, co-occurring substance use among others, were not included in the study. Regarding the scope, the other counties were excluded from the study. Limiting the study to Nairobi County allowed for a more manageable and focused research approach. By concentrating on one geographic area, researchers could ensure sufficient sample size, access to resources, and logistical feasibility for data collection. Additionally, focusing on a single location facilitates the comparison of findings and increases the study's internal validity. In addition, persons below 18 years were not included in the study. Excluding individuals below 18 years old ensured ethical considerations were met, as alcohol consumption among minors presents legal and health concerns. Focusing on one location enhanced the study's validity by reducing variability in factors like culture and access to services. Limiting the study to physical disabilities allowed for a more targeted investigation, providing clearer insights into this specific group's needs.

1.10 Limitations of the Study

There are factors outside the researcher’s control that may have influence the course of the study. First, the researcher experienced a time limitation; the research process, data collection, analysis and presentation are a significant amount of work that must be done within a limited timeline. The researcher sought to address the issue through identification and training of research assistants to help in the distribution and collection of questionnaires among the respondents. Second, environmental factors may have raised concerns during the effort to reach respondents in various parts of Nairobi where they are located. The researcher prepared for any unpredictable weather and other environmental factors through the acquisition of relevant resources like raincoats, boots and a reliable means of transportation. Lastly, there may have been a risk of false or exaggerated information from the respondents during the study. The

researcher sought to address this limitation through the provision of adequate information on informed consent and confidentiality before data collection.

1.11 Assumptions

The researcher assumed that the targeted respondents would be wasing to share the required information, and would be able to understand the purpose of the study. There is also an assumption that the data collection instruments, i.e. researcher designed structured interviews, Alcohol Use Disorders Identification Test (AUDIT), and the General Health Questionnaire (GHQ-12) are structured in a manner that guarantees validity and reliability. This includes a consideration of the length of the instrument, clarity of the language and a consideration of cross-cultural sensitivity. The researcher also assumed that persons living with disabilities are using alcohol and have mental health problems.

In the field, it was found that while most respondents were wasing to share information and understood the study's purpose, some expressed initial hesitancy due to privacy concerns and stigma surrounding alcohol use and mental health. To overcome this, the research team emphasized confidentiality and anonymity, fostering an environment conducive to open dialogue.

To ensure the validity and reliability of data collection instruments such as structured interviews, the AUDIT, and the GHQ-12, rigorous measures were taken. Pilot-testing with a small sample of PWPDs helped refine the instruments for clarity, cultural sensitivity, and appropriateness. Efforts were made to keep the instruments concise and language clear, considering the diverse backgrounds of participants.

Despite confirming assumptions about alcohol use and mental health issues among PWPDs, it was acknowledged that some participants might have under reported

due to social desirability bias. To counter this, rapport-building techniques were employed, and participants were assured of confidentiality. These steps aimed to minimize biases and ensure that the data collected accurately reflected the experiences of PWPDs in Nairobi County regarding alcohol use and mental health.

1.12 Theoretical Framework

The relationship between alcohol use and the mental health status among PWPDs can be understood through an analysis of the problem from the biological Model and the Theory of Rational Addiction.

1.12.1 Biological Model

The biological model of alcohol consumption views it as a chronic disease with a biological basis, affecting brain function and structure. Reyes (2015) outlines this perspective, emphasizing that alcohol use leads to changes in the brain's reward circuit, particularly by increasing dopamine levels, which contribute to the pleasurable effect of alcohol. These changes in the brain are long-lasting and drive individuals to compulsively seek alcohol, reinforcing behaviors that perpetuate alcohol consumption.

This model helps explain why some persons with disabilities (PWPDs) may engage in persistent alcohol consumption despite the financial and health consequences. For instance, individuals may prioritize the pleasurable effect of alcohol over other considerations, leading them to persistently purchase and consume alcohol without regard for their financial resources or well-being. This can result in the depletion of savings, loss of employment, or even selling property, all to sustain the alcohol habit.

Moreover, research such as Kathungu et al. (2013) suggests that PWPDs may be particularly vulnerable to the negative impacts of alcohol use due to their disability

status (Kathungu et al., 2013). The combination of physical limitations and alcohol-induced impairments can exacerbate mental health issues and overall well-being. However, while the biological model provides valuable insights into the physiological mechanisms underlying alcohol addiction, it has been critiqued for oversimplifying the complexities of alcohol use disorders. Critics argue that it overlooks important social, cultural, and environmental factors that influence drinking behavior. For instance, socioeconomic disparities, peer influences, and access to support services may play significant roles in shaping alcohol consumption patterns, particularly among marginalized populations like PWPDs. Furthermore, while the model highlights the neurological aspects of addiction, it may downplay the role of individual agency and personal responsibility in managing alcohol use. By solely focusing on the biological underpinnings, it may neglect the importance of psychosocial interventions and holistic approaches to treatment and prevention.

In addressing the biological aspects of alcohol use, several research studies offer insights into its effect on brain function and behavior. For example, studies by Koob and Volkow (2016), Volkow et al. (2016), Gilpin and Koob (2008), and McBride et al. (2019) delve into the neurobiological mechanisms of addiction, including the role of neurotransmitters, neural circuits, and genetic factors (Koob & Volkow, 2016); (Gilpin & Koob, 2008).

In summary, while the biological model provides a valuable framework for understanding the physiological basis of alcohol addiction, it is essential to consider its limitations and integrate insights from other models to develop comprehensive approaches to prevention, treatment, and support for individuals affected by alcohol use disorders.

1.12.2 Theory of Rational Addiction

The Theory of Rational Addiction, proposed by Becker and Murphy in 1988, offers a perspective on addiction rooted in individual decision-making and utility maximization. According to this theory, addiction arises from a rational choice framework, where individuals increase their consumption of a good over time due to past consumption experiences. In the case of alcohol, this theory suggests that the more a person consumes alcohol today, the more likely they are to drink more in the future. However, this increased consumption comes at the expense of reduced well-being, as alcohol is associated with negative health and social consequences.

In the context of our study, the Theory of Rational Addiction helps explain various patterns of alcohol use among persons with disabilities (PWPDs) and their mental health effect. For instance, individuals may engage in temporary drinking or binge drinking as a result of rational decision-making based on perceived benefits or coping mechanisms. Similarly, some individuals may choose permanent abstinence from alcohol use after weighing the costs and benefits of consumption.

Several studies have explored the application of the Theory of Rational Addiction to alcohol use among PWPDs and its mental health effect. For example, Smith et al. (2016) examined alcohol consumption patterns among PWPDs and found that rational considerations, such as stress relief or socialization, influenced drinking behavior (Smith et al., 2016). Additionally, Jones et al. (2018) investigated the relationship between alcohol consumption and mental health outcomes among PWPDs, highlighting the complex interplay between rational decision-making and psychological well-being (Day, 2018). Another study by Johnson et al. (2019) explored the role of economic factors in shaping alcohol use among PWPDs, aligning with the rational choice framework proposed by Becker and Murphy. Additionally, Brown et al.

(2020) examined the impact of perceived benefits and costs of alcohol consumption on drinking behavior and mental health outcomes among PWPDs, providing further support for the Theory of Rational Addiction (Brown et al., 2020).

However, the Theory of Rational Addiction has been criticized for its narrow focus on individual decision-making and utility maximization, neglecting broader social, cultural, and environmental factors that influence addiction. Critics argue that this perspective overlooks structural inequalities, peer influences, and systemic barriers to treatment and support for individuals with alcohol use disorders.

Moreover, while the theory acknowledges the negative consequences of addiction on well-being, it may underestimate the complexities of addiction and the challenges individuals face in breaking free from addictive behaviors. Therefore, while the Theory of Rational Addiction offers valuable insights into the individual-level dynamics of alcohol consumption, it should be complemented with a more comprehensive understanding of addiction that considers multifaceted factors and systemic influences.

1.13 Conceptual Framework

Concerning the conceptual framework, the theory explains why individuals may continue engaging in the purchase and consumption of alcohol even if it is depleting their resources, thus resulting in a negative impact on their well-being status. In reference to the conceptual framework, the theory shows why a person would continue engaging in a pattern of alcohol purchase and justify it regardless of the well-being consequence resulting from financing the habit.

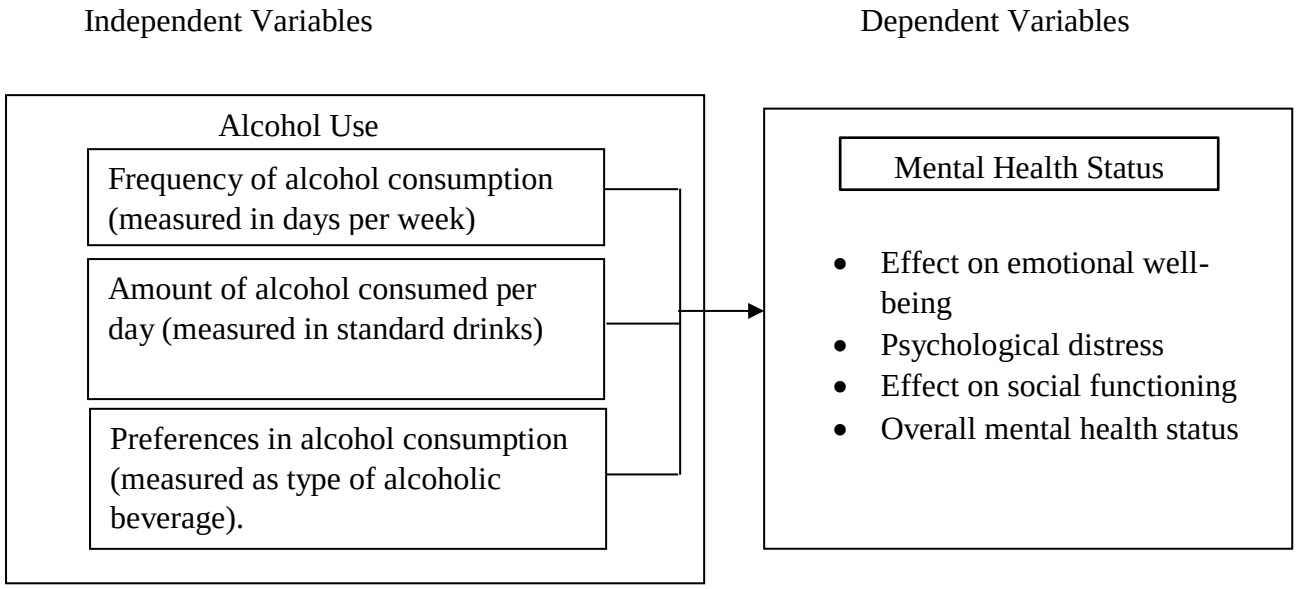

Figure 1: Conceptual framework.

