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Nurses' knowledge and attitudes towards the mentally-ill in Lagos, South-Western Nigeria

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Abstract
Background: One of the foremost hindrances preventing appropriate mental health service delivery in developing countries is the limited knowledge of the general population about mental disorders which often leads to social stigma, negative perception and poor attitudes towards the mentally-ill. This study investigated nurses' mental health-related knowledge, their attitudes towards mental illness and the mentally-ill, their mental health-related and intended behaviour and opinion and beliefs about possible causes of mental illness.
Methods: This study was a cross-sectional, hospital and questionnaire-based survey that took place at the Lagos State University Teaching Hospital (LASUTH), Ikeja, Lagos, Nigeria. One hundred and twenty-three nurses working in LASUTH participated in the study. The participants were asked to complete the Mental Health Knowledge Schedule (MAKS), Reported and Intended Behaviour Scale (RIBS) and Community Attitudes towards the Mentally Ill (CAMI).
Results: The participants had negative opinions about mental health and the mentally-ill. They were observed to be authoritarian and restrictive in perception of the mentally-ill and also believed that majority of the mentally-ill needed admission. Majority of the participants were quite knowledgeable about the aetiological factors of mental illness. Less emphasis was placed on evil spirits, supernatural punishment and witches as the aetiologies of mental disorders.
Conclusion: Despite the respondents being nurses, their knowledge, attitude and perception about the mentally-ill were relatively negative. Nigerian mental health policy deciders need to urgently develop awareness and advocacy programmes against discrimination and social stigma associated with mental illness especially among hospital nurses.

Keywords: Nurses' attitudes, knowledge, perception mental illness, Lagos, Nigeria

Introduction
Previous empirical documentations indicated that negative attitude, discrimination and social stigma associated with mental illness are of global public health concerns [1-4]. Recently, documents from the literature revealed that mental and neuropsychiatric disorders formed about 13% of the Global Burden of Disease (GBD) [5-6]. Studies also showed that about 75% of the 13% of the GBD with regards to mental and neuropsychiatric disorders were found in low and middle-income countries [5-6]. In this vein, the magnitude of mental health disorders has been reported to be bothersome especially in developing countries which includes Nigeria where the ratio of psychiatrists to the population of 180 million Nigerians is extremely low [7-9]. The ratio is even far lower for other mental health experts such as the psychiatric nurses and clinical psychologists. [7-9]
The documented prevalence of mental disorders in Nigerian was found to range from 12.1% through 21% to 27.8% [7-9]. The implications of these high rates meant that close to 30% of Nigerians may be vulnerable to developing or might have developed mental disorders [7-9]. These studies also observed the large burden of mental illness and the unmet need for care among persons living with mental disorders in Nigeria [7-9]. One observed reason for these high prevalence rates of mental illness in Nigeria was the limited general population's knowledge, perception and attitude about mental illness [7-10]. Similarly, discussions about mental illness still brings about feelings of fear and embarrassment which again foster and perpetuate discrimination and negative attitudes towards individuals with mental illness [3, 7-10]. The ultimate consequence was the observed low professional mental health services patronage rate despite high prevalence rates of psychiatric disorders in Nigeria [7-10].
Nurses are the largest group of professionals in any healthcare settings and they have more contact with physical and mental health patients. Therefore, it is pertinent that nurses should be aware of the social stigma associated with mental health and its implications for quality

mental health nursing care [3, 7, 11]. Nurses also play greater role in referring individuals with mental illness from the primary and secondary care health settings to professional mental health experts for specific mental health services [3, 7, 11]. It is therefore important that nurses should understand important issues about the stigma associated with mental illness in order to assist the mentally-ill to promptly access professional mental health care services. This is because reduced knowledge about mental disorders and possible aetiologies of mental health disorders among health care staff was documented to lead to social stigma, discrimination which could also constitute obstacles in specialist psychiatric care [11-12].

