

Perceptions of Nigerian Mental Health Nurses towards Community Mental Health Nursing Practice in Nigeria

Sunday Oluwafemi Omoniyi^{1,2,*}, Danjuma Aliyu³, Ibrahim Taiwo Adeleke^{2,4}, Afam Ndu⁵, Mary Kakamission Paul¹

¹Department of Nursing Service, Federal Medical Centre Bida, Nigeria

²Centre for Health & Allied Researches, Bida, Nigeria

³Department of Nursing Services, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria

⁴Department of Health Information, Federal Medical Centre, Bida, Nigeria

⁵Post Basic School of Psychiatric and Mental Health Nursing, Enugu, Nigeria

*Corresponding author: omonisundaygold@gmail.com

Abstract Background: Mental health disorders continue to increase globally and there is a need to care for patients with mental health disorders. In Nigeria, there is continuing advocacy for community mental health practice, largely due to small number of health facilities and mental health professionals. **Aim:** To determine the perceptions of Nigerian mental health nurses towards community mental health nursing practice in Nigeria. **Methods:** A cross-sectional descriptive study of all Nigerian mental health nurses who attended the 2015 Annual National Scientific Conference of Association of Psychiatric Nurses of Nigeria (APNON) held at Federal Neuropsychiatric Hospital, Baranawa Kaduna, Kaduna State between Monday 27th and Friday 31st July 2015 was undertaken. A structured questionnaire developed by the authors from relevant literature on community mental health nursing practice was used for data collection. Statistical analysis was performed using SPSS version 16.0 for windows to analyze the data. Descriptive analysis was computed on dependent and independent variables. **Results:** This study involved 135 Nigerian mental health nurses among the conference attendees who gave consent to participate in this study. More than half (55%) of participants were female and the overall participants had dual nursing certificates with a mean year of experience of 11.1 ± 7 years. A good number (88%) of the Nigerian mental health nurses declared that, the practice of community mental health nursing is very important to the mental health nurse and as well as the patients. Nearly all (99%) of the participants agreed that creating annex hospitals and posting mental health nurses to the communities will significantly reduce the problem of institutionalizing mental health care and nearly six in every ten (59%) of them reported that they did not practice community psychiatry nursing at their various place of work. Major factors hindering the practice of community mental health are lack of substantive policy 62%, workload 48%, and resistance from mental health nurses due to limited staffing 45%. **Conclusion:** In spite of the acknowledged, important of CMH practice to nursing profession and the patients, most the mental health nurses submitted that they were not practicing it at their various place of work. However, there is urgent need to explore ways to stimulate all levels of government (and their partners) to initiate or activate policies in favour of community mental health is paramount.

Keywords: community mental health, nursing practice, mental health nurses, psychiatric nurses, institutionalization, deinstitutionalization, perspectives, Nigeria

Cite This Article: Sunday Oluwafemi Omoniyi, Danjuma Aliyu, Ibrahim Taiwo Adeleke, Afam Ndu, and Mary Kakamission Paul, "Perceptions of Nigerian Mental Health Nurses towards Community Mental Health Nursing Practice in Nigeria." *World Journal of Preventive Medicine*, vol. 4, no. 2 (2016): 25-31. doi: 10.12691/jpm-4-2-1.

1. Background

Mental disorders are one of the major burden of disease Worldwide [1] and mental disorders are on the increase due to economic crises, psychosocial problems in the country and the number of people needing psychiatric care has increased proportionately [2]. This increase in the incidence of mental illness in the communities could be attributed to the non-availability of community based psychiatry services and the inability of the mental ill clients to utilize the available ones [3]. Mental health

nurses are one of the core healthcare providers that contribute effectively in the management of all mentally ill patients in the communities [4].

Psychiatric Nursing (PN) also called Mental Health Nursing (MHN) are group of nurses that specialized in mental health practice and who provide nursing care services to the mentally ill patients throughout the continuum of care [5]. MHN provide and promote mental health care through the framework of the nursing process to early detect any mental disorders, they use the tool of patient assessment, diagnosis, planning, intervention and evaluation of human responses to mental health problems and psychiatric disorders to meet the needs of the patients

[6]. Mental health nursing provide comprehensive, patient-centered mental health care and outcome evaluation in a variety of settings across the entire continuum of care [6].

