



YOUNG PEOPLE WHO USE DRUGS: NEEDS ASSESSMENT AND MENTAL HEALTH REPORT

EXECUTIVE SUMMARY/ABSTRACT

Academic research and anecdotal evidence shows that adolescence is a risk factor for entry into drug use. Unfortunately, drug use is also associated with poor mental health outcomes among young populations. To enrich knowledge and practice in the area, MEWA with the support of Mainline piloted a program in Kisauni in December 2020 aimed at youth at risk of transitioning into drug use, those into drugs and the chemically dependent. As part of the program, a needs assessment and screening were conducted. 482 youth aged 24 years and below were recruited using snowball sampling method for the needs assessment and a further 220 derived from the initial sample for the screening. Findings show that whereas men were more likely to have poor physical health, women were more likely to report poor mental health. Alcohol, tobacco, cocaine, heroin, glue, and methadone were reported to have been used for more than 10 days during the last month. Heroin was the most injected drug and one in four respondents had experienced a drug overdose. Depression, anxiety disorders, substance use disorders, and schizophrenia or psychosis were reported. Low uptake of harm reduction services among youths using drugs was reported. The Patient Health Questionnaire (PHQ) was able to screen for depression as manifested in schizophrenic and other psychotic symptoms. The findings suggest the existence of common barriers that impact youth and the need for more appropriate broad-based non-medical interventions to deal with the challenge.

Introduction

Research and anecdotal evidence shows that most drugs use starts at younger ages. Indeed, early (12-14 years) and later adolescence (15-17 years) is a risk period for the inception of substance use and abuse and may peak among young people aged 18-24 years. According to the World Health Organization, mental health conditions account for 16% of the global burden of disease and injury among 10-19 year-olds and that most mental health conditions begin at 14 but remain undetected and untreated (WHO, 2020). Among adolescents globally, depression is one of the leading causes of illness and injury while suicide ranks highly among the causes of death in 15-19 year olds. Anxiety is also listed as prevalent among adolescent populations. A study conducted in Kenya and Zambia reported a prevalence of moderate and severe symptoms of anxiety and depression of 3.7% and 9.4% respectively (Mathur, et al., 2018).

Kenya's large population of young people below the ages for 35 years presents a challenge of ever growing need for social services such as health, education and other social amenities. In Kenya, more than half of people who use drugs are between ages 10-19 years. The commonly abused drugs are nicotine, alcohol, and marijuana (MOH Kenya, 2017). Prevalence of alcohol usage among populations aged 15-65 years in Kenya was 12.2%, tobacco 8.3%, Khat 4.1% and marijuana 1.0% (NACADA, 2016). Cognizant of the huge challenge presented by mental health, the government of Kenya launched the Kenya Mental health policy 2015-2030 (MoH, 2015) as a policy framework on interventions for securing mental health systems reforms in Kenya. However, the framework fails to respond to the needs of youth using drugs and other populations living on the periphery of society. Whereas the focus is slowly shifting towards adolescent mental health for the general population (e.g. the 3-year Kenya National Adolescent Mental Health Survey (K-NAMHS by African Population and Health Research Centre), youth who use drugs remain an unstudied population. This paucity of data on adolescent mental health makes it difficult to identify young people at risk of mental health disorders, the availability of mental health resources and interventions.

To fill the gap, in December 2020, MEWA with support from Mainline rolled out a youth program in Mombasa – Kisauni Sub-County, a semi-urban locality with high poverty and insecurity levels. The youth program titled 'Prevention, Building Resilience and Sustain Inclusive Rights for Young People Who Use Drugs in Mombasa County' aims at having a preventive and transformative society where 500 youth thrive physically, mentally and socially. 500 youth aged 15-24 are targeted comprising those at school with risk of transitioning to drug use, early stages of drug use (stimulants, sedatives and opioids) and those chemically dependent on drugs. The key tenets of the program are to end self- and community stigma and discrimination, ensure access to preventive drug use, health, harm reduction and promote access to social justice.

This needs assessment systematically looked at how service provision meets the needs of young people. It aimed to inform MEWA, Mainline and local government and others on planning and resource allocation.

Methodology

Sampling and recruitment

For both studies, a snowball-sampling approach was employed for recruitment of participants. Snowball sampling is an effective way of generating a large sample from a hidden population where no formal sampling frame is available (Van Meter, 1990). A team of interviewers underwent a 5-day training in interview methods and on use of mobile data collection tools (Kobo collect software) in preparation for the study. The team comprised of outreach workers/paralegal (10), clinician (2) and psychologists (5) were trained for 5 days involving a detailed discussion of every question in the instrument.