While some studies showed that the knowledge, attitude and perception of nurses about the mentally-ill had improved over time, other studies maintained that nurses still maintained negative knowledge, perception and attitudes towards the mentally-ill because they also shared same perception about mental disorders as the general public [1, 3, 7, 11-12]. Nonetheless, previous Nigerian studies on knowledge, attitude and perception of Nigerians were carried out decades ago [8-9, 13-14]. It would be desirable to find out whether the knowledge, attitude and perception of Nigerians nurses about the mental illness and the mentally-ill have improved over time. Similarly, studies on knowledge and attitude in the area of mentally ill were found to be few in sub-Saharan Africa.

In the light of all these empirical evidences, this study was designed to investigate the following objectives: a, to determine nurses' mental health-related knowledge regarding mental illness, b, to investigate nurses' attitude towards mental illness and mentally ill people, c, determine nurses' mental health-related reported and intended behaviour and also to assess nurses' opinions and beliefs about possible causes of mental illness.

Materials and method

Setting

The study took place at the Lagos State University Teaching Hospital (LASUTH), Ikeja, Lagos, Nigeria. The hospital is located at Ikeja, the capital city of Lagos State. It has 333 wards and runs 25 outpatients' clinics. It has 350-bed capacity. It serves Lagos State and other surrounding states. It runs in and outpatient services with 24-hour medical and surgical emergency services. It also offers undergraduate training for medical students and postgraduate training for resident doctors. The teaching hospital attends to patients largely from Lagos city, a metropolis with a population of more than 18 million people. The hospital provides primary, secondary and tertiary healthcare services to the citizens of Lagos State due to its open door, walk-in government policy. There are no conditions for appointments or referrals to the General Outpatients' Department or the Medical or Surgical Emergency Departments of the hospital.

Design and participants

The study was a hospital-based, cross-sectional, convenience study that took place over a period of three months from March to May 2016. The study also used convenience sampling method by recruiting all registered nurses working in LASUTH.

Participants

The questionnaires were distributed to nurses working at the various emergency departments (Medical, surgical, paediatrics and obstetrics and gynaecology) of the Lagos State University Teaching Hospital, Ikeja, Lagos, Nigeria. Two days later the questionnaires were retrieved from the participants.

Measures

The questionnaire has four parts. The Section A of the questionnaire was used to collect data on the sociodemographic characteristics of the participants. The section B contained contains questions on The Mental Health Knowledge Schedule (MAKS) while the Section C contains questions on Reported and Intended Behaviour Scale (RIBS). The Mental Health-related Knowledge Schedule (MAKS) (15) was used to measure participants' mental health-related knowledge. The MAKS consists of has 6 items that assess stigma-related issues. This study investigated the six stigma-related statements (help seeking, recognition, support, employment, treatment, and recovery). All statements are answered on a 5-point 'scale from 5= 'totally agree' to 1= 'totally disagree', and the response alternative 'don't know.' The total score for stigma-related statements ranged from 6-30, with higher scores indicating less stigma-related knowledge.

The Reported and Intended Behaviour Scale (RIBS) (16) was designed to measure the mental health-related reported and intended behaviour of people towards the mentally-ill. The RIBS consists of four items on reported behaviour, e. g. "Are you currently living with or working with, living nearby and continuing a relationship with someone with mental health problems? The questions were designed to measures of social distance, willingness to engage with a member of the mentally-ill. The four intended behaviour items assessed the level of intended future contact with people with mental health problems and an additional four reported behaviour items assessed past or current contacts. The total intended behaviour score was calculated so that higher scores indicated more favourable intended behaviour to have contacts with person with mental illness. The response alternatives were yes, no and do not know. In this study they were dichotomized (yes vs. no/do not know).

The CAMI (17) is a 40-item a self-report inventory for measuring public attitudes towards the mentally ill. The CAMI includes four subscales (authoritarianism (AUTH), benevolence (BNVL), social restrictiveness (SRST) and community mental health ideology (CMHI)). Alpha coefficients were 0.63, 0.67, 0.64 and 0.60 for the AUTH, BNVL, SRST and CMHI subscales, respectively. Alpha coefficients for all 4 scales were above 0.60, indicating satisfactory though modest levels of reliability. The subjects were asked to rate each statement on a 5-point scale (strongly agree, agree, neither, strongly disagree, disagree). Subjects were also asked to complete a 10-item self-report inventory of questions about knowledge of mental illness derived from a previous Nigerian study.13

Ethics

Permission to carry out the study was sought from the Research and Ethics Committee of the hospital. Written informed consent was also obtained from every participant that took part in the study.

