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Prescription of psychotropic drugs by non-psychiatrist specialists in Morocco: current practices and educational needs

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Abstract

Introduction Mental health is considered a major public health issue. Non-psychiatric physicians often engage in the treatment of mental disorders. The aim of this study was to describe psychiatric drug prescription knowledge and practices among non-psychiatric specialists and evaluate their training needs.

Methods A descriptive cross-sectional study was conducted from September 1st to October 15th, 2021, in 3 Moroccan healthcare facilities and among private practitioners in Kenitra. We asked non-psychiatric specialists about their knowledge and current practices regarding psychotropic drugs, and their needs in psychiatric training.

Results The study included a total of 150 participants. The majority of participants demonstrated insufficient knowledge regarding the selection of psychotropic drugs and the duration of pharmacotherapy. Specifically, 61.3% were unaware of the average duration of treatment for depression. 22.7% of participants did not feel comfortable when prescribing psychotropic drugs. Anxiolytics were the most commonly prescribed class of psychotropic drugs, accounting for 30.7% of prescriptions. The most common indications for psychotropic drugs prescription were anxiety (35.3%), followed by insomnia (34.7%) and depression (31.3%). The majority of participants (72%) reported receiving clinical training in psychiatry, with 74.7% expressing varying levels of satisfaction with their undergraduate psychiatry training, while 7.3% expressed dissatisfaction. Regarding CME, only 11.3% of participants engaged in at least one psychiatry-related CME session in the past two years. 54.7% of participants expressed interest in expanding their knowledge of prescribing psychotropic drugs. Around 40% of participants preferred trainings in psychotropic drugs prescription related to their specialty, while 34% were not interested in receiving further training.

Conclusions Our study shows gaps in knowledge of non-psychiatric specialists, which raises concern regarding their ability to care for mental disorders. Educational efforts should be made to improve teaching of psychiatry from the undergraduate level. Continuing Medical Education should be tailored to the specific needs and preferred learning methods of non-psychiatric physicians.

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Keywords Mental health, Psychiatric education, Psychotropic, Depression, Anxiety

Background

Mental, neurological and substance use disorders present a major global public health challenge [1]. Despite the growing awareness, a significant gap remains between the need for mental health services and their availability [2]. Integration of mental health in primary health care can reduce the burden on specialized mental health care delivery, as psychological interventions delivered by non-specialists have been shown to improve mental and physical health. Previous studies showed that mental health interventions by non-specialists have produced positive health outcomes such as reducing postnatal depression [3] and improving glycemic control in patients with type 2 diabetes [4]. However, multiple concerns remain about the ability of non-specialists to offer adequate treatment. In fact, previous studies indicate the existence of gaps in knowledge, attitudes, and confidence among non-specialists, when dealing with prevalent mental disorders [5, 6]. In addition, psychotropic drug prescribing practices by non-psychiatric physicians are often not compliant with the most updated practice guidelines and recommendations in terms of adequate choice of drug, dosage and treatment duration, and the initiation of psychoeducation [7–9]. Improving the quality of mental health care depends largely on the quality of psychiatric training. Enhancing the psychiatry curriculum in undergraduate medical education and promoting continuing medical education (CME) have been shown to have a positive impact on the development of relevant competencies among non-psychiatric physicians and boosting their confidence and attitudes towards the management of mental disorders [10–12].

In Morocco, a national survey conducted in 2005 indicated that mental disorders are prevalent with 40.1% of the population aged over 15 suffering from at least one mental disorder [13]. The most common mental disorders were depressive disorders (26.5%) and anxiety disorders (9.3%) respectively [13]. However, several challenges hinder the provision of adequate mental healthcare. Mental health care in Morocco is organized by catchment areas and provided by a network of 83 primary healthcare facilities, as well as psychiatric units in public and private hospitals [14]. Among the 1989 mental health professionals working in both the private and public sector, only 428 are psychiatrists, which equals to 1.17 psychiatrists available for each 100,000 citizens as of 2020 [15]. In addition, due to the influence of cultural stereotypes, psychological problems and symptoms are often described as physical symptoms by patients to evade the beliefs associated with mental illness [16]. Consequently,

patients are more likely to turn first to non-psychiatric specialists for treatment.

