



## Exploring mental health nurses' perceptions on factors contributing to psychiatric readmissions in Eswatini: A qualitative study



Sabelo Bonginkosi Dlamini<sup>a</sup>, Mduduzi Colani Shongwe<sup>b,\*</sup>

<sup>a</sup> Department of Nursing, Southern Africa Nazarene University, Faculty of Health Sciences, Manzini, Eswatini

<sup>b</sup> Department of Midwifery Science, Faculty of Health Sciences, University of Eswatini, Mbabane, Eswatini

### ARTICLE INFO

#### Keywords:

Readmissions  
Rehospitalizations  
Mental health  
Mentally ill patients  
Psychiatric patients

### ABSTRACT

**Background:** Since the year 2012, the National Psychiatric Referral Hospital (NPRH) in Eswatini (formerly Swaziland) has recorded high numbers of readmissions of people living with mental illness (PLWMI). The reasons for the observed increase have not been explored.

**Purpose:** We describe the perceptions of mental health nurses on the factors contributing to the increased number of psychiatric readmissions in Eswatini.

**Methods:** A qualitative, exploratory and descriptive design was employed to collect data using an unstructured interview guide through individual in-depth interviews among eleven (11) purposively selected mental health nurses working at the only psychiatric referral hospital in Eswatini. Thematic analysis was conducted following Creswell's steps of qualitative data analysis to generate themes.

**Results:** Majority of the participants (n = 9) held bachelor's degrees in nursing, with an average working experience of seven years in a mental health setting. Eight (8) themes emerged from the data, namely: i) clients' negative attitudes towards medication and the illness, ii) substance abuse, iii) stigma and discrimination, iv) low socio-economic status, v) co-morbidity, vi) lack of family support, vii) family belief system and viii) administrative factors.

**Conclusion:** Mental health nurses perceived comorbidity, clients' negative attitudes, lifestyle habits, as well as social and administrative factors to be major contributors to readmissions of PLWMI. There is need to empower PLWMI with lifestyle-modification measures after discharge in order to prevent future relapses. Advocacy for increased resource allocation for mental health should be intensified in order to curb the number of readmissions among PLWMI.

### 1. Introduction

The World Health Organization (WHO) projected that by 2020, mental disorders will account for nearly 15% of disability-adjusted life-years lost to illness, with a large increase projected to disproportionately affect developing countries (WHO, 2003). Generally, readmissions (i.e. repeat and/or frequent hospitalizations for the same illness) of patients with mental disorders are common (Jaramillo-Gonzalez, Sanchez-Pedraza, & Herazo, 2014). In most parts of the world, hospitalizations have been traditionally seen as an effective measure of stabilizing patients' mental states, with the aim of re-establishing discontinued drug regimens or as a way of helping individuals to transition from inpatient to outpatient or community-based services (Madi, Zhao, & Li, 2007). Hospital readmissions can also serve

as a useful indicator of the quality of inpatient psychiatric care (Byrne, Hooke, & Page, 2010).

However, in as much as psychiatric readmissions remain an essential element in the continuum of mental health care for patients in psychiatric crisis (Fuller, Sinclair, & Snook, 2016), they are an undesirable outcome as many health care systems are not designed with the goal of prolonged or repeated hospital stay. Having increased numbers of readmissions has cost implications for the health care system (Weinberger, Oddone, & Henderson, 1996), more especially in settings like Eswatini (formerly Swaziland) where the government offers 'free' mental health services for all. Readmissions also impact negatively on staff as their workload is increased and they can cause overcrowding which may propagate the spread of infections among the patients.

\* Corresponding author at: P.O. Box 369, Mbabane, Eswatini.

E-mail address: [mduyaye@gmail.com](mailto:mduyaye@gmail.com) (M.C. Shongwe).

<sup>1</sup> orcid: <https://orcid.org/0000-0002-7358-1016>.

Factors associated with re-admissions among patients living with mental illness include, first episode of mental disorder occurring at a young age, unemployment, belonging to a low socio-economic stratum (Jaramillo-Gonzalez et al., 2014), alcohol dependence, use of addictive substances, a higher number of previous admissions and a longer duration of hospitalization during the original episode (Kolbasovsky, Reich, & Futterman, 2007; Lin, Chen, Lin, & Lin, 2007). A recent systematic review (Zanardo, Moro, Ferreira, & Rocha, 2018) reported that those who are young, single, unemployed, having less social support and having had previous involuntary admissions have higher chances of frequent psychiatric readmission, while community interventions have been found to reduce the frequency of psychiatric readmissions, as is being married and having social support (Donisi, Tedeschi, Wahlbeck, Haaramo, & Amaddeo, 2016).

A majority of the studies investigating determinants of readmissions have used quantitative methodologies and few have employed qualitative techniques to study these factors. By their nature, quantitative designs are less flexible and are often administered under controlled conditions, of which the context of how phenomena occur in a society may be missed. The advantage of using qualitative techniques, however, is that they allow flexibility to the researcher to explore broadly the contextual aspects of a phenomenon (Polit & Beck, 2014). Additionally, some of the studies investigating mental health issues have focused mainly on the perspectives of the care-givers or of the patients and few have explored the opinions of nurses who render professional care to these patients during the inpatient phase.

