

Do Patients on Antipsychotics Know the Role of Anti-cholinergic drugs in their Treatment? Reports from an Outpatient Clinic in South-West Nigeria

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ABSTRACT

BACKGROUND: In a developing country like Nigeria where prohibitive cost and availability limits the use of atypical antipsychotics, a large number of patients on antipsychotics are expected to be on conventional antipsychotics. Studies have shown that more than half of patients on conventional antipsychotics are also prescribed anti-cholinergic drugs. There are reports that psychiatric patients may not know important aspects of their treatments. Such audits of psychiatric services are uncommon in Nigeria.

METHODS: Socio-demographic data and views about the specific role of Benzhexol in treatment were obtained from all patients whose case records showed that they were concurrently prescribed Benzhexol alongside antipsychotics.

RESULTS: 200 participants met inclusion criteria. A third (n=60; 30%) reported not knowing the role of Benzhexol in their treatment as against 70% (n=140) who claimed to know. Of those who claimed to know, 64% (n=89) gave responses that reflected no understanding. Majority (n=66; 74%) of such responses were adjudged to have potentially deleterious implications on their health and outcome. Only 18% (n=36) reported having ever been educated about the role of Benzhexol in their treatment.

CONCLUSION: The study provides some evidence that a large number of the patients may not be well informed about the specific role of Benzhexol in their treatment and that some of their assumptions may portend danger for their health and outcome. Health workers may also have neglected to educate them. There is a need to intensify patient education in our clinics.

KEY WORDS: anti-psychotics, anti-cholinergic drugs, benzhexol, extra-pyramidal side effects, Nigeria, treatment

commoner with the use of conventional antipsychotics than the atypical antipsychotics and this could be reduced by the use of anti-cholinergic drugs³. Despite the fact that prophylactic use of anti-cholinergic drugs for patients on long term conventional antipsychotics use is not recommended⁴, studies have shown that more than half of patients on conventional antipsychotics are also prescribed anti-cholinergic drugs concurrently⁵. The consensus statement of the World Health Organization Heads of Centres Collaborating in WHO Coordinated Studies on Biological Aspects of Mental Illness cautioned on the possible deleterious effects of anti-cholinergic drugs⁴ and research evidence abounds to support this view.

Among the dangers of long term use of anti-cholinergic drugs in the literatures includes a tendency to reduce the therapeutic activity of antipsychotic medication⁶, possibility of increasing the risk for tardive dyskinesia⁷, and risk of causing an acute toxic state that can mimic psychotic symptoms⁸. Others are memory impairments with long term use⁹ and risk of addiction due to the euphoriant properties of anti-cholinergic drugs¹⁰. Benzhexol is by far the most widely used and the most readily available of the anti-cholinergic drugs¹¹. The potential dangers of using these medications, coupled with the sometimes doubtful indications as highlighted above underscores a need for thorough education of the few patients that may merit their use. Such education should focus on the specific role of these drugs in their treatment and the risks that may be associated with their misuse. This is expected to reduce the risk of misuse of these drugs. In addition, patient education of this kind has been shown to allay fears and improve drug and follow up compliance among attendees of psychiatric outpatient clinics¹².

Date Accepted for Publication: 8th May, 2012

NigerJMed 2012: 169-173

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INTRODUCTION

Psychotic disorders are quite common in the general population with a lifetime prevalence that could be as high as 2.82%¹ and 3.48%². In developing countries like Nigeria where prohibitive cost limits the use of atypical antipsychotics, a large number of patients needing antipsychotics are expected to be on conventional antipsychotics. Extra-pyramidal side effects (EPSE) are

There are reports from other parts of the world that patients may not have a good understanding of important aspects of their treatments. Carol and Wolfson¹³ found that of a population of patients on clozapine therapy in the United Kingdom, about half does not know the reason why they had to do a monthly blood test. In the study, only eight (22%) of the subjects could give a correct reason. Also, Clary et al,¹⁴ in a survey of 253 psychiatric inpatients in Pennsylvania, USA, found that at discharge, more than half did not know the name and dosage of the psychiatric medications prescribed for them and why they were taking them, despite the fact that they had

received both group and individual medication instruction during hospitalization. Sixty-three percent of participants in the study felt that they had some understanding of why the medications were prescribed, while 37 percent said they did not know. Such audits of psychiatric services are uncommon in Nigeria. There is, therefore, an urgent need to begin to examine the understanding of Nigerian patients on key aspects of their treatments. This study aims to determine how informed, psychiatric outpatients are, about the role of anticholinergic drugs in their treatment and to enquire about the sources of such information.

