Substance Abuse and Mental Health Effects among the Youth in Botswana: Implications for Social Research.

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Author's Contribution

This work was carried out in collaboration between all authors. Author KR designed the study and managed the analysis. Author KD conceptualised and prepared the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aims: To explore mental health effects of substance abuse among youth in Botswana in order to inform research, policies and social work interventions; to examine services put in place in assisting mentally disturbed as a result of substance abuse.

Study design: The study adopted a cross-sectional descriptive research design.

Place and Duration of Study: Sekgoma Memorial Hospital, Psychiatric Unit, Botswana between November 2015 and December 2015.

Methodology: The study used the qualitative method and adopted non-probability sampling to select participants that were divided into two groups being youth and key informants (13 men, 5 women; age range 18-50 years). The youth participants comprised of young people using drugs who have sought medical help before at Sekgoma Memorial Hospital. The key informants where staff dealing with cases of substance abuse. Purposive and snowball sampling was utilised to select all participants and the in-depth face-to-face interview was used for data collection. Data were qualitatively analysed.

Results: The findings confirm that substance abuse is high among youth in Botswana and that the early onset of substance abuse is often preceded by mental disorders comprising depression, suicidal tendencies and personality disorders. The findings also unveil the significance of rehabilitation centers in Botswana.

Conclusion: The study concludes by recommending that specific prioritized interventions be identified for support by social workers, psychiatrists and other professionals dealing with cases of substance abuse. Lastly, future research and policy direction and implications are discussed.

20

21 1. INTRODUCTION

22 1.1 BACKGROUND OF THE STUDY

23 The issue of substance abuse and mental health is not only peculiar to youth in Botswana 24 but a worldwide phenomenon. Available studies show that mental health and substance use 25 problems often coexist [1]. A few studies such as [2,3] have highlighted the use of illicit drug use among youth in Botswana. From the above studies, it can be argued that Botswana is 26 27 reeling under the scourge of drug and alcohol abuse. The problem is eating away many 28 youths at an alarming pace but many remain oblivious to this danger. Even though there is 29 general agreement that drug abuse is not good for one's health, the widespread of 30 substance abuse has not attracted much attention and campaigns like other social ills yet it

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poses an imminent threat to the societal fabric of Botswana. Many young people who are now deeply into drug and substance use are struggling to come out [4]. Their lives are in tatters, with hopeless and uncertain future on the horizon. It is against this backdrop that despite the fact that drug prevention in Botswana is a top priority the situation remains unabated.

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37 This paper contends that, despite the efforts of various stakeholders to raise awareness on 38 substance abuse globally and in Africa, more youth continue to abuse substances. It is of 39 utmost importance to note that the effects of substance abuse on families, communities, and 40 nations at large cannot be overemphasized. For this reason, this paper will specifically focus 41 on substance abuse and its mental effects. An assessment of services put in place to 42 address this problem will also be made. It is worth noting that in Botswana, most of the available studies in the country focused more on the effects and impact of substance abuse. 43 44 leaving a gap of knowledge, to explore further, on how substance abuse relates with mental 45 health. According to [5] alcohol and marijuana are the most abused substances in Africa, 46 and Botswana is no exception.

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48 This present study was conducted in Serowe, Botswana, on the grounds that a lot of cases 49 in the psychiatric ward from Sekgoma Memorial Hospital (SMH) are a result of substance 50 abuse. Evidence from the statistics obtained in the psychiatric ward at SMH shows that of 51 the 457 registered patients in the year 2014, 148 were alcohol and drug abusers. In the year 2015, from July to December, 162 patients were registered; out of which 95 patients were a 52 53 result of alcohol and drug abuse, aged between 18 to 35 years old, this registered aged group indicates that there are high drug and alcohol abuse rate. From 2014 to 2015 the 54 55 statistics give credence that the number of cases related to drug and alcohol abuse reported at SMH escalated among the youth. 56

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Therefore, this paper argues that the high number of drug and alcohol abuse by the youth in Botswana is a great concern for the Ministry of Health and the community at large. All this clearly demonstrates that efforts to curb alcohol abuse has not only fallen short but has worsened the situation. It is against this background that the present study sought to propose long-lasting solutions to address the plight of substance abuse among the youth in Botswana. Lastly, it outlines policy direction and implications for social research.

