### Original Research Article

#### The prevalence of substance abuse and its mental health effects among the youth: Implications for social research.

#### 7 8 Abstract

9 The aim of the study was to assess the prevalence rate of substance abuse, understand the link between mental health and substance abuse, to explore the mental health effects of substance 10 abuse among the youth and to examine services put in place in helping mentally disturbed as a 11 result of substance abuse. The study adopted a cross-sectional qualitative research approach. 12 The data was collected through in-depth face to face interviews with the help of a tape recorder. 13 A total of 18 respondents were sampled and were divided into two sections: youth abusing 14 15 substances and key informants. Respondents were drawn using purposive and snowball sampling, and data was analysed qualitatively. The findings confirm that the prevalence of 16 substance abuse is high among the youth in Botswana, and mostly males as compared to females 17 are abusing substances. The findings also provide evidence that there is a strong relationship 18 between mental health and substance abuse. Furthermore, the findings show that the early onset 19 of substance abuse is often preceded by mental disorders comprising depression, suicidal 20 21 tendencies and personality disorders. In conclusion, the paper unveils the significance of rehabilitation centers in Botswana. Furthermore, the paper recommends that specific prioritized 22 interventions be identified for support by social workers, parents, counselors and other 23 professionals dealing with cases of substance abuse and mental health. Lastly, it outlines 24 implications for social work research. 25

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27 Keywords: substance abuse, mental health affects, social work, youth, Botswana.

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#### 31 **INTRODUCTION**

The issue of substance abuse and mental health is not only peculiar to youth in Botswana rather 32 it is a worldwide phenomenon. Available studies show that mental health and substance use 33 problems often coexist (Erickson, 2011; Kanyoni, 2015). To illustrate the magnitude of youth 34 substance abuse, according to a 2010 report on substance use in Canada, up to 50% of youth who 35 sought substance abuse treatment were found to have a concurrent mental health disorder, such 36 as depression or anxiety (Buttler Centre for Research, 2010). Comparatively, Shannon (2011) 37 also conducted a study using a larger sample of 538 adolescents at a hospital-based adolescent 38 clinic in Boston; substance abuse was reported in 63% of the 165 girls and 56% of the 79 boys 39 40 with attention-deficit/hyperactivity disorder (ADHD) symptoms. Moreover, substance abuse is widely among African youth which constitutes to serious social and public health problems 41 (Simatwa, 2014). A quantitative research in Ethiopia on the high prevalence of substance use and 42 associated factors among high school adolescents in 2014 found out that the current prevalence 43 44 of substance use among Woreta high school students was (47.9%) and the life-time prevalence was 65.4%. 45

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According to Molina, Carroll, Kostas & Perkins (2013) the prevalence rate of substance abuse in 46 47 Ethiopia was significantly higher than a study done among high school students in Addis Ababa which showed that the life time prevalence was (45.7%). Additionally, Molina et al (2013) points 48 49 out that in South Africa a study done in similar setting among adolescent students in Cape Town found out the prevalence was (50.6%). Therefore, this shows that the prevalence of substance 50 abuse is high among the youth in Africa. It is the contention of this paper that, despite the efforts 51 of various stakeholders to raise awareness on substance abuse globally, regionally, and nationally 52 53 more youth continue to abuse substances. It is of utmost importance to note that, substance abuse affects families, communities and nations at large. For this reason, this paper will specifically 54 55 focus on the prevalence of substance abuse, assess the link between mental health and substance abuse, and identify the mental health effects of substance abuse and it will also assess services 56 put in place in addressing this problem. 57

In Botswana, most of the available studies in the country focus on the effects and impact 58 59 of substance abuse, leaving a gap of knowledge to explore further on how substance abuse relates with mental health. According to literature (Winga, 2005; Ani, 2014; Maurice, 2015) 60 alcohol and marijuana are the most abused substances in Africa, in which Botswana is no 61 exception. This present study was conducted in Serowe, Botswana owing to the fact that, a lot of 62 cases in the psychiatric ward in Serowe (Sekgoma Memorial Hospital) are a result of substance 63 abuse. Evident from the statistics obtained in the psychiatric ward at Sekgoma Memorial 64 Hospital (SKM), out of 457 registered patients in the year 2014, 148 were alcohol and drug 65 abusers. In the year 2015, from July to December, 162 patients were registered from which 95 66 patient were a result of alcohol and drug abuse, aged between 18 to 35 years old. This registered 67 aged group indicates that there is high drug and alcohol abuse rate. From 2014 to 2015 the 68 statistics gives credence that the number of cases related to drug and alcohol abuse reported at 69 SKH escalated among the youth. 70