Community mental health (CMH) nursing is a sub-specialized area of mental health nursing related to prevention and treatment of mental illness, and rehabilitation of former psychiatric patients using organized community programs; it approaches patients through the resources of the community [7]. Furthermore, Community mental health practice involves support and treatments of people with mental disorders or mental health difficulties in a domiciliary setting instead of a psychiatric hospital [8]. CMH system of care is more accessible and effective, it lessens social exclusion, has less possibility for the neglect and violations of human rights that were often encountered in mental health facilities [9]. It enhances client strength in the same environment as the patient's daily life creating an individually tailored care for the patient [10], it serves to meet the needs of the entire community rather than that of a single service, services provide include emergency services, education for children, follow-up for previously institutionalized patients, alcohol and drug abusers and out patients services. It provides network of services that offer continuing treatment, accommodation, occupation and social support which together help people with mental health problems to regain their normal social roles [11].

The evolution of community mental health practice began in 1882 at McLean Asylum in Massachusetts where the early nursing leaders such as Harriet Bailey, Euphemia Jane Taylor and Lillian Wald supported the movement for mental hygiene and advocated for community psychiatric nursing [12]. Consequently, the first psychiatric trained nurses worked in the community setting and attends to clients' needs in their homes and neighborhood [13].

In Nigeria, CMH practice has gained increased importance in recent years. This is characterized by small number of health facilities and mental health professionals, with concentration of care in the relatively few available psychiatric hospitals and psychiatric units of some secondary and tertiary health facilities [14,15]. Likewise, with increase awareness among the public led to increased patronage of the few psychiatric facilities causing overstretching to the available services most especially in other patients facilities [16,17]. This has led to recent calls in the country for the emphasis on institutionalization in favor of deinstitutionalization as practiced in the Western countries [18,19,20,21,22].

In many African societies, Nigeria in particular, the public has negative attitude towards people with mental illness [23, 24] and they believed that psychiatric illness is caused by familial defect or the 'handwork of evil machinations' (demons, evil spirits). These negative beliefs result in psychiatric patients being seeing as an outcast and people who should be quarantined [24]. Another common societal belief is that psychiatric patients are responsible for their illness, especially when it is an alcohol and/or substance related problem. This stigmatization denies psychiatric patients the empathy and understanding traditionally bestowed on the sick patients in African society. [10,11]. These attitudes and beliefs against mental illness equally, heightened interest in deinstitutionalized system of care for persons with mental

illness necessitated increased need for their social and occupational rehabilitation [25,26,27].

The integration of mental health concept by World Health Organization (W H O) into primary healthcare programs as the 9th component is an attempt to infiltrate the services of mental healthcare into communities for the benefit of every one and the mentally ill clients [28]. Effective implementation of WHO concept efficiently provide primary mental healthcare to patients seeking mental health services in a wide range of delivery settings and overall, promote universally selected and preventive mental health interventions [29]. However, community-based care is supported by literature, as a model for accessing and facilitating full participation and integration of service users within their community [30]. It is considered as a good practice for providing care to individuals experiencing acute mental health difficulties in the least restrictive environment, with the minimum disruption to their lives. In the majority of cases, service users and careers prefer community treatment [31].

1.1. Aim of the Study

To determine the perceptions of Nigerian mental health nurses towards community mental health nursing practice in Nigeria.

2. Methods

2.1. Setting

The study was carried out at the Annual National Scientific Conference of Association of Psychiatric Nurses of Nigeria (APNON) held at Federal Neuropsychiatric Hospital, Baranawa, Kaduna, Kaduna State between Monday 27th to Friday 31st July 2015. APNON is an association of all psychiatric nurses in Nigeria under the umbrella of National Association of Nigeria Nurses and Midwives (NANNM). APNON Annual Scientific Conference was first inaugurated in the year 2001. The conference has been an annual event adapted to congregate all mental health nurses all over the nation to come up with ways of improving the standards of practice of psychiatric mental health nursing in Nigeria and to increase patients' satisfaction through quality mental health nursing care.

2.2. Study Design

This is a cross-sectional descriptive study design involving all Nigerian mental health nurses.