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65 2. THEORETICAL FRAMEWORK

66 This section briefly discusses the theoretical framework that has been adopted in the present study. According to [6] social cognitive theory considers the unique way in which individuals 67 acquire and maintain behaviour, while also considering the social environment in which 68 69 individuals perform the behaviour. The theory takes into account a person's past experiences, which factor into whether behavioural action will occur. These past experiences 70 71 influences reinforcements, expectations, and expectancies, all of which shape whether a 72 person will engage in a specific behaviour and the reasons as to why a person would 73 engage in such behaviour. Furthermore, the social cognitive theory stresses that evaluating 74 behaviour change depends on the following factors; the environment, people and behaviour 75 which constantly influence each other [7]. The theory is further incorporated in the next 76 section on presentation and discussion of results where the link between the objectives. 77 literature review and findings of the study are discussed.

78

79 3. METHODOLOGY

80 3. 1 Sampling Technique

The study adopted non-probability sampling, namely purposive and snowball. Purposive sampling was chosen on the grounds that, the study focused on young people aged 15-35 years involved in substance abuse with particular emphasize to those who are on drugs and 84 had sought medical assistance before at SMH. It was also used to select key informants 85 knowledgeable on issues of substance abuse and mental health. In addition, the technique 86 was used on the basis that, it is less time consuming since it allowed elimination of 87 participants that did not fit in the study. It was very handy in selecting key informants who 88 receive cases on substance abuse and mental health in their line of duty on a daily basis. 89 Snowball, on the other hand, was used in finding youth participants involved with substance 90 abuse. The sampling technique was convenient owing to the fact that participants with whom 91 contact has already been made used their social networks and referred us to other 92 participants who participated in the study. 93

94 **3. 2 Data Collection**

95 Data was collected through the use of in-depth face to face interview. The participants were 96 assured of confidentiality and allowed to express themselves with minimal interruptions. The 97 interview session took 30-40 minutes and the interview guide consisted of 11 guestions 98 which were derived from the study objectives. The in-depth face-to-face interview was 99 chosen over focused group discussion (FGD) on the basis that we wanted to be able to 100 understand participants deeper. We believed that this data collection method was capable of 101 obtaining more insight of the participants and gain more knowledge than FGD where other 102 participants would not feel free to openly talk about their personal affairs in front of others. Also, the recruiting and scheduling in an in-depth interview is quite faster when compared to 103 104 FGD. Furthermore, in-depth interview offers a relaxed atmosphere for ones who desire to 105 gather data. Experience has taught us that most people find it easy and are comfortable in 106 one-to-one interview as compared to expressing themselves in a group.

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108 3. 3 Ethical Consideration

The study was submitted to the University of Botswana Institutional Review Board (UB IRB) for ethical clearance and permission was sought and granted from UB IRB as well as the Ministry of Health. To adhere to anonymity, information from each participant was analysed in such a way that it cannot be traced to any specific individual. For instance, names of participants were not used rather they were assigned numbers.

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115 **4. RESULTS**

The aim of this study was to explore the mental health effects of substance abuse among the youth in Botswana in order to inform research, policy and practice interventions. It is of utmost importance to note that during analysis of the results four major themes emerged. The themes emerged during the coding process. Thus substance abuse among youth, link between mental health and substance abuse, mental health effects of substance abuse among youth, services in place to help young people who are mentally disturbed as a result of substance abuse. The themes are further discussed below.

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124 4.1 Participants Profile

The sample included 18 participants comprising 15 young people (12 males and 3 females) and 3 social workers (1 male and 2 females) employed in the health setting. All youth participants were selected on the basis that they had been involved in drugs and they had at some point sought medical help before from Sekgoma Memorial Hospital. Nevertheless, the study acknowledges one of the limitations as we could not gather participants profile indicating a number of years they have been on drugs.

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From the above information on the gender of the participants, it might appear as if more males are into substance abuse as compared to their female counterparts. However, it will not be reasonable to suggest that more males abuse drugs as compared to females looking at the nature of sampling that was used. The study used non-probability sampling technique hence the assertion to conclude that more male's abuse drugs would not be sustainable. 137

138 **4.2 Substance abuse among the youth**

Participants were asked to indicate how they ended up being into substances and the age they started indulging in drugs. In response to these questions, several answers were mentioned and with respect to the introduction of the drug, most of the participants reported to have taught themselves while some were introduced to drugs by their friends, classmates at school and family members. One female participant who stated that she has been influenced by a close friend had this to say:

"At the time I was really stressed and I went to leave in a house filled with people
who were bad influence, It was just after I finalized my divorce and that is when I started to
do crack as a friend of mine said it will help me forget everything that I was going through".

