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SHORT REPORT

Which antidepressant would psychiatrists and nurses from a developing country choose for themselves?

IMRAN BASHIR CHAUDHRY^{1,2}, RAZA RAHMAN³, HASSAN MUSTAFA MINHAS⁴, NASIM CHAUDHRY⁵, DAVID TAYLOR⁶, MOIN ANSARI⁷ & NUSRAT HUSAIN⁸

¹Neuroscience and Psychiatry Unit, University of Manchester, Accrington, UK, ²Lancashire Care Early Intervention Service, UK, ³Dow University of Health Sciences, Karachi, Pakistan, ⁴Institute of Psychiatry, Rawalpindi, Pakistan, ⁵Greater Manchester West Foundation NHS Trust, Manchester, UK, ⁶South London and Maudsley NHS Foundation Trust, London, UK, ⁷Department of Psychiatry, Karachi, Pakistan, and ⁸University of Manchester, Manchester, UK

Abstract

Objective. To determine the prescribing preference of mental health professionals in a developing country for antidepressants if they themselves developed a depressive illness. Methods. A specifically designed self reporting questionnaire was used to investigate which antidepressant was the preferred choice of psychiatrists and nurses and the factors which influenced their decision making. Results. Fluoxetine was the antidepressant most likely to be chosen by psychiatrists for themselves, followed by escitalopram and tricyclic antidepressant. A total of 21 (27.6%) nurses said that they did not know which antidepressant they would prefer for themselves and 22 (29%) said that they would choose a benzodiazepine. Majority of the psychiatrists (71.9%) had more experience with SSRIs, 26.6% with tricyclic antidepressants and only about 1.5% had used venlafaxine and mirtazepine. Efficacy and safety of antidepressants were the two most important factors in selecting an antidepressant. Conclusions. SSRIs are the preferred antidepressants of Pakistani psychiatrists and nurses for their patients and for themselves. Efficacy and safety of a drug are likely to play a greater role in drug choice than cost of the drug.

Key Words: Antidepressants, Pakistan, psychiatrists, nurses, efficacy, safety

Introduction

Many studies have examined prescribing preferences for psychotropics but few have examined what professionals would choose for themselves if they themselves became ill [1–4]. Professional’s choice is in line with the latest evidence on comparative effectiveness of psychotropics and therefore can be a sensitive indicator of the most effective psychotropic medication. Many years of clinical experience are a powerful form of evidence, complementing data that is obtained from clinical trials and meta-analyses [5]. Preference for psychotropics can be cited as support for widespread use of these drugs [6], which may change as new drugs are being marketed [5] and new guidelines being developed [7].

In developing countries like Pakistan, the clinical experience is of a very different nature from that of

the developed world. Pakistan has an average of two psychiatrists to a million people. In our opinion for a doctor in clinical settings in Pakistan, in addition to pharmacological attributes of a drug, other factors like availability and affordability by the patients are also likely to play a role in decision making and drug-prescribing. For example, tricyclics may be preferred over selective serotonin reuptake inhibitors (SSRI) and traditional antipsychotics preferred over atypical antipsychotics [8,9]. It has been reported that local organizational structures may also have a profound effect on prescribing practices [10,11]. One possible way to assess the considerations of these non-drug factors is to ask prescribers which drug they would like to be prescribed if, in a hypothetical situation, they developed a psychiatric disorder.

Correspondence: Dr Imran Bashir Chaudhry, Lead Consultant Psychiatrist, Lancashire Care Early Intervention Service and Hon Senior Lecturer, University of Manchester, The Mount, Whalley Road, Accrington BB5 5DE, UK. Tel: +44 125 4226392. Fax: +44 161 4480138. E-mail: imran.chaudhry@manchester.ac.uk

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There are many studies on preference of antipsychotics if the professionals themselves were suffering from a psychotic illness [1–3,5]. However we are not aware of any studies on the preference of antidepressants if the professionals themselves developed a depressive illness. This may be very important for a low income country like Pakistan where the rates of depression are high [12]. This study was designed taking into account the importance of professionals' choice based on years of clinical experience, as a powerful form of evidence.