Mental health nurses' views are important in the management of mental illnesses as well as in program planning and implementation of mental health interventions. In Eswatini, mental health nursing is a major that is acquired after completing 3 years of general nursing education, equivalent to a diploma in general nursing science. The major can be taken in the last year of a generic 4-year Bachelor of Nursing Science, or as a 1-year post-diploma certificate programme, or as part of a 2-year completion nursing degree programme (University of Eswatini, 2018). Therefore, this cadre of nurses possesses specialized skills for caring for people living with mental illness (PLWMI), which places them in a better and informed position to give opinions about factors contributing to readmissions of PLWMI. Additionally, besides their specialized training, these nurses observe (on a daily basis) both individual-patient factors and contextual factors (such as administrative factors) that affect readmission of these patients. Thus, understanding their perceptions will help in strengthening existing mental health programs and will provide policy makers with data to inform policy and strategy review processes aimed at improving patient care and quality of life for PLWMI.

Eswatini has only one psychiatric hospital and one psychiatrist serving the mental health needs of the entire 1.1 million population. Annual reporting from this facility shows that there were 1 608 admissions in 2014, of which 1 054 (66.5%) of these were readmissions (National Psychiatric Referral Hospital (NPRH), 2015). This was a notable increase from the previous years, where in 2013, there were 951 (61.6%) readmissions out of 1 540 total admissions (NPRH, 2015), and 663 (52.8%) out of 1 256 total admissions in 2012 (NPRH, 2013). Annual reporting from this facility further shows that the leading conditions for both admissions and readmissions in Eswatini include: epilepsy without psychosis, schizophrenia, bipolar affective disorder, depression, substance-induced psychosis, and being epileptic with psychosis. However, these yearly reports do not profile the principal conditions accounting for the observed readmissions, highlighting a limitation in these reports and a research gap that quantitative studies can bridge. In the meantime, understanding factors that contribute to increased re-admissions will help inform formulation of interventions that will counteract these factors in order to reduce the costs of mental health care to the government. The fact that readmissions are an undesirable outcome of treatment (Byrne et al., 2010), means that any substantial increase in the number or readmissions should be

investigated. As a result, we asked mental health nurses on what they thought (based on their experience and observations) were the possible contributing factors to the increased number of readmissions at the only national psychiatric referral hospital in Eswatini.

## 2. Methods

### 2.1. Study design and setting

A qualitative, exploratory and descriptive study was conducted in June-July 2015 at the NPRH, the only psychiatric hospital in Eswatini. At the time of data collection, the NPRH had a staff complement of 48 registered nurses (including mental health nurses), 13 nursing assistants, 12 nurse managers, and one psychiatrist, among other staff cadres (NPRH, 2015). Services provided at the NPRH include general mental health consultation in the out-patient department (OPD), in-patient psychiatric care, counseling and psychotherapy, among others.

### 2.2. Sampling method and procedure

Purposive or judgmental sampling was used in this study because it allowed participant selection to be done consciously to make sure that participants were knowledgeable about the studied phenomenon. For nurses to be part of the study, they had to have a major in mental health nursing and should have worked at the NPRH for not less than two years in order for them to have had reasonable experience and exposure in the mental health field in order to provide rich data. It was possible to identify nurses who had a major in mental health nursing in this facility because the nurses' uniform in Eswatini includes distinguishing devices (epaulettes) which make it easy for one to identify the field of study for each nurse. General registered nurses, nursing assistants, and senior nurse administrators were excluded from participating in this study because they might have had different characteristics than the target population. To recruit participants, the different hospital departments were visited in the mornings (i.e. immediately after the hand-over of the night-duty report) to 'catch' nurses who were on night duty. Participants were recruited from the various departments and wards of the hospital. Out of a total of 13 nurses who were approached, 2 refused to be interviewed, stating lack of time.

### 2.3. Data collection

Using an unstructured interview guide and a voice recorder, individual in-depth interviews were conducted in the months of June and July 2015. The interview guide had two major questions: "What are your perceptions regarding the number of re-admissions in your institution? What are the factors that you think contribute to the number of re-admissions recorded in your institution?" After posing each question, probes generated based on the participants' initial responses to each question were used to solicit more information. The data were collected over a period of two weeks and ended when data saturation (Polit & Beck, 2014) was reached with eleven interviews. Data saturation (i.e. a point where interviewing additional participants yielded no new information) was deemed to have been reached when no new codes were generated from subsequent interviews. The interviews were conducted by the first author in English or SiSwati (depending on the participant's preference) in a designated private room at the hospital administration block during staff breaks or immediately after the nurses had knocked off to avoid disruption of health service delivery. On average, each interview took about 30 minutes.

### 2.4. Data analysis

The data were analyzed following Creswell (2009)'s generic process of qualitative data analysis. Data analysis commenced after the first two interviews were completed, whereby, at the end of each day, the audio-

recorded interviews were fully transcribed verbatim. Thereafter, the transcripts were independently read line by line, multiple times, in order to get immersed in the texts as codes were generated and themes emerged. Newly generated codes from subsequent data collected were fitted into the existing themes and added into the codebook.