71 Therefore, it is the contention of this paper that the high number of drug and alcohol abuse by the youths of in Botswana is a great concern for the Ministry of Health and the 72 community at large. All this clearly demonstrates that efforts to curb alcohol abuse has not only 73 74 fallen short but has worsened the situation. Furthermore, in Botswana there are limited services provided for people living with mental illnesses due to substance abuse. It is against this 75 background that this present study sought to explore the relationship between substance abuse 76 77 and mental health among the youth in Botswana. Lastly, it outlines implications for social work practice with regards to impact of substance abuse, and mental health survivors. 78

#### 79

#### 80 THEORETICAL DISCOURSE

This section discusses the theoretical framework that has been adopted in the present study. 81 According to Bandura (1986) Social Cognitive Theory (SCT) considers the unique way in which 82 individuals acquire and maintain behavior, while also considering the social environment in 83 which individuals perform the behavior. The theory takes into account a person's past 84 experiences, which factor into whether behavioral action will occur. These past experiences 85 influences reinforcements, expectations, and expectancies, all of which shape whether a person 86 will engage in a specific behavior and the reasons as to why a person would engage in such 87 behavior. Furthermore, the social cognitive theory stresses that evaluating behavior change 88 depends on the following factors; the environment, people and behavior which constantly 89 90 influence each other (Thompson, 2005).

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#### 92 Reciprocal Determinism

Reciprocal Determinism is the central concept of SCT, which refers to "the dynamic and 93 94 reciprocal interaction of person (individual with a set of learned experiences), environment (external social context), and behavior (responses to stimuli to achieve goals)" (Bandura, 1986: 95 24). This explains how people acquire and maintain certain behavior, in that it stresses that the 96 individual learned experiences, social environment including societal pressures and role models 97 98 provide a framework for understanding behavior. Therefore, since the results of the study shows a high prevalence rate of substance abuse among the youth in Botswana, this paper bring this 99 discussion into perspective as we observed that the youth learned the behavior of using illicit 100 drugs and alcohol from their social environment. Having said that, this paper argues that the high 101 These high prevalence rates of substance continue increasing due to the societal pressures that 102 the environment instills on the youth. However, it must be noted that, the prevalence rate of 103 substance abuse was lower in females compared to males. This observation was caused by the 104 lower female rate on responding to stimuli on achieving societal goals. Through the selective 105 interactions with their environment, adolescent reciprocal interact with drug dealers, available 106 alcohol and behaviors associated with drug consumption which generate a high prevalence rate 107 in the findings of this study. 108

Learning how, what, when to use alcohol and other drugs occurs in a social context, that is among peers who are also engaging in the drug use hence high rates of prevalence of substance use (Leslie & Jacobsen, 2001). The role of modeling is apparent in many instances, especially among high-risk children who are exposed to the drinking and drugging of their parents. Children who are raised in a substance saturated environment learn early in their life to use alcohol and other drugs as a normal part of everyday life. Therefore, the study shows a significant prevalence rate of substance abuse in Serowe village, Botswana.

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#### 117 *Observational Learning*

This asserts that people can witness and observe a behavior conducted by others, and then 118 reproduce those actions. This is often exhibited through "modeling" of behaviors (Payne, 2005). 119 It is argued that, if individuals see successful demonstration of a behavior, they can also 120 complete the behavior successfully. This present study has shown that the high prevalence rate of 121 substance abuse by the youth in Serowe is caused by the modeling of alcohol and marijuana 122 practices adapted from the elders of the village. The study further show that the youth copy and 123 model drinking behaviors of their village role models which show a high prevalence rate of 124 substance abuse. 125

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#### 127 Behavioral Capability

This refers to a person's actual ability to perform a behavior through essential knowledge and 128 skills (Robbins, 2001). In order to successfully perform a behavior, a person must know what to 129 do and how to do it. Through continuous learning, adaptation and successfully abusing 130 substances such as marijuana and alcohol youths are more prone to developing mental illness. 131 The findings of the study verify the link between mental health and substance abuse. Likewise, 132 the National Institute of Health 'NIH' (2008) discovered that patients with schizophrenia have 133 higher rates of alcohol, tobacco, and other drug abuse than the general population. Based on 134 nationally representative survey data, 41% of respondents with past-month mental illnesses are 135 current smokers, which is about double the rate of those with no mental illness. In clinical 136

137 samples, the rate of smoking in patients with schizophrenia has ranged as high as 90% (NIH,138 2008). Hence, by using a survey on a population of patients at Sekgoma Memorial Hospital, this

139 study showed a link and/or a positive relationship between substance abuse and mental health.