Method

The study was carried out in 2008 in psychiatric units of eight major cities in Pakistan; Karachi, Hyderabad, Sukkur, Dadu, Quetta, Lahore, Rawalpindi and Islamabad. The study was approved by the relevant Institutional Review Boards. Authors RR, HMM and MA approached the mental health professionals including consultant psychiatrists, trainee psychiatrists, medical officers and nurses who had more than 2 years experience.

A self-reporting questionnaire was specifically designed to explore the factors influencing the decision process in choosing an antidepressant medication. The questionnaire was piloted on 15 mental health professionals and amendments were made for clarity. The demographic data was collected including the grade of professionals, years since qualification, gender, age and the number of patients they had seen over the last year. The participants were asked two main questions. The first question was "which antidepressant health professionals had prescribed or experienced most in the last year". In the second question they were asked to think of a hypothetical situation; if they themselves developed depressive disorder which antidepressant they would choose

and which single factor will influence their decision: cost, efficacy, tolerability, dosing schedule, safety, pharmacokinetic profile and interaction potential or any other reason.

Results

Total of 268 responses were obtained, 70 consultant psychiatrists (including 26 professors), 70 trainee psychiatrists, 52 experienced medical officers (middle grade psychiatrists and senior registrars) and 76 nurses. All doctors and nurses present on the day our team visited their hospital were approached

Of the 192 psychiatrists 136 (70.8%) had most experience with SSRIs, 51 (26.6%) with tricyclic antidepressants and only five (2.6%) had used venlafaxine and mirtazapine. More than half of nurses ($n = 44$, 58%) did not have enough knowledge about antidepressant medications to name even one antidepressant. From the remaining 32 (42%) nurses, about half had experience of a tricyclic antidepressant and the other half of SSRIs (Table I).

For the psychiatrists, fluoxetine ($n = 59$, 30.7%) was the antidepressant most likely to be chosen for themselves, followed by escitalopram ($n = 52$, 27.1%), tricyclic antidepressant ($n = 25$, 13%), citalopram ($n = 23$, 12.0%) and sertraline ($n = 16$, 8%). Whereas 21 (27.6%) nurses said that they did not know which antidepressant they would prefer for themselves, 22 (29%) selected a benzodiazepine and 22 (29%) preferred a SSRI (Table II).

The main factors that health professionals considered paramount in choosing an antidepressant for themselves were efficacy (doctors 64.4%, nurses 34.2%) and safety (doctors 13%, nurses 17.1%). Almost a quarter of nurses did not answer the question (Table III).

Table I. Antidepressant with which health professionals had the most experience.

	Group 1 Trainee psychiatrists ($n = 70$)	Group 2 Experienced medical officer ($n = 52$)	Group 3 Consultant psychiatrists ($n = 70$)	Total number of psychiatrists Group 1 + Group 2 + Group 3 ($n = 192$)	Group 4 Nurses ($n = 76$)	Total number of psychiatrists and nurses ($n = 268$)
Drug	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Tricyclics	26 (37.1)	9 (17.3)	16 (22.9)	51 (26.6)	14 (18.4)	65 (24.2)
SSRIs	43 (61.4)	43 (82.7)	50 (71.4)	136 (70.8)	18 (23.6)	154 (57.5)
Citalopram	2 (2.9)	13 (25.0)	9 (12.9)	24 (12.5)	1 (1.3)	25 (9.3)
Escitalopram	9 (12.7)	5 (9.6)	16 (22.9)	30 (15.6)	–	30 (11.2)
Fluoxetine	29 (41.4)	21 (40.4)	13 (18.6)	63 (32.8)	13 (17.1)	76 (28.3)
Paroxetine	2 (2.9)	1 (1.9)	4 (5.7)	7 (3.6)	2 (2.6)	9 (3.3)
Sertraline	1 (1.4)	3 (5.8)	8 (11.4)	12 (6.25)	2 (2.6)	14 (5.2)
Miscellaneous*	1 (1.4)	–	4 (5.7)	5 (2.6)	–	5 (1.8)
Don't know	–	–	–	–	44 (58)	44 (16.4)
Total	70 (100)	52 (100)	70 (100)	192 (100)	76 (100)	268 (100)

*Venlafaxine and mirtazapine.

Table II. Choice of antidepressant for the hypothetical situation.