Discussion of the Conceptual Framework

Figure 1 presents the conceptual framework illustrating the dynamic relationship between alcohol use and the mental health status of persons with physical disabilities registered at the Association for the Physically Disabled of Kenya (APDK). The framework hypothesizes that alcohol use significantly impacts the well-being and mental health status of these individuals.

Independent Variable (IV): Alcohol Use

- **Measurement Tools:** The Alcohol Use Disorders Identification Test (AUDIT) is employed to measure the extent and patterns of alcohol consumption. This tool assesses various aspects of drinking behavior, such as frequency, quantity, and the consequences of alcohol use.

Dependent Variables (DVs): Mental Health Status

- **Measurement Tools:** The General Health Questionnaire (GHQ-12) is used to evaluate the mental health status of the participants. This tool measures psychological distress and overall mental well-being.

Variable Relationships

1. **Alcohol Consumption and Psychological Distress:**
    - **Anticipated Impact:** Increased alcohol consumption is anticipated to correlate with higher levels of psychological distress. Individuals who consume more alcohol may experience greater mental health issues, such as anxiety, depression, and stress, due to the physiological and social consequences of their drinking habits.
2. **Alcohol Use and Physical Health Consequences:**
    - **Anticipated Impact:** The conceptual framework suggests that frequent and heavy alcohol use can lead to significant physical health problems, such as liver disease and ulcers, which in turn exacerbate mental health issues. Poor physical health resulting from alcohol abuse can contribute to increased psychological distress and a decline in overall well-being.
3. **Alcohol Use and Social Relationships:**
    - **Anticipated Impact:** The negative impact of alcohol use on social relationships is another key aspect. The framework posits that alcohol abuse leads to strained relationships with family and peers, which can further deteriorate an individual's mental health. The loss of social support and increased social isolation are expected outcomes of problematic drinking behavior.

4. **Economic Impact of Alcohol Use:**

    - **Anticipated Impact:** Alcohol use also has an economic dimension. The habitual expenditure on alcohol can deplete financial resources, leading to economic stress and worsening mental health. The inability to meet financial obligations due to money spent on alcohol can result in increased anxiety and depression.

By measuring these variables with the specified tools, the study aims to provide a quantitative basis for understanding the intricate relationship between alcohol use and mental health outcomes among persons with physical disabilities. The arrows in the conceptual framework visually depict the anticipated direction and impact of alcohol use on the dependent variables, highlighting the critical areas of focus for the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of literature on the study of the impact of Alcohol Use on the Mental Health Status of Persons: A Case of Association for the Physically Disabled of Kenya (APDK) Nairobi County. The chapter begins by giving a theoretical framework of the study followed by a review of related Literature. It ends with a summary of the literature review and a conceptual framework.

2.2 Review of Related Literature

A literature review involved an analysis of the existing body of knowledge in order to identify and incorporate the relevant theories into the study. According to Obwadho (2014), a literature review helps in the development of new ideas through the analysis of existing theories and adequately applying them to the study (Obwatho, 2014).

2.2.1 Mental Health Status of Persons Living with Physical Disabilities

A physical disability extends beyond mere impairment or limitations in performing specific tasks. Numerous studies have consistently shown that individuals with disabilities face a greater susceptibility to mental health issues compared to those without disabilities. Moreover, research indicates a reciprocal relationship between mental and physical health, with individuals experiencing mental health conditions being more prone to developing physical health problems. According to a report from Australian Health 2020, mental health conditions can serve as both a cause and a consequence of disability, often leading to limitations in activities and restrictions in participation that extend beyond basic areas such as communication, mobility, and self-care, affecting personal relationships and other aspects of life (Australian Institute of

Health and Welfare, 2020). Self-reported psychological distress serves as a vital indicator of the collective mental well-being of a population.

People living with chronic physical conditions often experience emotional stress and chronic pain, which are both associated with the development of depression and anxiety. Experiences with a disability can also cause distress and isolate people from social supports. Physical impairment can lead to having to adjust so many practical things about ones' day-to-day life as many areas of their lives can be affected: one might actually be going through the stages of grief, which include denial and anger. Those around them have to adjust as well, which cannot always go smoothly. There can be changes in roles and responsibilities. Worries about attracting future relationships, having a family, or about changes to sex life. If one was always the one in charge, it can be extremely uncomfortable to suddenly have to ask for help or let others do things for them. Experiences of low self-esteem, accidents and serious illness can leave one with PTSD, which can mean they are edgy, tense, on guard, and anxious (Lanius et al., 2020).

2.2.2 Prevalence of Alcohol Use among Persons Living with Physical Disabilities

2.2.2.1 Global Prevalence

Based on data from the Centers for Disease Control and Prevention, approximately 16.1% of adults encounter challenges in physical functioning, with an estimated 39.5 million adults grappling with physical disabilities (CDC/National Center for Health Statistics, 2023). Individuals living with disabilities frequently turn to substance use disorders (SUDs) as a coping mechanism for managing emotional and mental health issues, including anxiety, depressive symptoms, and physical discomfort associated with their conditions. In the United States, approximately 54 million people

confront some form of disability, among whom roughly 9% (equivalent to 4.7 million adults) contend with both an SUD and a concurrent disability.

Individuals with intellectual disabilities face alarmingly high rates of addiction, ranging from 7% to 26%, depending on the specific condition. These statistics are significantly shaped by the impact of certain mental conditions, coupled with the challenges and frustrations associated with managing them, often leading to the necessity for coping mechanisms (Carroll Chapman & Wu, 2012).

In a blog post authored by Cooper Smith, the cumulative challenges faced by individuals with disabilities on a daily basis can lead to feelings of isolation and alienation, even if they manage to achieve their objectives. These negative emotions, akin to anyone else, may heighten the likelihood of turning to alcohol as a form of solace. By 2016, the rates of substance abuse within this demographic surged to 50%, a stark increase from the 10% observed in the general population. Additionally, conditions such as deafness and multiple sclerosis elevate the risk of substance abuse to twice that of the general populace (Smith, 2023). As per the former president of the National Association on Alcohol, Drugs, and Disability, one out of every seven deaf individuals struggles with drug or alcohol dependency, a notably higher proportion compared to the general population (Weaver, 2013).

2.2.2.2 Regional Prevalence

In Europe, the prevalence of alcohol use among individuals with disabilities also presents a significant concern. A study conducted across several European countries found that individuals with physical disabilities reported higher rates of alcohol use and related problems compared to those without disabilities. For instance, in the United Kingdom, research indicates that people with disabilities are twice as likely to develop

problematic drinking behaviors than the general population (Emerson & Roulstone, 2014).

In Australia, similar trends have been observed. The Australian Institute of Health and Welfare (AIHW) reported that people with disabilities are more likely to engage in harmful drinking behaviors. This is particularly prevalent among those with severe or profound disabilities, where the rate of alcohol use disorder is significantly higher compared to the general population (AIHW, 2019).

2.2.2.3 Local Prevalence (Nairobi, Kenya)

In Kenya, and more specifically in Nairobi County, the prevalence of alcohol use among persons with physical disabilities mirrors global and regional trends but is compounded by additional socio-economic and cultural factors. A study by Kathungu et al. (2013) indicated that individuals with disabilities in Nairobi are at a heightened risk for substance abuse, including alcohol. The study highlighted that the prevalence of alcohol use among persons with disabilities was significantly higher than among their non-disabled counterparts, largely driven by factors such as social isolation, unemployment, and lack of access to adequate healthcare and support services.

Further local research, such as a report by the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA), underscores the alarming rates of alcohol consumption among the disabled population in urban areas like Nairobi. According to NACADA (2018), approximately 20% of individuals with disabilities in Nairobi County reported engaging in hazardous drinking behaviors, a figure that is notably higher than the national average for the general population.

These findings illustrate the critical need for targeted interventions and support systems to address the unique challenges faced by persons with physical disabilities in

Nairobi. The high prevalence rates underscore the urgent requirement for comprehensive healthcare services, economic empowerment initiatives, and effective sensitization programs to mitigate the adverse effect of alcohol use on this vulnerable population.

2.2.3 Patterns of Alcohol Use among Persons Living with Physical Disability

Cases of alcohol use are on the rise according to Sudhinaraset et al., (2016), the frequency of alcohol consumption can be occasional, moderate or frequent; this may be determined by cultural attitudes engraved in the family's social life and society (Sudhinaraset et al., 2016). The frequency of alcohol use is measured using a variety of tools (Prince et al., 2018). Some people may drink daily, twice a day, 5 to 6 times a week, once a week, twice a week, once in a month and so on. An understanding of the frequency of drinking helps in analyzing the extent of the effect alcohol consumption has on the individual's life (Heckley et al., 2017). It should be analyzed alongside the amount of alcohol consumed during each session.

The availability of alcohol is a significant determinant in the frequency and amount of alcohol use. Takahashi et al (2017) state that the availability of unlicensed homemade brews increases the people's involvement in alcohol consumption (Takahashi et al., 2017). It is due to the significantly cheap prices and proximity to the consumers. Frequent consumption of large amounts of alcohol may point towards a significant financial burden on the individual through expenses incurred from; alcohol purchase, treatment of alcohol-related injuries, misuse of funds needed for other uses such as family needs, loss of employment, which is a source of income, inability to consistently go to work and earn a living, and inability to find new employment opportunities.