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#### 141 Expectations

The above tenet according to Bandura (1986) refers to the anticipated consequences of a person's 142 behavior. Outcome expectations can be health-related or not health-related. People anticipate the 143 144 consequences of their actions before engaging in the behavior, and these anticipated consequences can influence successful completion of the behavior. Expectations derive largely 145 146 from previous experience. While expectancies also derive from previous experience, expectancies focus on the value that is placed on the outcome and are subjective to the individual 147 (Payne, 2005). This present study gives credence to the fact that substance abuse has mental 148 health effects on the youth. Globally, numerous epidemiological studies have found that, for 149 150 many adolescents (45%–66%), substance use disorders precede the onset of trauma exposure. substance abuse and dependence have been clearly associated with trauma and PTSD (Ginzler, 151 Garrett, Baer, & Peterson, 2007; Thompson, 2005). 152

Attention-deficit/hyperactivity disorder (ADHD) is a common childhood disorder that 153 often persists into adolescence and adulthood and has been associated with an increased risk for 154 substance use (Molina et al., 2013). Youth underestimate the expectations of their substance 155 abuse behavior on their mental health effects because of observed successful experiences from 156 environmental and societal role models. It is in this manner that this study discovered that less 157 value was put by the youth on the negative mental health effects of substance abuse. However, it 158 159 must be noted that this study also discovered that not all mental illnesses have been propounded by substance abuse. 160

- 161
- 162 *Self-efficacy*

This is the level of a person's confidence in his or her ability to successfully perform a behavior 163 (Robbins, 2001). Self-efficacy is unique to SCT although other theories have added this 164 construct at later dates, such as the Theory of Planned Behavior. Self-efficacy is influenced by a 165 person's specific capabilities and other individual factors, as well as by environmental factors 166 'barriers and facilitators' (National Institute of Health, 2008). It is the argument of this paper that 167 substance abuse is a complex problem and there is no one strategy that will work in all situations. 168 The delivery of effective treatment for substance use disorder to persons with severe mental 169 illness continues to be a major challenge. If efficient services and motivating factors are put in 170 place in the environment of substance users, the findings of this present study was not able to 171 deduce positive response and self-efficacy from the youth. However, due to inadequate service 172 delivery from most government health facilities, the confidence and self-efficacy of the 173 substance abuse users was low. 174

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#### 176 METHOD

#### 177 Participants

178 The sample included 18 participants (15 youth aged between 15 to 35 years and 3 social

workers) employed in the health setting. There were more male participants represented in the

180 study than their female counterparts. This is shown by the frequency of males which is

represented by 70% as opposed to 30% of females. This might be an indication that more males

are involved in substance abuse as opposed to females.

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#### 184 Sampling Technique

This present study adopted non probability sampling, namely purposive and snow ball. Purposive 185 186 sampling was chosen on the grounds that, the study focused on a certain group of individuals being youth aged 15-35 years with experience in substance abuse. It was also used to select the 187 key informants knowledgeable on issues of substance abuse and mental health. In addition, the 188 technique was used on the basis that, it is less time consuming since it allowed eliminating of 189 190 participants that did not fit in the study. It was very handy in selecting the key informants knowledgeable on issues of substance abuse and mental health who receive cases on substance 191 192 abuse and mental health on their line of duty in daily basis.

Snowball on the other hand was used in finding participants (youth) who have been 193 involved with substance abuse. The sampling technique was convenient owing to the fact that 194 participants with whom contact has already been made used their social networks and referred us 195 to other respondents who participated in the study. Snow ball was also used for the reason that 196 participants involved in substance abuse desire privacy. Furthermore, it was going to be difficult 197 to locate participants as all respondents did not stand equal chance of being selected. We used 198 the support group to locate other participants abusing substances. However, it is worth noting 199 that although sampling technique has advantages it has certain disadvantages as well. For 200 example, it is heavily reliant on other participants to make appropriate contacts, and since the 201 population is hidden its characteristics are likely to be unknown hence it was time consuming to 202 arrive to our target participants. 203

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#### 205 Data collection

Data was collected through the use of in-depth face to face interview. This data collection 206 method enabled us to have full control of the interview as a result producing a higher response 207 rate. The participants were assured of confidentiality and allowed to express themselves with 208 minimal interruptions. From the interview guide as researchers, we were able to elaborate more 209 on questions that needed clarity on prevalence of substance abuse, link between mental health 210 and substance abuse, mental health effects of substance abuse among the youth and whether 211 there are any services specifically meant for people who are mentally disturbed as a result of 212 substance abuse. 213

Data from the interviews was recorded through the use of a tape recorder. However, it is worth noting that, the respondents were asked for permission to record before the interview. The interview session took 30-40 minutes and the interview guide consisted of 12 questions which were derived from the study objectives.