2.3. Sample

A total of 135 mental health nurses among the 200 attendees of 2015 APNON conference in Kaduna, Nigeria who gave consent to participate were recruited for the study. The participants were recruited using availability and purposive sample technique.

2.4. Data Collection Tools

Data were collected using a structured questionnaire developed by the researchers from review of relevant literature on community mental health nursing practice.

The researchers submit a research proposal to seek for permission and introduction from the authorities of the association to carry out the study and a written informed consent of each participant was obtained..

2.5. Data Analysis and Management

Data analysis was done using SPSS version16.0 for windows. Descriptive analysis was computed using dependent and independent variables, Mean and Standard Deviation, while test for significance was determined using Chi-square (χ^2) and p-value set at P=0.05.

3. Results

3.1. Socio-demographic Characteristics

More than half (54.8%) of the studied participants were females and most (45.0%) of them were between the age of 31 to 40 years. All participants have dual nursing professional qualifications or more. Participants working experience shows that 74.1% of them had spent between 1-10 years in practice as registered mental health nurses, with a mean years of experience of 11.1 ± 7 years. Majority (62.3%) of participants were within the rank of Nursing officer and Assistant Chief Nursing officers. More than two third (77.9%) of the participants worked with tertiary health facilities and a quarter (25.4%) were from North central followed by 23.1% who were from northwest zone where the conference was held.

Table 1. Socio-demographic characteristics of participants

Variables	Frequency	Percentage
Sex		
Male	61	45.2
Female	74	54.8
	n=135	
Age in years		
≤ 20-30	25	20.8
31-40	54	45.0
41-50	33	27.5
51-60	8	6.7
	n=120	
Professional qualification		
RN/RPN*	106	78.5
RPN/BSc*	22	16.3
RPN/MSc*	7	5.2
	n=135	
Years of experience		
≤5	37	27.4
6 -10	34	25.1
11 -15	29	21.5
16-20	21	15.6
21-25	7	5.2
26-30	7	5.2
	n=135	
Rank		
Deputy Director of Nursing Services	1	0.7
Assistant Director of Nursing Services	1	0.7
Chief Nursing Officer	17	12.6
Assistant Chief Nursing Officer	16	11.8
Principal Nursing Officer	26	19.3
Senior Nursing Officer	26	19.3
Nursing Officer	32	23.7
Staff Nurse	16	11.9
	n=135	
Work place		
Federal/teaching hospital	102	77.9
State/Specialist hospital	21	16.0
Local government/primary healthcare	8	6.1
	n=131	
Workplace geopolitical zones		
South west	18	13.4
South south	13	9.7
South east	21	15.7
North central	34	25.4
North east	17	12.7
North west	31	23.1
	n=134	

*RN = Registered nurse; * RPN= Registered psychiatric nurse; *B.Sc. = Bachelor of science *MSC = Master of science.