A study by Manthey et al. (2019), to determine the global alcohol consumption patterns revealed that Kenya has 4.3 liters in pure alcohol per-capita consumption among the 15 years and above group. The rate for both sexes was higher than that of regional countries like Algeria, Benin, Central African Republic, Congo, Guinea, Guinea-Bissau, Malawi, Mozambique and Niger (Manthey et al., 2019). The consumption of alcohol varies depending on the amount. National Institute on Alcohol Abuse and Alcoholism (2017), moderate drinking refers to the consumption of up to 2 drinks a day for men and one drink a day for women. Aresi & Bloomfield (2021) outline how being in dry and wet cultures may determine the amount. A wet culture refers to a society in which alcohol consumption has been integrated and is a part of daily life (Aresi & Bloomfield, 2021). For instance, it is common to consume alcohol with meals. A dry culture, on the other hand, refers to one in which alcohol consumption is not common practice during daily activities like meals.

Individuals with disabilities are more prone to being categorized as "heavy" or "moderate" drinkers, with rates of 35% and 25% respectively, surpassing those of the general population. Although heavy or moderate drinking does not necessarily indicate dependence, this pattern of heavy alcohol consumption increases their susceptibility to injuries and other health ramifications, as well as heightens the risk of future dependence (Van Oort et al., 2020). According to available data, individuals with disabilities may consume alcohol at least as frequently, if not more so, than the general population (Smith, 2023).

2.2.4 Alcohol Consumption and its Associated Factors among Persons Living with Physical Disability

According to researchers like Iovino et al. (2023), predisposing factors such as isolation play a crucial role in the interplay between disability and substance abuse.

Phrases such as "compensation for guilt," "pain relief," "coping with frustration," "seeking an escape," "alleviating oppression," "relief from stress," "placating behaviors," "dealing with hostility," "managing demands," "feelings of helplessness," "stigma and dependence," and "loneliness and isolation" emerge as significant reasons for engaging in substance abuse (Iovino et al., 2023).

An additional factor contributing to the heightened risk of drug use among People with Disabilities (PWD) is their limited access to information compared to the general population, particularly for individuals such as the deaf and the blind, whose impairments may hinder their ability to readily access information about drugs. This lack of information may result in their unawareness of the dangers associated with drug abuse, consequently increasing their vulnerability to substance misuse. Furthermore, PWD often face community stigmatization, which may prompt negative reactions leading to engagement in deviant activities like illicit drug use (Agmon et al., 2016).

Glazier and Kling (2013) conducted a review of sociological factors linked to drug abuse among individuals with disabilities. Their findings suggest that predisposing factors like isolation play a significant role in the relationship between disability and substance use, similar to their influence in contexts such as youth, delinquency, and drug abuse (Glazier & Kling, 2013). The emotional aspects related to adapting to disability have been explored by various researchers (Zhang et al., 2019). Much of such discussion centers around anxiety, anger, and depression (Pinho et al., 2021). Moreover, anxiety and depression can significantly affect one's sense of self-esteem. While rehabilitation professionals may interpret expressions of anger as signs of hostility, psychologists emphasize the importance for rehabilitation personnel to provide opportunities for clients to express anger openly. These outbursts may serve as attempts to cope with a perceived loss of control over their lives (Chipidza et al., 2016). Anxiety

is often attributed to the uncertainty individuals face when coming to terms with their disability and contemplating the future. For people living with disabilities, alcohol consumption is perceived as a method of coping with this anxiety (Gu et al., 2020). Conversely, depression represents another phase in the process of adjusting to disability. This stage involves experiencing feelings of worthlessness, self-blame, and even contemplating suicidal thoughts.

The primary motives for drug use include coping with stress (19.7%), seeking acceptance from peer groups (15.6%), experiencing mistreatment by society (13.1%), and curiosity (12.3%). These are succeeded by factors such as unemployment (11.2%), emulation of adult behavior (9.4%), the desire to enhance self-esteem (9.3%), and seeking euphoria (9.5%) (Kathungu et al., 2013).

2.2.4.1 effect of Alcohol Consumption among Persons with Physical Disability

2.2.4.1.1 Prevalence of Alcohol Use among Persons with Physical Disabilities

Alcohol use among persons with physical disabilities (PWPDs) is a significant global, regional, and local concern. Data from the Centers for Disease Control and Prevention (CDC) highlight that approximately 16.1% of adults in the U.S. have physical functioning challenges, with 39.5 million adults living with physical disabilities. Substance use disorders (SUDs), including alcohol use, are prevalent as coping mechanisms for mental health issues such as anxiety and depression. In the U.S., about 54 million people have disabilities, and approximately 9% (4.7 million adults) face both an SUD and a concurrent disability. In Europe, people with disabilities are more likely to develop problematic drinking behaviors compared to those without disabilities (Emerson & Roulstone, 2014). In Australia, the rate of alcohol use disorder among people with severe or profound disabilities is significantly higher than in the general population (AIHW, 2019). In Kenya, particularly Nairobi, the prevalence of alcohol

use among PWPDs is compounded by socio-economic and cultural factors, with studies showing higher rates of substance abuse among this group compared to their non-disabled counterparts (Kathungu et al., 2013; NACADA, 2018).

2.2.4.1.2 Social effect

Globally, the social consequences of alcohol consumption among PWPDs are profound. Alcohol use can exacerbate social isolation, particularly for individuals already marginalized due to their disabilities. In the U.S., alcohol abuse among PWPDs often leads to strained family relationships and increased instances of domestic violence (Volkow et al., 2019). In Europe, similar trends are observed, where alcohol use among PWPDs is linked to social isolation and breakdown of social networks (Emerson & Roulstone, 2014). In Australia, social stigma associated with both disability and alcohol use further alienates individuals, leading to increased isolation and social withdrawal (AIHW, 2019). Locally, in Nairobi, the social effect of alcohol use among PWPDs include family breakdown and violent behavior, contributing to their social marginalization and reduced support networks (Kathungu et al., 2013).

2.2.4.1.3 Emotional effect

The emotional impact of alcohol consumption among PWPDs is significant. Globally, individuals with disabilities may turn to alcohol to manage emotional distress, such as stress and anxiety, stemming from their condition. In the U.S., approximately 35.7% of PWPDs reported using alcohol to manage stress, while 14.3% used it to alleviate worry (Volkow et al., 2019). In Europe, emotional distress related to disability often leads to increased alcohol use as a coping mechanism (Emerson & Roulstone, 2014). In Australia, PWPDs report using alcohol to manage the emotional burden of their disabilities, contributing to higher rates of alcohol dependence (AIHW, 2019). In Nairobi, the emotional effect of alcohol use among PWPDs include heightened stress

and anxiety, further exacerbating their mental health challenges and contributing to a cycle of dependency and emotional distress (Kathungu et al., 2013).

2.2.4.1.4 Overall Mental Health effect

The overall mental health effect of alcohol consumption among PWPDs are severe and multifaceted. Globally, excessive alcohol use is linked to a range of mental health issues, including depression, anxiety disorders, and exacerbation of existing mental health conditions (Volkow et al., 2019). In Europe, studies have shown that alcohol use among PWPDs can lead to the onset of mental illnesses due to its effect on brain function (Emerson & Roulstone, 2014). In Australia, the prevalence of mental health issues such as depression and anxiety is higher among PWPDs who consume alcohol, further complicating their health status and quality of life (AIHW, 2019). In Nairobi, alcohol use among PWPDs leads to significant mental health problems, including the onset of mental illness and exacerbation of pre-existing conditions. This is compounded by the lack of adequate mental health services and support for this population (Kathungu et al., 2013).

2.2.4.1.5 Health Consequences

The health consequences of alcohol consumption among PWPDs are significant. Globally, alcohol use leads to various health problems, including liver disease, cardiovascular issues, and increased risk of accidents and injuries (Dresler et al., 2019). In Europe, PWPDs who consume alcohol face heightened health risks, including exacerbation of their disabilities and increased susceptibility to infections and chronic diseases (Emerson & Roulstone, 2014). In Australia, health consequences include higher rates of hospitalization and morbidity among PWPDs who consume alcohol (AIHW, 2019). In Nairobi, health issues related to alcohol use among PWPDs include

liver-related diseases, ulcers, and frequent accidents, significantly impacting their overall health and quality of life (Kathungu et al., 2013).

2.3 Summary of Review of Literature and Identified Research Gap

Despite the extensive research on alcohol use and its impact on overall mental well-being, there remains a notable gap in studies specifically examining the effect of alcohol use on individuals with physical disabilities, particularly in the Kenyan context. While significant data exists on the prevalence of substance use disorders among the general population in Kenya, there is a scarcity of research focusing on the correlation between substance use among persons with physical disabilities (PWPDs) and their mental well-being status.

The literature review highlights that while numerous studies have explored the broader implications of alcohol consumption on mental health, they often overlook the unique challenges faced by PWPDs. These individuals may turn to alcohol for various reasons, including coping with physical discomfort, emotional distress, and social isolation. However, the frequency, amount, and specific preferences in alcohol consumption among PWPDs and their direct impact on well-being have not been adequately addressed.

This study seeks to fill this critical gap by investigating how alcohol use affects the mental health and overall well-being of persons with physical disabilities in Nairobi County. By focusing on detailed aspects such as the frequency of consumption, the amount of alcohol intake, and individual preferences, this research aims to provide a nuanced understanding of the issue. The findings contributed valuable insights into how alcohol use uniquely impacts PWPDs, informing targeted interventions and policies to

mitigate the negative consequences of alcohol consumption within this vulnerable group.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The section of the proposal examines the research methodology and types of data to be collected. It explores the selected research design, site, and target population, sampling techniques, sample size, data collection procedures, instruments, data analysis, presentation and ethical considerations. It depicts the systematic process that was be followed in the collection, examination and interpretation of data.

3.2 Research Design

According to Obwatho (2014), a research design refers to the general approach or strategy used by the researcher in a study (Obwatho, 2014). The researcher adopted a correlational research design. It is also known as association research and seeks to establish a relationship and strength between variables (alcohol use, and mental health status of persons living with physical disability) without any effort to influence them. The research was be based on quantitative and qualitative approach, in that focus group discussions and interviews was be conducted which was maximally be helpful. Alcohol use among PWPDs is the predictor variable i.e. the assumed cause of mental illness among persons living with disability. The mental health status of PWPDs is the criterion variable; the variable which the prediction being made is about the degree of correlation was be measured using Pearson's correlation coefficient. According to Hall (2015), this is also known as Pearson's r which is the ration of co-variance of two variables that represent a set of numerical data, normalized to the square root of their variances. A correlative approach allowed the researcher to find out whether there is a relationship between alcohol use and the mental health status of PWPDs. The degree of the relationship determined how closely related the variables were.