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149 With regard to the most abused substance, of the fifteen youth interviewed most reported 150 marijuana to be the drug that they have abused the most compared to other drugs. However, 151 few participants reported alcohol to be the substance they abuse the most. Still on that note, 152 very few participants reported to having used cocaine the most. One participant also stated 153 that the most abused substances were a combination of cigarette and alcohol whilst another 154 participant reported to have used Madiana the most. However, the key informants 155 comprising social workers and a psychiatrist also found marijuana to be the most prevalent 156 substance among youth in SMH looking at some of the cases they receive. During the 157 interview, one key informant pointed out that:

158 "Substance abuse is one of the major problems that we are dealing with in our 159 workplace, this affects mostly young people, from the time I started working here, I have 160 been working closely with the police and families of my patients. The patients are usually 161 brought in by their families and the police. Most cases which I receive are a result of 162 marijuana".

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In reaction to the issue of frequency, all youth participants reported smoking daily usually 164 three times or more in a day. In relation to alcohol, the general consensus was that 165 166 participants reported drinking alcohol four times in a week. To find out factors contributing to 167 the abuse of substances, participants were asked to outline reasons for using substances. 168 During the interview, participants indicated that people abuse substances due to different reasons. Moreover, when interviewed, the significant minority of the participants pointed out 169 170 using substances because of the influence of their friends. They laid a point that they usually 171 want to fit into the crowd and to please their friends.

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173 In addition, one female youth participant emphasized that she was influenced by her partner 174 and could not refuse as her partner tend to be violent when he is high. In contrast, during the 175 interview, only a few participants reported being using substances to reduce boredom as it 176 always keeps them busy. When participants were asked about the signs that they 177 experience when they do not indulge in substances; most participants indicated not being 178 able to function normally when they have not taken substances. They indicated trembling 179 when they do not take use substances. Nonetheless, two of the fifteen youth participants 180 stated being depressed when they do not indulge in substances, one participant reported 181 that she hallucinates when she does not take in substances for a long time.

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183 **4.3 Link between mental health and substance abuse**

Participants were asked about the interface between substance abuse and mental illness, whether the former causes the latter. They expressed different viewpoints but predominantly reported that substance abuse leads to mental illness. Out of the total population, most of the participants indicated that substance abuse contributes to mental health. However, although a majority of participants reported that substance abuse leads to mental illness, other participants had differing views, stating that mental illness causes drug abuse. Oneparticipant addressed the issue by saying:

191 "Well I would like to think the two are interrelated so there is no definite answer, I 192 believe drug abuse causes mental illness and also people who have mental health problems 193 tend to abuse drugs. This is so because people who abuse drugs tend to become violent 194 and they behave in a way they would not behave on a normal day. Therefore, abusing drugs 195 has severe effects on the brain and a way a person functions and usually people who have 196 mental illness tend to abuse drugs"

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The remaining two of the fifteen participants reported not knowing the causal relationship between the two but they did not think abusing substance could lead to mental illness. The key informants were also asked of their opinion on the causal relationship between mental illness and substance abuse. All three key informants interviewed, reported that the two are related and cannot be separated. To substantiate the above one had this to say:

"In my opinion, dagga use is a mental aid but sometimes the people that have no
mental ill after using dagga they start having disorders, but is true that the mental ills are
associated to dagga use. The patient will have depression, epilepsy, personality disorder,
bipolar, alcohol consumption associate, dagga associate such as marijuana. They cannot be
separated".

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The key informants were also asked about the frequency of substance abuse among people with mental illness. All of the key informants reported that it is often indicated that there are more than ninety percent drug problems among people who have a mental illness.

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213 4.4 Mental health effects of substance abuse among youth

214 One of the questions asked to participants was on whether substance abuse has some 215 mental health effects and they were asked to elaborate such effects. They reported that 216 likely mental health effects include depression, suicidal attempts, stress disorder, mood 217 disorders, psychotic disorders, personality disorder. Most of the participants emphasized that 218 substance abuse leads to depression. During the in-depth interview, the participants pointed 219 out that due to drug addiction which comes with a variety of problems such as financial 220 constraints can lead to depression. Additionally, three of the eighteen participants said that 221 they were once diagnosed with depression due to the abuse of substances such as cocaine, 222 marijuana. In addition, the in-depth interview of key informants also found depression to be 223 one of the mental health effects that is associated with the abuse of substances. For 224 instance, the social worker stressed that the clients that she is dealing with at the psychiatric 225 unit are mostly diagnosed with depression. With regard to suicidal tendencies, very few 226 participants stated that usually abusing substances could lead to suicidal attempts. To 227 corroborate this proposition one participant said:

228 "In my opinion, I believe suicidal attempts are one of the mental health effects,
229 because I have been there, tried to commit suicide couple of times and was diagnosed with
230 depression due to cocaine".