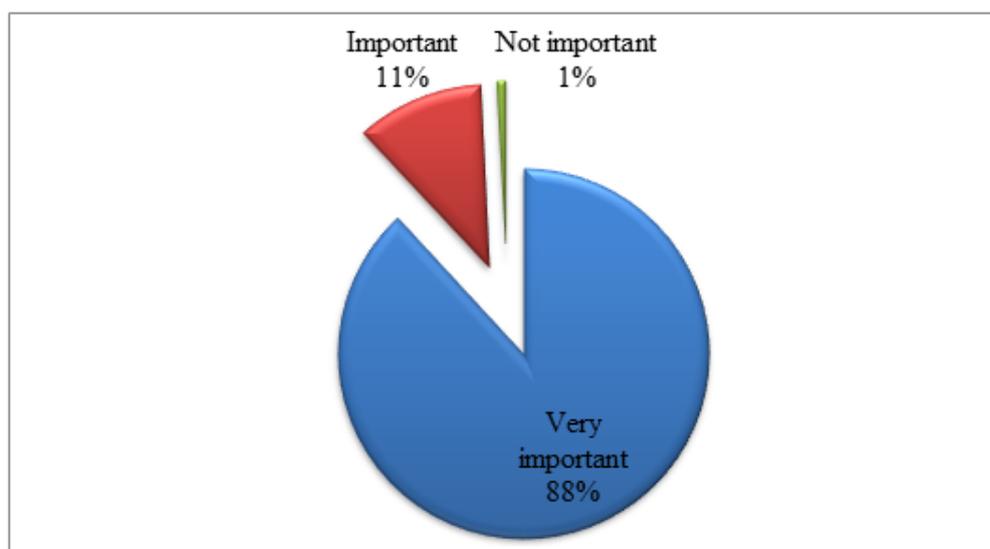


Figure 1. Important of community mental health nursing practice

Figure 1 above illustrates that majority (88.0%) of participants affirmed that the practice of community mental health nursing is very important to the mental health nursing and as well as the patients.

Table 2. Perceived practice towards community mental health nursing

Statements	N	Yes (%)	No (%)	Unsure (%)
Do you practice community mental health nursing at your present place of work	132	50 (37.9)	78 (59.1)	4 (3.0)
creating annexes and posting of mental health nurses to communities would reduce the problem of mental illness	135	134 (99.3)	0 (0)	1 (0.7)

Table 2 above shows that nearly six in every ten (59.1%) of participants perceived that they did not practice community mental health nursing at their various place of work and nearly all (99.3%) the studied participants perceived that creating annex hospitals and posting mental health nurses to the communities will significantly reduce the problem of mental illness.

Table 3. Participant's perceptions on the advantages of community mental health nursing practice

	Frequency	Percentage
Reduce transportation problem	62	45.9
Incidence of relapse	59	43.7
Defaulting appointment days	61	45.1
Compliance with drugs	82	60.7
Reduce stigma	78	57.8
Reduce financial constraint	50	37.0
Distance to hospital	63	46.6
Detachment from family and job	60	44.4

Compliance with drugs (60.7%) was identified by the participants as one the major advantages of practicing community mental health nursing practice (Table 3), followed by reduce stigma(57.8%), distance to hospital(46.6%) and transportation problems(45.9%).

Table 4. Perceived goals of community mental health nursing practice

Goals	True (%)	False (%)
It lessens the anxieties that the patient has towards mental illness	105 (98.1)	2 (1.9)
Allow patients the opportunity to receive treatment in his/her own environment	101 (100)	0 (0)
Aid recovery as patient remains with their families	104 (100)	0 (0)
Allows mental health nurses to learn about their patients	92 (92.9)	7 (7.1)
Establish good rapport	97 (100)	0 (0)
It prevents mental illness	71 (73.2)	26 (26.8)
To prevent institutional neurosis	97 (91.5)	9 (8.5)
To facilitate rehabilitation of patient	108 (96.5)	4 (3.5)
It promotes mental health by early detection of occurrence	114 (100)	0 (0)
Involvement of patient's family, friend and community in their care	108 (100)	0 (0)

Table 4 above shows that overall 114 (100%) of participants perceived that community mental health nursing practice will promote mental health through early detection of mental disorders and the same portion 108 (100%) of them credited support for the involvement of

patients families, friends and community in their care. In a related development, majority 105 (98.1%) of participants indicated that community mental health nursing practice will lessen patients anxieties towards mental illness.

Table 5. Perceived impediments to community mental health nursing practice

Factors	Frequency	Percentage
Resistance from mental health nurses due to limited staffing	61	45.1
Lack of awareness among mental health nurses on the important concept of community mental health to patients	30	22.2
Fear of passing wrong information to the patient	14	10.3
Reluctance by the psychiatrist to allow the mental health nurses to practice independently	53	39.2
It is not practicable in Nigeria	15	11.1
Lack of substantive policy to practice	84	62.2
Work load	64	47.5

Perceived factors hindering the practice of community mental health nursing are presented in Table 5 above. Nearly (62.2%) of participants established that lack of substantive policy do prevent them from practicing

community mental health nursing. others factors reported include work load (47.5%) and resistance from mental health nurses due to limited staffing (45.1%).