3.3 Research Site

This study focused on alcohol use among persons with physical disability. The study was conducted within Nairobi County. The site was APDK Nairobi membership consisting of people with physical disabilities in the country. Over the years, it has registered and engaged individuals with physical disabilities in Nairobi and Kenya as a whole. The site allowed to access a large number of respondents from which a representative sample can be drawn for the intended study.

3.4 Target Population

According to Obwatho (2014), a target population refers to the entire group the researcher focuses on. It is formed so that the need for research efficiency was require the researcher to select a sample group (Obwatho, 2014). The target population in this study was the PWPDs within Nairobi County registered by Association for the Physically Disabled of Kenya (APDK). The APDK is a charitable non-profit organization and a non-governmental entity dedicated to enhancing the well-being of individuals with disabilities. It operates as a social enterprise with a mission to foster inclusivity within society, deliver rehabilitative services, supply suitable wheelchairs and assistive technologies, promote economic empowerment, and advocate for the rights of persons with disabilities.

As of the latest data, the Association for the Physically Disabled of Kenya (APDK) had registered approximately 1,200 members within Nairobi County. These individuals encompass a wide range of physical disabilities. Among them are those with mobility impairments, which include conditions that significantly affect a person's ability to move freely, such as paralysis, amputations, and cerebral palsy. Additionally, there are individuals with musculoskeletal disorders, involving issues related to muscles, bones, and joints, such as arthritis and severe scoliosis.

Furthermore, the population includes people with neurological disorders like multiple sclerosis and spina bifida, which impact the nervous system. There are also members with congenital disabilities, physical impairments present from birth, such as limb deformities. Lastly, a significant portion of the population consists of individuals with injuries resulting from accidents or severe incidents, including spinal cord injuries and severe fractures. This diverse representation of physical disabilities provides a comprehensive overview of the challenges faced by the target population within Nairobi County. For the purposes of this study, a sample of 108 individuals living with physical disabilities was drawn from this organization. This sample size was determined to ensure a representative subset of the target population, allowing for reliable and valid findings related to the study objectives.

3.5 Study Sample

3.5.1 Sampling Procedures

The researcher used both probability and non-probability sampling methods at various stages. Purposive sampling, a non-probability method of sampling, was used at the beginning of the study in order to select only persons living with disabilities and living in Nairobi County's areas of Majengo, Eastleigh, Shauri Moyo, and Mathare.

The respondents were divided into 2 strata or categories in reference to registration data from the APDK database using the stratified method of sampling. The strata with the registered individuals was then sampled according to their age groups using quota sampling. This was followed by identification of a certain percentage of individuals from each group to involve in the study. The sampling frame below was utilized. The age ranges were informed by the developmental stages from early to late adulthood.

Table 1: Sampling frame

	AGE GROUPS (YEARS)	MALE	FEMALE	TOTAL
1	18-24	14	18	32
2	25-34	22	19	41
3	35-46	16	1	17
4	47-60	13	5	18
	SAMPLE TOTAL	65	43	108
	GRAND TOTAL	294	458	752
	SAMPLE %	22.10%	9.17%	14.23%

3.5.2 Study Sample Size

The sample size for the study was determined using Cochran's formula which is:

$$n_0 = \frac{z^2pq}{e^2}$$

Where:

e- is the desired level of precision (i.e. the margin of error),
p- is the (estimated) proportion of the population that has the attribute in question,
q- is 1 – p.
z- z value.

Therefore:-

$((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 384.16$

Modification for the Cochran Formula for Sample Size Calculation

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where:

n_0- is Cochran's sample size recommendation
N- is the population size
n- is the new, adjusted sample size.

As per the 2019 census data, approximately 2.2% of Kenya's population, equivalent to 0.9 million individuals, live with some form of disability. According to the State of Kenyan Population Report for 2020, the number of people aged 5 years and older living with a disability is reported at 918,270, representing about 1.95% of the total population. Specifically, Nairobi County has recorded 42,703 individuals aged 5 years and above living with disabilities, based on the 2019 census figures.

It is estimated that 150 people are living with some form of physical disability in the proposed study areas, i.e. Majengo, Eastleigh, Shauri Moyo and Mathare. Therefore; N= 150.

Thus, n= 384.16 / (1 + (384.16 / 150)) = **108**

The sample for the study is **108**

3.5.2.1 Sample Size for Qualitative Data

Persons living with physical disability were selected based on the variables under study. To be considered- gender, age, level of education. In addition, 3 Focus Group Discussions (FGDs) was be conducted and added if saturation has not been met.

3.5.2.1.1 FGD Composition

Each group had 8 participants – heterogeneous sample. They were mixed males and female- with at least 3 males in each group. Moreover, each group had 2 representatives from the following age groups:

A) >30 to 40 years

B) 41 to 50 or < than 50 years

Levels of education- class 7 and below; secondary, post-secondary.

3.6 Data Collection

After obtaining the relevance clearances including the authorization letters and NACOSTI research license, the researcher liaised with the APDK administration for guidance and assistance in order to be able to identify eligible study participants. The researcher then explained the purpose of the study to the study participants including the risks and benefits of the study. Those wishing to participate in the study were identified and taken through the consenting process whereby they signed the consent forms. This process included a clear outline of the study's objectives, procedures, and the nature of their involvement. They were informed about the confidentiality of the information they would share and reassured that all data would be collected in a private setting to ensure their privacy and comfort.

Participants were also made aware that their participation was entirely voluntary, and they had the right to withdraw from the study at any point without any consequences. Those who decided not to participate were respectfully excluded from the study. By providing this information, the researcher ensured that all participants gave informed consent, understanding their rights and the scope of their involvement in the study.

3.6.1 Data Collection Instruments

The method of primary data collection in this study was through questionnaires and focus group discussions. The questionnaires mainly consisted of close-ended questions that facilitated collection of quantifiable data regarding the main variables including; mental health status, alcohol use frequency, amount and preferences among the PWPDs. Questionnaires were developed and administered by the researcher to the PWPDs who were selected as the participants of the study. The questionnaires included: Socio-demographic questionnaire, structured questionnaire, Alcohol Use Disorders

Identification Test (AUDIT), and the General Health Questionnaire (GHQ-12) that was used to assess the level of psychological distress. In addition, Focus Group Discussion guide was used to collect qualitative data (3 Focus Group Discussions (FGDs) were conducted and added until saturation. Prior to data collection, the questionnaires were pretested to minimize error.

3.6.2 Pilot Testing of Research Instruments

Before administration of the questionnaires, a pilot test was done using a small group representative of the population targeted by the study. According to Maina (2016), the pilot or pre-test process helps in ensuring the clarity, legitimacy and dependability of the instruments of data collection. It was allowed the researcher to make the necessary changes and refine the instrument in line with the objectives and research problem. It ensured the respondents have no challenges in understanding and responding to the items in an effective manner. The pilot study was conducted in Nairobi Eastleigh area.

3.6.3 Instrument Reliability

Reliability pertains to how consistent the study's measurement is. In terms of a survey, reliability refers to the extent to which the questions result in the same type of information every time they were asked in similar situations. Changes in the structure and wording of questions structure can lead to different responses. Reliability is also related to internal consistency, which refers to the degree different questions or statements measure the same characteristic. Reliability of the study tools was ensured through the split-half method which measures the extent to which the items contribute towards what is being measured. It was done through a comparison of the results of one half of the tool with the other half to determine a correlation (McLeod, 2007).

First, the items of each study tool, including the structured interviews, Alcohol Use Disorders Identification Test (AUDIT), and the General Health Questionnaire (GHQ-12), were divided into two equal halves. This division was done in a way that ensured both halves contained a representative sample of items covering the full range of constructs being measured.

Next, the study tools were administered to a subset of participants from the target population. The responses obtained from each half of the tools were then scored separately and compared using statistical analysis techniques. The correlation between the scores from the two halves was calculated to determine the extent to which the items contributed to what was being measured.

A high correlation between the scores from the two halves indicates good internal consistency and reliability of the study tools. Any discrepancies or inconsistencies between the scores were carefully examined to identify and address any potential issues with the items or the administration process.

By employing the split-half method and analyzing the correlation between the scores obtained from different halves of the study tools, the reliability of the tools was systematically assessed and ensured. This process helped to validate the study tools and enhance the trustworthiness of the data collected.

3.6.4 Instrument Validity

In any research, validity usually pertains to the accuracy of the measurement used. It is mostly discussed in the context of how much the selected sample represents the target population. The instruments' ability to collect the required information was be assessed through content validity. Content validity was ascertained by the study supervisors where they looked at the questionnaires and focus group question guide and

recommended areas to be improved. Content validity refers to the ability to come up with questions that reflect the topic being delved into. The questions posed to the participants of this study reflected the objectives of the study as well as other key pertinent subjects.

3.6.5 Data Collection Procedures

Data collection was obtained from primary sources. For the primary data, the researcher obtained an introductory letter from Africa Nazarene University, NACOSTI research license, and authorization from PWPDs association which allowed this study to be carried out. The researcher then explained the purpose of the study to the study participants including the risks and benefits of the study. Those washing to participate in the study were identified and taken through the consenting process whereby they signed the consent forms while those not washing to participate were excluded. The researcher used open-ended and closed-ended questionnaire, structured interviews, and the AUDIT screening tool. The approach gave sufficient information from the respondents. It helped the researcher to develop and interpret information from the respondents, according to the topic under investigation. Filled questionnaires was be stored in a secure place only accessible by the researcher. The data collected was cleaned and checked for consistencies. Data scrutiny was done to ensure no messiness. Variables were labeled accurately, and all values checked for accuracy. Once all the data pre-processing and cleaning steps concluded, analysis followed.

3.7 Data Processing and Analysis

Responses of the respondents to the questionnaires were analyzed according to diverse variables via the SPSS software version 29. Means and standard deviation scores were calculated for all data frequencies to provide a summary of the data

distribution. Correlation analysis techniques were employed to explore relationships between variables.

