

# **CHANGING LEVELS IN SERVICE ENGAGEMENT AND PATTERN OF SOCIO- DEMOGRAPHIC AND CLINICAL CHARACTERISTICS IN A PSYCHIATRIC HOSPITAL IN NIGERIA**

*Article Review by Omoaregba JO, Eze GO, Oseyemwen NK, Uteh BE, Nigeria  
(M.Sc., Ph.D., in Clinical Research Student of Texila American University)  
Email: - jomoaregba@yahoo.com*

## **ABSTRACT**

### *OBJECTIVE*

Under-utilization of services by individuals with mental illness is widespread and has been linked to stigma. Interventions to combat stigma can improve service utilization. There is a paucity of research that evaluates interventions to combat stigma. This study sought to ascertain the possible impact of an interventional programme on service engagement among patients with mental illness, and access for changes in patterns and correlates of mental illness in these individuals

### *DESIGN*

This is a retrospective/cross-sectional study conducted at a regional psychiatric hospital in Nigeria.

### *PROCEDURE*

This report compares two groups (pre and post intervention groups), following an intervention initiated by the hospital to combat stigma, in 2008. They were compared in terms of service engagement, clinical and socio-demographic characteristics. All patients who presented for the first time during the study period were recruited. All information were sourced from patients' case notes. Using the SPSS16, descriptive statistics were used to summarize the data and inferential statistics to test associations.

## **RESULTS**

There was a six-fold increase in service engagement ( $p=0.002$ ) with a reduction in the duration of untreated psychosis. The pre-intervention group significantly had longer duration of inpatients care ( $p=0.029$ ), higher use of depot antipsychotics ( $p<0.0001$ ) and higher prescription of ECT ( $p<0.0001$ ). However, the post intervention group had a significantly higher use of psychoactive substance ( $p=0.013$ )

## **CONCLUSION**

Correcting misconceptions about mental illness, psychiatric treatments and mental health facilities could reduce stigma, enhance service utilization, and improve clinical outcomes for people with mental illness. More robust studies are needed.

## **KEY WORDS**

service engagement, stigma, intervention programme, mentally ill patients, duration of untreated illness, prognosis

## **INTRODUCTION**

There is increasing awareness of mental illness as a significant cause of morbidity worldwide (Aniebue & Ekwueme, 2009). Underutilization of services by individuals with mental illness is widespread (Alonso et al, 2004). Poor knowledge of, and negative attitudes towards mental illness, re-enforced by media reports, may prevent them from accessing treatment (Sartorius, 2010). Improving people's knowledge about mental disorders improves concordance with therapies (Kichener & Jorm, 2004). Worldwide, and particularly in developing countries, there is paucity of research on the development and evaluation of interventions to combat stigma. We set out to evaluate the impact of such a programme.

## **METHODOLOGY**

This is a retrospective/cross-sectional study conducted at the Federal Neuro-Psychiatric Hospital in Benin City, located in the South-South geopolitical region of Nigeria. The hospital was first established in 1964 and is now a 230-bed tertiary mental health care facility with a service catchment area that covers Edo state in mid-western Nigeria and six other neighbouring states. It provides out-patient and in-patient care as well as rehabilitation services.

As part of its mental health advocacy program, the hospital from 2008 embarked on a sustained aggressive mental health education programme in the print and electronic media. Also, there were routine educational interventions targeting primary and secondary schools, markets and motor parks. The objectives of these efforts included education on common psychiatric disorders, as well as, teaching effective interventions and preventive strategies to reduce the

impact of stress and stress management. They were also educated on the dangers of substance abuse. These interventions were coordinated by a team comprising; psychiatrists, clinical psychologist, community psychiatric nurses and social workers. Staff of the hospital's media and public relations unit were also members of the team.

This article aims to assess the possible effects of this intervention on the service utilization by mentally ill patients as well as access for changes in patterns and correlates of mental illness in these individuals. This report compares service engagement, clinical and socio-demographic characteristics of service users at this hospital over two periods in its history which were ten years apart. We hypothesized that there would be an increase in service engagement in the year 2010 compared to 2000. We also hypothesized that there would be a reduction in the duration of untreated illness from data collected in 2010 compared to 2000.

## **PROCEDURE**

The first period was from Jan- Dec 2000, while the second period was from Jan-Dec 2010. All patients who presented for the first time during these periods were included in the study. All information were sourced from patient's case note from the Health Records Department. Socio-demographic data obtained included age, sex, religion, ethnicity, marital status, address, educational status and employment. Clinical characteristics included duration of untreated illness, diagnosis, medication types, medication doses, use of depot injection, co-morbid substance use and duration of inpatient stay for those that received in-patient care.