Data collection and Analysis

Data was collected for a period of 5 weeks between 14th December 2020 to 27th January 2021 in Mvita, Kisauni, Nyali Sub counties in Mombasa and Lamu west in Lamu County.

In order to maintain confidentiality and anonymity, all participants were provided with a unique participation study code that was utilized to identify them, and all personal identifiers were removed from the data. Data were analyzed using Stata 2013.

Descriptive statistics were used to describe, organize and summarize collected data. Analyses of categorical variables were performed using χ^2 statistic. Differences in scale means were assessed using t-tests.

RESULTS

Study 1

Demographics

The sample comprised of 482 drug-using youth aged 24 years and below (377 males) with a mean age of 20.7 years. 23.6% of respondents were 18 years old and below. More worrying, is that 8.3% of the respondents already using drugs were 16 years old and below. 86% disclosed attending school but did not study past secondary school level with only 32% and 19% finishing primary school and secondary school respectively, 8% did not attend school completely while 7% attended university or college level with only 1% finishing.

Up to half the sample (49.47%) reported living with their parents, 12% with friends, 9% with relatives, 12% on the streets, 10% own a house and 8% are live in a variety of residences.

In the last one month, 40% reported sourcing money from employment, 10% from parents, 6% relatives, 7% and 6% from friends and begging respectively, while 6% disclosed obtaining money from illegal activities. Only 6% had no source of money and 18% reported getting money from multiple sources.

Mental and Physical Health

Study participants were asked to rate the status of their physical and mental health in the last one month on a 5-point Likert scale (5 = excellent, 1 = poor). The most common category of rating chosen was 'good' for both mental health (55%) and physical health (45%). It was also shown that 9% and 5% of the respondents reported having physical health and mental health status being 'Poor' in the last one month respectively. A chi-square test of independence was

performed to examine the relation between gender and physical health. The relation of these two variables was significant ($\chi^2 = 15.77, p < 0.05$). Men were more likely to have their physical health being poor than women. There was also a significant gender difference in mental health. Women were more likely to report their mental health being poor ($\chi^2=16.74, p < 0.05$).

A total of 22.46% reported ever having been diagnosed with depression, closely followed by anxiety disorders (19.82%), substance use disorders (22.81%) and schizophrenia or psychosis (7.72%).

Drug use

Participants were asked types of drugs used in the last month. 26% reported using alcohol, 25% tobacco, 1% cocaine, 35% heroin, 11% glue, and 3% methadone used for more than 10 days during the month. Prevalence of drug use for more than 10 days was higher in cigarettes, marijuana and miraa with 72%, 62% and 57% respectively clearly indicating the use of cigarettes is more common than any other drug.

The data also showed that majority (more than half) of the participants reported never using most of the drugs but a majority of those who used drugs disclosed using marijuana, cigarettes and miraa most of the time. Prevalence of drugs use in marijuana and cigarettes was higher with 67% and 75% respectively. Only 33% and 25% of the respondents reported never using marijuana and cigarettes before with less than 20% stating that they started using it 2 years ago while more than half started using it more 3 years ago. It was also shown that among the drugs, glue (89%), cocaine (98%) and methadone (96%) recorded the highest proportions of the drugs never been used before.

Only 3.5% reported injecting themselves with a drug with heroin (80%, $n=16$) identified as the most injected drug and the other 20% ($n = 4$) injected cocaine. There was no statistical evidence to support differences in gender with drugs injection ($\chi^2=2.09, p > 0.05$).

One in every four respondents (26.49%) reported experiencing overdose from a drug. Marijuana (38.24%) and heroin (37.25%) were reported to be the common drugs resulting in overdose.

The study also assessed the challenges respondents faced due to drug use. 28% reported financial problems i.e. spending all the available money on drugs, 9% reported social problems (relationship problems with family and friends), 7% missed school days, 2% have been involved with criminal activities and/or have been arrested, 2% experienced health problems and only 5% reported not experiencing any problems due to drug use. 46% of the respondents reported experiencing more than one of the stated problems due to drugs use. Breathing (27.27%), coughing (18.18%), lack of sleep, mental problems, tuberculosis, ulcers and weight loss each at 9% were identified as the health problems experienced by the respondents due to drugs use.