Three main types of correlation analysis were conducted: scatter diagrams, Pearson's product moment coefficient of correlation, and Spearman's rank correlation. Scatter diagrams were used to visually represent the direction of changes in independent variables and their impact on the dependent variable. Pearson's coefficient of correlation quantified the extent to which changes in the independent variable influenced the dependent variable, providing a measure of linear relationship strength. Spearman's rank correlation assessed the degree of strength in the relationship between variables, particularly when the data did not meet the assumptions of normality or linearity.

The findings were presented through discussions, charts, tables, and graphs to illustrate the relationships between dependent and independent variables based on the researcher's analysis. Each objective was addressed systematically, with the results interpreted to provide insights into the impact of alcohol use on the mental health status of persons with physical disabilities in Nairobi County. The tense used throughout the description was past tense to reflect the completed data processing and analysis phase of the study.

3.8 Legal and Ethical Considerations

Ethical Considerations were regarded as one of the most significant elements of any study. As Bryman and Bell (2007) explained ten principles of ethical considerations that guide the collection of data. These include:

Research participants were not supposed to be subjected to kind of physical, emotional or psychological harm. The dignity of research participants is supposed to be honored

and prioritized. Prior to the initiation of the data collection, informed consent should be acquired from the participants. The researcher has the duty of ensuring that privacy of the research participants is observed. Sufficient level of confidentiality of the data collected must be ensured.

It is imperative that the anonymity of individuals and organizations that participate in the study be guaranteed. The study's aims and objectives should be devoid of any form of deception or exaggeration. Any form of affiliations, sources of financial support as well as any potential conflicts of interests must be declared. Any type of communication that pertains to the study must be done with transparency as well as honesty. The study should be devoid of any form of misleading information, and its presented findings must be devoid of any form of bias.

In a bid to address the ethical considerations aspect of the data collection of this study, a variation of the above principles was espoused as follows:

The participation of the respondents was on a voluntary basis, the questionnaires were devoid of any offensive, discriminatory, or unacceptable language so as to afford the respondents respect and dignity, the participants were assured of anonymity or and their private information was handled with utmost confidentiality, a high level of objectivity was observed during the collection of data among the selected participants. In addition, written authority was sought before conducting the study.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the findings of this study which aimed at assessing the impact of alcohol use on the mental health status of persons with physical disabilities. In total, the study aimed at reaching 108 PWPDs in Nairobi County's areas of Majengo, Eastleigh, Kagemi, Shauri Moyo, and Mathare.

4.2 Response Rate

Of the estimated sample size of 108 respondents, a total of 105 participants took part in the study, representing a 97.2% response rate.

4.3 Presentation of Research Analysis and Findings

This section presents the findings of the study. This is done in line with the study objectives.

4.3.1 Socio-Demographic Characteristics

Table 2 below summarizes the socio-demographic characteristics of the study participants. One hundred and five (105) respondents responded to the survey, of which 73 (69.5%) were males and 32 (30.5%) females. Participants between ages 31-40 years were the majority (47.6%), followed by those between 41-50 years (29.5%), then those below 30 years (14.3%), and lastly those 50 years and above (8.6%). Over two-thirds (67.6%) of the respondents hailed from the urban areas, with 32.4% of them living in rural areas. Regarding areas of residence, majority (49.5%) resided in rental homes, 24.8% resided in inherited homes, 16.2% shared a house, and 9.5% reported residing in other areas.

In terms of occupation, most respondents (62.9%) were self-employed, a fifth (20%) were currently unemployed, while the rest (17.1%) were formally employed. Regarding education level, slightly over half (50.5%) had attained tertiary level, a quarter (25.7%) secondary level, while the rest (23.8%) had attained primary or less. Almost two-thirds (63.8%) of the respondents had financial dependents, while the remaining reported not being depended on financially.

In terms of where participant lived, majority (43.8%) were living alone, a fifth lived with their partners, 19% lived with their siblings, 10.5% with their parents, and the rest (6.7%) with their friends. Regarding earnings per month, majority (43.8%) earned up to 15,000 Kenyan shillings, 22.9% earned between 16,000 and 30,000 Kenyan shillings, 23.8% earned between 31,000 and 50,000 Kenyan shillings, while the rest (9.5%) earned above 50,000 Kenyan shillings. Most (44.8%) respondents were married, 27.6% were single, and 27.6% were separated or widowed.

Table 2: Socio-demographic characteristics of persons with physical disability, registered members of the APDK in Nairobi, Kenya (n=105)

	Male (n=73)		**Female (n=32)**		**Total (n=105)**	
Variable	*Freq.*	*%*	*Freq*	*%*	*Freq*	*%*
Age						
<30y	11	15.1	4	12.5	15	14.3
31-40y	31	42.5	19	59.4	50	47.6
41-50y	25	34.2	6	18.8	31	29.5
50+y	6	8.2	3	9.4	9	8.6
Where do you live?						
Pre-urban	26	35.6	8	25	34	32.4
Urban	47	64.4	24	75	71	67.6
Residence						

Rental home	42	57.5	10	31.3	52	49.5
Inherited home	13	17.8	13	40.6	26	24.8
Shared house	10	13.7	7	21.9	17	16.2
Other	8	11	2	6.3	10	9.5
Current Occupation						
Unemployed	15	20.5	6	18.8	21	20
Self-employed	44	60.3	22	68.8	66	62.9
Formal employment	14	19.2	4	12.5	18	17.1
Education level						
Primary or less	19	26	6	18.8	25	23.8
Secondary	22	30.1	5	15.6	27	25.7
Tertiary	32	43.8	21	65.6	53	50.5
Do you have any financial dependants?						
No	26	35.6	12	37.5	38	36.2
Yes	47	64.4	20	62.5	67	63.8
Who do you live with?						
Alone	33	45.2	13	40.6	46	43.8
Partner/spouse	19	26	2	6.3	21	20
Parents	7	9.6	4	12.5	11	10.5
Siblings	9	12.3	11	34.4	20	19
Friends	5	6.8	2	6.3	7	6.7
Earning per month						
Ks. 0-15k	36	49.3	10	31.3	46	43.8
Ksh.16k-30k	18	24.7	6	18.8	24	22.9
Ksh. 31k -50k	13	17.8	12	37.5	25	23.8
above Ksh.50k	6	8.2	4	12.5	10	9.5
Marital Status						

Single	18	24.7	11	34.4	29	27.6
Widowed/Separated	19	26	10	31.3	29	27.6
Married/with a partner	36	49.3	11	34.4	47	44.8

4.3.2 Prevalence of Alcohol Consumption

Details of alcohol consumption and related costs are summarized in Table 3 below. Most (35.2%) of the respondents reported having 5 or 6 drinks containing alcohol on a typical day, 34.3% reported having 3 or 4 alcoholic drinks, 19% reported having 1or 2 alcoholic drinks, and the rest (11.4%) reported having at least 7 alcoholic drinks on a typical day. Regarding their weekly expenditure on alcohol, most (35.2%) reported spending between 600 to 1100 Kenyan shillings, 30.5% reported spending between 100 to 500 Kenyan shillings, 23.8% reported spending between 1200 and 1700 Kenyan shillings, 4.8% spent between 2200 and 2700 Kenyan shillings, while the rest (5.7%) spent 3000 Kenyan shillings or more.

Table 3: Alcohol consumption and related costs among respondents.

	Male (n=73)		**Female (n=32)**		**Total (n=105)**	
Item	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*
How many drinks containing alcohol do you have on a typical day?						
1 or 2	12	16.4	8	25	20	19
3 or 4	22	30.1	14	43.8	36	34.3
5 or 6	30	41.1	7	21.9	37	35.2
7 or more	9	12.3	3	9.4	12	11.4
Amount spent on alcohol per week						
Ksh100-Ksh500	24	32.9	8	25	32	30.5
Ksh600- Ksh1100	26	35.6	11	34.4	37	35.2
Ksh1200- Ksh1700	15	20.5	10	31.3	25	23.8
Ksh2200 -Ksh2700	4	5.5	1	3.1	5	4.8
More than Ksh3000	4	5.5	2	6.3	6	5.7

Has consumption of alcohol affected your relationship with significant others?						
No	11	15.1	4	12.5	15	14.3
Yes	62	84.9	28	87.5	90	85.7
Have you ever been sensitized about the effect of alcohol before?						
No	18	24.7	6	18.8	24	22.9
Yes, and in details	12	16.4	6	18.8	18	17.1
Yes, but not in details	43	58.9	20	62.5	63	60
What causes you to use alcohol??						
Stress associated with the disability	11	15.1	6	18.8	17	16.2
Boredom	16	21.9	2	6.3	18	17.1
Craving of alcohol	7	9.6	8	25	15	14.3
Peers / friends	33	45.2	10	31.3	43	41
Withdrawal symptoms	6	8.2	6	18.8	12	11.4

4.3.3 Alcohol Use Disorder

Results from the AUDIT tool show that over half of the respondents have possible dependence on alcohol, 25.7% are at an increasing risk of possible alcohol harm, 20% are at higher risk, while only 4% are at lower risk of alcohol harm. Figure 2 below represents this information.