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#### 219 *Ethical consideration*

Considering ethics in research is of paramount importance. Therefore, it is important that 220 researchers are well aware of and understand the basics of ethical research and how they might 221 affect the research project (Babbie, 2007). As noted earlier on, participation by respondents was 222 voluntary and free, they were not be coerced into providing information. This was ensured by 223 informing the participants fully about the nature and purpose of the research, how far the 224 research would go and how it would possibly benefit the society in general. The participants of 225 the study were Batswana hence familiar with both Setswana and English therefore the interview 226 227 guide was translated to local language to prevent communication barriers.

Permission was sought before proceeding with the interview and preceded only after the participant signed the consent form. 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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#### 233 *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 cross sectional as it was done at one time at a particular place. Lastly, it was location specific and as this was not a

- 238 national study thus limiting external validity.
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#### 240 **PRESENTATION OF STUDY FINDINGS**

#### 241 Demographic characteristics of the respondents

242 Age of the Respondents

The study participants were divided into two sections: youth and key informants. It shows that the respondents who participated in the study were aged from 18 to 50+ years. Fifteen (15) youth were interviewed and three (3) key informants thereby bringing the study total population to eighteen (n= 18). There were more male respondents represented in the study than their female counterparts. As stated earlier on this might be an indication that more males are involved in substance abuse as opposed to females.

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#### 250 **Prevalence of substance abuse among the youth**

- 251 Introduction to drugs and age youth start indulging in drugs
- Respondents were asked to indicate who introduced them to drugs and the age they started indulging in drugs. In responding to these questions, several answers were mentioned and with respect to the introduction of drug; a majority of respondents (7/15) reported to have taught themselves while some were introduced to drugs by their friends (5/15), classmates (2/15), family members (1/15). One female respondent who stated that she has been influenced by a friend had this to say:
- 258 *"At the time I was really stressed and I went to leave in a house filled with people who were bad*
- 259 influence, It was just after I finalized my divorce and that is when I started to do crack as a
- 260 friend of mine said it will help me forget everything that I was going through".
- With regard to the age when they started indulging in drugs, it was observed that a majority of the youth start indulging in substances at the ages between 14 and 18 years old. Only (5/15) reported to have started indulging in drugs at the ages between 19 and 23 years of age.
- 264
- 265 The most abused substance and frequency

With regard to the most abused substance, of the fifteen youth interviewed (6/15) reported 266 marijuana to be the drug that they have ever abused the most compared to other drugs. However, 267 few participants (4/15) reported alcohol to be the substance they abuse the most. Still on that 268 note, very few participants (2/15) reported to having used both alcohol and marijuana the most at 269 the same time while one respondent reported to having used cocaine the most. One respondent 270 also stated that the most abused substances were a combination of cigarrete and alcohol whilst 271 272 one participant reported to have used Madiana the most. However, the key informants including two social workers and a psychiatrist also found marijuana to be the most prevalent substance 273

among the youth in Serowe looking at some of the cases they receive. During the interview apsychiatrist pointed out that:

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

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In reaction to the issue of frequency, all the youth participants (15/15) reported smoking daily usually three times or more in a day. In relation to alcohol the general consensus was that respondents reported drinking alcohol four times in a week usually from Thursdays until the weekend. Commenting on the issue of smoking, one male participant said:

"While I am talking to you just now, I was smoking few minutes before you came, I would
not know what to say but I smoke a lot to be honest. My demand is very high, if it was according
to me I would smoke after every 30 minutes but problem is money". Additionally, the psychiatrist
emphasized that they mostly receive cases associated with substance abuse daily.

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#### 290 *Reasons for substance abuse*

To find out factors contributing to abuse of substances, participants were asked to outline reasons for using substances. During the interview participants indicated that people abuse substances due to different reasons. Moreover, when interviewed the significant minority of the respondents (6/15) pointed out that, they use substances because of the influence from their friends. They laid a point that they usually want to fit into the crowd and to please their friends. In addition among the six participants, one female participant stated that she was influenced by her boyfriend. She emphasized that she could not refuse as her partner at times tend to be violent when he is high.

In contrast, during the interview only (5/15) of participants reported to be using substances to reduce boredom as it always keeps them busy. Very few (3/15) reported to be using substances to boast their confidence as they indicated that it makes them feel alive and helps them to be able to concentrate. The remaining two of the fifteen participants (2/15) indicated that they are using substances to relieve stress.