Harm reduction services

The study found that 47% of the respondents reported availability of a drop-in-centre (DIC) in their community, social services or welfare (53%), rescue shelter (40.7%), emergency room or doctor (48%), psychiatric service (39.47%), detoxification or detox program (44.21%), addiction

treatment centre or rehabilitation centre (49.47%), counselling and support group (57.37%), peer support worker (58.77%), caseworkers (48.42%), needle exchange program (48.42%), methadone (48.25%) and street outreach or mobile program (57%). Other services within the community were also identified which included; food programs, health education, methadone take away, referrals, doctor’s home visits and hygiene kits.

Study participants were also asked if they have used harm reduction services anywhere within Mombasa County. About 37.89% used drop-in-centre and 38.42% used social services. Other services used included rescue shelter (25.26%), emergency room (36.67%), psychiatric service (16.67%) detox program (19.65%), addiction treatment centre (21.58%), support group (40.18%), support worker (37.54%), caseworker (27.89%), needle exchange (12.81%) methadone program (10%) and street outreach program (32.46%).

The usefulness of the harm reduction services was also assessed during the study. Responses were given as ‘not used’, ‘helpful’, ‘not helping’ or ‘not known’. The most reported useful service used was support group by 38.95% of the participants followed closely by support workers (37.72%) social services (36.49%) and emergency room or doctor (36.49%).

Ratings on other services included rescue shelter (24.56%), drop-in-centre (36.32%), psychiatric service (17.72%) detox program (20.7%), addiction treatment centre (22.46%), caseworker (29.3%), needle exchange (14.21%) methadone program (12.28%) and street outreach program (32.11%).

The study also collected feedback on the harm reduction services the participant felt the need to use. Drop-in-centre (88%) and peer support workers (89%) were selected as the most desired services. Methadone (38%) and needle exchange program (22%) were identified as the least needed harm reduction services. Psychiatrist hospital (9%) was identified as a service needed but not available. See Table 1.

Other services needed which are missing were reported from the study. This included; employment, vocational training, empowering skills, food program, free antenatal care, free medical services, human rights activist services and street children rescue services.

More than a quarter of the respondents reported unavailability of services as the main barrier of accessing services for drugs use. Others cited money, discrimination in assessing the services, delays in responding to clients when need arises, empowerment, awareness, geographical locations and family issues as one of the many barriers to accessing the services.

Table 1. *Harm reduction services*

Services(<i>n</i> = 482)	I need to use this service (%)	I need to use but not accessible (%)	I need to use this service but it is not available (%)	No need of this service (%)
Drop-in centre	88	8	2	2
Social service (welfare)	83	11	1	5
Rescue Shelter	69	11	3	16

Emergency room/Doctor	75	11	5	9
Psychiatric hospital	59	8	9	24
Detoxification/Detox	62	13	5	21
Addiction treatment/Rehab	57	14	5	25
Counselling/support group	86	8	1	5
Peer support worker	89	6	1	5
Caseworker (Paralegals, etc.)	82	12	1	5
Needle exchange program	22	5	0	73
Methadone/MAT	38	6	1	55
Street outreach or mobile program	78	5	2	15

Study 2

Participants

Of the 482 participants in the needs assessment study, a voluntary response sampling technique was used to obtain a sample of 220 respondents aged 24 years and below for screening.

Measures

Patient Health Questionnaire (PHQ) was administered which is a self-administered version of the PRIMED-MD instrument for common mental disorders (Khubchandani et al., 2016). The PHQ scores each of the 4 DSM-IV criteria as 0 = not at all, to 3 = nearly every day. Participants responded using a 4 point-Likert scale options; “not at all” = 0, “several days” = 1, “more days than not” = 2, “nearly every day” = 3.

Total scores are determined by adding together the scores of each of the 4 items. Scores are rated normal (0-2), mild (3-5), moderate (6-8), and severe (9-12). The sum of items 1 and 2 whose score ranges from 0-6 forms the anxiety sub-scale (GAD-2) while the sum of items 3 and 4 forms the depression subscale (PHQ-2). Scores greater than 3 on the 2 core items of anxiety were assigned to participants for positive screening ($GAD \geq 3$) and similar to the scores of core items measuring depression where positive screening is assigned to participants with a score greater than 3 ($PHQ-2 \geq 3$). The total PHQ complements the subscale scores as an overall measure of symptoms burden, as well as functional impairment and disability.

