



The Roles of Pharmacists in Optimizing Care for Schizophrenic Patients at a Tertiary Health Facility in Maiduguri, North-Eastern Nigeria

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Abstract

Various drug treatment options, frequent occurrence of side effects and low antipsychotic medication compliance all give pharmacists an important role to play in the overall successful treatment of patients with schizophrenia. This study was a descriptive cross sectional study carried out in October 2016 that aimed at assessing the extent to which pharmacists were involved in optimizing care for schizophrenic patients at the Federal Neuro Psychiatric Hospital Maiduguri, North-Eastern Nigeria. All pharmacists working at the institution were administered a 18 item validated self-administered questionnaire, with their responses measured on a five point rating scale of: never, rarely, sometimes, most of the times and always. Majority of the pharmacist were positively involved in traditional pharmaceutical duties like determining drug formulary (62.5%) and identification and resolution of drug therapy problems (81.2%). Majority of them were also involved in maintaining a good relationship with schizophrenic patients (68.7%), discussing side effects of their medication (56.2%) and maintaining open and effective means of communication with other health care professionals (81.2%). Conversely, less than half reported positive involvement under the relatively newer roles such as following up patients (37.5%) and documentation of interventions (18.7%). Pharmacists need to be better educated on the importance of their roles in optimizing care for schizophrenic patients. Educational trainings should be organized both by the pharmacists themselves, and at the hospital level in collaboration with other healthcare professionals.

Keywords: Care optimization, Nigeria, Pharmacists, Roles, Schizophrenic patients.

Introduction

Pharmaceutical care (PC) is defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life. It is a process through which pharmacists work both with patients and other healthcare professionals to design, implement, and monitor therapeutic procedures aimed at improving patient outcomes (Hepler and Strand, 1990). Clinical, economic and humanistic outcomes of providing pharmaceutical care in several disease conditions have been studied and shown to be beneficial (Berenguer et al, 2004), and PC is now an important aspect of clinical pharmacy practice.

Schizophrenia is a chronic and often severe condition that can significantly affect the quality of life of sufferers (Schizophrenia centre, 2016). Challenges faced by care providers when managing schizophrenia include: the variety of medical treatments available, frequent occurrence of side effects from drug treatment and associated low medication compliance (Rijcken et al., 2002). Thus, pharmacists have several important roles to play in the overall successful treatment of patients with schizophrenia (Panesar, 2016).

While several studies have shown that pharmacists have positive attitudes towards providing pharmaceutical care for mentally ill patients (Cates *et al.*, 2005; Watkins *et al.*, 2017), very few studies have described the type and extent of care provided (Kanjansilp and Ploylearmsang, 2016). Within the Nigerian setting in particular, only one study in Jos (North-central Nigeria) has reported pharmacist involvement in medication counselling of schizophrenic patients (Danladi *et al.*, 2013). There is inadequate information on the other roles of pharmacists in providing care for these patients. Therefore, this study aimed at evaluating the extent to which pharmacists working at the Federal Neuropsychiatric Hospital Maiduguri, Nigeria optimized care for schizophrenic patients. It is the authors' hopes that describing the current level of care provided by

the pharmacists at the institution to schizophrenic patients, will help them and other relevant stakeholders assess the level of care provided and determine areas for/requiring improvement.

Methods

Design and setting:

A descriptive cross-sectional study was carried out in October 2016 at the Federal Neuro-Psychiatric Hospital (FNPH) Maiduguri. FNPH Maiduguri is a regional Psychiatric Hospital, serving the north-east region of Nigeria consisting of: Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe States. In addition, patients from the neighbouring countries of Chad, Cameroon and Niger Republic are also often encountered. Ethical approval for the study was obtained from the hospitals' ethics committee.

Sampling procedure

Purposeful sampling of all Pharmacists (n=16) working at FNPH Maiduguri was conducted. The purpose of the study and confidentiality of information to be provided was explained to each participant, after which they all signed informed consent forms. Participants were then given a period of seven days to complete the questionnaire.

Survey instrument

A 18-item, structured, pretested, self-administered questionnaire utilizing a five point rating scale (never, rarely, sometimes, most of the time and always) was used for the survey. Questionnaire items were adapted from a previous study (Giwa *et al.*, 2011) and then modified. The questions were reviewed by a clinical pharmacist for face validity and then pretested on 10% of the total population of pharmacists in an alternative similar setting. Appropriate adjustments were then made as necessary. The instrument contained four sections. Section one contained questions describing the socio-demographic characteristics of the respondents.