## **ETHICAL CONSIDERATION**

Ethical approval was obtained from the Research and Ethics Committee of the hospital after a review of the study protocol. Efforts were made to ensure that the records of patients obtained were kept confidential.

## **DATA ANALYSIS**

Data were analysed using the Statistical Package for Social Sciences (SPSS, Chicago IL) version 16. Descriptive statistics were used to summarize the data. The chi-square and independent t tests were used to analyse categorical and continuous data respectively. Level of significance was set a priori at  $P < 0.05$ .

## **RESULTS**

For ease of analysis and comparison, the two year groups were designated as year A (pre-intervention group) and year B (post-intervention group). The total number of participants for year A and year B were 250 and 1018 respectively.

## **SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

The mean age for year A was 30.07 (SD±14.81) years. It was higher for year B where the mean age was 34.46 (SD±16.24) years. The difference in means attained statistical significance ( $p=0.0001$ ). The modal age group was the same for both groups under consideration (the 18-64yr age group).

More than half of the respondents in both groups were male (57.9 % for group A and 51.1 % for group B). Almost two thirds of the respondents in both groups were unmarried (61.9 % and 65.8 %). Similarly, more than half of the respondents in both groups A and B were unemployed (52.8 % and 55.6 % respectively). However this difference was not found to be significant

The Bini ethnic group was more prevalent in both groups accounting for about a third of the respondents in both groups while majority of the respondents for both groups were resident in Benin City (57.9% and 62.7 %).

While only about a third of the respondents in year A had up to 12 years of education, the situation is different for the year B respondents were over half (54.8 %) had at least 12 years of education.

## **CLINICAL CHARACTERISTICS OF RESPONDENTS**

In terms of diagnostic groupings, for both groups A and B, the diagnosis most encountered amongst the respondents was that of mood disorders (particularly depression) accounting for 37.7 % and 46.5 % respectively. The schizophrenia group of disorders were the next accounting for 32.9 % of diagnosis in group A and 23.9 % in group B. The differences in these proportions was statistically significant ( $p=0.001$ ).

The use of depot antipsychotics was more in the year A group (13.9%), compared to the year B group (6.4 %). This was statistically significant ( $p=0.0001$ ). This was similar to the use of ECT in both groups A and B (7.9 % and 2.3 % respectively) where the difference was also significant ( $p=0.0001$ ). However, the reported use of psychoactive substance was more amongst respondents in group B than in group A (16.8 % and 10.7 % respectively). This was significant statistically.

Concerning illness characteristics, the mean duration of untreated illness was higher in the year A group compared to the year B group ( $103.46 \pm 231.11$  and  $81.29 \pm 116.93$  weeks respectively). This difference was however not significance. The mean duration of in-patient care was also higher in the year A group compared to year B ( $9.78 \pm 12.45$  and  $8.67 \pm 5.164$  weeks).

In terms of pharmacotherapy, for both groups A and B, the typical antipsychotics are the most prescribed antipsychotics for the respondents (59.5 % and 51.9). Comparing the use of

antidepressants alone in both groups, it was observed that the predominant antidepressant prescribed was the tricyclic antidepressants.

## **DISCUSSION**

This study represents one of the few attempts in this environment to ascertain the possible impact of interventional programmes on subsequent service engagement among patients with mental illness. The main findings of the study were the six-fold increase in service engagement following the intervention, the longer duration of untreated psychosis, higher duration of in-patient care, higher use of depot antipsychotics (conventional) and ECT found in the pre-intervention group. There was also the finding of a higher use of psychoactive substance in the post intervention group.