	Group 1 Trainee psychiatrists (n = 70)	Group 2 Experienced medical officer (n = 52)	Group 3 Consultant psychiatrists (n = 70)	Total number of psychiatrists Group 1 + Group 2 + Group 3 (n = 192)	Group 4 Nurses (n = 76)	Total number of psychiatrists and nurses (n = 268)
Drug	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Tricyclics	7 (10.0)	4 (7.7)	14 (20.0)	25 (13.0)	9 (11.8)	34 (12.6)
SSRIs	59 (84.2)	47 (90.3)	52 (74.3)	158 (82.3)	22 (28.9)	180 (67.1)
Citalopram	6 (8.6)	11 (21.2)	6 (8.6)	23 (12.0)	–	23 (8.5)
Escitalopram	21 (30.0)	11 (21.2)	20 (28.6)	52 (27.1)	1 (1.3)	53 (19.7)
Fluoxetine	25 (35.7)	21 (40.4)	13 (18.6)	59 (30.7)	17 (22.4)	76 (28.3)
Paroxetine	3 (4.3)	1 (1.9)	4 (5.7)	8 (4.2)	1 (1.3)	9 (3.2)
Sertraline	4 (5.7)	3 (5.8)	9 (12.9)	16 (8.0)	3 (3.9)	19 (7.0)
Venlafaxine	3 (4.3)	1 (1.9)	3 (4.3)	7 (3.6)	–	7 (2.6)
Mirtazepine	–	–	1 (1.4)	1 (0.5)	–	1 (0.3)
Benzodiazepines	–	–	–	–	22 (28.9)	22 (8.2)
Miscellaneous*	1 (1.4)	–	–	1 (0.5)	23 (30.2)	24 (8.8)
Total	70 (100)	52 (100)	70 (100)	192 (100)	76 (100)	268 (100)

*Don't know, no response, irrelevant response.

Discussion

To our knowledge this is the first study in a developing country to report experience of use of antidepressant medicines by mental health professionals (doctors and nurses) and their preferred choice if they had to use one for themselves. In this era of evidence based medicine the treatment choices are based not only on the scientific data and various guidelines, but also on the personal and clinical experience, peer opinion and marketing campaigns by the pharmaceutical companies [9–11]. The prevalence of depressive disorders is high in Pakistan, particularly among women [13]; we believe that studies of this nature offer an important perspective on the real picture of antidepressants use in a developing country.

The results of our study show that mental health professionals in Pakistan prefer to use SSRIs in their clinical practice, with fluoxetine as the most commonly prescribed drug in this class. Fluoxetine was also the drug of choice if they had to use one for

themselves. The health professionals consider efficacy (55.9%) and safety (14.1%) to be the most important factors in the choice of antidepressant. Tricyclic antidepressants were prescribed almost twice as often to patients (24.2%) in comparison when selected by professional for themselves (12.6%). Low cost of tricyclic antidepressants and their availability on hospital formulary may be factors influencing this choice as 72% of psychiatrists in the study worked in the public sector, catering to the low income population. The cost consideration is also evident from the prescribing pattern of newer antidepressants (SSRIs, venlafaxine and mirtazepine); the ones available in Pakistan are the low cost generic forms, the cost of the generic forms is about one-fourth of the branded forms. However, these antidepressants are still significantly (up to 10 times) more expensive than the tricyclic antidepressants.

Only one of 268 participants claimed that he/she would not take medication if diagnosed with a

Table III. Factors considered most important in choosing antidepressant for self.

	Group 1 Trainee psychiatrists (n = 70)	Group 2 Experienced medical officer (n = 52)	Group 3 Consultant psychiatrists (n = 70)	Total of psychiatrists Group 1 + Group 2 + Group 3 (n = 192)	Group 4 Nurses (n = 76)	Total of psychiatrists and nurses (n = 268)
Factors	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Efficacy	38 (54.3)	41 (78.8)	45 (64.3)	124 (64.6)	26 (34.2)	150 (55.9)
Safety	13 (18.6)	5 (9.6)	7 (10.0)	25 (13.0)	13 (17.1)	38 (14.1)
Tolerability	9 (12.9)	2 (3.8)	11 (15.7)	22 (11.5)	5 (6.6)	27 (10.0)
Cost	5 (7.1)	1 (1.9)	3 (4.3)	9 (4.7)	12 (15.8)	21 (7.8)
Miscellaneous*	4 (5.7)	3 (5.7)	4 (5.7)	11 (5.7)	–	11 (4.1)
No answer	1 (1.4)	–	–	1 (0.5)	20 (26.3)	21 (7.8)
Total	70 (100)	52 (100)	70 (100)	192 (100)	76 (100)	268 (100)