Section two contained questions that assessed Pharmacists' involvement in the provision of several components of pharmaceutical care. Questions under this domain assessed the extent to which pharmacists developed therapeutic care plans, had access to information on schizophrenia, assessed antipsychotic therapy, identified, resolved and prevented drug therapy problems, evaluated cost effectiveness of therapy and documented their interventions amongst others. The third section specifically focused on pharmacists' roles in schizophrenic patients counselling. Areas assessed here include: access to current drug literature on schizophrenia, providing a care friendly and responsible relationship with schizophrenic patients, discussing side effects and interactions of antipsychotics and conducting seminars on schizophrenic patient counselling in addition to others. The final section assessed pharmacists' relationship with other health care professionals. This was assessed by the extent to which pharmacist maintained open and effective means of communication with other health care

professionals and educated other health care professionals on the management of schizophrenic patients.

Data analysis and presentation

Data obtained were coded and analysed using Statistical package for social science (SPSS) version 20 (SPSS Inc, Chicago, Illinois, USA) and presented as percentages using frequency distribution tables. Responses such as never, rarely and sometimes were considered to be a negative response while most of the times and always were considered to be a positive response.

Results

All of the questionnaires that were distributed to the 16 pharmacists working at the study site were retrieved, giving a response rate of 100%. The male to female ratio of surveyed pharmacists was equal (50%) and majority (81.25%) had ≤ 5 years' experience (Table I).

Table I: Socio-demographic characteristics of surveyed pharmacists

Variables	Distribution (n=16)	Percentage distribution (%)
Gender		
Male	8	50
Female	8	50
Age group		
20-24	1	6.25
25-29	12	75.00
30-34	1	6.25
35-39	1	6.25
40-45	1	6.25
Years of experience		
≤ 5	13	81.25
6-10	2	12.50
>10	1	6.25

Table II: Pharmacists' roles in therapeutic plan formulation, implementation, modification, monitoring, evaluation and documentation of antipsychotic therapy

Element	Never (%)	Rarely (%)	Sometimes (%)	Most of the Time (%)	Always (%)
Developed therapeutic care plan	2 (12.5)	4 (25.0)	3 (18.7)	6 (37.5)	1 (6.3)
Access to information on Schizophrenic patients	0 (0.0)	2 (12.5)	8 (50.0)	4 (25.0)	2 (12.5)
Determined product formulary	1 (6.3)	2 (12.5)	3 (18.7)	6 (37.5)	4 (25.0)
Assessed antipsychotic Therapy	0 (0.0)	1 (6.3)	7 (43.7)	6 (37.5)	2 (12.5)
Identified, resolved and prevented drug therapy problems	0 (0.0)	1 (6.3)	2 (12.5)	7 (43.7)	6 (37.5)
Modified therapy for schizophrenic patients	1 (6.3)	3 (18.7)	4 (25.0)	6 (37.5)	2 (12.5)
Monitored antipsychotic drug regimen	1 (6.3)	1 (6.3)	6 (37.5)	3 (18.7)	5 (31.3)
Followed up/assessed therapeutic effect of drugs used for schizophrenia	2 (12.5)	4 (25.0)	4 (25.0)	4 (25.0)	2 (12.5)
Evaluated cost effectiveness of Schizophrenic therapy	0 (0.0)	1 (6.3)	7 (43.7)	4 (25.0)	4 (25.0)
Documented interventions	0 (0.0)	4 (25.0)	9 (56.3)	3 (18.7)	0 (0.0)

Pharmacists' roles in therapeutic plan formulation, implementation, modification, monitoring, evaluation and documentation of antipsychotic therapy.

Majority of the pharmacist were positively involved in traditional pharmaceutical duties like determining drug formulary (62.5%) and identification and resolution of drug therapy problems (81.2%). Conversely, less than half reported positive involvement under the relatively newer roles of following up patients (37.5%) and documentation (18.7%) (Table II).

Pharmacists' roles in schizophrenic patients counselling

Majority of pharmacists reported positive involvement in maintaining a good relationship with the schizophrenic patients (68.7%) and discussing side effects of their medication (56.2%). They however reported poor access to current drug literature (37.4%) and poor involvement in provision of drug information leaflets (18.8%) and seminars (6.3%) (Table III).