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#### 304 Signs experienced when substances are not used

When participants were asked on the signs that they experience when they do not indulge in 305 substances, a majority (8/15) indicated that they cannot function when they do not use the drugs 306 as they indicated that substances kept them going. When interviewed on the issue, few 307 participants (4/15) reported that they tremble when they do not take in the substances. 308 Nonetheless, two of the fifteen youth participants stated being depressed when they do not 309 indulge in substances, one respondent reported that she hallucinate when she does not take in 310 substances for a long time. Furthermore, of the fifteen respondents interviewed only three 311 respondents were female while the rest were male which clearly shows the differences of the 312 abuse of substances between the two genders. 313

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#### 315 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 or is the other way around. They expressed different viewpoints and

the predominant answer was reported to be that substance abuse cause's mental illness. Out of

the total population, a majority of participants (8/15) indicated that substance abuse leads to

mental health. However, though majority of participants reported that substance abuse leads to
 mental illness, other respondents had difference views, as they stated that mental illness causes
 drug abuse. One respondent addressed the issue by saying:

323 "Well I would like to think the two are interrelated so there is no definite answer, I 324 believe drug abuse causes mental illness and also people who have mental health problems tend 325 to abuse drugs. This is so, because people who abuse drugs tend to become violent and they 326 behave in a way they would not behave on a normal day. Therefore, abusing drugs have severe 327 effects on the brain and a way a person functions and usually people who have mental illness 328 tend to abuse drugs'.

329

The remaining two of the fifteen respondents reported not knowing which one causes the other but they do not think abusing substance can lead to mental illness. The key informants were also asked on their opinion on whether mental illness causes substance or substance abuse cause mental illness. Out of the three key informants interviewed, they reported that the two are related and they cannot be separated.

335 To substantiate the above one them said:

"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".

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

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#### 344 Mental health effects of substance abuse among the youth

One of the questions asked to participants was on whether substance abuses have some mental health effects and they were asked to elaborate such effects. They reported that likely mental health effects include depression, suicidal attempts, stress disorder, mood disorders, psychotic disorders, personality disorder.

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#### 350 Depression

A majority of the participants (9/18) emphasized that substance abuse can lead to depression. 351 During the in-depth interview, the respondents pointed out that due to drug addiction which 352 comes with a variety of problems such as financial constraints can lead to depression. 353 Additionally, three of the eighteen participants said that they were once diagnosed with 354 depression due to the abuse of substances such as cocaine, marijuana. In addition, the in-depth 355 interview which was done by the key informants also found depression to be one of the mental 356 health effects which is associated with the abuse of substances. For instance the social worker 357 stressed that the clients that she is dealing with at the psychiatric unit are mostly diagnosed with 358 depression. 359

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#### 361 *Suicidal Tendencies*

With regard to suicidal tendencies, it was noted by some participants (5/18) that usually abusing

363 substances can lead to suicidal attempts. The participants reported that suicidal attempts are

associated with stress and depression. To corroborate this proposition one respondent said:

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

368

#### 369 Mood disorders

From the study findings, other participants reported that mood disorders are some of the mental 370 health effects associated with substance abuse. On the grounds that mood disorders is associated 371 372 with depression and bipolar disorder, (5/18) of the participants said substance abuse can lead to mood disorders because people indulging in drugs may feel irritable at times and feel hopeless. 373 374 In reaction to this issue the psychiatrist emphasized that the most common psychiatric cooccurring disorders are substance abuse and mood disorders. She further pinpointed that it is 375 common for people with mood disorders to turn to substance abuse and the substance abuse, in 376 turn, exacerbates the effects of the mood disorder. 377

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379 *Psychotic disorders* 

With respect to psychotic disorders, (6/18) of the participants reported psychotic disorders as one of the mental health effects associated with abusing substances. They reported that usually people indulging in substances especially those using more than one substance tend to lose touch of reality and get to see things that are not even there (hallucinations). Among the six respondents one reported to having been diagnosed with the disorder when she was abusing cocaine and crack. She reported that she used to see things which did not even exist.

- 386
- 387 *Personality disorders*

With reference to this issue, it was noted that (4/18) of the participants believes that personality disorders are associated with substance abuse. The psychiatrist has this to say:

- 390 "Many studies were carried out to determine the link between those who abuse drugs and
- alcohol and those who have personality disorders. The majority of data collected points towards
- a direct correlation between the two. Some specific personality's disorders have been shown to
- 393 result in an increased risk of drug use".
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# 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, a majority (14/18) stated that they are 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 worker summarized this by saying:

403 "They receive help from clinics and hospital at the psychiatric ward where they have a 404 chance to meet with social workers who engage them with behavior modification techniques, find 405 ways to deal with their addiction if they are willing to quit what they should do and how they 406 should do it, how to overcome challenges that come with quiting, psychosocial education which 407 involve general education on the effects of substance abuse, cognitive restructuring because they 408 have negative perceptions and needs like they feel intelligence so they need cognitive 409 restructuring. The other service is a support group for those still using and who have stopped, it 410 consist of both male and females who use different substances and it is an open group basically
411 they share experiences and explore side".