*Dosing schedule, drug interactions and pharmacokinetic profile.

depressive disorder. However this does not lead to any firm conclusion regarding mental health professionals' choice to be treated with an antidepressant. This is still reassuring given that the use of antidepressant is almost universal for moderate to severe depression. It is also of note that many of the factors emphasized in the marketing of drugs (dosing, interactions and cost) were not considered important when choosing an antidepressant for themselves.

Although no study is available for direct comparison, the selection of tricyclic antidepressants seems to be more in developing countries. This pattern may be due to the different experiences that health professionals in developing countries have [8,9], with relatively more experience in use of tricyclic antidepressants. Despite significant difference in cost of even the generic forms of older and newer antidepressants, this study shows that like developed countries efficacy is the main factor that influences the prescribing pattern of the health professionals [1]. However, the cost of medicine was second after efficacy that influenced the prescription of antidepressant to the patients, as the majority of them live below the poverty line [2]. In this study more prescribing of tricyclic as compared to west may be due to greater experience of using these drugs by Pakistani psychiatrists.

The results of our study are in line with the data that tricyclic antidepressants are as effective as more expensive newer antidepressants [14–16]. Mental health professionals consider safety along with efficacy in choosing antidepressants for themselves. Due to the better side effect profile the second-generation antidepressants (mainly SSRIs) were the most commonly selected drug for professionals themselves. These results support the widespread use of SSRIs in practice [17]. There are no specific restrictions on prescribing practices in Pakistan, so the data can be compared with other countries, particularly developing countries, with similar economic constraints. There is no restriction on advertising and pharmaceutical company's representatives approach doctors for promotion of their products. In addition to receiving information from pharmaceutical companies, mental health professionals are involved in academic activities in the form of seminar and conferences both locally and abroad so their knowledge remains at par with rest of the world.

One of the key findings from our study is the limited knowledge nurses in Pakistan have about antidepressant medications. More than 50% of nurses did not feel comfortable in answering the question or named a benzodiazepine. There are separate training programmers for mental health nurses in the west and some studies have shown that they have knowledge of psychotropic medications [5].

The nurse's understanding of psychotropic medication plays an important part in promoting adherence and compliance; and monitoring side effects of these drugs. In Pakistan the psychiatric units are covered by general medical nurses, who gain the knowledge about mental illness and treatments whilst on the job. We think it is very important that the authorities in Pakistan make necessary changes to the nurses training programs to provide training in mental health.

To our knowledge, at the time of conducting this study; there were no formal training programs for mental health nurses in Pakistan, this now being recognized as a major service deficiency. Despite limited training 57.9% of nurses considered efficacy, safety and tolerability to be the most important factors in choosing antidepressant medication. However in comparison to doctors (4.7%) a significantly large number of nurses (26.3%) would consider cost of medication to influence their choice of antidepressant. In order to improve the quality of mental health services and patient outcomes it is imperative to introduce some level of mental health training to the general nurses training programs. We do know of some nurses training institutes to be seriously considering this. The authors of this paper are working closely with one such institute to develop a mental health module for the nurses training curriculum.

There are limitations to this study. In Pakistan there are around 400 qualified psychiatrists, we were able to get a response from only 192 psychiatrists and it is possible that our results are not representative of the whole country. We were only able to get 76 nurses to participate in the study; these nurses did not have formal training in mental health and had limited knowledge of psychopharmacology. The decision process of which antidepressant to be used is complex and more than one factor may influence mental health professionals' decision. Finally, the brief questionnaire limited the respondents into specific listed choices.

Key points

- Fluoxetine is the drug of choice for themselves by mental health professionals
- Safety and efficacy were the two most important factors in selecting an antidepressant
- Limited knowledge of mental health nurses in Pakistan about antidepressants

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