Table III: Pharmacists' roles in Schizophrenic patients counselling

Element	Never (%)	Rarely (%)	Sometimes (%)	Most of the Time (%)	Always (%)
Access to current drug Literature on Schizophrenia	0 (0.0)	1 (6.3)	9 (56.3)	3 (18.7)	3 (18.7)
Adequate information for antipsychotic therapy	0 (0.0)	1 (6.3)	2 (12.5)	7 (43.7)	6 (37.5)
Care, friendly and responsible relationship with schizophrenic patients	0 (0.0)	1 (6.3)	4 (25.0)	5 (31.2)	6 (37.5)
Discuss side effects and interactions of antipsychotics	0 (0.0)	1 (6.3)	6 (37.5)	4 (25.0)	5 (31.2)
Provide medication information leaflet to Schizophrenic patients	0 (0.0)	5 (31.2)	8 (50.0)	2 (12.5)	1 (6.3)
Seminars on Schizophrenic Patients counselling	1 (6.3)	7 (43.7)	7 (43.7)	1 (6.3)	0 (0.0)

Pharmacists' roles in their relationship with other health care professionals

Majority of the pharmacists reported positive involvement in maintaining open and effective means of communication with other health care professionals (81.2%).

Conversely, less than half of them reported positive involvement in educating other health care professionals on the management of schizophrenia (37.5%) (Table IV).

Table IV: Pharmacists' Role in their Relationship with Other Health Care Professionals

Element	Never (%)	Rarely (%)	Sometimes (%)	Most of the time (%)	Always (%)
Maintained open and effective means of communication with other healthcare professionals	0 (0.0)	1 (6.3)	2 (12.5)	5 (31.2)	8 (50.0)
Educated other health care professionals on the management of Schizophrenic patients	0 (0.0)	1 (6.3)	9 (56.2)	4 (25.0)	2 (12.5)

Discussion

This study revealed that majority of the pharmacists were actively involved in the traditional roles of pharmacist while less than half of them reported positive involvement in the newer roles of following up patients and documentation of interventions.

This is worrisome, because several studies have clearly shown that active pharmacist involvement in the provision of care for schizophrenic patients has several benefits which include: reduction in drug related problems, increase patient knowledge and quality of life (Kanjanasilp and Ploylearmsang, 2016; Salman *et al.*, 2014). According to Cohen (2009), Pharmacist can help patients with schizophrenia consolidate their medications by making efforts to reduce the number of doses or tablets and following up to ensure that patients are acting according to physicians directions. Owing to the use of more complex drugs, there is an increasing need for pharmacists to ensure the safe and effective use of medications for optimal patient outcome (Finley *et al.*, 2003).

Most of the pharmacists reported maintaining a caring and friendly relationship with schizophrenic patients, and open channels of communication with other health professionals. However, less than half had positive responses to their role in educating other healthcare providers. There is evidence to show that collaborative care between pharmacists and other health professionals can improve outcomes for patients with schizophrenia (Salman *et al.*, 2014). Pharmacists can render assistance by making patients to understand their disease condition and medication better, monitoring adverse effects and drug interactions, facilitating adherence to treatment, and suggesting any changes to therapy to physicians (Rickles *et al.*, 2010). By so doing, pharmacists can positively affect the behavioural, clinical and economic outcomes associated with drug therapy in schizophrenic patients (Aaltonen *et al.*, 2010).

Insufficient access to patient records and current information on several aspects of mental illnesses and treatment options available are common barriers to effective pharmacist involvement in providing care for these patients (Panesar, 2016). All of these barriers were reported by the pharmacists in this study, in addition to the poor seminar culture in their institution. Seminars and other educational/training programmes are means through which pharmacists can keep their knowledge up to date (Juno, 2014). Furthermore, educational trainings for pharmacists within the context of mental health care have been shown to positively impact pharmacists' practices and attitudes (Oreilly *et al.*, 2010). These programmes can also improve their confidence in communicating with patients suffering from mental illness and their capacity to listen and adapt their counselling to the patients' psychosocial context. Studies have shown that pharmacists reported the need of training in basic skills in psychosocial communications as well as nonmedical treatment options for mental health disorders. In one study, pharmacists reported that the lack of training to counsel people with severe mental illnesses limited their ability to provide adequate information about antipsychotics (Phokeo *et al.*, 2004). It has been stated that the role of pharmacists as an advisor for patients accessing care for schizophrenia needs to be expanded, in which adequate motivation will lead to positive achievements (Cohen *et al.*, 2009).

The small number of pharmacists involved and the fact that the study was carried out only at one site may limit the generalizability of the result. In addition, the authors cannot completely exclude social desirability bias (the tendency of respondents to answer questions in a manner that will be viewed favourably by others).

Pharmacists reported positive involvement in the traditional roles of pharmacists such as determining drug formulary, identification and resolution of drug therapy problems. However, they were not actively involved in the newer roles such as following up of patients and documentation of interventions. Pharmacists need to be better educated on the importance of their roles in optimizing care for schizophrenic patients. Educational trainings should be organized both by the pharmacists themselves, and at the hospital level in collaboration with other healthcare professionals. Qualitative enquiry into reasons why pharmacists were not positively involved in some aspects of care optimization for schizophrenic patients is an area where further research could be carried out.

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