231

232 From the study findings, other participants reported that mood disorders are some of the 233 mental health effects associated with substance abuse. On the grounds that mood disorders 234 are associated with depression and bipolar disorder, a minority of the participants said 235 substance abuse can lead to mood disorders because people indulging in drugs may feel 236 irritable at times and feel hopeless. In reaction to this issue, the psychiatrist emphasized 237 mood disorder as the most common psychiatric co-occurring disorder. She further 238 highlighted that it is common for people with mood disorders to turn to substance abuse and 239 that, in turn, exacerbates the effects of the mood disorder. With respect to psychotic 240 disorders, most participants reported psychotic disorders as one of the mental health effects 241 associated with abusing substances. They reported that usually, people indulging in substances especially those using more than one substance tend to lose touch with reality and get to see things that are not even there (hallucinations). Six participants reported to having been diagnosed with psychotic disorder while using cocaine and crack. They reported having seen things which did not even exist. One of the key informants had this to say:

247 "Many studies were carried out to determine the link between those who abuse
248 drugs and alcohol and those who have personality disorders. The majority of data collected
249 points towards a direct correlation between the two. Some specific personality's disorders
250 have been shown to result in an increased risk of drug use".

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4.5 Services put in place to help people who are mentally disturbed as a result of substance abuse

In terms of services that are put in place to help people who are mentally disturbed as a result of substance abuse, participants were asked to name services which are in place, and they were also asked to indicate whether they are effective and accessible. According to the study findings, most participants stated being aware of services such as the psychiatric unit from Sekgoma Memorial Hospital as well as the support group run by medical social workers. One of the social workers summarized this by saying:

260 "They receive help from clinics and hospital at the psychiatric ward where they have 261 a chance to meet with social workers who engage them with behaviour modification 262 techniques, finding ways to deal with their addiction if they are willing to guit what they 263 should do and how they should do it, how to overcome challenges that come with guitting. 264 psychosocial education which involves general education on the effects of substance abuse, 265 cognitive restructuring because they have negative perceptions and needs like they feel 266 intelligence so they need cognitive restructuring. The other service is a support group for 267 those still using and who have stopped, it consists of both male and females who use 268 different substances and it is an open group basically they share experiences and explore 269 side".

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With respect to the effectiveness and the accessibility, most participants indicated that the services are effective and accessible. However, there is still more which needs to be done. Furthermore, the participants were also asked to come up with the recommendation in relation to the issue of substance abuse and mental health effects among youth. Most of them reported that it is high time the government initiates rehabilitation centers and that programme should be initiated at the primary school level to sensitize children on the impacts of substance abuse.

278 279 **5. DISCUSSION**

280 **5.1 Substance abuse among the youth**

281 Based on the study results, it does not seem unreasonable to suggest that there is high 282 substance use among the youth in Botswana. All the key informants indicated that there is a 283 high substance use by young people as they receive cases daily which are associated with 284 substance abuse, and this makes substance abuse one of the very important problems among the youth in the contemporary days. The results concur with [8] that the use of 285 286 alcohol, tobacco, cannabis and other psychoactive substances constitutes one of most 287 important public health problems among the youth worldwide. The findings revealed that 288 most of the participants have taught themselves while some were introduced to drugs by 289 their friends, classmates, family members. Therefore, these findings are consistent with a 290 social cognitive theory which explains how people acquire and maintain certain behaviour, in 291 that, it stresses that the individual learned experiences and the social environment including 292 societal pressures and role models provide a framework for understanding behaviour. The 293 findings of the study revealed that the youth have learned the behaviour of using illicit drugs 294 and alcohol from their social environments such as classmates and friends. This high 295 substance use will continue increasing because of the societal pressures that the 296 environment instills in the youth.