The increase (for the post-intervention group) in the levels of service engagement by the mentally ill could be attributed to a reduction in the negative attitudes towards mental illness, psychiatry and mental health facilities. This could have resulted from the sustained aggressive mental health education programmes in the media (print and electronic) and other areas, organised by the management of the hospital. There is some evidence that improving people's knowledge about mental disorders improves concordance with generally recommended therapies (Kichener & Jorm, 2004). There is also evidence that attitudes towards community based mental health facilities could be improved by providing information about mental disorders and their treatment as well as contact with persons who suffer from these disorders (Wolff et al., 1996). The importance of close collaboration between mental health advocates and the media has been highlighted by the WHO (WHO 2004,). They had recommended that the psychiatrists and other mental health professionals improve their visibility in the media, improve their public relations, or organise workshops for the general public in the bid to reduce negative attitudes towards mental ill-health, mental health facilities as well as towards practitioners of mental health. Stuart (2006), suggested that mental health professionals as well as patients should be more present in the media in order to provide a more accurate picture of psychiatric treatment and their consumers. This is similar to findings in an ECA study carried out in the United States of America in which increased awareness, and an increase in consumer demand stimulated by direct-to-consumer advertising was suggested to play a role in increase mental health service utilization (Kessler et al,1999).The media help to reduce stigma by playing a major role in shaping the attitudes of the general public, and in providing the right information or dispelling myths and correcting misconceptions about mental ill-health.

The long duration of untreated illness (DUI) observed in the both groups shows significant delay by patients/caregivers before presentation for treatment and this can eventually worsen treatment outcomes. This delay is even more for the pre-intervention group with many presenting after almost 2 years from the onset of the illness and this finding is similar to a study in Jos by Ikwuagwu et al., 1994. Delay before reporting for treatment may be due to a number of reasons which include logistic (transport, long distance) and financial constraints. Furthermore, and

probably more importantly, the pathway to care for the mentally ill in this environment usually involves the patronage of alternative sources of healthcare (faith based organisations, traditional healers etc.). Orthodox mental healthcare is eventually sought if these alternative sources fail. Many individuals with mental illness are largely impeded from accessing appropriate mental health care because of stigma. In most countries of the world, stigma has been identified as one of the major barriers to the effective management of mental health disorders.

Unsurprisingly, the use of electroconvulsive therapy was significantly lower in the post-intervention group. ECT has always generated much discussion among advocacy groups, mental health professional and the media and this is in spite of its documented relative safety. This decline in the use of ECT is similar to findings in the developed countries like Scotland (Glen & Scott 1999), USA (Thompson *et al.* 1994), Italy and Germany (Jan-Otto & Max 2004) and Argentina (Bustin *et al.* 2008). Though Oyewumi & Kazaria (1994), had reported that the use of ECT is favoured by mental health practitioners in Nigeria, the persistent negative portrayal of ECT in the media, coupled with the ethical dilemma of using the unmodified form of ECT (James *et al.* 2010), as well as the increasing availability of atypical antipsychotics, may have influenced the reduction in the prescription of ECT by mental health professionals.

The finding of a reduction in the prescription of LAIs in this study is somehow surprising, considering that previous studies in Nigeria reveals that there is a preference for medications administered by the parenteral route to oral drugs, by patients and even their caregivers, because they perceive them to be more effective [Sowande, 2010]. Patel and colleagues (2010a) had noted in their study that though stigmatizing attitudes towards patients prescribed LAIs had declined but that reported prescribing rates had not increased. One reason why there is a decrease in prescribing of antipsychotic LAIs may be the very high cost of procuring the available SDA LAI (Risperdal Consta) in a country like Nigeria where the cost of healthcare is borne directly by patients or their caregivers. This reduction in LAI prescribing could also be related to the finding by James and Omoaregba (2011), that psychiatrist who believed that depots were coercive were less likely to prescribe LAIs.

The reduction in the mean duration of in-patient care could be attributed to several reasons. First, the relatively increase in the availability of atypical antipsychotics during the period of the post intervention group could have resulted in the improvement of clinical outcomes of patients with negative symptoms and so reduce length of hospital stay. Secondly, there could have been a change of attitude of clinicians towards longer hospital stay, since this have been proven to promote the loss of previously attained social and occupational functions. Other factors that may have contributed include the development of a community psychiatric unit in the hospital which meant that more people could be treated in the community, and the increase by the hospital management, in the cost of in-patient care which would discourage patients and their caregivers since they have to finance the in-patient care from their pocket.

This study is limited by its cross sectional nature and the fact that this study was conducted at a single centre and thus limits generalization of its findings. Also because of the long period between the pre and post intervention groups, other factors which were not evaluated in this present study, could account for the differences observed between the two groups.

## **CONCLUSION/RECOMMENDATIONS**

Correcting misconceptions about mental illness, psychiatric treatments and mental health facilities could reduce stigma, enhance service utilization, and improve clinical outcomes for people with mental illness. Though this study has some limitations, it should form a template for comparison for future studies. However there is a need for more robust studies evaluating intervention strategies for combating stigma in order to improve policy making concerning stigma.

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