Interventions to improve pharmacist counselling of mental healthcare patients at Weskoppies Hospital

K Munisi,[1] T Rammutla,[1] R Vagiri[1,2]
[1]Weskoppies Hospital, Department of Health, Gauteng Province, South Africa
[2]College of Health Sciences, University of KwaZulu-Natal, South Africa

This manuscript is based on the Best Podium presentation at the 2020 SAAHIP Conference

Introduction

Mental health disorders are a major public health problem worldwide. According to the South African Depression and Anxiety Group (SADAG), one in six South Africans suffers from anxiety, depression or substance-use problems (and this excludes bipolar disorder and schizophrenia).[1] Furthermore, research also reveals that over 40% of people living with HIV in South Africa have a diagnosable mental disorder and less than 16% of sufferers receive treatment for mental illnesses. Many of these problems may be due to personal and social problems or reactions to life events such as physical illness or unemployment.[1]

With the increasing use of psychotropic drugs and other advanced therapies, pharmacists form an important part of the multidisciplinary care team for patients with mental illnesses.[2] The primary role of pharmacists in this field is to counsel patients thoroughly to improve adherence and patient outcomes related to drug therapy.[3,4] Other roles the pharmacist may play include (i) reducing the stigma and creating awareness of mental health disorders, (ii) monitoring safe use of the drugs and reporting any adverse drug reactions (ADR), (iii) working in multidisciplinary teams to correctly inform on treatment decisions.

A range of barriers may deter pharmacists from counselling mental health care users (MHCU). These include the pharmacist, the patient, the health system, and social or cultural factors.[5,6] Pharmacists who work at a specialised psychiatric hospital are often faced with serious challenge of counselling MHCUs. Many of these patients have very poor coping skills with life and lack knowledge about medications they receive from the pharmacy. They usually report low levels of adherence to treatment, which may result in treatment failure.[7] Some MHCUs openly admit that they overdose on medicines as the desired clinical outcome is not achieved, without considering potential adverse drug reactions. Although it is the responsibility of the pharmacist to provide private counselling to MHCUs about their psychiatric medicines, in most cases private counselling is not provided in public sector settings, resulting in MHCUs being ignorant about their medicines.

Purpose of a recent study: This study aimed to improve patients' understanding of their psychiatric medication issued at Weskoppies Hospital Pharmacy (WHP) through pharmacist interventions. This initiative is expected to result in WHP complying with relevant legislation and National Core Standards (NCS).

Study design and sample: This was a quantitative, longitudinal study mainly focusing on quality improvement to comply with NCS. This study was conducted at Weskoppies Hospital, a tertiary specialised psychiatric hospital with 1 100 approved beds. The study site provides out-patient and in-patient services and is also a referral hospital for several hospitals in Gauteng, Limpopo, North-West and Mpumalanga provinces.

The study was conducted in three phases. Phase 1 was conducted to obtain a snapshot of patients' understanding of their psychiatric medicines. Phase 2 comprised interventions such as designing counselling tools, training of pharmacy personnel on psychiatric conditions, developing standard operating procedures on dispensing and designed tools. Rigorous private counselling was provided to MHCUs and printed copies of patient information leaflets, side-effect profile of medicines and food-drug interaction documents were provided to them to refer for more information. In Phase 3, MHCUs were assessed to identify if there was any improvement in pharmacist-provided counselling about psychiatric medication.

Only MCHU out-patients who were over 18 years and willing to participate were considered. A total of 50 MHCUs (n = 50 in each phase) were randomly selected while they waited for their medication at WHP.

Data collection and instruments: The data were collected by pharmacist interns (PI) through interviewing. The PIs were trained on the data collection tool prior to conducting MHCU interviews. An NCS questionnaire (checklist 3.1.4.3.1) (Figure 1) on patient counselling and dispensing of medicines was used to measure MHCUs' understanding about their psychiatric medication during Phase 1 and 3. During Phase 2, pharmacy personnel designed counselling tools such as pa-