Data analysis

Data were analysed using Statistical Package for Scientific Solutions (SPSS: Version 24.0; USA). The sample means and frequencies were calculated as appropriate. The independent *t*-tests and Chi-square test were also used to analyse data. The level of significance was set at $p<0.05$.

Results

One hundred and twenty-three participants were recruited for the study, there were 115 females (93.5%) and 8 males (6.5%). The age group 41-50 years 54(43.9%) were in majority, followed by age groups 51 and above 31(25.2%), 31-40 years 22(17.9%) and 21-30 years 16(13%) respectively. The mean age of the participants was 38.4 years with standard deviation (SD= 9.8) years and a range of 22-55 years. One hundred (81.3%) of the participants were married and 19(15.4%) were single. The educational status of the participants showed that 26(21.1%), 12(9.8%) possessed registered and registered psychiatric nurse certificates respectively, while 61(49.6%) had bachelor's degree, 9(7.3%), and 1(8%) master's and doctorate academic degrees respectively. Concerning their designation in the hospital, majority of the participants 49(39.8%) were Chief Nursing Officers, 39(31.7%) were Nursing Officers and 35(28.5%) were Principal Nursing Officers.

Knowledge on causes of mental illness

Table 2 shows the participants reported knowledge about the possible aetiologies of mental illness. The most frequently mentioned aetiology of mental illness was genetic inheritance (96%), followed by misuse of drugs (94%) and alcohol, traumatic life experiences (83%), persistent stress (61%). Other responses include physical abuse (33%), poverty (53%), witches and demons (33%), evil spirit (32%) and supernatural punishment (11%). Many of the participants however, responded with one or more possible aetiologies of mental illness. Witchcraft and demons (33%), evil spirits (32%) and supernatural punishment (11%) were also considered by nurses as being part of the causes of mental illness, however, the percentages of the participant's responses were relatively lower.

Behaviour towards the mentally-ill

The Reported and Intended Behaviour Scale (RIBS) that was designed to measure intended behaviour of the public towards people with mental illness showed that 22.8% of the participants would like to live with someone with mental health problem, 44.7% claimed they can work with psychiatric patients, 39.8% mentioned that they had neighbours with mental health problem and more than half, 54.4% of the participants noted that they had a close friend with mental health problem as reflected in Table 3.

Knowledge about the mentally-ill

Regarding the stigma-related knowledge of the participants about mental illness as measured with MAKS, majority of the participants, 76.4% claimed that individuals with mental illness can fully recover, 93.3% claimed that if medication was effective, the mentally-ill can fully recover, 95.2% also believed that effective psychotherapy can also cure the mentally-ill. Similarly, 89.4% of the participants claimed they knew the advice they would give someone with mental illness, majority of the participants, while 79% claimed that the mentally-ill should have paid employment. Lastly, 66.0% of the participants agreed that the mentally-ill should actually seek professional help as reflected in Table 4.

Attitudes towards the mentally-ill

The responses of the participants for the CAMI four subscales scales were showed in Tables 5 to 8. Our findings on the authoritarianism subscale that measures negative attitudes showed that half 54% of participants disagreed that large mental hospitals were an out-dated ways of treating individuals with mental illness. Their views indicated that the mentally-ill could be a threat to public safety and should be put in custodial care. Similarly 63% of the participants agreed that the mentally-ill were different from normal people. Again, majority 67% of the participants disagreed that minimum importance should be placed on protecting the general public from individuals with mental illness. Again, more than half 57% of the participants agreed that as soon as a person shows symptoms of mental illness, he should be hospitalised. Other responses to the authoritarian views can be found in Table 5.