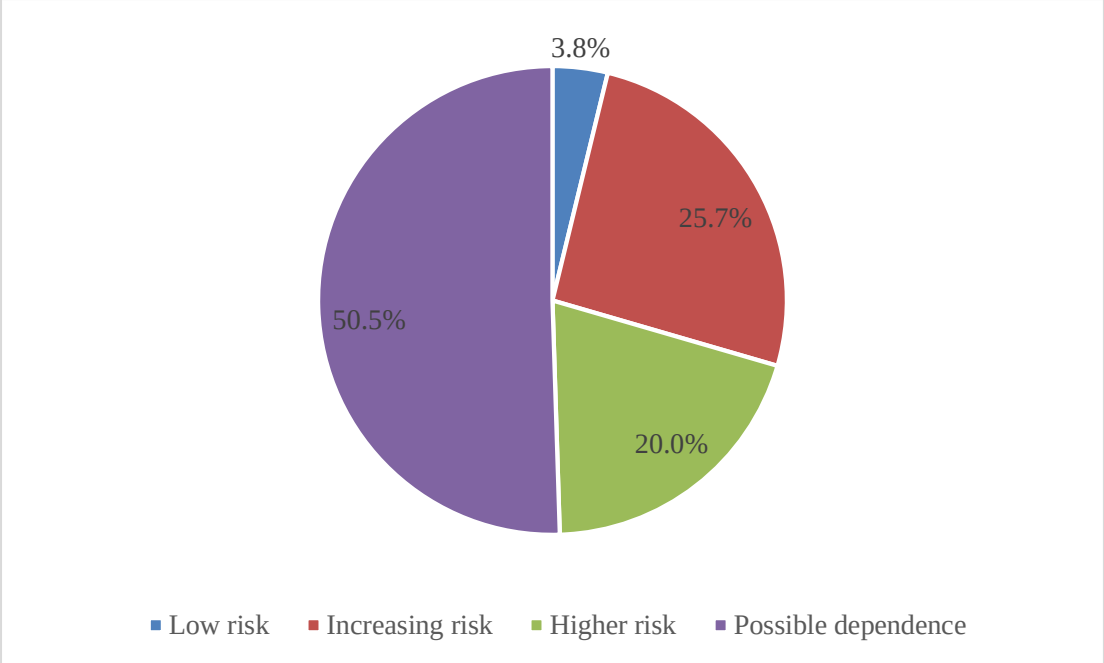

Figure 2: *Figure showing risk levels for alcohol harm among study respondents.*

4.4 Effect of Alcohol Abuse on Health Status

Table 4 below shows the effect of alcohol abuse on the health status of the study participants. In summary, 55.2% of the respondents have had blurred vision due to alcohol drinking, 91.4% stagger when drunk, 68.6% forget things quickly due to drunkenness, 71.4% experience blackouts, 53.3% have experienced liver related diseases due to alcohol drinking, 45.7% have transmitted diseases due to alcohol, 51.4% have been admitted to hospital due to alcohol use, 62.9% have developed ulcers due to alcohol consumption and 58.1% have had oesophagus irritation as a result of excessive alcohol consumption. This shows that the PWDS suffer serious health problems due to alcohol use.

Table 4: Effect of alcohol abuse on health of respondents.

	Male		Female		Total	
Variable	No.	%	No.	%	No.	%
I have had blurred vision due to alcohol drinking						
No	32	43.8	15	46.9	47	44.8
Yes	41	56.2	17	53.1	58	55.2
I stagger when drunk						
No	7	9.6	2	6.3	9	8.6
Yes	66	90.4	30	93.8	96	91.4
I forget things quickly due to drunkenness						
No	27	37	6	18.8	33	31.4
Yes	46	63	26	81.3	72	68.6
I experience blackouts						
No	26	35.6	4	12.5	30	28.6
Yes	47	64.4	28	87.5	75	71.4
I have experienced liver related diseases due to alcohol drinking						
No	37	50.7	12	37.5	49	46.7
Yes	36	49.3	20	62.5	56	53.3
Alcohol consumption has caused me to transmit diseases						
No	45	61.6	12	37.5	57	54.3
Yes	28	38.4	20	62.5	48	45.7
Alcohol consumption led to my admission to hospital						
No	41	56.2	10	31.3	51	48.6
Yes	32	43.8	22	68.8	54	51.4
Excessive alcohol consumption has led to me developing ulcers						
No	33	45.2	6	18.8	39	37.1
Yes	40	54.8	26	81.3	66	62.9
Excessive alcohol consumption has caused oesophagus irritation						
No	35	47.9	9	28.1	44	41.9
Yes	38	52.1	23	71.9	61	58.1

Information on the effect of alcohol abuse on health of respondents is summarized in the figure below.

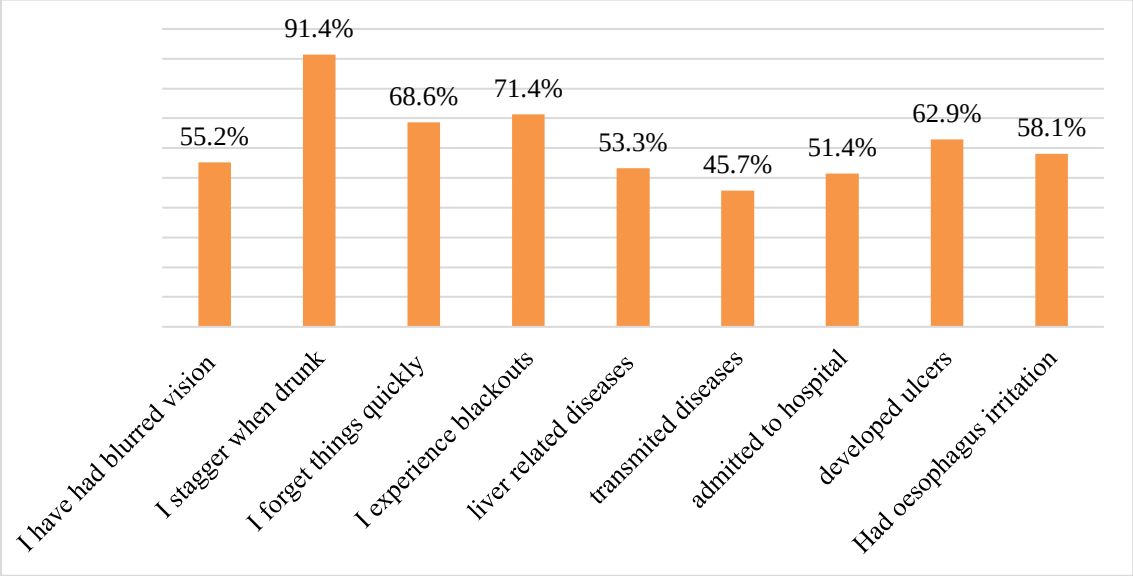

Figure 3: *effect of alcohol abuse on health of respondents.*

Qualitatively, participants also attributed memory loss to alcohol use, stating that.

> *'Memory loss-where you do something and forget about it the next minute, and you can't remember anything ie blackouts as commonly referred to as 'kubleki'.'* (FGD 1)

In terms of the social consequences, participants reported loss of job and employment opportunities due to being alcoholic and disabled. When asked about the social impact of alcohol abuse, participants responded.

> *'…loss of job and employment opportunities due to disability and alcoholism.'* [FGD1].

4.5 Effect of Alcohol Abuse on Behaviour

Table 5 below shows the results of the effect of alcohol abuse on behaviour of the study participants. The results show that 88.6% of the respondents become more aggressive when drunk, 86.7% usually reveal information about themselves when drunk, 76.2%

are prone to accidents when drunk, 75.2% engage in violent behaviour when drunk, 71.4% have fought with friends due to excessive alcohol consumption, 68.6% have had severe injuries due to alcohol use, 57.1% engage in domestic violence when drunk, and excessive alcohol consumption have caused a strain in family relationships of 89.5% of the respondents. Domestic violence may lead to divorce, separation and or/abandonment by the significant others. This may lead to feelings of isolation and neglect breeding further distress and depression.

Table 5: effect of alcohol abuse on behaviour.

	Male		**Female**		**Total**	
	No.	%	No.	%	No.	%
I become more aggressive when drunk.						
No	9	12.3	3	9.4	12	11.4
Yes	64	87.7	29	90.6	93	88.6
I usually reveal information about myself when drunk						
No	12	16.4	2	6.3	14	13.3
Yes	61	83.6	30	93.8	91	86.7
I am more prone to accidents when drunk						
No	22	30.1	3	9.4	25	23.8
Yes	51	69.9	29	90.6	80	76.2
I engage in violent behaviour when drunk						
No	23	31.5	3	9.4	26	24.8
Yes	50	68.5	29	90.6	79	75.2
Excessive alcohol consumption led to fights with friends						
No	27	37	3	9.4	30	28.6
Yes	46	63	29	90.6	75	71.4
Excessive alcohol consumption has led to severe injuries						
No	29	39.7	4	12.5	33	31.4
Yes	44	60.3	28	87.5	72	68.6
I engage in domestic violence when I am drunk						
No	38	52.1	7	21.9	45	42.9
Yes	35	47.9	25	78.1	60	57.1

Excessive alcohol consumption has caused strain in my family relationships						
No	10	13.7	1	3.1	11	10.5
Yes	63	86.3	31	96.9	94	89.5

The figure below summarizes the effect of alcohol use on behaviour.

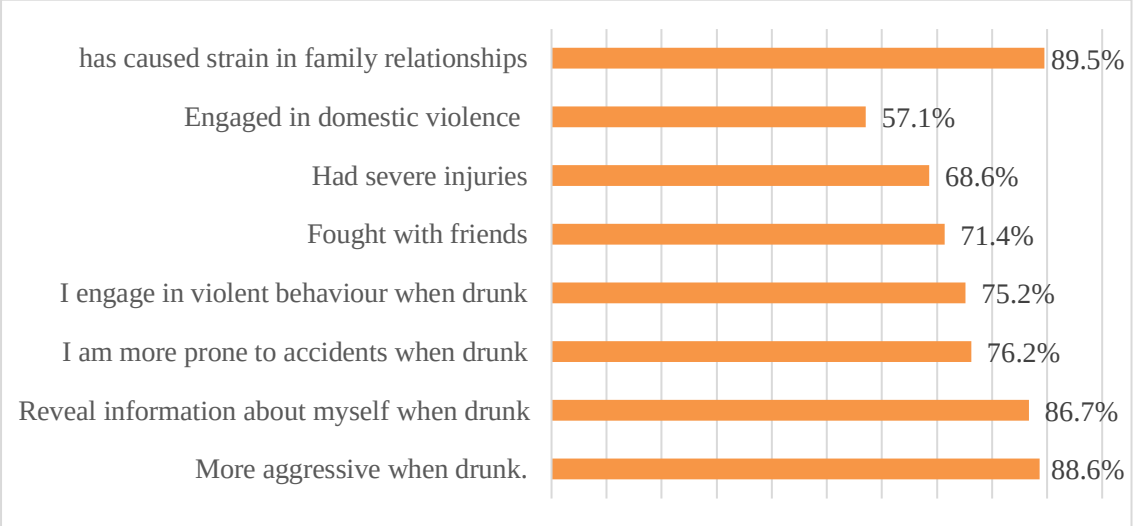

Figure 4: *effect of alcohol abuse on behaviour.*

The issue of being aggressive, becoming violent and angry is often linked to alcohol use, as the participants sought to focus on the impact of alcohol on their behaviour.