Results

PHQ-4 Item Characteristics and reliability

The average depression score was 1.78 (SD = 1.35) whereas the average anxiety score was 1.79 (SD = 1.32). The highest response for anxiety was ‘several days’ with a score distribution which

ranged between 56.1% to 64.23% and that for depression ranged between 57.72% to 60.57% for the same response.

Table 2. *PHQ item scores and scale correlations*

Over the past 2 weeks have you been bothered by these problems?	Mean (SD)	Score Distribution %				R= (Item-Total)	T=corrected (Item-Overall) correlation
		0	1	2	3		
Anxiety Screener (GAD-2) Sum score	1.79(1.32)						
Feeling nervous, anxious, or on edge	0.86(0.65)	26.42	64.23	6.50	2.85	0.91	0.84
Not being able to control worrying	0.93(0.74)	27.24	56.1	13.01	3.66	0.94	0.89
Depression screener (PHQ-2) Sum score	1.78(1.35)						
Feeling down, depressed, or hopeless	0.89(0.69)	26.42	60.57	10.16	2.85	0.94	0.88
Little interest or pleasure in doing things	0.89(0.74)	28.86	57.72	8.94	4.47	0.92	0.84
Total score (PHQ-4)	3.57(2.61)						

The lowest recorded response for both sub-scales was ‘nearly every day’ with less than 5% of the score distribution. Analysis on correlations for both subscales on items-correlations and corrected item correlations have total correlations above 0.8. The PHQ-4 response scores show that a vast majority of the participants (56%) showed mild scores to the psychological distress while 4% showed severe distress as shown in Table 3.

Table 3. *PHQ score categories*

PHQ-4 Score	Frequency	Mean Score	%
Normal	68	0.25	28%
Mild	138	4	56%
Moderate	31	6.8	13%
Severe	9	10.89	4%
Total	246		

Self-Harm/ Suicidal Thoughts

Scores of participants who over the past two weeks had the thought of self-harm and suicidal thoughts were collected. Of the 220 participants, 50(22.58%) reported having the thought of harming themselves while 121(54.83%) reported attempting suicide. Mean scores were calculated and association between those who reported self-harm and attempting suicide compared to those who did not. Using the anxiety score scale (GAD-2), depression score scale (PHQ-2) and the PHQ-4 scale, participants who contemplated harming themselves and committing suicide had higher scores than those who did not.

Table 4. *Self-harm/suicidal thoughts*

	GAD-2 Scale score Mean (+/- SE)	PHQ-2 Scale Score Mean (+/- SE)	PHQ-4 scale score Mean (+/- SE)
Thoughts of harming one self			
Yes	2.93(0.22)	2.86(0.26)	5.7(0.45)
No	2.25(0.07)	2.27(0.07)	3.2(0.45)
Suicidal thoughts in the past			
Yes	2.68(0.12)	2.6(0.12)	5.3(0.22)
No	2.17(0.09)	2.1(0.09)	2.9(0.19)

Delusions and thoughts broadcasting

About 28% of the participants believed that people are spying on them or someone was plotting against them or trying to hurt them.

About 16.23% of the participants expressed fears of someone reading their mind or hearing their thoughts or them reading or hearing other people's thoughts.

Of note is that the symptoms correctly identified by the PHQ scale are indicative of schizophrenic and other psychotic disorders.

Validation of PHQ-4 Screening Tool

We used confirmatory factor analysis (CFA) to test how well the items of the PHQ-4 screening scale can predict presence of anxiety disorder and depression where maximum likelihood is used to estimate the model parameters. CFA results showed that the PHQ-4 items were loaded significantly into the model and the loadings were statistically significant ($p < 0.05$). Nervousness and depression recorded the highest factor loading (0.92) meaning a one standard deviation increase in anxiety and depression level leads to 0.92 standard deviation increase in the response to the PHQ-4 item one and three. Being the strongest factor loadings among the four items, therefore means they are best measures of both depression and anxiety. The other factor loading recorded were 0.87 for both the remaining items. The CFA results indicates that the PHQ-4 scale provides a good model fit with Comparative fit index (CFI) of 1, standard root mean squared residual (SRMR) of 0.02. The root mean squared error of approximation (RMSEA)

is extremely low at 0.01 with the probability of 0.95 that it is less than 0.05. The low RMSEA value indicates that the PHQ-4 screening items are the best predictors of anxiety and depression.