### 2.5. Trustworthiness of the study

Guided by Lincoln and Guba (1985)'s criteria for ensuring trustworthiness, confirmability was ensured by having each of the researchers independently code the data in order to assess congruence of the identified themes. Where there were disagreements, both researchers would discuss the interpretations of the codes and revisit the transcripts in order to get clarity on the meaning of the participants' responses in order to reach a consensus. Credibility of the study findings was ensured by not conducting a thorough literature review until after data collection and analysis, in order to bracket the researchers from any preconceived ideas which would have otherwise biased the data collection and analysis process. Dependability was ensured by keeping all records about the study, including audio files, field notes and transcripts to allow the conduct of an audit trail should it be required. Furthermore, at the start of each interview, all participants were asked the same main research question (see data collection section above), and we also provide a detailed description of the study methods and procedures in order to enhance their repeatability. In this article, we further provide a thick description of the study setting and the participants' background characteristics in order to enable transferability of the study findings. Lastly, the use of an unstructured interview guide in this study ensured authenticity of the study findings as it allowed for probes to be generated in the field, based on the participants' responses, rather than using predetermined probes. This enabled us to extract rich information from the participants while feeling the tone in their responses as they conveyed their perceptions regarding the phenomenon (Polit & Beck, 2014).

### 2.6. Ethical considerations

Ethical approval was granted by the then Scientific and Ethics Committee of the Ministry of Health (MoH) in Eswatini (Ref: MH/599C/FWA00015267/IRB DDD9688). Written administrative permission to conduct the study was obtained from the NPRH hospital management. Written informed consent was obtained from all participants before the interviews were conducted. To protect the anonymity of the participants, their names were not required at any point during the data collection process. During data analysis, we also de-identified portions of the transcripts that had potential identifiers in order to prevent unnecessary disclosure of the identities of the participants. Additionally, when presenting the quotes in the results section, we do not provide any description of the participant's characteristics alongside each quote in order to prevent linking the responses to any particular participant within the study setting.

## 3. Results

### 3.1. Socio-demographic characteristics

Eleven participants were interviewed and their ages ranged from 25 to 55 years. All participants (n = 11) had a major in mental health nursing with their working experience in a mental health setting ranging between 2 and 25 years. A narrative summary of the participants' demographics is presented in Table 1.

### 3.2. Themes: perceived factors contributing to increased number of readmissions

Eight (8) themes emerged from the data, namely: i) clients' negative

attitudes towards medication and the illness, ii) substance abuse, iii) stigma and discrimination, iv) low socio-economic status, v) co-morbidity, vi) lack of family support, vii) family belief system and viii) administrative factors. Table 2 shows a summary of the themes and sub-themes.

#### 3.2.1. Comorbidity

Some of the participants stated that patients who have other illnesses like HIV/AIDS or Tuberculosis (TB) tend to default on their antiretroviral medications, and when they do that, they automatically default on their psychiatric medication as well. This is what the participants said:

*"... for patients who have concurrent conditions like HIV or TB, it's easy for them to 'fall off the path'. When they default on HIV medication, they also default on psychiatric medication, or rather, when they default on the psychiatric medication, they will also default on their HIV medication, and it becomes a vicious cycle, which increases the chances of a patient to be readmitted over and over again ..."* – (P8).

*"Some patients who had never been diagnosed with any mental disorder go to the health facility to get a HIV test. However, some do not perceive themselves to be at risk of getting infected with the virus, so they become shocked when they receive a HIV positive test result. They fail to accept the result and 'suddenly' develop mental illness such as depression. These are the type of patients who tend to default on their antiretroviral medications because they are in denial of their HIV status, and will in turn default on their psychiatric medication as well. We have quite a number of such patients inside the wards right now ..."* – (P9).

#### 3.2.2. Family belief system

The participants stated that relatives of some patients believe that the patient is demon-possessed and thus seek other alternatives (usually traditional remedies), in the process disregarding all prescriptions and instructions from health providers, hence they default on their treatment and end up being readmitted. This is what some of the participants had to say:

*"Some relatives believe that the patient does not actually have a mental disorder, but is demon-possessed. For example, when a person has schizophrenia and is psychotic, they usually say 'tilwane' (evil spirits). Once the patient has been discharged home, they tell the patient that she/he is not sick, but has 'tilwane', making him/her to stop taking the medication. That patient will definitely come back here ..."* – (P3).

*"It starts with the belief system. Some of the patient's relatives don't even believe that the patient has a mental disorder. They believe that they have been bewitched or a demonic spirit has befallen the patient. As a result, when they are discharged from the facility, they go and seek other alternative remedies like traditional medicines and default on their psychiatric meds in the process ..."* – (P6).