MATERIALS AND METHODS

Setting

The study was carried out at the psychiatric out-patient clinic of the University College Hospital, Ibadan, in the south-western part of Nigeria. This is one of the busiest psychiatric clinics in a university hospital in Nigeria. The study was carried out over a period of two months. Two psychiatric out-patient clinics were run each week, on Monday and Friday afternoons, making a total of 15 clinics during the study period.

Participants

Participants were attendees of the clinic aged between 18-65 years, whose case records showed that they have been attending the clinic for at least 1 month and had been placed on benzhexol in addition to antipsychotic drugs. Patients who were too ill or too disturbed to comprehend or complete the interview were excluded. After complete description of the study to the participants, written informed consent was obtained. All case records used in the study were tagged to avoid multiple testing in subsequent clinics.

Procedures

A clinician administered questionnaire structured to obtain socio-demographic data and the views of the subjects on the specific role of benzhexol in their treatments was designed by the authors. The key questions in the questionnaire were; "Do you know the role of benzhexol or this particular tablet in your treatment"? (Participants were shown a tablet of benzhexol to ensure comprehension). And "Has anybody educated you on the role of benzhexol or this particular tablet in your treatment"? The questionnaire was administered by resident doctors in English or Yoruba languages (depending on patient's choice) in a face-to-face interview.

The responses of the participants to the question; "Do you know the role of benzhexol or this tablet in your treatment"? were tabulated and then grouped according to the correctness or otherwise as follows: Correct responses with evidence of thorough understanding; responses that showed partial understanding, incorrect responses but

without potential adverse implications on health or outcome of respondent, and incorrect responses that may have adverse implications on health and outcome of respondent.

Data entry and analysis was with the Statistical Package for Social Sciences (SPSS) version 15. Data was summarized using descriptive statistics, mainly frequencies. The Chi square test was used to explore relationships between level of education and correctness of responses to the first question. The level of significance was at a P value of <0.05.

RESULTS

A total of 218 patients were on benzhexol during the study period out of which 200 met inclusion criteria. The remaining 18 subjects were adjudged to be too ill to cooperate or comprehend the interview. They were mostly males (n=109; 55%) and predominantly in the age range 25-44 years (n=142; 71%). A summary of the socio-demographic and clinical profile of respondents is as shown in table 1. After acknowledging that benzhexol was part of their current medications, about a third (n=60;

Table 1: Socio-demographic and clinical variables of respondents

Variable	Responders n=200 (100%)
Sex	
Male	109 (55)
Female	91 (45)
Age (years)	
18-24	17 (8.5)
25-34	92 (46.0)
35-44	50 (23.5)
45 and above	51 (22.0)
Marital status	
Single/never married	112 (56)
Married/co-habiting	42 (21)
Divorced/separated	36 (18)
Widowed/Widower	10 (5)
Educational Status (Highest completed)	
No formal education	14 (7)
Elementary School	42 (21)
Secondary School	64 (32)
Tertiary (Non-university)	50 (25)
Tertiary (University)	30 (15)
How long have you been attending this clinic?	
>1 month - <1 year	40 (20.0)
>1 year - <5 years	69 (34.5)
>5 years - <10 years	30 (15.0)
>10 years	61 (30.5)

30%) reported not knowing its specific role in their treatment. Of those who claimed to know (n=140; 70%), about 64% (n=89) gave responses that reflected no understanding. Majority (n=66; 74%) of such responses were adjudged to have potentially deleterious implications on respondent's health and outcome. A

summary and categorization of the responses are as shown in Table 2. There was no statistically significant association between educational status and knowledge of the role of benzhexol in patients' treatment (p= 0.087). Only 18% (n=36) reported having ever been educated about the role of benzhexol in their treatment. The main

Table 2: Responses to the question: Do you know the role of benzhexol (or this tablet) in your treatment?