Table 1: Drug-food interaction profile

Name of the psychotropic medicine	Popular trade name	Interaction with food
Amitriptyline	Trepiline/Tryptanol	Not affected
Amisulpiride	Solian	Not affected
Aripiprazole	Abilify	Not affected
Atenolol	Tenormin	Not affected
Atomoxetine	Strattera	Not affected
Benzodiazepines (Oxazepam, Lorazepam, Clonazepam, Alprazolam)		Not affected
Bupropion	Wellbutrin SR	Not affected
Buspirone	Pasrin	Not affected
Carbamazepine	Tegretol/Degranol	**Take with meals**
Chlorpromazine	Largactil	Not affected
Citalopram	Cilift/Cipramil/Depramil	Not affected
Clomipramine	Anafranil	Not affected
Clozapine	Leponex	Not affected
Duloxetine	Cymbalta/Cymgen	Not affected
Fluoxetine	Prozac/Nuzak	Not affected
Haloperidol	Serenace	Not affected
Imipramine	Tofranil	Not affected
Lamotrigine	Epitec/Lamictin	Not affected
Lithium	Camcolit	Not affected
Methylphenidate	Ritalin	**Take with/after meals**
Olanzapine	Zyprexa	Not affected
Orphenadrine	Disipal	Not affected
Paroxetine	Paxil/Aropax	Not affected
Phenytoin	Epanutin	Not affected
Propranolol	Inderal/Pur-bloka	Not affected
Quetiapine	Seroquel XR	**Take with meals**
Risperidone	Risperdal	Not affected
Sodium valproate	Epilim/Epilizine	**Take with/after meals**, swallow whole with liquids (not with aerated mineral water)
Topiramate	Topamax	Not affected, swallow whole
Trazodone	Molipaxin	Not affected
Venlafaxine	Venlor/Effexor	**Take with meals**, swallow whole with liquids

tient information leaflets, side-effect profiles of psychiatric medicines stocked at WHP (Table 1) and food-drug interaction documents (Table 2).

Study approval: Permission to conduct this study was obtained from hospital management and the quality assurance department, as this study formed part of one of the hospital's quality improvement projects. Only data relevant to the objectives of the study were documented. In order to ensure confidentiality and privacy, a coding system was used to protect the identity of the patients interviewed.

Data analysis: Individual items on the NCS questionnaire were rated on a five-point Likert scale, from one (strongly disagree) to five (strongly agree). Data were cross-checked and proofread for accuracy and correctness by PIs and further verified by a pharmacist. Data were exported to and analysed using the Statistical Package for the Social Sciences (SPSS) version 20.0. Pooled scores of individual questions on NCS were expressed as raw mean scores. Paired samples t-test was employed to compare the mean scores of Phase 1 and Phase 3. Statistical significance was set as $p < 0.05$.

Results and discussion

It is evident that pharmacist-initiated interventions were effective in improving MHCUs' understanding about their psychiatric medication (Figure 1). Although there was an increase in mean scores for all aspects of the NCS questionnaire, significant differences ($p < 0.05$) in mean scores in Phase 3 and Phase 1 were observed with the following questions:

a. Did the pharmacist explain to you what side effects you could expect from the medicine? **(p = 0.000)**