> *'Loss of emotions, get aggressive, violent, angry, and happy to even speak out of confidential suppressing issues about themselves or even go completely silent.'* (FGD 1)

This shows that PWDs develop negative behaviour following alcohol use and abuse. The negative emotions like anger make the fight further endangering themselves.

4.6 Mental Health Status of Study Respondents

As shown in Table 3 above, nearly all (85.7%) respondents reported that alcohol consumption had affected their relationship with their significant others. In the focus

group discussions, participants mentioned that '[They] fear to talk. No socialization, you want to stay alone, very private, don't want to share. '

Regarding sensitization on effect of alcohol use, a majority (60%) reported to have been sensitized but not in details, 17.1% reported having had detailed sensitization, while the rest (22.9%) reported not having been sensitized. Respondents were asked what causes them to use alcohol and majority (41%) said peers, 17.1% cited boredom, 16.7% mentioned stress associated with the disability, 14.3% mentioned craving alcohol, while the rest (11.4%) cited withdrawal symptoms.

Aside contemplating suicide, participants mentioned that the burden they give their families makes them think about death.

'If you are depressed, it was making you think about suicide. It [mental illness] is a burden to the family, and sometimes the easiest thing to do is to die.' [FGD 2]

CHAPTER FIVE

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Discussion

The primary objective of this study was to assess the impact of alcohol use on the mental health status of persons with physical disabilities (PWPDs) in Nairobi County. The findings presented in Chapter Four offer a comprehensive overview of the socio-demographic characteristics of the participants, their patterns of alcohol consumption, and the resultant effect on their health and behavior.

5.1.1 Socio-Demographic Characteristics

The study achieved a high response rate of 97.2%, indicating the reliability of the findings. The demographic data revealed that the majority of respondents were males (69.5%) and the most represented age group was 31-40 years (47.6%). This suggests that alcohol use among PWPDs may be particularly prevalent in this demographic (Smith, 2023). This may lead to the question, why men? What makes men more susceptible to alcohol use than women?

Most respondents lived in urban areas (67.6%) and resided in rental homes (49.5%). This urban concentration could be attributed to better access to services and opportunities compared to rural areas. Additionally, the majority being self-employed (62.9%) suggests a level of economic activity among PWPDs, although this might also reflect a lack of formal employment opportunities (Day, 2018). Further queries may arise supporting their preference to living with others in rental spaces rather than alone. Is it about security, support or access to alcohol?

Over half of the respondents had attained tertiary education (50.5%), indicating a relatively high level of educational attainment. However, the significant number of respondents with financial dependents (63.8%) highlights the economic pressures faced by PWPDs, potentially contributing to alcohol use as a coping mechanism (Krahn et al., 2006). Could it be majority of the PWDS despite their high education achievements do not get jobs due to discriminative or policy gaps issues? Could this limited unemployability lead then to abuse alcohol?

Qualitative findings from Focus Group Discussions (FGDs) further underscored the challenges faced by PWPDs, including feelings of social isolation and the burden of disability, which may contribute to alcohol use as a coping mechanism (FGD 1; FGD 2). Discussions that may arise include questions like “Is the isolation a product of their aggression or people perceiving them as a liability?” Is it shame and doubt that they may be acceptable to others that lead them to isolate?

5.1.2 Alcohol Consumption Patterns

The study revealed concerning patterns of alcohol consumption among the participants. Most respondents reported consuming between 3 to 6 drinks on a typical day, with 35.2% having 5 or 6 drinks. This high level of consumption aligns with findings from other studies that suggest individuals with disabilities may turn to alcohol as a coping mechanism for stress, social isolation, and other challenges associated with their condition (Krahn et al., 2006). A paradoxical discussion may arise here suggesting that the little the PWDS earn or are given by well-wishers is a temptation to use it to buy alcohol.

Weekly expenditure on alcohol varied, but a significant proportion (35.2%) spent between 600 to 1100 Kenyan shillings, indicating a substantial financial commitment

to alcohol. This expenditure not only strains their finances but also indicates the potential for developing alcohol dependency (Day, 2018). It would be of interest to find out if the regular alcohol intake is commensurate with the availability of it and/or the cost effectiveness of the same.

5.1.3 Impact on Relationships and Sensitization

The impact of alcohol consumption on relationships was profound, with 85.7% of respondents reporting negative effects on their relationships with significant others. This finding underscores the broader social consequences of alcohol abuse, which extends beyond the individual to affect family and community dynamics (Smith, 2023).

Sensitization on the effect of alcohol use appeared to be inadequate. While 60% had been sensitized, it was not in detail, and 22.9% had never received any sensitization. This gap in effective sensitization programs suggests a need for more comprehensive and targeted educational efforts to inform PWPDs about the risks of alcohol abuse (Day, 2018).

Aggression against significant others may lead to further harm and injuries because the disability disadvantages them against the normal population. Of key interest would also be the question “are the PWDS masking pain through aggression?” Do they weigh the consequences of their aggressive behaviors? Do they receive emotional and psychological support to tone down these negative emotions. Beyond the study, the researcher saw the need to need to address the aggression to reduce further psychological, social and physical damage.

5.1.4 Health Consequences

The health consequences of alcohol abuse among the participants were severe. Over half of the respondents experienced blurred vision (55.2%), blackouts (71.4%), liver-

related diseases (53.3%), and ulcers (62.9%). Additionally, a significant number reported experiencing blackouts and being prone to accidents, which underscores the immediate physical dangers of excessive alcohol consumption (Rehm, 2011). This translates to a shortened life span for the PWDs if they do not manage the alcohol use. There is need for serious education on the effects and dangers of driving self under the influence of alcohol.

The high prevalence of liver-related diseases and ulcers among the participants is particularly alarming, as these conditions can lead to chronic health issues and further complicate the management of their disabilities. The findings are consistent with literature indicating that excessive alcohol consumption exacerbates physical health problems and leads to a decline in overall health status (Rehm, 2011). Some of the areas that any counselor helping a PWD recovering from alcohol use is to educate them on the negative healthy consequences of using alcohol and getting addicted to the same.

5.1.5 Behavioral Consequences

Behaviorally, alcohol abuse led to increased aggression (88.6%), propensity for accidents (76.2%), and engagement in violent behavior (75.2%). The majority also revealed personal information when drunk (86.7%) and experienced strain in family relationships (89.5%). These behaviors not only pose risks to the individuals but also to those around them, highlighting the broader societal implications of alcohol abuse (Lyons & Berge, 2012). There is a need to assist the PWPDs) cope with any stress and distress factors to prevent cases of violence that endanger their lives with others.

The findings suggest that the social environment and peer influence play a significant role in the drinking behaviors of PWPDs, as 41% cited peer influence as a primary reason for alcohol use. This aligns with the social learning theory, which posits that

individuals learn behaviors through observing and imitating others, especially within their social circles (Lyons & Berge, 2012). Despite the perceived or real loneliness, the PWPDs can be helped to embrace mindfulness and mindful self-compassion so that they learn to enjoy solitude and avoid being lured into alcohol abuse by their peers.

5.2 Conclusion

The socio-demographic characteristics revealed in this study, along with the patterns of alcohol consumption and its consequences, provide valuable insights into the challenges faced by persons with physical disabilities (PWPDs) in Nairobi County. The findings underscore the urgent need for targeted interventions and support systems to address alcohol abuse among this vulnerable population.

The study identified key socio-demographic factors associated with alcohol abuse among PWPDs, including younger age, self-employment, and financial dependency. These factors highlight specific segments of the population that may be particularly susceptible to alcohol misuse and its associated harms. Additionally, the inadequate sensitization on the effect of alcohol and the significant financial burden of alcohol expenditure further compounds the problem, emphasizing the importance of tailored education and economic support initiatives.

The health consequences of alcohol abuse among PWPDs are severe, with a high prevalence of conditions such as liver disease, ulcers, and frequent blackouts. These health issues not only impair the quality of life for PWPDs but also increase their dependency on healthcare services, leading to additional economic and social costs. Moreover, behavioral consequences, including increased aggression, violence, and accidents, exacerbate the social and personal challenges faced by PWPDs, highlighting the need for holistic interventions that address both health and behavioral aspects.

Overall, the findings of this study contribute to the growing body of literature on the detrimental effect of alcohol abuse among PWPDs. By providing specific insights into the unique challenges faced by this population in Nairobi County, the study emphasizes the importance of developing targeted interventions that consider socio-demographic factors, health consequences, and behavioral patterns. Addressing alcohol abuse among PWPDs requires a comprehensive approach that integrates education, economic support, healthcare services, and social interventions to promote well-being and improve outcomes for this vulnerable population.

5.3 Recommendations

Based on the findings of this study, the following recommendations are proposed to address the issue of alcohol abuse among PWPDs in Nairobi County:

Enhanced Sensitization Programs

There is a critical need for comprehensive sensitization programs tailored specifically for PWPDs. These programs should provide detailed information on the risks of alcohol abuse, coping mechanisms for stress, and the importance of maintaining healthy social relationships. Collaboration with local health authorities, non-governmental organizations, and community leaders can enhance the reach and effectiveness of these programs.

Support Systems and Counseling Services

Establishing robust support systems and counseling services for PWPDs can help address the underlying causes of alcohol abuse. These services should focus on mental health support, stress management, and building resilience. Providing accessible and

affordable counseling can help PWPDs cope with the challenges associated with their disabilities without resorting to alcohol.

Economic Empowerment Initiatives

Given the high percentage of self-employed and financially dependent PWPDs, economic empowerment initiatives are essential. Programs that provide vocational training, micro-financing, and support for small businesses can help reduce the economic pressures that contribute to alcohol abuse. Empowering PWPDs economically can improve their quality of life and reduce their reliance on alcohol as a coping mechanism.

Policy and Advocacy

Advocacy for policies that support PWPDs and address the issue of alcohol abuse is crucial. This includes lobbying for the implementation of policies that ensure access to healthcare, education, and employment opportunities for PWPDs. Advocacy efforts should also focus on the enforcement of existing laws related to alcohol consumption and the protection of PWPDs' rights.