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298 Another observation made in the research finding with regard the most abused substance; of 299 the fifteen youth participants, most of them reported marijuana to be the drug that they have 300 ever abused the most compared to other drugs. In contrast, some participants reported 301 alcohol to be the most drug they abuse the most. Along the same line, few participants 302 reported to having used both alcohol and marijuana the most at the same time. Furthermore, 303 a few participants argue that the most abused substances were a combination of cigarette 304 and alcohol whilst only one participant reported to have used Madiana more often. From the 305 results, it is evident that marijuana is the most abused drug followed by alcohol respectively. 306 It is worth noting that the results are supported by a survey in the United States of America, 307 which concluded that marijuana was the most common illicit drug chosen by teenagers, and 308 more than 50% of high school seniors had used it [9]. Additionally, the findings are also 309 supported by a study conducted among high school students in Botswana, which also 310 reported Marijuana to be the most commonly used substance among secondary school 311 students [10].

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313 In sharp contrast to the above results, a study done in Limpopo, South Africa reveals that the 314 most commonly used substances are Cannabis (49%), Inhalants (39%), bottled wine (32%), 315 home-brewed beer (30%), and commercially brewed beer used by (54.8%) of the youth [11]. 316 Comparatively, another study by Texas Department of Health Services (2008) found out that 317 alcohol continued to be the most abused substance by secondary school students (63%), 318 followed by tobacco (30%), marijuana (25%), inhalants (9.3%), and cocaine (6.8%). These 319 findings hold different results in relation to the most abused drug. Based on the findings one 320 might be tempted to conclude that more males abuse substance as compared to females, 321 however, that would not be accurate taking into consideration the sampling method used in the study. Nevertheless, [12] conducted a study on substance use among college students 322 323 in Eldoret, western Kenya and results indicated that lifetime prevalence rate of any 324 substance use was (69.8%), with males having statistically significantly higher rates than 325 females. On yet another study done by [13] results has also shown that males had a higher 326 prevalence (13.4%) than females (4.9%).

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328 Moreover, the above results are supported by social cognitive theory, which posits that the 329 use of substance could be lower in females compared to males, which might be caused by 330 the lower female rate on responding to stimuli on achieving societal goals. Through the 331 selective interactions with their environment, adolescents might reciprocally interact with 332 drug dealers, available alcohol and behaviors associated with drug consumption which 333 generates a high prevalence rate in the findings of this study. Participants expressed 334 different viewpoints on the question of the reasons for abusing drugs. The results reveal that 335 most of the participants pointed out that they use substances because of the influence of 336 their friends. Whereas few participants reported being using substances to reduce boredom 337 as it always keeps them busy and to boost their confidence as they indicated that it makes 338 them feel alive and helps them to be able to concentrate. The different opinions that exist on 339 the reasons for the abuse of substances are also reflected in the divergent views in the 340 literature review regarding the matter. For instance, according to [14] studies have shown 341 that nearly 92% of the youth experiment with both licit and illicit alcohol, tobacco, bhang, 342 inhalants (glue, petrol) and heroin, among others, during the growing up process, for 343 different purposes such as influence from friends and some believing that it will increase 344 their level of thinking hence making them confident.

345

Furthermore, when asked on the signs they experience if they do not use substances, participants revealed quite different experiences. Most of the participants reported not being able to function when they do not use the drugs as they indicated that substances kept them
 going. The research results correlate with all literature reviewed on substance abuse among
 the youth and it shows that the rates of abuse are high among different substances and
 causes significant physical and psychosocial problems in this population.

352

353 5.2 Link between mental health and substance abuse

354 From the findings of the study, it is clear that there is a strong relationship between mental health and substance abuse. This is validated [15] that young adults with mental health 355 356 conditions have higher rates of substance-related disorders. From the present study 357 findings, most of the participants indicated that substance abuse leads to mental health. The 358 participants attributed this link to dependence on drugs. These findings concur with the 359 findings of [16] that many people who regularly abuse drugs are also diagnosed with mental 360 disorders and vice versa. Similarly, according to the social cognitive theory, through the 361 concept of behavioural capability, which states that continuous learning, adaptation and 362 successfully abusing substances such as marijuana and alcohol; youth are more prone to 363 developing mental illness.