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With respect to the effectiveness and the accessibility, a majority of the respondents (13/18) indicated that the services are effective and accessible. However, there is still more which needs to be done. One male respondent had this to say:

416 *"I would say they are accessible but not effective because workers are not trained for*417 *such and also there is shortage of workers as we usually need special care when admitted but*418 *there is shortage of that".*

Furthermore the participants were also asked to come up with recommendation in relation to the issue of substance abuse and mental health effects among youth. A majority of them (11/18) reported that it is high time the government initiate rehabilitation centres and that programme should be initiated at primary school level to sensitize children on the impacts of substance abuse.

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#### 425 **DISCUSSION**

#### 426 **Prevalence of substance abuse among the youth**

It is evident from the results that there is a high prevalence of substance abuse among the youth 427 in Botswana. All the key informants indicated that there is a high prevalence of substance abuse 428 among the youth by reporting that they receive cases daily which are associated with substance 429 abuse which make substance abuse one of the very important problems among the youth in the 430 contemporary days. The results concur with Maurice (2015) who says that the use of alcohol, 431 tobacco, cannabis and other psychoactive substances constitutes one of most important public 432 health problems among youth worldwide. Still in relation to the prevalence of substance abuse 433 the findings revealed that the majority of the respondents have taught themselves while some 434 were introduced to drugs by their friends, classmates, family members. Therefore, these findings 435 are consistent with social cognitive theory which explains how people acquire and maintain 436 certain behavior, in that it stresses that the individual learned experiences and the social 437 438 environment including societal pressures and role models provide a framework for understanding behavior. The findings of the study revealed that the youth have learned the behavior of using 439 illicit drugs and alcohol from their social environment such as classmates and friends. This high 440 prevalence rate of substance will continue increasing because of the societal pressures that the 441 442 environment instills on the youth.

Another observation made in the research finding with regard to the most abused 443 substance, of the fifteen youth a majority reported marijuana to be the drug that they have ever 444 abused the most compared to other drugs. In contrast, some participants reported alcohol to be 445 the most drug they abuse the most. Alone the same line, few participants reported to having used 446 both alcohol and marijuana the most at the same time. Furthermore, few participants argue that 447 the most abused substances were a combination of cigarrete and alcohol whilst only one 448 participant reported to have used Madiana the most. From the results it is evident that marijuana 449 is the most abused drug followed by alcohol respectively. It is worth noting that the results are 450 supported by a survey in the United States of America (USA) which concluded that marijuana 451 was the most common illicit drug chosen by teenagers, and more than 50% of high-school 452 seniors had used it (Ani, 2014). Additionally, the findings are also supported by a study 453 conducted among high school students in Botswana which also reported Marijuana to be the 454 most commonly used substance among secondary school students (Diraditsile & Mabote, 2017). 455

456 On the flip side, it should be noted that the above results are not consistent with study 457 done at Limpopo, South Africa which reveals that the most commonly used substances are Cannabis (49%), Inhalants (39%), bottled wine (32%), home-brewed beer (30%), and 458 459 commercially brewed beer used by (54.8%) of the youth (Development, 2013). However, comparatively, another study by Texas Department of Health Services (2008) in conjunction 460 with the Public Policy Research Institute at Texas University (2008) found out that alcohol 461 continued to be the most abused substance by secondary school students (63%), followed by 462 463 tobacco (30%), marijuana (25%), inhalants (9.3%), and cocaine (6.8%). These findings hold different results in relation to the most abused drug. One of the more significant findings to 464 emerge from this present study is that there are more males abusing substances as compared to 465 females. This observation is also evidenced by the previous studies which were conducted in this 466 area. To substantiate this, Erickson (2011) conducted a study on prevalence of substance use 467 among college students in Eldoret, western Kenya and results indicated that lifetime prevalence 468 rate of any substance use was (69.8%), with males having statistically significantly higher rates 469 than females. On yet another study done by Shaheen (2009) results has also shown that males 470 had higher prevalence (13.4%) than females (4.9%). 471

Moreover, the above results are supported by social cognitive theory which posits that the 472 prevalence rate of substance abuse could be lower in females compared to males which might be 473 caused by the lower female rate on responding to stimuli on achieving societal goals. Through 474 the selective interactions with their environment, adolescents might reciprocally interact with 475 drug dealers, available alcohol and behaviors associated with drug consumption which generates 476 a high prevalence rate in the findings of this study. Participants expressed different viewpoints 477 on the question of the reasons for abusing drugs. The results reveal that majority of the 478 respondents pointed out that they use substances because of the influence from their friends. 479 Whereas few respondents reported to be using substances to reduce boredom as it always keeps 480 them busy, and to boast their confidence as they indicated that it makes them feel alive and helps 481 them to be able to concentrate. 482

The different opinions that exist on the reasons for the abuse of substances are also reflected in the divergent views in the literature review regarding the matter. For instance, according to Simatwa (2014) international studies have shown that nearly 92% of the youth experiment with both licit and illicit alcohol, tobacco, bhang, inhalants (glue, petrol) and heroin among others during the growing up process for different purposes such as influence from friends and some have a believe that it will increase their level of thinking hence making them confident.