Community Engagement and Peer Support

Engaging the community and fostering peer support networks can create a supportive environment for PWPDs. Community-based initiatives that promote healthy lifestyles and provide platforms for social interaction can reduce the social isolation that often leads to alcohol abuse. Peer support groups can offer a sense of belonging and mutual support, helping PWPDs navigate their challenges collectively.

Suggestions for Further Studies

Further studies are recommended to deepen our understanding of the complex relationship between alcohol use and mental health among PWPDs. Some avenues for future research include:

1. Longitudinal Studies: Conducting longitudinal studies to track the long-term effect of alcohol abuse on the mental health, physical health, and social outcomes of PWPDs. Longitudinal data would provide valuable insights into the trajectories of alcohol use and its impact over time.

2. Qualitative Investigations: Qualitative studies can explore the underlying motivations and experiences of PWPDs regarding alcohol use. In-depth interviews and focus group discussions can provide nuanced insights into the socio-cultural, economic, and psychological factors that contribute to alcohol abuse among this population.

3. Comparative Studies: Comparative studies can compare alcohol consumption patterns, mental health outcomes, and coping strategies among PWPDs with those of the general population. Identifying differences and similarities can inform targeted interventions and policies to address alcohol-related issues among PWPDs.

4. Intervention Studies: Intervention studies can evaluate the effectiveness of various intervention strategies, such as counseling, peer support programs, and community-based initiatives, in reducing alcohol abuse and improving mental health outcomes among PWPDs. Randomized controlled trials and quasi-experimental designs can provide robust evidence for the efficacy of interventions.

5. Policy Analysis: Policy analysis studies can assess the impact of existing alcohol-related policies and regulations on PWPDs' access to healthcare, social services, and economic opportunities. Identifying gaps and barriers in policy implementation can inform advocacy efforts and policy reforms to better support PWPDs affected by alcohol abuse.

By addressing these research gaps, future studies can contribute to the development of evidence-based interventions and policies that effectively address alcohol-related issues among PWPDs and improve their overall well-being.

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APPENDICES

Appendix I: Questionnaire

Hello, thank you for taking the time to respond to this questionnaire. My name is Susan Gitau a Counselling Psychology student at Africa Nazarene University. I am carrying out this study as part of the requirements for the completion of my education. Your involvement in this study is voluntary at the beginning and during the course of the study.

Please respond to each question by providing the relevant information as honestly as possible. The information was be treated with strict confidentiality.

Section A: General Information: Please Tick (√) Appropriately

1. Indicate your gender:
   - □ Male
   - □ Female
2. Age:
   - □ 18-24
   - □ 25-30
   - □ 30-40
   - □ 41-50
   - □ 51-60
   - □ 60 +
3. Marital status:
   - □ Single
   - □ Separated
   - □ Married
   - □ In a relationship
   - □ Cohabiting
   - □ Widowed
4. Indicate your level of education:
   - □ Primary school
   - □ Secondary school
   - □ College

- Undergraduate
- Post- graduate
- Doctorate
- Other specify

5. Occupation:
   - Formal Employment
   - Self employed
   - Unemployed
   - Student
6. Where do you live?
   - Urban
   - Pre-urban
7. Whom do you live with?
   - Alone
   - Parents
   - Siblings
   - Partner/spouse
   - Friends
   - In a home for P.W.P.Ds.

DO YOU TAKE ANY ALCOHOLIC DRINK?

YES

NO

IF YES ANSWER THE FOLLOWING QUESTIONS. IF NO, PLEASE SKIP TO THE END

Section B: Alcohol Use Factors affecting the Mental Health Status of Persons with Physical Disabilities in Nairobi, Kenya

I. Alcohol preferences

What kind of alcohol do you drink? Tick as necessary

- ☐ Beer
- ☐ Spirits
- ☐ Second generation spirits (known as "makali" cheaper than original spirits)
- ☐ Wine
- ☐ Busaa
- ☐ Chang'aa
- ☐ Muratina
- ☐ Other (Specify)

……

……

This section of the questionnaire was focus on the amount of alcohol you drink and the frequency as well as harm associated with it

The Alcohol Use Disorders Identification Test (AUDIT)

1. **How many drinks containing alcohol do you have on a typical day when you are drinking?**

(0) 1 or 2

(1) 3 or 4

(2) 5 or 6

(3) 7, 8, or 9

(4) 10 or more

2. How often do you have six or more drinks on one occasion?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

3. How often during the last year have you found that you were not able to stop drinking once you had started?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

4. How often during the last year have you failed to do what was normally expected from you because of drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily 50

5. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

6. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

8. Have you or someone else been injured as a result of your drinking?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

9. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

Section C: Mental health Status of Persons with Physical Disabilities

What is your current job status?

- Formal Employment
- Unemployed
- Self-employed

Where do you live?

- Own home(bought or built)
- Inherited home
- Rental home
- Shared house
- Other (Specify)

……

……

How much do you earn in a month?

- Ksh. 0-15,000
- Ksh. 16,000- 30,000
- Ksh. 31,000- 50,000
- More than Ksh. 50,000

Do you have people who depend on you financially? YES…… NO……

If YES, How many? ……

Do you have an alternative source of income? YES……. NO……..

If YES, Specify

……

……

How much do you spend on alcohol per week?

- Ksh100-Ksh500
- Ksh600- Ksh1100
- Ksh1200- Ksh1700
- Ksh2200 -Ksh2700
- More than Ksh3000

What causes you to use alcohol?

- Peers / friends
- Stress associated with the disability
- Boredom
- Withdrawal symptoms.
- Craving of alcohol

Has the consumption of alcohol affected your relationship with significant others

- No
- Yes

Have you ever been sensitized or taught about the effect of alcohol before?

- No
- Yes but not in details
- Yes and in details

Section D: effect of Alcohol Abuse on Health Status

1. I have had blurred vision due to alcohol drinking

- No
- Yes

2. I stagger when drunk.

   - No
   - Yes

3. I forget things quickly due drunkenness

   - No
   - Yes

4. I experience black outs

   - No
   - Yes

5. I have experienced liver related diseases due to alcohol drinking

   - No
   - Yes

6. Alcohol consumption has caused me to transmit diseases

   - No
   - Yes

7. Alcohol consumption led to my admission to hospital

   - No
   - Yes

8. Excessive alcohol consumption has led to me developing ulcers

   - No
   - Yes

9. Excessive alcohol consumption has caused oesophagus irritation

   - No
   - Yes

Section E: effect of Alcohol Abuse on Behavior

1. I become more aggressive when drunk.

   - ☐ No
   - ☐ Yes

2. I usually reveal information about myself when drunk.

   - ☐ No
   - ☐ Yes

3. I am more prone to accidents when drank.

   - ☐ No
   - ☐ Yes

4. I engage in violent behaviour when you get drank.

   - ☐ No
   - ☐ Yes

5. Excessive alcohol consumption led to fights with friends.

   - ☐ No
   - ☐ Yes

6. Excessive alcohol consumption has led to severe injuries.

   - ☐ No
   - ☐ Yes

7. I engage in domestic violence when I am drank.

   - ☐ No
   - ☐ Yes

8. Excessive alcohol consumption has caused strain in my family relationships.

   - ☐ No
   - ☐ Yes

Thank you for your participation

Appendix II: Focus Group Discussion (FGD) Guide

Introduction:

Good morning/afternoon, my name is Susan Gitau, M.A. Student of the Africa Nazarene University. Thank you for taking the time to talk to me today. I am conducting a research/survey on the Impact of Alcohol Use on Mental Health of Persons with Physical Disability: A Case of Association for the Physically Disabled of Kenya (APDK) as part of my studies.

Based on your status as a person living with physical disability, I have selected you as informants in this study, and that is why I am sharing this questionnaire with you. Some questions demand you divulge some information about yourselves that may be confidential, but I assure you that your answers Will be used for this research only and will not be shared with anyone else other than the researcher. Remember, there is no right or wrong answer. However, your honest responses to these questions would be crucial in understanding the impact of alcohol use/abuse on mental health status of persons living with physical disabilities. This interview will take about 25 minutes to complete. Would you like to participate?

1. **Yes_____ 2. No_____**

QUESTIONNAIRE IDENTIFICATION INFORMATION

QUESTIONNAIRE CODE: [_____|____ |____]

001 INTERVIEWER: _____

002 DATE OF INTERVIEW: _____ \ ____ _2023.

003 GROUP COMPOSITIONS:

TOTAL MALES: _____ TOTAL FEMALES: _____

004 TIME:

Start_____ Finish_____

(Kindly respond to the questions below)

1). What is your understanding of mental health in general?

2). In your opinion, what are some of the challenges faced by individuals with mental illness?

(Probe: issues to do with stigma and discrimination)

4). What is the social impact of alcohol use/abuse on mental health?

(Probe: whether they've experienced those issues)

5). What is the emotional impact of alcohol use/abuse on mental health?

(Probe: whether they've experienced those issues)

6). What are the measures taken to address mental illness among persons living with physical disability?

(Probe: whether there are structures in place and whether they are accessible by the persons living with physical disability)

We have come to the end of the interview. Thank you for your time and cooperation. Before we finish, is there anything else you would like to add to what we have discussed?

Appendix III: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **210265**

Date of Issue: **03/April/2024**

RESEARCH LICENSE

This is to Certify that Dr.. Susan Wambui Gitau of Africa Nazarene University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EFFECTS OF ALCOHOL USE ON THE MENTAL PERSONS WITH PHYSICAL DISABILITY for the period ending : 03/April/2025.

License No: **NACOSTI/P/24/34123**

210265

Applicant Identification Number

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See overleaf for conditions

Appendix IV: Research approval Letter

AFRICA NAZARENE UNIVERSITY

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29th January 2024

RE: TO WHOM IT MAY CONCERN

Susan Gitau (16M03EMCP004) is a bonafide student at Africa Nazarene University. She has finished her course work and has defended her thesis proposal

entitled: -

" Impact of Alcohol use on the Mental Health Status of Persons: A Case of Association for the Physically Disabled of Kenya (APDK) Nairobi County".

Any assistance accorded to her to facilitate data collection and finish her thesis is highly welcomed.

Rodney R. Reed

Prof. Rodney Reed
Deputy Vice Chancellor, Academic & Student Affairs

Appendix V: Map of Study Area