#### 3.2.3. Negative attitudes towards medication and the illness

Some of the nurses perceived denial of the diagnosis and negative attitudes towards medication as a contributing factor to being readmitted. This is what they had to say:

*"Some of the patients are in denial of their diagnosis; they believe that they are not really sick, despite them undergoing therapy. Others even miss appointments or run away from the hospital, in which case, they go without medication ... They then relapse and get readmitted ..."* – (P4).

*"Some patients are 'difficult'. They become rebellious, saying: 'I'm a known psychiatric patient so how can anyone expect me to do right?' That becomes their excuse for not complying. When family members want to give the patient the medication, she/he becomes angry and uncooperative ..."* – (P6).

*"Sometimes you find that the patient is rebellious. Each time relatives try*

**Table 1**  
Socio-demographic characteristics\* of participants (N = 11).

Characteristics	Description
Age	Three were aged between 25 and 29 years; five between 30 and 39 years, two between 45 and 49 years, and one participant was aged 55 years.
Sex	There were 6 males and 5 females in the study sample.
Place of residence	Two of the study participants resided in semi-urban areas, one in a rural area, and the remaining 8 resided in urban areas.
Level of education	Two of the study participants held post-diploma certificate in mental health, and the remaining 9 participants had Bachelors degree in Nursing with majors in mental health nursing.
Working experience in a mental health setting	Four had 2 years working experience; one had 4 years; two had 14 years, while the remaining three had 3 years working experience in a mental health setting.

\* Described narratively in line with the study design.

**Table 2**  
Summary of themes and sub-themes.

Themes	Sub-themes
Co-morbidity	–
Stigma and discrimination	–
Substance abuse	–
Family belief system	● Alternative remedies
Lack of family support	–
Negative attitudes towards medication and the illness	● Denial of diagnosis
Low socio-economic status	● Non-adherence to regimen ● Inadequate transport money for refills
Administrative factors	● Poor community outreach services ● Drug stock outs ● Premature discharge

to involve the patient in usual house chores, the patient usually says: “I’m a psych patient, remember?” Even when they want to give him/her the medications, s/he becomes angry and hostile, refusing to take the medication in the process. That’s what the relatives tell us when they bring in the patients ...” – (P7).

### 3.2.4. Substance abuse

Almost all (n = 10) the participants stated that patients do not have the opportunity to abuse substances when they are admitted in the hospital, however, after discharge, due to peer pressure, they find themselves abusing the said substances again. This is what some of them said:

“... when the patient comes out of this facility, she/he will smoke the dagga which was the cause of his/her admission in the first place, and would stop taking the medication ... at home you find that he/she just does nothing from morning to sunset ... S/he will be bored. Next thing, s/he will have this urge to feel like going to the shops at the corner and smoke ...” – (P2).

“... the youth is still continuing to abuse drugs such as dagga ... the habit of smoking dagga seems to be in style for these young people ... Another thing: peer pressure; even if they have undergone group therapy while admitted, after discharge they go back to their friends who they used to smoke with, and they start smoking again ...” – (P3).

“... most of the patients that are readmitted here, have been abusing substances ... it is because people are idle as they have nothing to do at home, hence it’s easy for them to revert to substance abuse.” – (P6).

“You will find that a person is smoking dagga again and then relapses. When he/she smokes, she/he becomes ‘high’, and therefore forgets to take the medications, thus she/he may default on the treatment and gets readmitted” – (P11).

### 3.2.5. Stigma and discrimination

More than half of the participants stated that once the patients leave

the hospital, they are subjected to stigma and discrimination, not only from the public, but even from family members or relatives. This is evident from the following excerpts:

“... you find that a patient is discharged, and once s/he is home, she/he is not well accepted ... his/her family members become ‘scared’ of him/her, and as a result the patient will say: “I’m not taking the medication because it is this medication that makes them say I’m mentally ill” ...” – (P1).

“... we discharge a patient in a stable state, but when s/he gets home, she finds that relatives are not able to live with him/her ... they try by all means to ‘push the patient’ to the extent where s/he will be readmitted ...” – (P6).

“... you know what people in the community say: “once a mentally-ill, will always remain a mentally-ill”. So, some of the relatives of the patients are not able to live with the patients, so they try by all means to push them to an extent where they will be readmitted. They (relatives) always complain to other people that “hey, s/he (patient) is not okay upstairs ...” – (P7).

“... there is a lot of discrimination towards psychiatric patients, probably even more than it is for HIV/AIDS ... the patients feel more comfortable here than outside the psychiatric hospital because we understand them i.e. their conditions ...” – (P10).

### 3.2.6. Low socio-economic status

Some of the participants stated that most of the patients say that they neither have food to take their medications with nor the money for transport to collect their monthly refills, which causes them to relapse. These are some of the extracts from the participants’ responses:

“They tell you that they stopped taking their meds because if they take them on empty stomachs, they feel ‘starved’ as they don’t have something to eat at home ... they also tell us that they don’t have transport money to collect their monthly refills ...” – (P2).

“... some patients do not have the money for transport to go to the nearby clinics to get a refill of their medication ... so if they do not get their refills, that means they will default and relapse ...” – (P4).