The views of the respondents on the benevolent scale showed that 40% of them agreed that the psychiatrically ill person is a burden on society, similarly, 38% of the respondents disagreed that that psychiatric hospitals seemed more like prisons, only 25% of the respondents disagreed that the mentally-ill should be avoided. However, from their views, the participants were noted as having benevolent attitudes towards the mentally ill as reflected in Table 6. With regards to the participants responses on the social restrictiveness scale, 63% agreed that the mentally-ill should not be isolated from the society, 58% disagreed that females who were once psychiatric patients should not be trusted as babysitters and only 40% disagreed that the mentally-ill were not as dangerous as people supposed. Other views of the participants on the social restrictiveness scale can be found in Table 7.

Table 8 shows the participants' views on the community mental health ideology scale. About half 49% of the participants agreed that the mentally-ill should not live within their neighbourhood, similarly, 41% agreed that mental health facilities should be kept out of residential neighbourhood, while 29% of the participants believed that locating mental health facilities in residential areas downgrades neighbourhood and 35% agreed that local residents had good reason to resist the location of mental health services in their neighbourhood. Other responses on participants' views on community mental health ideology scale can be located in Table 8.

Table 1: Sociodemographic details of the participants

Variable	n=123	%
Age		
21-30	16	13.0
31-40	22	17.9
41-50	54	43.9
50-60	31	25.2
Sex		
Male	8	6.5
Female	115	93.5
Marital Status		
Single	19	15.4
Married		
Separated/Divorced	1	0.8
Widow/Widower	3	2.4
Educational Status		
Registered Nurse	38	30.9
Bachelor's Degree	75	61.0
Master Degree	9	7.3
PhD	1	39.8
Designation in the Hospital		
Nursing Officer	39	31.7
Principal Nursing Officer	35	28.5
Chief Nursing Officer	49	39.8

Table 2: Participants reported knowledge about causes of mental illness

Perceived cause	No.*	%
Misuse of drugs (cannabis,	115	94
Cocaine, heroin, etc.)		
Traumatic events	102	83
Misuse of alcohol	108	88
Persistent Stress	75	61
Genetic inheritance	118	96
Physical abuse	84	68
Witches	41	33
Possession by evil spirit	39	32
Poverty	65	53
Supernatural punishment	13	11

*Participants with multiple responses

Table 3: Participants responses to Reported and Intended Behaviour Scale items

Variable	No	%
Currently live/ever lived with someone with mental health problem?		
Yes	28	22.8
No	95	77.2
Currently have/ever worked with someone with mental health problem?		
Yes	55	44.7
No	68	55.3
Currently have/have had, a neighbour with mental health problem		
Yes	49	39.8
No	74	60.1
Currently have/ever had, a close friend with mental health problem?		
Yes	67	54.4
No	56	45.4

Table 4: Participants responses to Mental Health Knowledge Schedule (MAKS) items

	Frequency	%
1. Most people with mental health problems want to have paid employment?		
Yes	98	79
No	23	19.5
2. If a friend had a mental health problem, I know what advice to give them to get professional help		
Yes	110	89.4
No	13	10.5
3. Medication can be an effective treatment for people with mental health problems		
Yes	115	93.3
No	8	6.5
4. Psychotherapy can be an effective treatment for people with mental disorders		
Yes	117	95.2
No	17	14.8
5. People with severe mental health problems can fully recover		
Yes	94	76.4
No	16	23.6
6. Most people with mental health problems go to a health care professional to get help		
Yes	80	66.0
No	43	34.0

Table 5: Participants attitude to mental illness for CAMI's Authoritarian Scale

	No	%
Large mental hospitals are an out-dated means of treating mentally ill (strongly disagree/disagree)	67	54
There is something about the mentally ill that makes it easy to tell them from normal people (strongly agree/agree)	78	63
Less emphasis should be placed on protecting the public from the mentally ill (strongly disagree/disagree)	82	67
Mental patients need the same kind of control as young children (strongly agree/agree)	67	54
As soon as person shows sign of mental disturbance, he should be hospitalized (strongly agree/agree)	70	57
Mental illness is an illness like many others (strongly disagree/disagree)	36	29
One of the main causes of mental illness is a lack of self-discipline and will power (strongly agree/agree)	59	48
The best way to handle the mentally ill is to keep them behind the locked doors (strongly agree/agree)	26	21
Virtually anyone can become mentally ill (strongly disagree/disagree)	20	16
The mentally ill should not be treated as outcast of society (strongly disagree/disagree)	12	10