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365 On another note, all key informants stipulated that mental health and substance abuse are 366 related and cannot be separated taking into consideration that most of the substance 367 abusers frequent have more than one mental illness such as depression, bipolar, epilepsy 368 and depression. These present study findings are consistent with [17,18] which show that 369 drug abuse and other mental illnesses are often comorbid. However, the results of the study 370 show that few of the participants do not recognize a link between substance abuse and 371 mental health. This confirms [19] that substance abuse does not always lead to mental 372 health or that there is always a correlation between the two. This concurs with the social 373 cognitive theory component of expectations, which states that people anticipate the 374 consequences of their actions before engaging in the behaviour, and these anticipated 375 consequences can influence successful completion of the behaviour. Expectations derive 376 largely from previous experience. The results show that the participants that abuse 377 substance but not having mental illness anticipated the consequences of their substance 378 intake and managed their substance intake hence; they never developed mental illness as a 379 result of substance abuse.

380

381 **5.3 Mental health effects of substance abuse among the youth**

382 The results of the present study show that substance abuse has negative effects on mental 383 health. Thus, substance abuse leads to mental health disorders comprising depression, 384 suicidal tendencies, mood disorders, psychotic disorders and personality disorders, which 385 are explained below. Most of the study participants stated that drug addiction leads to 386 financial constraints which facilitate depression. The literature shows that substance use 387 increases with the severity of depressive symptoms [20]. According to the social cognitive 388 theory of observational learning; people can witness and observe behaviour conducted by 389 others, and then reproduce those actions. Therefore, it became apparent that participants in 390 the study observed and learned to abuse substance and alcohol, from the people in their 391 environment and modeled the behaviour until they developed mental health illness such as 392 depression.

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In addition, females interviewed in the study revealed that they had depression. The findings replicate the results of earlier research [21] who pointed out that 16 to 19 year old females were more than six times more likely to experience depression if they were alcohol abusers than if they were not, and that drug abuse was strongly associated with a lifetime prevalence of depression. However, the findings of the study reveal that depression is the most common mental health illness among the participants as validated by the key informants; however, it is hard to determine whether depression is directly caused by substance abuse. From the findings, a few participants reported that substance abuse leads to mood disorders. One of
the key informants stated that people with mood disorders turn to substance abuse because
of the social problems that they encounter in their lives.

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405 According to [22] mood disorders are associated with several psychosocial problems, 406 including employment problems, criminal behaviour, and lower academic achievement. 407 Similarly, a research that was done among college students suggests that students with 408 greater symptoms of mood disorders are at risk of many problems, including academic 409 failure, dropping out of school, interpersonal problems, and risky behavious such as drug 410 use or risky sexual activities [23]. In addition, the findings of the study revealed that half of 411 the participants reported psychotic disorders. Comparatively studies of adults have found 412 that psychotic disorders, in general, tend to be positively related to abuse of, and 413 dependence on, both alcohol and illicit drug [24]

414

415 **5.4 Services put in place to help people who are mentally disturbed as a result of** 416 **substance abuse**

417 According to the study findings, most of the participants reported awareness of services 418 such as the psychiatric unit from Sekgoma Memorial Hospital as well as the support group 419 run by medical social workers. The results reveals that patients who are admitted at SMH in 420 the psychiatric ward are provided with a chance to meet a social worker who engages them 421 with behaviour modification techniques to find ways to deal with their addiction if they are 422 willing to quit and how they should do it, how to overcome challenges that come with 423 quitting. There is also psychosocial education which involves general education on the 424 effects of substance abuse and cognitive restructuring. The results concur with [25] that 425 motivational interviewing can also be used to help people engage in treatment, key elements 426 of this technique include expressing empathy, providing feedback, avoiding argumentation, 427 refraining from directly confronting resistance, and encouraging an individuals' belief that he 428 or she has the ability to change.

429

430 According to [26] the technique has been used with individuals with co-occurring disorders to 431 enhance intrinsic motivation, explore and resolve ambivalence, and develop strategies for 432 change which is mostly done at the psychiatric ward as they emphasize on personal choice, 433 responsibility, and awareness of the risks and benefits of continued substance use. The 434 findings of the present study also resonate with available literature which also emphasizes 435 that groups are very helpful, not only in maintaining sobriety but also as a safe place to get 436 support and discuss challenges. It is, therefore, the contention of this paper that the findings 437 of this present study can be used to inform policy and practice intervention in Botswana and 438 elsewhere in Africa and around the world.