### 3.2.7. Lack of family support

All the participants stated that due to inadequate support from relatives, patients default on their medications and get readmitted. These are a sample of excerpts from the participants’ responses:

“... If the patient has a weak social support system, especially having no relatives, they tend to default on their medication ...” – (P1).

“... when the patient gets home, there is no one who will be responsible for him/her yet the patient may need supervision and support to do/carry out certain tasks, like taking the medication ...” – (P2).

“The number of readmissions of the youth that is without support from close relatives, such as parents, is increasing. They are faced with social problems which cause them to be stressed or depressed after discharge and some abuse drugs, become suicidal, and end up being readmitted ...” – (P3).

“... sometimes the families don't provide proper support for the mentally ill. Some have no families and live in the streets ...” – (P8).

### 3.2.8. Administrative factors

Episodes of drug stock-outs, unavailability of transport for community outreach and follow-up, and premature discharge of patients due to overcrowding are some of the administrative factors perceived by the participants to be contributing to the increased number of readmissions at the NPRH. This is what they had to say:

“... we are not able to reach out to the communities, including educating them about mental disorders. The inadequate financial support by the government makes it impossible to conduct outreaches in this hospital. We do not have enough cars to carry out these activities ...” – (P3).

“... shortage of drugs – we occasionally run out of drug stock. Despite that, the government fails to distribute the drugs to the nearby facilities in the communities due to lack of transport ...” – (P5).

“Our community service department is not that strong ... we don't have a program where we can actually reach out to families in their homes and educate them on how to support the patient. Even if we could initiate that program, we don't have the necessary financial support from the government. The other thing is that the wards accommodate about forty patients, but due to the increased numbers, we tend to discharge patients before they are actually ready to be discharged so that we can create space for the others. However, the patients who were discharged early will be brought back by their relatives for readmission” – (P7).

“Sometimes you find that the patients are discharged earlier than they should be. This usually happens when the patient seems to show a speedy recovery; they get discharged sooner, of which they will be brought back by their relatives” – (P11).

“The fact that we do not have vehicles for community outreaches is a clear sign that the government is not supporting us enough.” – (P9).

## 4. Discussion

This study revealed that mental health nurses perceive comorbidity, stigma and discrimination, substance abuse, family belief system, clients' negative attitudes, lack of social support and administrative factors to be major contributors to re-admissions of PLWMI. The finding about patients having negative attitudes could be due to denial of the illness, or impaired illness awareness (anosognosia). Williams, Olfson, and Galanter (2015) argued that anosognosia is not uncommon among patients with severe mental illness, and is often associated with treatment non-adherence. Same applies for denial of the diagnosis or illness. However, in our study, the nurses did not specify which of the two situations contribute to the readmissions at the NPRH. As a result, it is possible that what the nurses perceived as denial might actually be anosognosia. Nonetheless, both situations lead to medication non-adherence and poor treatment outcomes, including readmission (Gerretsen et al., 2015). During history taking, the nurses may probe further on the source of denial in order to differentiate between the two situations so that care can be tailored in addressing the real cause of the readmission.

Consistent with existing literature (Lee et al., 2018; Loch, 2012), in this study, non-adherence was cited as a risk factor for readmission. In psychiatry, non-adherence and noncompliance are linked to poorer outcomes, including relapses and hospital readmissions (Adebisi, Mosaku, Irinoye, & Oyelade, 2018; Chapman & Horne, 2013). Another risk factor widely cited by the participants was substance abuse. This is because substance use alters brain function and results into patients forgetting to take their medications leading to relapses and consequently get readmitted (National Institute on Drug Abuse, 2010). Additionally, stigma and discrimination was also cited as a major risk factor for readmission. A Brazilian prospective study (Loch, 2012) found that family's stigma towards mental illness contributed to the

increase in readmission rates of their relatives living with psychiatric disorders. The mechanisms in which stigma contributes to readmission is not well understood, calling for more studies to depict these mechanisms.

Low socio-economic status was also reported to be contributing to readmissions of mentally ill patients in this study. The participants said that patients often lack transport money to pick their refills, despite that the medications themselves are free. This finding is not surprising as the unemployment rate in the general Eswatini population is high (at 40%), while an estimated 63% of the population lives below the poverty line (Ministry of Health, 2017). Similarly, in Taiwan, Lin et al. (2010) found that lower income was associated with higher number of psychiatric readmissions. However, a recent systematic review (Donisi et al., 2016) reported that income, socioeconomic status and financial status were not significantly associated with readmissions among psychiatric patients in five of the studies they reviewed, while higher financial means were found to be protective in only one paper. These conflicting findings highlight the need for more studies to investigate the relationship between socio-economic status and readmissions among psychiatric patients.