Table 6: Participants attitudes to mental illness for the CAMI's Benevolence scale

	No	%
The mentally ill are a burden on society (strongly agree/agree)	49	40
It is best to avoid anyone who has mental problems (strongly agree/agree)	31	25
Our mental hospitals seem more like prisons than places where the mentally ill can be cared for (strongly disagree/disagree)	44	38
More tax money should be spent on the care and treatment of the mentally ill (strongly disagree/disagree)	23	19
The mentally ill don't deserve our sympathy (strongly agree/agree)	33	27
The mentally ill have for too long been the subject of ridicule (strongly disagree/disagree)	28	23
We have a responsibility to provide the best possible care for the mentally ill (strongly disagree/disagree)	13	11
We need to adopt a far more tolerant attitude towards the mentally ill in our society (strongly disagree/disagree)	16	13
Increased spending on mental health services is a waste of tax money (strongly agree/agree)	19	15.
There are sufficient existing mental health services for the mentally ill in Nigeria (strongly agree/agree)	40	33

Table 7: Participants attitudes to mental illness for CAMI's social restrictiveness scale

	No	%
The mentally ill should not be given any responsibility (strongly agree/agree)	23	19
Women who were once patients in a mental hospital can be trusted as baby sitters (strongly disagree/disagree)	71	58
Anyone with history of mental problems should be excluded from taking public office (strongly agree/agree)	38	31
The mentally ill are far less of a danger than most people suppose (strongly disagree/disagree)	49	40
I would not want to live next door to someone who has been mentally ill (strongly agree/agree)	45	37
The mentally ill should not be isolated from the rest of the community (strongly agree/agree)	77	63
No one has the right to exclude the mentally ill from their neighbourhood (strongly disagree/disagree)	27	22
Mental patient should be encouraged to assume the responsibilities of normal life (strongly disagree/disagree)	12	10
A woman would be foolish to marry a man who has suffered from mental illness even though he seems fully recovered (strongly agree/agree)	39	32
The mentally ill should not be denied their individual rights (strongly agree/agree)	95	77

Table 8: Participants attitudes to mental health ideology scale

	No	%
Having mental patients living within residential Nieghb our hoods might be good theraphy but the risks to the residents are too great (strongly agree/agree)	60	49
It is frightening to think of people with mental problems living in residential Neigh borhoods (strongly agree/agree)	32	26
Locating mental health services in residential neighbourhood does not endanger local residents (strongly disagree/disagree)	23	19
Local residents have good reason to resist the location of mental health services in their neighbourhood (strongly agree/agree)	43	35
Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services (strongly disagree/disagree)	22	19
The best therapy for many mental patients is to be part of a normal community (strongly disagree/disagree)	18	15
As far as possible mental health services should be provided through community based facilities (strongly disagree/disagree)	18	15
Locating mental health facilities in residential areas downgrades neighbourhood (strongly agree/agree)	35	29
Residents should accept the location of mental health facilities in their neighbourhood to serve the need of the local community (strongly disagree/disagree)	18	15
Mental health facilities should be kept out of residential neighbourhood (strongly agree/agree)	50	41