Discussion

The purpose of the needs assessment was to examine the gaps and barriers related to accessing the services and drug related treatment for the youths who use drugs within the coast region. The study utilized a community-based participatory approach used in similar studies in which emphasis is given to connecting community members and viewing them as equal partners in the research setting in the specific context of each community (Israel et al., 2020). This study found out that there is a low uptake of harm reduction services among youths using drugs, and where they exist, are disintegrated and detached from one another. This is in line with findings from previous studies (Durbin & Zavlavska, 2020) on remote communities. Moreover, the findings show an overall lack of services specific to youth addicted to drugs, and a need for prevention, early intervention activities and low-threshold/easily accessible substance use treatments that are youth-oriented has been identified.

In support of previous work, these findings suggest that there are common barriers that impact youth and directly affect their decisions, specifically when it comes to seeking treatment such as lack of awareness or motivation, stigma, wait times, paper work etc.

When it comes to treatment and service needs, low-threshold and/or harm reduction-based services were the most commonly reported need. Previous studies concluded that low-threshold programs have been defined differently but essentially include 'inviting' atmospheres, effective client engagement, confidential service delivery, tailored services, and peer support to reduce stated barriers to service access (Mofizul et al, 2013).

As a primary example, many youth participants suggested drop-in-centres with on-the-spot help available 24 hours a day, run by peer counsellors as a service they would use and benefit from. Notably, there have been a number of low-threshold harm reduction-based interventions implemented in some of these communities.

Further, to be able to correctly identify mental health disorders, the study also sought to evaluate the reliability and validity of the PHQ-4 screening scale in identifying anxiety and depression disorders of the youth using drugs. Using a two item GAD-2 and PHQ-2 screening scale, the study correctly identified individuals considered to be positive for both anxiety and depression disorders including manifestations of schizophrenic and psychotic disorders. About 17% of the participants showed moderate to severe mental and behavioural disorders. The prevalence of those who reported thoughts of harming themselves and committing suicide recorded higher statistically significant scores in the GAD-2, PHQ-2 and the PHQ-4 scale. Similar results were observed from a study conducted on school adolescent girls and young women in Tanzania (Materu et al., 2020).

The study identified those who had a score greater than three for the first two and last two items of the PHQ-4 screening scale (GAD-2 and PHQ-2). Those who had scores greater three should be further evaluated for depression and anxiety as the cut-off correctly identified and considered

them positive on screening. The PHQ-4 scale identified psychological distress grouped in a range of normal (0-2), mild (3-5), moderate (6-8) and severe (9-12).

Conclusions and Recommendations

The findings of this study suggest that youths using drugs would benefit immensely from community-based implementation of tailored harm reduction services such as drop-in-centres, emergency sheltered services, mobile program and addiction treatment centre that will provide education about the importance of seeking treatment, empowerment and other wrap-up activities. The services envisaged should mandatorily provide rapid-access medical assessment/treatment, counselling and programs run by peers and non-judgmental and empathetic professionals in order to be optimally effective.

This study helps to better understand the needs of the youth who reside within the counties of the coast region which is essential since it was conveyed that many of the currently available services are not relevant or effective for them. Moreover, although our findings may not be generalizable, the knowledge gained is relevant and can be applied to many other settings across the country. Thus, the presented results have the potential to aid in evidence-based decision making for the development and implementation of future services and interventions for youth who use drugs which actually reach the youth, address their articulated needs, and help them deal with their substance use issues. This need for evidence-based approaches will enable non-medical specialists in identifying and supporting youth at risk.

There is need to reduce drug accessibility and associated attitudes through education and awareness raising. By leveraging on inherent psychosocial strengths e.g. living with parents or relatives, these findings reiterate the need to give priority to nonpharmacological interventions and the need for a broad-based approach in dealing with youth using drugs.

Finally, these results show that the PHQ-4 items can accurately and validly measure the symptoms of both anxiety and depression disorders among youth who use drugs. The PHQ-4 was able to identify respondents who showed symptoms of anxiety and depression including symptomology consistent with schizophrenia and other psychotic disorders. Such early detection is important for subsequent interventions for youth in and at risk of drugs.

Many gaps remain in the understanding of youth using drugs. These gaps can be filled through research on the burden of mental disorders among these youth.

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