Similar to findings from a qualitative study in South Africa (Nxasana & Thupayagale-Tshweneagae, 2014), in the current study all the participants cited lack of family support as a risk factor for readmission. Other studies (Donisi et al., 2016; Hengartner, Passalacqua, Andreae, Rössler, & von Wyl, 2017) have also found similar results, emphasizing the need for family involvement in the care of psychiatric patients. Besides lack of family support, participants in the current study also stated that the family belief system determined whether a patient would be readmitted or not. The participants stated that relatives of the patient would first consult traditional healers because they believe that the patient has been bewitched. This finding was not surprising as traditional medicine is widely recognized in Eswatini, and is part of the health care system and is referred to as the informal health sector in official government documents (Ministry of Health, 2009). About 80% of Emaswati, especially in rural areas (where 70% of the total population live), consult traditional healers first before seeking care from the modern health care system (Dlamini, 2002).

The finding that comorbidity contributes to readmissions is in line with findings from other studies elsewhere (Sánchez, Jaramillo, & Herazo, 2013), including from a recent systematic review (Šprah, Dermovšek, Wahlbeck, & Haaramo, 2017). In Eswatini, comorbidity is not uncommon due to the double burden of HIV/AIDS and TB, as 70% of TB cases are co-infected with HIV (Ministry of Health, 2017), of which, besides the physiological effects of the concurrent conditions on the patient, the pill-burden may also cause the patient to default on either of the treatment regimen, leading to relapse and consequently readmission.

With regards to administrative factors, the nurses thought that the community outreach program needs strengthening, as they did not have, for example, transport means to reach the communities. The participants said that having such a program would help trace patients in their communities and bring refills closer to their residential areas and in turn reduce the problem of non-adherence to medication. Studies have shown that community outreaches have a strong potential to reduce both readmission rates and the length of hospital stay compared with regular outpatient care (Kikuchi, Abo, Kumakura, Kubota, & Nagano, 2012). In the current study, it was also found that drug stock outs were common in the facility, resulting in patients being turned back without medication which puts them at risk of defaulting on their treatment regimen. Medicine shortages have been reported to pose risks for patients' health since they result in non-treatment or under-treatment of patients (WHO Department of Essential Medicines and Health Products, 2016).

The current study also revealed that due to overcrowding in the wards, patients were at times discharged early in order to open space for incoming patients. Overcrowding is not unique to the studied

facility as it is said to be common in many psychiatric hospitals around the world (Grobler, Strumpher, & Jacobs, 2015). The participants in the current study stated that premature discharges, however, lead to increase in readmissions as the relatives tend to turn back the patients as they feel they have not fully recovered, thus the whole readmission cycle is perpetuated.

#### 4.1. Strengths and limitations

One major strength of this study is that the data were collected from participants who had a major in mental health nursing, were working in the different departments at the NPRH, and had at least two years of experience which enabled them to provide rich data which enhanced the trustworthiness of the study. This is also the first study to be published from Eswatini on the subject of which it provides baseline data for programs and future research. However, some limitations are inherent in the nature of the design used in this study. For example, the nurses had to reflect on, and recall their experiences regarding the studied phenomenon, which might have resulted in some recall bias. Some nurses were also reluctant to participate which might have introduced selection bias. As much as the study was conducted at the only psychiatric hospital in Eswatini, there are other mental health units or departments in some health centers in the country, of which nurses in those centers might have different views on the subject. As a result, findings from this study should be transferred to other settings with caution.

#### 4.2. Recommendations

Despite the aforementioned limitations, a number of recommendations are suggested based on our findings. There is need to strengthen in-service training for nurses on how they can involve family members in caring and supporting psychiatric patients in order to improve adherence to medication. One way would be to adopt the Directly Observed Treatment, Short-term (DOTS) strategy currently being used in the management and control of TB in the country. Rural health motivators (i.e. community health care volunteers) could be roped in to assist to implement such a strategy in the different communities where the patients live.

During the discharge planning phase, the patients should also be educated on the effects of substance abuse and be referred to support structures that can help them not to relapse. Mass education of communities should be strengthened to sensitize the public on mental health in order to reduce stigma and discrimination associated with mental health disorders. The hospital management, working with the MoH, should expand the decentralization of mental health services and possibly construct regional referral psychiatric wards in the existing health centers and hospitals in order to deal with the overcrowding at the NPRH. The MoH and NPRH administration should also strengthen the community outreach program by providing enough transport in order to minimize cases of treatment default. There is need for the MoH and the hospital management to develop a strategy of dealing with drug stock outs as they have detrimental effects on patients and health care delivery in the facility. Future studies should investigate the issue of denial among PLWMI further in order to ascertain the competency of mental health nurses in distinguishing the types of denial. Quantitative study designs are warranted to better understand the mechanisms through which the factors cited by the participants in this study influence hospital readmissions.

## 5. Conclusion

Participants in this study perceived the increased readmissions of PLWMI at the NPRH in Eswatini to be due to a number of contributing factors. These include non-adherence of the patients to medication as a result of substance abuse, negative attitudes towards medication and

the illness, stigma and discrimination, the family belief system, low socio-economic status, lack of family support as well as administrative factors.

## Declarations

### Ethics approval and consent to participate

Ethical approval was granted by the then Scientific and Ethics Committee of the Ministry of Health (MoH) in Eswatini (Ref: MH/599C/FWA00015267/IRB DDD9688).