Furthermore, when asked on the signs they experience if they do not use substances, participants revealed quite different experiences. Majority of respondent reported not being able to function when they do not use the drugs as they indicated that substances kept them going. The research results correlates with all literature reviewed on the subject of the prevalence of 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.

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#### 497 Link between mental health and substance abuse

From the findings of the study, it is clear that there is a strong relationship between mental health and substance abuse. This is validated by Garland et al (2003) who indicate that youth/young adults with mental health conditions have higher rates of substance-related disorders. From the present study findings, most of the respondents indicated that substance abuse leads to mental

health. The majority of the respondents attributed this link to dependence to drugs. These findings concur with the National Institute of Health (2008) that many people who regularly abuse drugs are also diagnosed with mental disorders and vice versa. Similarly, according to the social cognitive theory through the concept of behavioral capability which states that continuous learning, adaptation and successfully abusing substances such as marijuana and alcohol; youth are more prone to developing mental illness. The findings of the study show the link between mental health and substance abuse.

509 Furthermore, all key informants stipulated that mental health and substance abuse are related and cannot be separated taking into consideration that most of the substance abusers 510 511 frequent have more than one mental illness such as depression, bipolar, epilepsy and depression. These present study findings are consistent with the National Institute Health (2007) survey on 512 comorbid drug abuse and mental illness which show that drug abuse and other mental illnesses 513 are often comorbid. However, the results of the study show that few of the respondents do not 514 recognize a link between substance abuse and mental health. This confirms Simatwa (2014) 515 discovery that substance abuse does not always lead to mental health or that there is always a 516 517 correlation between the two. This concurs with the social cognitive theory component of expectations which states that people anticipate the consequences of their actions before 518 engaging in the behavior, and these anticipated consequences can influence successful 519 completion of the behavior. Expectations derive largely from previous experience. The results 520 show that the respondents that abuse substance but not have mental illness anticipated the 521 consequences of their substance intake and managed their substance intake hence; they never 522 developed mental illness as a result of substance abuse. 523

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#### 525 Mental health effects of substance abuse among the youth

The early-onset of substance use and abuse is often preceded by mental disorders (Fergusson, Horwood, & Boden, 2008; Wittchen et al, 2007). This is similar to the results of the present study that show that substance abuse has negative effects on mental health. Moreover, substance abuse leads to mental health disorders comprising depression, suicidal tendencies, mood disorders, psychotic disorders and personality disorders which will be explained below.

- 531
- 532 Depression

Most of the study participants stated that drug addiction leads to financial constraints which 533 facilitate depression. The literature shows that substance use increases with the severity of 534 depressive symptoms (Kelderet et al, 2001). According to social cognitive theory on 535 observational learning; people can witness and observe a behavior conducted by others, and then 536 reproduce those actions. This is often exhibited through "modeling" of behaviors. Therefore, it 537 became apparent that participants in the study observed and learned abusing substance and 538 alcohol, from the people in their environment and modeled the behaviour until they developed 539 mental health illness such as depression. 540

In addition females interviewed in the study revealed that they had depression. The findings replicate the results of earlier research by Deykin (1987) 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 respondents as validated by the key respondents but it is hard to determine whether depression is directly caused by substance abuse. 548

549 Mood disorders

From the findings a few participants reported that substance abuse lead to mood disorders. One 550 551 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. According to Alli (2006) mood disorders is 552 associated with several psychosocial problems, including employment problems, criminal 553 behavior, and lower academic achievement. Similarly, a research that was done among college 554 555 students suggests that students with greater symptoms of mood disorders are at risk of many problems, including academic failure, dropping out of school, interpersonal problems, and risky 556 557 behaviors such as drug use or risky sexual activities (Blase et al, 2009; Javorsky and Gussin, 1994; Rabiner et al, 2008). In addition the findings of the study revealed that half of the 558 participants reported psychotic disorders. Comparatively studies of adults have found that 559 psychotic disorders in general tend to be positively related to abuse of, and dependence on, both 560 alcohol and illicit drug (Book & Randall 2002; Falk et al, 2008). 561

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#### 563 Services put in place to help people who are mentally disturbed as a result of substance 564 abuse

According to the study findings, majority of respondents reported awareness of services such as 565 the psychiatric unit from Sekgoma Memorial Hospital as well as the support group run by 566 medical social workers. The results reveals that patients who are admitted at SMH in the 567 psychiatric ward are provided with a chance to meet the social worker who engage them with 568 behavior modification techniques to find ways to deal with their addiction if they are willing to 569 quit and how they should do it, how to overcome challenges that come with quiting. There is also 570 psychosocial education which involves general education on the effects of substance abuse and 571 cognitive restructuring. The results concur with (Miller & Rollnick, 1991; Prochaska & 572 DiClemente, 1992) that motivational interviewing can also be used to help people engage in 573 treatment, key elements of this technique include expressing empathy, providing feedback, 574 avoiding argumentation, refraining from directly confronting resistance, and encouraging an 575 576 individuals' belief that he or she has the ability to change.