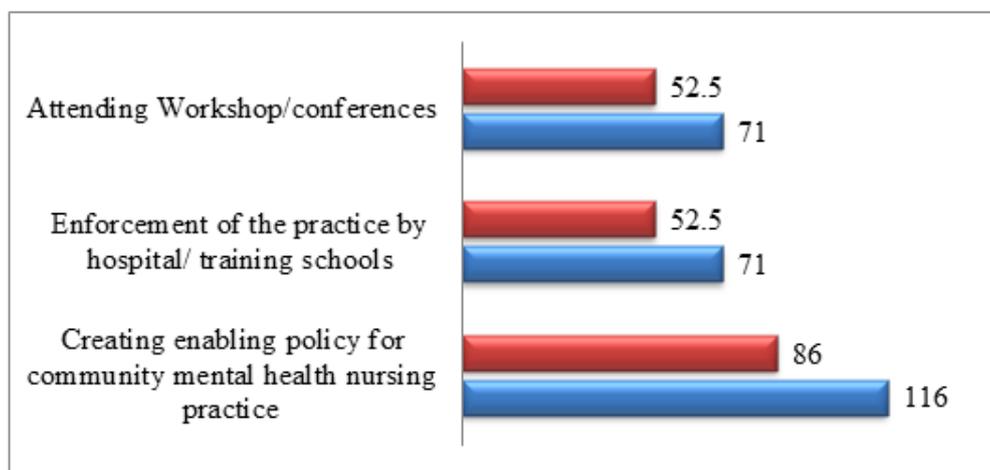


Figure 2. Ways to improved community mental health nursing practice in Nigeria

Figure 2 above elucidates that creating enabling policy for community mental health nursing practice 116 (86.0%), attending workshop/conferences 71 (52.5%) and

enforcementof the practice by hospital and training institutions will improved community mental health nursing practice 71(52.5%).

Table 6. Association between selected socio-demographic features and participants' perceptions on community mental health nursing practice

Selected variables	Chi square (χ^2)	df*	p-value
<i>Important of community mental health nursing practice to the nursing and patient with selected socio-demographic features</i>			
Professional qualification	4.411	6	0.621
Years of experience	10.498	10	0.398
Workplace	1.639	6	0.950
Workplace geopolitical zone	1.189	12	0.000
<i>Creating of community annexes will reduce mental illness with selected socio-demographic features</i>			
Professional qualification	.524	3	0.914
Years of experience	4.122	5	0.532
Workplace	.332	3	0.954
Workplace geopolitical zone	6.367	6	0.383
<i>Practice community mental health nursing at place of work with selected socio-demographic features</i>			
Professional qualification	11.879	9	0.220
Years of experience	10.018	15	0.819
Workplace	21.588	9	0.010
Workplace geopolitical zone	18.728	18	0.409

*df = degree of freedom.

Table 6 presents factors associated with participants' opinions on community mental health nursing practice. Significantly, participants workplace geopolitical zone ($p=0.000$) and workplace ($p=0.010$) had important influence on the importance of community mental health nursing practice to the nurse and patient and the practice of community mental health at their different place of work while professional qualification and years of experience did not have any significant with the selected socio-demographic features.

4. Discussion

Community psychiatric practice otherwise known as community mental health practice has been advocated in recent years. But this has been limited by small number of healthcare facilities and mental health professionals, with concentration of care in the relatively few available psychiatric hospitals and psychiatric units of some general and teaching health facilities [14,15]. The importance of community mental health as a network of services that offer continuing treatment, accommodation, occupation and social support helps people with mental health problems to regain their normal social roles [32]. In addition, good quality community-based services have been shown to be the most effective form of mental health care [33]. This has been the perception of the participants in this study.

Fernando [34] reported that the concept of deinstitutionalization of mental health care is to modify negative attitudes people has towards people with mental illness. A study [35] further corroborated this assertion that, nearly a third (32%) of the participants held that people with mental illness were best treated in their home environment. As such, the practice of community mental health among mental health nurses therefore becomes paramount. In agreement with this, our study established that a good number (88%) of the Nigerian mental health nurses declared that the practice of community psychiatric nursing is very important to the mental health nurse and as well as the patients. Related to this, nearly all (99%) of the participants agreed that creating annex hospitals and posting mental health nurses to the communities will significantly reduce the problem of institutionalizing mental health care and nearly six in every ten (59%) of them reported that they did not practice community psychiatry nursing at their various place of work. Participants' geopolitical zone ($p=0.000$) and workplace ($p=0.010$) had significant influence on the importance attached to community psychiatric nursing practice, as perceived by the nurses.