### Availability of data and material

The authors do not wish to share their raw data as relevant parts of raw data are published in the manuscript reflected in the quotations. Parts of the study findings were also shared with a local audience as an oral presentation made by the second author at the 4th National Health Research Conference, Ezulwini, Eswatini, 8–10 November 2017.

### Funding

The study was funded through the Government of the Kingdom of Eswatini scholarship loan offered to SBD by the Ministry of Labour and Social Security. The funders had no role in designing this study, preparation of the manuscript and decision to have it published. Furthermore, the views, opinions, assumptions or any other information presented in this manuscript are solely those of the authors.

### Authors' contributions

SBD conceived the initial idea for the study, collected and analyzed the data, and wrote the initial draft of the manuscript. MCS contributed to the study design, participated in data analysis and interpretation, provided overall supervision and technical guidance in the conduct and implementation of the study, and extensively reviewed and revised the manuscript. All authors read and approved the final manuscript.

## Declaration of Competing Interest

The authors declare that they have no competing interests.

## Acknowledgements

We would like to thank all the nurses who participated in this study. We also extend our sincere thanks to the hospital administration for the permission to conduct the study at the institution.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijans.2019.100157>.

## References

- Adebiyi, M. O., Mosaku, S. K., Irinoye, O. O., & Oyelade, O. O. (2018). Socio-demographic and clinical factors associated with relapse in mental illness. *International Journal of Africa Nursing Sciences*, 8, 149–153. <https://doi.org/10.1016/j.ijans.2018.05.007>.
- Byrne, S. L., Hooke, G. R., & Page, A. C. (2010). Readmission: A useful indicator of the quality of inpatient psychiatric care. *Journal of Affective Disorders*, 126(1), 206–213. <https://doi.org/10.1016/j.jad.2010.02.135>.
- Chapman, S. C. E., & Horne, R. (2013). Medication nonadherence and psychiatry. *Current Opinion in Psychiatry*, 26(5), 446–452. <https://doi.org/10.1097/YCO.0b013e3283642da4>.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed-method approaches*. Los Angeles: SAGE Publications Inc.
- Dlamini, P. S. (2002). Facilitating collaboration between traditional healers and western trained health care workers in the management of illnesses in Swaziland. Kwaluseni, Swaziland. Retrieved from: <https://www.infocenter.nercha.org.sz/sites/default/>