Discussion

This study was designed to investigate nurses' knowledge about possible causes of mental illness, their intended behaviours towards the mentally-ill, levels of mental health-related knowledge and their attitude towards individuals with mental illness. Our findings showed that majority of the participants (96%), (94%), (83%) and (61%) believed that genetic inheritance, misuse of drugs and alcohol, traumatic life experiences and persistent stress respectively could cause mental illness. However, 11% to 33% of the participants also claimed that mental illness could be caused by supernatural punishment, evil spirits and witches and demons. These findings on the supernatural punishment, evil and demonic causes of mental illness were also in consonance with the reports of other researchers. [15, 19-23] This finding was surprising because the participants were highly educated nurses working in a tertiary hospital setting, therefore their knowledge about the aetiologies of mental illness should be disturbing, it could perpetuate reduced quality nursing care for the mentally-ill populations. [19-23] However, since the knowledge and attitude of the general populations about the aetiology of mental illness remain largely negative, it could possibly negatively influence the attitude of the nurses who also live in the same society despite their education. [19-23]

Regarding the stigma-related knowledge of the participants measured with MAKS, almost all the participants declared that individuals with mental illness can fully recover, if given the appropriate medication and physiotherapy. In the same vein, the participants claimed that they know the advice they would give someone with mental illness or refer them to where they can access professional mental health services. The participants also claimed that individuals with mental illness should have paid employment. These findings on the stigma-related knowledge of nurses about the mentally-ill were also in agreement with the results from other studies from other countries such as in Europe, [24] Sweden, [3] Ethiopia, [20] India, [25] and Kenya. [21] However,

the knowledge and perception of nurses towards the mentally-ill was also reported to be negative in many other developing countries such as in Kenya, [21] India, [25] Rwanda, [26] Uganda, [27] and Zambia. [28] The differences in findings of authors from various countries with regards to nurses' knowledge and attitude towards the mentally-ill could also be due to wider socio-cultural and organisational nursing practices in their countries [4, 11, 20, 24].

The findings of the Reported and Intended Behaviour Scale (RIBS) that measured intended behaviour of the participants towards people with mental illness also showed negative attitudes towards the mentally-ill because only 22.8% of the participant claimed that they would like to live with someone with mental health problem, 39.8% claimed they do not mind having neighbours with mental health problem, 44.7% mentioned that they can work with persons with mental illness and despite the fact that more than half 54.4% of the participants revealed that they had a close friend with mental disorder. These observations were also in agreement with the findings of other studies [15, 21-22, 25]. Nonetheless, positive finding about intended behaviour towards the mentally-ill were observed in Europe, [18] Sweden, [3] and Turkey [29]. The differences in findings could also be due to socio-cultural life styles in these countries.

With regards to our findings on the attitude of nurses towards the mentally-ill, our results showed that they had negative attitudes about the mentally-ill as shown in their responses on the authoritarianism, social restrictiveness, and community mental health ideology subscales of CAMI. These results were also in agreement with the results of other workers on stigmatising attitudes towards the mentally-ill [3-4, 11-12, 19, 25]. These findings on stigmatising attitudes towards individuals with mental illness by nurses who were regularly in contact with patients should be worrisome because the mentally-ill are meant to be in the custody of ward nurses when admitted in hospitals. The scientific implications of this finding are that policy makers in mental should incorporate mental health education in the nursing schools [30]. Nurses should also gain clinical exposure in mental health through rotation and clerkship in a mental health department or school. Such rotations will increase their familiarity with mental illness and also help in making them to develop positive attitude towards the mentally-ill. It is therefore important that anti-stigma lectures and programmes be incorporated into nursing schools curricular [30].

In the same light, there is an urgent need for continuous and regular advocacy, public awareness and enlightenment programmes on the knowledge about mental health and illnesses for the general public. The limitations of this study incudes its small sample size, the cross-sectional nature of its design and not involving nurses for other tertiary institutions in Nigeria. However, it has added to the body of literature on the knowledge, attitude and perception of Nigerian nurses on their attitudes towards the mentally-ill. Future longitudinal and multicentred studies on the knowledge, attitude and perception of nurses towards mental illness and the mentally-ill are hereby suggested.

Conclusion

Despite the respondents being nurses in a tertiary hospital setting, their knowledge, attitude and intended behaviour towards the mentally-ill were relatively negative. Nigerian mental health policy deciders need to urgently develop awareness and advocacy programmes against discrimination and social stigma associated with mental illness especially among hospital nurses. In this light, practice-based training modules on mental health disorders need to be designed for nurses.

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