All the participants reported that community psychiatric nursing practice will promote mental health through early detection of mental disorders and they all supported the involvement of patient's families, friends and community in care. Similarly, majority (98.1%) of participants indicated that community psychiatric nursing practice would lessen patient's anxieties towards mental illness. These findings are similar to another study [11], which found that community mental health practice involves the support and treatments of people with mental disorders in a domiciliary setting instead of a psychiatric hospital. In addition, it provides network of services that offer

continuing treatment, accommodation, occupation and social support which together help people with mental health problems to regain their normal social roles [8].

Participant's opinions on factors hindering the practice of the community psychiatric shows that nearly 62% of participants established that lack of substantive policy do prevent them from practicing community psychiatric nursing. Other factors reported include workload (48%) and resistance from mental health nurses due to limited staffing (45%). Majority (86%) of the participants elucidated that creating enabling policy for community mental health nursing practice, attending workshop/conferences (53%) and enforcement of the practice by hospital and training institutions will improved community psychiatric nursing practice (53%).

5. Conclusion

In spite of the acknowledged, importance of CMH practice to nursing profession and the patients, most the mental health nurses submitted that they were not practicing it at their various place of work. However, there is urgent need to explore ways to stimulate all levels of government (and their partners) to initiate or activate policies in favour of community mental health is paramount.

6. Study Limitations

Only a limited number of Nigerian mental health nurses attended the conference due to the security and sponsorship challenges in the country and employers respectively. Thus, the findings in this study could not be generalized.

Acknowledgement

The authors wish to thank Mr. Stephen Duniya of Federal Neuropsychiatric Hospital Barnawa Kaduna and Mrs. Taiwo Damilola Oluwafemi who participated in the data collection process. The comments of Mr. Emmanuel Ejembi Anyebe of Research and Training Unit, School of Nursing, Ahmadu Bello University Teaching Hospital, Zaria is genuinely acknowledged.

Conflict of Interest

The authors declared that they have no conflicting interest.

References

- [1] Ndeti D.M, Khasakhala L.I, Mutiso V, Mwayo A.W, Knowledge, attitude and practice (KAP) of mental illness among staff in general medical facilities in Kenya: practice and policy Implications, *Afr J Psychiatry*, 14:225-235, 2011.
- [2] European Public Health Alliance. *EPHA report on the impact of the crisis on the population mental health October*, 2012). Available from: www.ephah.org . Retrieved on 28th December, 2013.
- [3] European Nurses Federation Report. *Caring in Crisis- The impact of financial crisis on Nursing and Nursing*, 2011.