Table 2: Side-effect profile of psychiatric medication

Medicine (Popular trade names)	Indications	Side-effects
ALPRAZOLAM (Adco-Alzam, Azor, Xanor) LORAZEPAM (Ativan, Tranqipam) DIAZEPAM (Valium, Betapam)	Acute anxiety states, sedation and insomnia	Change in weight, loss of memory, irritability, anorexia (eating disorder), fatigue, changes in libido (sex drive), menstrual irregularities, incontinence (accidental or involuntary loss of urine from the bladder/bowel), urinary retention (inability to completely empty the bladder), jaundice, musculoskeletal weakness and slurred speech
AMISULPIRIDE (Solian)	Schizophrenia	Extrapyramidal symptoms like tremor, rigidity, hypersalivation, akathisia (movement disorder characterised by a feeling of inner restlessness), hypokinesia (partial or complete loss of muscle movement), acute dystonia (a state of abnormal muscle tone resulting in muscular spasm and abnormal posture), tardive dyskinesia (rhythmic involuntary movements primarily of the tongue and/or face)
AMITRYPTILINE (Trepiline, Tryptanol) IMIPRAMINE (Tofranil, Ethipramine)	Depression, anxiety disorders, chronic pain syndrome	Disorientation, sex drive problems, blurred vision, palpitations, constipation, dry mouth, nausea, sweating, fatigue and weight gain
ARIPIPRAZOLE (Abilify)	Schizophrenia and bipolar disorder	Insomnia, restlessness, headache, dizziness, akathisia, somnolence (sleepiness, the state of feeling drowsy, ready to fall asleep), blurred vision, tachycardia (an abnormally rapid heart rate), orthostatic hypotension (low blood pressure that happens when you stand up from sitting or lying down), nausea, vomiting, constipation, dyspepsia (indigestion), fatigue, anxiety, stomach discomfort, musculoskeletal stiffness
ATOMOXETINE (Strattera)	Attention deficit hyperactivity disorder (ADHD)	Mydriasis (dilation of the pupil of the eye), abdominal pain, constipation, dyspepsia, nausea, vomiting, flu like symptoms, weight reduction, anorexia, dizziness, somnolence, mood swings, irritability, early morning awakening, dermatitis (inflammation of the skin), palpitations, tachycardia, dry mouth, flatulence, fatigue, lethargy, rigors, insomnia, headache, problems with sexual drive, sleep disorder, urinary retention, dysmenorrhoea (painful menstruation), dermatitis, sweating and hot flushes
BUPROPION (Wellbutrin)	Depression and nicotine addiction	Insomnia
BUSPIRONE (Parsin-10)	Anxiety disorder	Headaches, dizziness/light headedness, agitation, sweatiness, nausea, dry mouth, blurred vision, tachycardia, abnormal thinking, confusion and tinnitus
CARBAMAZEPINE (Tegretol, Degranol)	Epilepsy and mood stabiliser	Sedation, dry mouth, dizziness, irregularity of muscle coordination and gastro-intestinal effects (nausea, anorexia, constipation)
CITALOPRAM (Cilift, Depramil, Cipramil) FLUOXETINE (Prozac, Nuzak) PAROXETINE (Serrapress,Paxil, Aropax) DULOXETINE (Cymbalta, Cymgen, Yelate)	Depression, panic disorder, obsessive-compulsive disorder	Increased appetite, nausea, vomiting, weight gain, agitation, amnesia (impairment of memory), confusion, emotional lability (involuntary crying or uncontrollable episodes of crying and/or laughing), sleep disorder, chest pains, chills, haemorrhage (a large flow of blood from a damaged blood vessel), hypertension, palpitations, ear ache, taste perversion (taste changes), urinary frequency and tinnitus (noise in the ear)
CHLORPROMAZINE (Largactil)	Schizophrenia	Sedation, orthostatic hypotension, epileptogenicity (inducing or tending to induce epilepsy), photosensitivity, jaundice and blood disorders
CLOMIPRAMINE (Anafranil, Clomidep)	Depression and obsessive-compulsive disorder	Disorientation, sex drive problems, blurred vision, palpitations, constipation, dry mouth, nausea, sweating, fatigue and weight gain
CLONAZEPAM (Rivotril)	Acute anxiety states, sedation and insomnia	Fatigue, drowsiness, ataxia (the loss of full control of bodily movements), clumsiness, paradoxical hyperkinesia (a disorder of children marked by hyperactivity and inability to concentrate), excitability, aggressiveness, headache and muscle weakness
CLOZAPINE (Leponex)	Treatment resistant schizophrenia	Drowsiness, sedation, fatigue, orthostatic hypotension, dizziness, headache, dry mouth, blurred vision, hypersalivation, weight gain, nausea, constipation, nocturnal bed wetting, urinary incontinence, and/or retention, seizures, raised hepatic enzymes, fatal myocarditis (inflammation of the heart muscle) and cardiomyopathy (chronic disease of the heart muscle)
CYPROTERONE (Androcur)	Male sexual deviation, hyperandrogenism, severe acne, prostatic carcinoma	Influence on growth, decreased libido, erectile dysfunction, reversible inhibition of sperm formation, increased or decreased weight, depressed mood, temporary restlessness, liver toxicity, shortness of breath, swelling of the breast glands, hot flushes, sweating, occurrence of thromboembolic disease and blood disorders
FLUPENTHIXOL (Fluanxol)	Schizophrenia	Extrapyramidal symptoms