Response variable	n (%)
No, I dont	60(30)
Yes, I know	140(70)
<input type="checkbox"/> Correct responses that shows evidence of good understanding	22(11.0)
It prevents reactions to the other drugs	n=11
It minimizes the side effects of the main drugs	n=11
<input type="checkbox"/> Probably correct responses that shows evidence of partial understanding	29(14.5)
It prevents tongue twisting	n= 10
To relieve stiffness of body	n=5
To reduce excessive salivation	n=4
To treat tongue twisting	n=4
It adjusts the eye and neck muscles	n=3
I know I cant use stellazine without it	n=2
It corrects blurring of vision	n=1
<input type="checkbox"/> Incorrect responses that may have potential deleterious effect on responders health and outcome	66(33. 0)
It is for the treatment of mental illness	n=26
It is for a better sleep	n=15
For better strength and agility	n=13
To cool the brain and nerves	n=12
<input type="checkbox"/> Incorrect responses that may not have potential deleterious effect on responders health and outcome	23(11.5)
For general wellbeing	n=8
It has to do with the brain	n=7
It is working well	n=3
It reduces body weakness	n=2
It has no use	n=2
It prevents convulsive discharge	n =1

source of patients' education reported were the doctors (n= 160; 80%) while the rest were from Nurses, Pharmacists, Medical students and family members in an approximately equal proportion of about 5% each (n=11; 5.5%, n=9; 4.5%; n=10; 5.0%; n=10; 5% respectively.)

DISCUSSION

Other than establishing that most patients do not know the specific role of benzhexol in their treatment, this study exposes the dangers of their assumptions. The view held by about 13% (n=26) of the respondents that benzhexol is actually for the treatment of mental illness is worrisome as some patients may wrongly increase the dose of their anti-cholinergic drugs instead of the antipsychotics when they are experiencing signs of imminent relapse. This is more so in view of the euphoric feelings known to be associated with higher doses of anti-cholinergic drugs¹⁰. This may provide a false sense of wellbeing which may delay presentation in the hospital. Furthermore, anti-cholinergic drugs are known to be

capable of reducing the therapeutic activity of antipsychotic medications⁶ and as such may start a vicious cycle that will end in early relapse if patients hold the notion that anti-cholinergic drugs can actually treat their psychotic symptoms. Moreover, in the personal experiences of the authors, majority of patients with relapsed psychotic illness often insist and provide evidence that they have been regular on "my medications". The findings of this study, therefore, calls for proper scrutiny in such situations to determine what exactly constitutes "my medications". Also, the finding that more than 7% (n=15) of respondents felt benzhexol was for a better sleep is rather paradoxical in view of the fact that poor sleep and agitation are common side effects of benzhexol¹⁵. The implication of this is that a patient who is experiencing poor sleep as a warning sign of imminent relapse of psychosis but who holds the notion that benzhexol aids sleep may have to take increasingly large doses with the hope of achieving desired results. At large doses, benzhexol may cause

delirium, acute psychosis or death^{8,16}. In a country like Nigeria where there is widespread economic, social and logistical barriers to seeking mental healthcare and advice; a lot of patients do have to take initial decisions about their treatments until when and if they are able to see their healthcare provider. This is why the points noted earlier about incorrect notions held by patients in this study become more compelling.

To make matters worse, the control of prescription drugs in Nigeria is inadequate. 'Prescription-only' drugs like benzhexol can be procured 'over-the-counter' from 'Patent Medicine Dealers' who takes the advantage of the scarcity of trained personnel and poor drug control in the country to sell prescription drugs without adequate education to patients^{17,18}. As could be inferred from this study, almost 15% of outpatients on benzhexol may have been addicted already if such responses like benzhexol "is for better strength and agility" and "is to cool the brain and nerves" can be regarded as indicators that these respondents are deriving pleasure in its use. The abuse potential of benzhexol is well documented in the literatures^{10,15} and having unbridled access to the medication without having a good understanding of its role in treatment sets the stage for abuse. Equally contributing to the risk of abuse of benzhexol is the finding in this study that more than half of the respondents admitted to having been on benzhexol for more than a year. Such finding may reflect that the continued need for the anti-cholinergic drug is not being reviewed despite the knowledge that anti-cholinergic drugs can be safely tapered off over few weeks or months³ irrespective of the initial indication.