439

440 6. IMPLICATIONS FOR SOCIAL WORK RESEARCH

441 This section suggests some strategies in the form of recommendations to mitigate substance 442 abuse and its mental effects among the youth in Botswana and elsewhere in the globe. It is 443 reasonable to expect that social workers advocate for policies and programs that address 444 over incarceration by diverting low-level drug offenders to treatment orientated alternatives. 445 Since its inception as a profession, social work has been dedicated to social justice [27]. 446 More importantly, the profession has contributed knowledge of evidence-informed practice 447 and policies to national discussions that seek to address needs of vulnerable populations. 448 Therefore, this paper suggests recommendations that should be designed for future 449 researchers, the government and other relevant ministries as well as social workers and 450 other professionals dealing with issues of substance abuse and mental health.

451

Further research needs to be conducted on this study but on a wider scope covering larger geographical areas in Botswana in order to explore, on a wider scope, the prevalence of 454 substance abuse and its mental health effects among the youth. Social workers and 455 psychiatrists need to conduct a various form of epidemiological research to provide scientific 456 baseline data on the problem facing youth in Africa and elsewhere in the world. This will 457 significantly inform the formulation and implementation of appropriate policies in order to 458 influence political decisions with regards substance abuse and mental health issues. In the 459 same way, social workers, parents, counselors and other professionals dealing with cases of 460 substance abuse and mental health should become knowledgeable about the link between 461 substance abuse and mental health. Future research should consider using both qualitative 462 and quantitative method to complement one another. With the quantitative method, more 463 participants will be reached given the nature of analysis it uses. This is not the case with a 464 gualitative method which was adopted in the study as it analyses participant's words hence 465 uses a smaller sample.

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467 The government should initiate rehabilitation centers to avoid a situation where the patients 468 feel uncomfortable in the psychiatric ward and for better interventions. Furthermore, useful 469 preventative strategies such as enforcing legal action against perpetrators smuggling illegal 470 drugs into the country should be put in place. In addition, information dissemination and 471 enhanced sensitization on the mental health effects of substance abuse are also a 472 potentially fruitful approach. Lastly, Social workers as a means of providing direct practice, 473 administrative, and program evaluation services to programs treating the mentally ill client, 474 should be hired in these settings.

475

476 6. 1 Limitations of the Study

The study findings should be cautiously interpreted due to some limitations. The findings of this study cannot be generalised to the larger population on the grounds that the sample size was small and unique to the people who participated. Furthermore, the study was crosssectional and location-specific hence limiting external validity.

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483 **7. CONCLUSION**

484 In conclusion, this paper reiterates that the problem of substance abuse constitutes one of 485 most important public health problems among the youth worldwide. This paper has explicitly 486 and implicitly shown that mental health and substance abuse are related and cannot be 487 separated because most of the substance abusers frequent have more than one mental 488 illness and it is not clear which one causes the other. However, it is evident from this study 489 that substance abuse leads to mental health disorders such as depression, suicidal 490 tendencies, mood disorders, psychotic disorders and personality disorder. The findings 491 suggest that most of the participants stated that drug addiction leads to financial constraints 492 which facilitate depression. Furthermore, the theory of social cognitive was used to explain 493 substance abuse and its mental health effects among the youth. Lastly, based on the 494 findings, the study concludes that there is a need for the establishment of programs that can 495 help people who are mentally disturbed as a result of substance abuse such as rehabilitation 496 centers and support groups so that they share and learn from their experiences. 497

498 **ACKNOWLEDGEMENTS**

We would like to extend our deepest gratitude to the cooperation of management and staff
(Sekgoma Memorial Hospital) in Botswana. Our indebtedness is further extended to youth
who took part in this research. The study could not have been feasible without their
participation

503

504 **COMPETING INTERESTS**

505 As authors of this article, we have no competing interests

506

507 AUTHORS' CONTRIBUTIONS

508 This work was carried out in collaboration between all authors. Author A wrote and 509 conceptualised the first draft of the manuscript. Author B designed the study and managed 510 analyses. All authors read and approved the final manuscript."

511

512 CONSENT (WHERE EVER APPLICABLE)

513 A written informed consent was obtained from the participants. Please find attached a copy 514 of the written consent which is available for review by the Editorial office/Chief 515 Editor/Editorial Board members of this journal.

517 ETHICAL APPROVAL (WHERE EVER APPLICABLE)

518 This study was submitted to the University of Botswana Institutional Review Board (UB IRB) 519 for ethical clearance and permission was sought and granted from UBIRB as well as the 520 Ministry of Health.

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