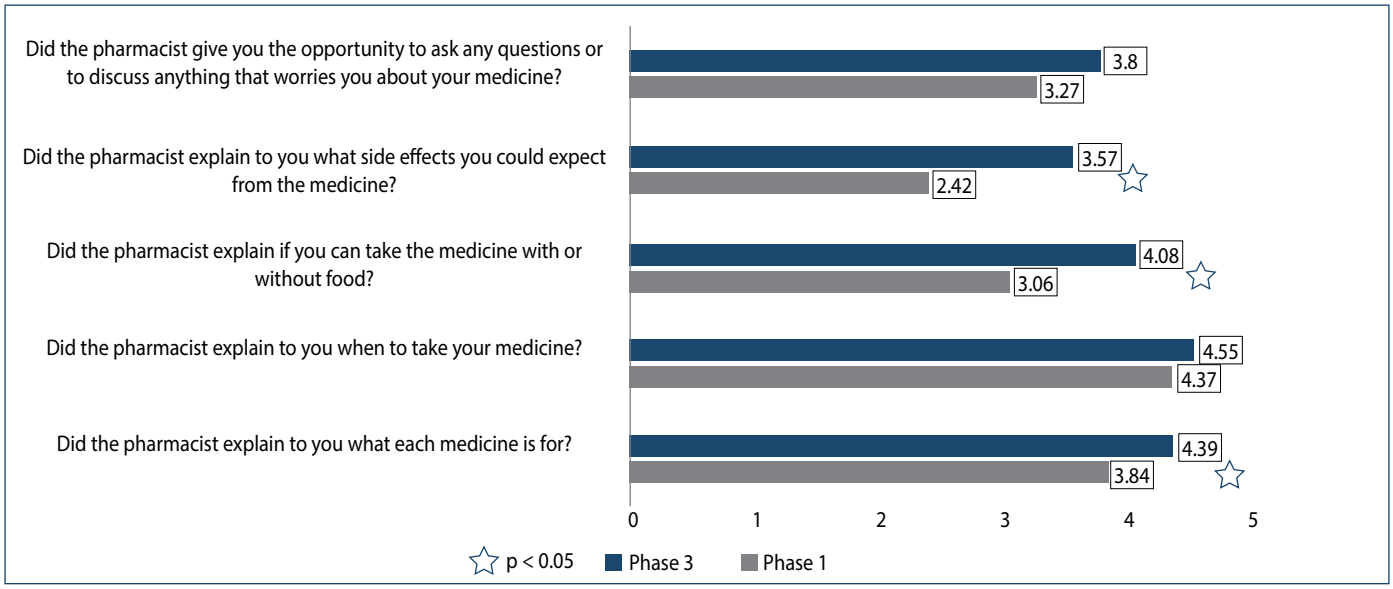

Figure 1: Comparison of mean scores of NCS questions in Phase 1 and Phase 3

b. Did the pharmacist explain to you when to take the medicine with or without food? **(p = 0.000)**

c. Did the pharmacist explain to you what each medicine is for? **(p = 0.044)**

Significant differences in mean scores of Phase 3 compared to Phase 1 were attributed to the interventions implemented in Phase 2. During Phase 2, pharmacists were trained on psychiatric conditions, standard operating procedures on dispensing and designed tools such as the patient information leaflets, side-effect profiles and food-drug interactions. Rigorous counselling and distribution of these tools assisted MHCUs and their caregivers in understanding about their psychiatric medication.

Pharmacists failing to counsel MHCUs about potential side-effects and food interactions with psychiatric medicines was identified as a major challenge, which resulted in WHP not receiving an NCS-compliant service. Additional resources were made available to assist pharmacist counselling of MHCUs in private counselling areas and were affixed to the wall for easy reference. The side-effects and food interactions for psychiatric medication were explained to MHCUs in simple terminology by the pharmacist. The newly designed side-effect profiles also included the clinical indication for each psychiatric medicine.

Conclusion and recommendations

The study clearly indicated the success of the pharmacist interventions undertaken in Phase 2. Although pharmacist interventions yielded the desired results in improving patients' knowledge of their psychiatric medication, only partial compliance to NCS was achieved. Patients may have gained knowledge of their psychiatric medicines through the printed information provided to them. However, a lot of effort is still required to comply with NCS. MHCUs must be provided with rigorous counselling on all individual questions to their full satisfaction.

MHCUs' knowledge of their psychiatric medication may result in better understanding of their medicines, may prevent treatment failure and less hospitalisations, resulting in overall satisfaction with hospital as well as pharmaceutical services. Implementation of innovative counselling interventions is recommended in order to improve the pharmaceutical services provided to MHCUs.

References

1. The South African Depression and Anxiety Group [Internet]. c2014. Available from: http://www.sadag.org/index.php?option=com_content&view=article&id=2178:sa-s-sick-state-of-mental-health&catid=74&Itemid=132.
2. Finley PR, Crismon ML, Rush AJ. Evaluating the impact of pharmacists in mental health: a systematic review. Pharmacotherapy. 2003;23(12):1634-1644.
3. Brook OH, Van Hout H, Stalman W, et al. A pharmacy-based coaching program to improve adherence to antidepressant treatment among primary care patients. Psychiatr Serv. 2005;56(4):487-489.
4. Valenstein M, Kavanagh J, Lee T, et al. Using a pharmacy-based intervention to improve anti-psychotic adherence among patients with serious mental illness. Schizophr Bull. 2011;37(4):727-736.
5. Aaltonen SE, Laine NP, Volmer D, et al. Barriers to medication counselling for people with mental health disorders: a six country study. Pharm Pract (Granada). 2010;8(2):122-131.
6. Liekens S, Smits T, Laekeman G, Foulon V. Pharmaceutical care for people with depression: Belgian pharmacists' attitudes and perceived barriers. Int J Clin Pharm. 2012;34(3):452-459.
7. Phokeo V, Sproule B, Raman-Wilms L. Community pharmacists' attitudes toward and professional interactions with users of psychiatric medication. Psychiatr Serv. 2004;55(12):1434-1436.