Sciacca (1997) adds that the technique has been used with individuals with co-occurring 577 disorders to enhance intrinsic motivation, explore and resolve ambivalence, and develop 578 strategies for change which is mostly done at the psychiatric ward as they emphasize on personal 579 choice, responsibility, and awareness of the risks and benefits of continued substance use. The 580 findings of the present study also resonate with available literature which also emphasizes that 581 groups are very helpful, not only in maintaining sobriety, but also as a safe place to get support 582 and discuss challenges. It is therefore the contention of this paper that the findings of this present 583 study can be used to inform policy and practice intervention in Botswana and elsewhere in 584 Africa and around the world. 585

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#### 587 IMPLICATIONS FOR SOCIAL WORK PRACTICE

This section suggests some strategies in the form of recommendations to mitigate substance abuse and its mental effects among the youth in Botswana and elsewhere in the globe. It is reasonable to expect that social workers advocate for policies and programs that address over incarceration by diverting low level drug offenders to treatment orientated alternatives. Since its inception as a profession, social work has been dedicated to social justice (Lucas, 2013). More importantly, the profession has contributed knowledge of evidence informed practice and

policies to national discussions that seek to address needs of vulnerable populations. Therefore, this paper suggest recommendations that should be designed for the future researchers, the government and other relevant ministries as well as social workers and other professionals dealing with the issues of substance abuse and mental health.

Further research needs to be conducted on this study but on a wider scope covering more 598 599 geographical areas in Botswana in order to explore on the prevalence of substance abuse and its mental health effects among the youth. Social workers and Psychiatrists need to conduct various 600 601 from of epidemiological research to provide scientific baseline data on the problem facing youth in Africa and elsewhere in the world. This will go a long way in formulation and implementation 602 603 of appropriate policies in order to influence political decisions with regards to substance abuse and mental health issues. In the same way, social workers, parents, counselors and other 604 professionals dealing with cases of substance abuse and mental health should become 605 knowledgeable about the link of substance abuse and mental health. Future research should 606 consider using both qualitative and quantitative method to complement one another. With 607 quantitative method more respondents will be reached given the nature of analysis it uses, for 608 609 example analyzing numbers.

This is not the case with qualitative method which was adopted in the study as it analysis 610 respondent's words hence a small sample. The government should initiate rehabilitation centers 611 to avoid a situation where the patients feel uncomfortable at the psychiatric ward and for better 612 interventions. Furthermore, there should be some useful prevention strategies such as enforcing 613 legal action against perpetrators smuggling illegal drugs in the country. The government should 614 hold workshops which can help in sensitizing the youth on the mental health effects of substance 615 abuse. Social workers are sorely needed to provide direct practice, administrative, and program 616 evaluation services to programs treating the mentally ill client therefore more social workers 617 should be hired in these settings. 618

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#### 620 CONCLUSION

In conclusion, taking everything into consideration this paper reiterates that the problem of 621 substance abuse constitutes one of most important public health problems among the youth 622 worldwide. Based on the study results, the paper has demonstrated that there is a high prevalence 623 of substance abuse among the youth and the findings concluded that more males are affected by 624 the problem as compared to female's counterparts. This paper has explicitly and implicitly 625 shown that mental health and substance abuse are related and cannot be separated because most 626 of the substance abusers frequent have more than one mental illness and it is not clear which one 627 causes the other. 628

However, it is evident from this study that substance abuse leads to mental health 629 disorders such as depression, suicidal tendencies, mood disorders, psychotic disorders and 630 personality disorder. The findings suggest that most of the respondents stated that drug addiction 631 leads to financial constraints which facilitate depression. Furthermore, the theory of social 632 cognitive was used to explain the prevalence of substance abuse and its mental health effects 633 among the youth. Lastly, based on the findings, the study concludes that there is need for 634 establishment of programs which can help people who are mentally disturbed as a result of 635 substance abuse such as rehabilitation centres and support groups so that they share experiences. 636

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#### 640 **Conflict of interest**

- 641 As authors of this article we have no competing interests
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