- files/TraditionalHealersCollabo.pdf.
- Donisi, V., Tedeschi, F., Wahlbeck, K., Haaramo, P., & Amaddeo, F. (2016). Pre-discharge factors predicting readmissions of psychiatric patients: A systematic review of the literature. *BMC Psychiatry*, 16(1), 449. <https://doi.org/10.1186/s12888-016-1114-0>.
- Fuller, D., Sinclair, E., & Snook, J. (2016). Released, relapsed, rehospitalized: Length of stay and readmission rates in state hospitals – A comparative state survey. Arlington, Virginia. Retrieved from: <https://www.treatmentadvocacycenter.org/storage/documents/released-relapsed-rehospitalized.pdf>.
- Gerretsen, P., Menon, M., Chakravarty, M. M., Lerch, J. P., Mamo, D. C., Remington, G., ... Graff-Guerrero, A. (2015). Illness denial in schizophrenia spectrum disorders. *Human Brain Mapping*, 36(1), 213–225. <https://doi.org/10.1002/hbm.22624>.
- Grobler, C., Strumpher, J., & Jacobs, R. (2015). Overcrowding as a possible risk factor for inpatient suicide in a South African psychiatric hospital. *South African Journal of Psychiatry*, 21, 107. <https://doi.org/10.4102/sajpsy.2015.21.1.107>.
- Hengartner, M. P., Passalacqua, S., Andreae, A., Rössler, W., & von Wyl, A. (2017). The role of perceived social support after psychiatric hospitalisation: Post hoc analysis of a randomised controlled trial testing the effectiveness of a transitional intervention. *International Journal of Social Psychiatry*, 63(4), 297–306. <https://doi.org/10.1177/0020764017700664>.
- Jaramillo-Gonzalez, L. E., Sanchez-Pedraza, R., & Herazo, M. I. (2014). The frequency of rehospitalization and associated factors in Colombian psychiatric patients: A cohort study. *BMC Psychiatry*, 14, 161. <https://doi.org/10.1186/1471-244X-14-161>.
- Kikuchi, H., Abo, M., Kumakura, E., Kubota, N., & Nagano, M. (2012). Efficacy of continuous follow-up for preventing the involuntary readmission of psychiatric patients in Japan: A retrospective cohort study. *International Journal of Social Psychiatry*, 59(3), 288–295. <https://doi.org/10.1177/0020764011433631>.
- Kolbasovsky, A., Reich, L., & Futterman, R. (2007). Predicting future hospital utilization for mental health conditions. *The Journal of Behavioral Health Services & Research*, 34(1), 34–42. <https://doi.org/10.1007/s11414-006-9044-0>.
- Lee, S.-U., Soh, M., Ryu, V., Kim, C.-E., Park, S., Roh, S., ... Choi, S. (2018). Risk factors for relapse in patients with first-episode schizophrenia: Analysis of the Health Insurance Review and Assessment Service data from 2011 to 2015. *International Journal of Mental Health Systems*, 12(1), 9. <https://doi.org/10.1186/s13033-018-0187-1>.
- Lin, C.-H., Chen, W.-L., Lin, C.-M., Lee, R. N., Ming-Der, K., Ming-Chung, & Li, C.-Y. (2010). Predictors of psychiatric readmissions in the short- and long-term: A population-based study in Taiwan. *Clinics*, 65(5), 481–489. <https://doi.org/10.1590/S1807-59322010000500005>.
- Lin, C.-H., Chen, Y.-S., Lin, C.-H., & Lin, K.-S. (2007). Factors affecting time to re-hospitalization for patients with major depressive disorder. *Psychiatry and Clinical Neurosciences*, 61(3), 249–254. <https://doi.org/10.1111/j.1440-1819.2007.01662.x>.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, London, New Delhi: Sage Publications Inc.
- Loch, A. A. (2012). Stigma and higher rates of psychiatric re-hospitalization: São Paulo public mental health system. *Brazilian Journal of Psychiatry*, 34, 185–192. <https://doi.org/10.1590/S1516-44462012000200011>.
- Madi, N., Zhao, H., & Li, J. F. (2007). CIHI survey: Hospital readmissions for patients with mental illness in Canada. *Healthcare Quarterly*, 10(2), 30–32. <https://doi.org/10.12927/hcq.2007.18818>.
- Ministry of Health. (2009). National health sector strategic plan 2008-2013. Mbabane, Swaziland. Retrieved from: <http://www.gov.sz/images/stories/Health/Strategic%20Plan%20final.pdf>.
- Ministry of Health. (2017). Annual National Tuberculosis Control (NCTP) Program Report, 2016. Mbabane, Swaziland.
- National Institute on Drug Abuse (2010). *Comorbidity: Addiction and other mental illnesses. Research Report Series*.
- National Psychiatric Referral Hospital. (2013). National Psychiatric Referral Hospital Annual report, 2012. Manzini, Swaziland.
- National Psychiatric Referral Hospital. (2015). National Psychiatric Referral Hospital Annual report, 2014. Manzini, Swaziland.
- Nxasana, T., & Thupayagale-Tshweneagae, G. (2014). Nurses' perceptions on the readmission of psychiatric patients one year after discharge. *Africa Journal of Nursing and Midwifery*, 16(1), 89–102. <https://doi.org/10.25159/2520-5293/1490>.
- Polit, D. F., & Beck, C. T. (2014). *Essentials of nursing research: Appraising evidence for nursing practice* (8th ed.). Philadelphia: Wolters Kluwer/Lippincott/Williams & Wilkins Health.
- Sánchez, R., Jaramillo, L. E., & Herazo, M. I. (2013). Factores asociados a rehospitalización temprana en psiquiatría (Factors associated with early psychiatric rehospitalization). *Biomedica*, 33(2), 276–282. <https://doi.org/10.7705/biomedica.v33i2.705>.
- Šprah, L., Dermovšek, M. Z., Wahlbeck, K., & Haaramo, P. (2017). Psychiatric readmissions and their association with physical comorbidity: A systematic literature review. *BMC Psychiatry*, 17(1), 2. <https://doi.org/10.1186/s12888-016-1172-3>.
- University of Eswatini (UNESWA). (2018). University of Eswatini Calendar 2018/2019. Kwaluseni, Eswatini. Retrieved from: <http://www.uniswa.sz/sites/default/files/academics/uniswa-calendar2018.pdf>.
- Weinberger, M., Oddone, E. Z., & Henderson, W. G. (1996). Does increased access to primary care reduce hospital readmissions? *New England Journal of Medicine*, 334(22), 1441–1447. <https://doi.org/10.1056/NEJM199605303342206>.
- WHO Department of Essential Medicines and Health Products (2016). Global approaches to addressing shortages of essential medicines in health systems. Retrieved from: [https://www.who.int/medicines/publications/druginformation/WHO\\_DL\\_30-2\\_Medicines.pdf](https://www.who.int/medicines/publications/druginformation/WHO_DL_30-2_Medicines.pdf).
- Williams, A., Olfson, M., & Galanter, M. (2015). Assessing and improving clinical insight among patients “in denial”. *JAMA Psychiatry*, 72(4), 303–304. <https://doi.org/10.1001/jamapsychiatry.2014.2684>.
- World Health Organization. (2003). The mental health context (Mental Health Policy and Service Guidance Package). Geneva. Retrieved from: [https://www.who.int/mental\\_health/policy/services/3\\_context\\_WEB\\_07.pdf](https://www.who.int/mental_health/policy/services/3_context_WEB_07.pdf).
- Zanardo, G. L. d. P., Moro, L. M., Ferreira, G. S., & Rocha, K. B. (2018). Factors associated with psychiatric readmissions: A systematic review. *Paidéia (Ribeirão Preto)*, 28, e2814. <https://doi.org/10.1590/1982-4327e2814>.