- [4] Atlas: *Nurses in Mental Health*, World Health Organization, 2007.
- [5] Psychiatry and Mental Health Nursing. Wikipedia. Accessed on Feb. 2016.
- [6] Psychiatric Mental Health Nursing Scope & Standards *Draft Revision*. Page 3 of 49, 2006.
- [7] Marcos, L. R. The politics of deinstitutionalization. In N. L. Cohen (Ed.), *Psychiatry takes to the streets: Outreach and crisis intervention for the mentally ill*, New York: Guilford Press, pp. 3-15, 1990.
- [8] Amiegheme F.E, Adeyemo F.O, Knowledge and attitude of nurses to community psychiatry services in Edo state, Nigeria. *Int J Med Biomed Res*, 3(2): 68-74, 2014.
- [9] W.H.O. *Community mental health services will lessen social exclusion*, says WHO 2007: Retrieved from http://en.wikipedia.org/wiki/Community_mental_health_service on 25 June 2012.
- [10] Varcolis E.M, Foundation of psychiatric mental health nursing, 4th ed. Philadelphia: United State of America 2002.
- [11] Dahiru A.H, *Mental health and treatment of mental illness*, pg 167, 2000.
- [12] Buckwalter & Church, *An uncommon psychiatric nurse perspective in psychiatric care*, 1979.
- [13] Smith, C. M. Origins and future of community health nursing. In C. M. Smith & F. A. Maurer (Eds.), *Community health nursing: Theory and practice*, Philadelphia: Saunders, pp. 30-52, 1995.
- [14] Odejide A.O, Ohaeri J.U, The existing mental health facilities in Nigeria. *Niger. J. Psychiatry*, 1(4): 235-248, 1997.
- [15] Aina O.F, Ladapo H.T.O, Lawal R.A, Owoeye O.A, Community-oriented services in a psychiatric hospital. Efforts to reduce stigmatization. *Niger. J. Psychiatry*, 5(1): 19-25, 2007.
- [16] Osibogun A, Crisis and challenges in the Nigerian health sector, *J. Community Med. and Primary Health Care*, 16(2): 1-7, 2004.
- [17] Boroffka A, Psychiatric care in Nigeria. *Psychopathologie Africaine XXVII*: 27-36, 1996.
- [18] Gureje O, Odejide O.A, and Acha R.A, Pathways to psychiatric care in Ibadan, Nigeria. *Tropical and Geographical Medicine*, 47: 125-129, 1995.
- [19] Ladapo H.T.O, Aina O.F, Lawal R.A, Adebisi O.P, Olomu S.O, Aina R.B, Long stay patients in a psychiatric hospital in Lagos, Nigeria, *Afr. J. Psychiatry*, 11; 128-132, 2008.
- [20] Amering M, Stastny P, Hopper K, Psychiatric advance directives: qualitative study of informed deliberations by mental health services users, *Brit. J. Psychiatry*, 186: 247-252, 2005.
- [21] Macpherson R, Dix R, Morgan S, A growing evidence base for management guidelines. *Advances in Psychiatric Treatment*, 11: 404-415, 2005.
- [22] Ahanotu C.A, Onyeizugbo E.U, The practice of psychiatry in Nigeria: A call for a paradigm shift, *Niger. J. Psychiatry*, 5(1): 42-44, 2007.
- [23] Kabir M, Iliyasu Z, Abubakar I.S, Aliyu M.H, Perception and beliefs about mental illness among adults in Karfi village, northern Nigeria. *BMC International Health Human Rights*, 20(4): 1-2, 2004.
- [24] Gureje O, Lasebikan V.O, Ephraim-Oluwanuga O, Olley B.O, Kola L, Community study of knowledge and attitude to mental illness in Nigeria. *Brit. J. Psychiatry*, 186: 436-441, 2005.
- [25] National Advisory Mental Health Council, Health care reform for Americans with severe mental illness. *Am. J. Psychiatry*, 150; 1447-1465, 1993.
- [26] Lyons D, McLoughlin D.M, Recent advances in psychiatry. *Brit. Med. J. West Afr. Edition*, 5; 1:11-14, 2002.
- [27] Glozier N, Hough C, Henderson M, Holland-Elliot K, Attitudes of Nursing staff towards co-workers returning from psychiatric and physical illnesses, 52: 525-534, 2006.
- [28] Caplan G, An approach to community mental health psychiatric Text Book, 6 Ed.
- [29] Mrazek & Hagerty, *Reducing risks for mental disorders: Frontiers for preventive intervention research*, Washington, DC: National Academy Press, 1994.
- [30] World Health Organization, Community Mental Health Services will Lessen Social Exclusion: *Report on Global Forum for Community Mental Health*. Geneva: Author. 2007.
- [31] Dunne, E, The Views of Adult Users of the Public Sector Mental Health Services: *Report of a Survey for the Mental Health Commission*, 2006. Retrieved from Mental Health Commission. website: <http://www.mhcirl.ie/Publications/>.
- [32] Valsraj K.M, Lygo-baker S.A balancing act: developing curricula for blood care within community psychiatry, *AdvPsychiatr Treat*,; 12: 69-78, 2006.
- [33] Birgit R, Julian E, Mike D, Istvan P, Andrew M, Community mental health. *Implementation guidelines by CBM*, 2010.
- [34] Fernando S.M, Deane F.P, McLeod H.J, Sri Lankan doctors' and medical undergraduates' attitudes towards mental illness, *Social Psychiatry and Psychiatric Epidemiology*, published online 18 August 2009.
- [35] Olatunji. A.F, Tajudeen S. F, Yewande O.O, Derin O.O, Medical students' beliefs about treatment and rehabilitation of persons with mental illness, *Journal of Neuroscience and Behavioural Health*, Vol. 2(2), pp. 012-017.