Only a paltry 18% of respondents claimed to have ever been educated on the role of benzhexol in their treatment. This may not be surprising as poor organization of outpatient psychiatric services such that most of the clinic time is spent on filling out prescription forms with little or no time left for patient counseling or education has been reported in the setting of this study¹⁹. The source of patient education in the present study is largely from the doctors. This underscores a need to further develop the team-work approach to patient care to ensure a wider scope of service delivery in our clinics by involving other members of the health team in patient management. This kind of audit of services, to the best of the knowledge of the authors, is not common in Nigeria and the qualitative nature of data collection ensures that the information obtained is not influenced by suggestion. However, the findings of this study should be interpreted within the limitations of a rather small sample size. Also, not using a standardized method to determine the severity of illness for exclusion may have resulted in inadvertent inclusion of patients who may not have comprehended the interview well. Recall bias is another limitation and it is possible that a patient may have forgotten information

given to them at the beginning of their therapy when they may still be actively ill.

CONCLUSIONS

In spite of its significant limitations, this study still provide some evidence that a large number of patients may not be well informed about the specific role of benzhexol in their treatment and that some of their assumptions may portend danger for their health and outcome. Health workers may need to intensify on interdisciplinary collaborations on patient-education aspects of out-patient services.

REFERENCES

1. Perälä J, Suvisaari J, Saarni S, et al. Lifetime Prevalence of Psychotic and Bipolar I Disorders in a General Population. *Arch Gen Psychiatry* 2007; 64(1):19-28.
2. Bogren M, Mattisson C, Isberg P, et al. How common are psychotic and bipolar disorders? A 50-year follow-up of the Lundby population. *Nordic Journal of Psychiatry* 2009; 4 (63): 336-346.
3. Hales R, Yudofsky S and Gabbard G (Eds.). The American Psychiatric publishing textbook of psychiatry; 5th Edition. American Psychiatric Publishing Inc. Pg. 1088-1089. 2008
4. World Health Organization Heads of Centers Collaborating in WHO Coordinated Studies on Biological Aspects of Mental Illness Prophylactic use of Anti-cholinergics in Patients on Long-term Neuroleptic Treatment. A consensus statement. *BJP* 1990; 156: 412.
5. Michel K and Kolakowska T. A survey of prescribing psychotropic drugs in two psychiatric hospitals. *BJP* 1981; 138:217-21.
6. Bamkah J, Kumar V, Krska J et al. Interactions between procyclidine and neuroleptic drugs. Some pharmacological and clinical aspects. *BJP* 1986; 149: 726-733.
7. Barnes Tand Philips M. Antipsychotic induced extra-pyramidal symptoms. Role of anticholinergic drugs in treatment. *CNS Drugs* 1996; 6: 315-330.
8. Johnson A, Hollister L and Bercher P The anti-cholinergic intoxication syndrome: diagnosis and treatment. *J Clin Psychtr* 1986; 42: 313-317.
9. Caley A. Anti-cholinergic drugs and memory. *BJP* 1984; 143: 422-423.
10. Marken P, Stoner S and Bunker M: Anti-cholinergic drug abuse and misuse. *CNS Drugs* 1996; 5: 190-199.
11. Pullen G, Best N, Maguire j. Anti-cholinergic drug abuse: a common problem? *Brit Med*

- Journal 1984; 289: 612.
12. Seltzer A, Roncari I, Garfinkel P. Effect of patient education on medication compliance. Can J Psychiatry 1980; 25 (8):638-45.
 13. Carol P and Wolfson P. Haematologic monitoring for Clozapine: Do patients know why? Psychtr Bull 1995; 9 (19):536-537.
 14. Clary C, Dever A, and Schweizer E. Psychiatric Inpatients' Knowledge of Medication at Hospital Discharge. Hosp Community Psychiatry 1992; 43:140-144.
 15. Turjanski N and Lloyd G. Psychiatric side-effects of medications: recent developments. Advances Psychtr Treat 2005; 11: 58-70.
 16. Gall J, Drummer O and Landgren A. Death due to benzhexol toxicity. Forensic Science International 1995; 71 (1):9-14.
 17. Adikwu M. Sales practices of patent medicine sellers in Nigeria. Health Policy and Planning 1996; 11(2): 202-205.
 18. Eaton J. Ensuring Access to Psychotropic Drugs in Sub-Saharan Africa. Afr J of Psychtr 2008; 11:179-181.
 19. Omigbodun O and Esan O: Reasons for consultation in the psychiatric out-patient clinic of a university teaching hospital in Nigeria: is this optimal use of psychiatrists' time and expertise? Psychtr Bull 2003; 27: 421-423.