Data on the provision of mental healthcare treatment services by non-psychiatric specialists remains scarce. Therefore, the purpose of the present study was to evaluate the knowledge, attitude and practices of psychotropic drugs prescribing among non-psychiatric specialists in Morocco, and to identify gaps and needs for continuing medical education (CME) in psychiatry to improve the delivery of mental health services in non-specialized settings.

Methods

Study design

This is a descriptive cross-sectional study conducted from September 1st, 2021, to October 15th 2021 in one tertiary hospital Cheikh Khalifa Bin Zayed Al Nahyan International University Hospital in Casablanca, two provincial healthcare facilities (El Idrissi Regional Hospital and Moulay Hassan Hospital in Kenitra), and private medical practices and clinics in Kenitra.

Study population

Data on prescription of psychotropic drugs among non-psychiatric specialists remains scarce compared to general practitioners and medical residents. Therefore, our study included specifically non-psychiatric specialists working in the selected healthcare facilities during the study period. We also excluded medical specialties such as biologists, radiologists, anatomic pathologists, occupational health physicians and forensic physicians as they are specialties with limited interaction with the general patient population. In total, 318 specialists were identified in the selected facilities. Assuming a prevalence of 50% (in the absence of any previous reference in Morocco), with 90% confidence level and a margin error of $\pm 5\%$, the estimated sample size was 147 specialists. The final sample size was increased to a round figure of 150 participants.

Data collection

Data were collected using a self-administered questionnaire. The questionnaire used in this study consisted of 40 questions divided into four sections and was developed based on existing literature and guidelines [5, 17–21]. The first section collected socio-demographic characteristics and general information (age, sex, country of medical training, medical specialty, work sector and years of practice). The second section assessed the knowledge about the use of psychotropic drugs in the management of common mental disorders (safety, side effects and

treatment duration). The third section included questions about attitude and practices of participants regarding psychotropic drugs prescription (frequency, most prescribed therapeutic classes, most frequent indications). The fourth and final section collected information about undergraduate training in psychiatry, access to CME in psychiatry and/or mental health, and current needs in training on mental health.

Data analysis

Data were cleaned and tabulated using Microsoft Excel. Statistical analysis was conducted using SPSS version 21. Qualitative variables were expressed in numbers (n) and percentages (%), and quantitative variables were expressed in means and standard deviations (sd).

Ethical considerations

This study was approved by the Hospital-University Ethics Committee of Tangier and informed written consent was obtained from all participants prior to the study. All aspects of this study including design and implementation were conducted in accordance with ethics principles outlined in the Helsinki declaration.

Results

Socio-demographic and general information

The study included a total of 150 participants. About 53.3% of participants were female whereas 46.7% were male. The mean age of study participants was 47.3 (47.3±11.1). Most participants (92%) underwent medical training in Morocco. 105 (70%) participants were medical specialists and 45 (30%) were surgeons. About half the participants worked in the private sector (48%) and 31.3% had over 20 years of experience.

Knowledge, attitudes and practices regarding psychotropic drugs and their prescription

Most participants were not aware of the average duration of treatment for depressive disorders (61.3%) and the treatment duration of insomnia with hypnotics (81.3%) (Table 1). Moreover, most participants (82%) were not aware that sertraline could be prescribed to elderly patients, and 89.3% were not aware that it was safe to prescribe sertraline during pregnancy. Almost half of the participants (46%) reported having never prescribed a psychotropic drug, and 43.3% reported prescribing them less than once a week. About 22.7% of participants did not feel comfortable when prescribing psychotropic drugs, whereas 18.6% felt at ease. Anxiolytics were the most commonly prescribed class of psychotropic drugs, accounting for 30.7% of prescriptions. The most common indications for psychotropic drugs prescription were anxiety (35.3%), insomnia (34.7%) and depression (31.3%).

Table 1 Knowledge, attitudes and practices related to psychotropic drug prescription

Variable	n (%)
Knowledge about psychotropic drugs among respondents	
<i>Psychotropic drugs are like any other drug</i>	
True	41 (27.3)
False	70 (46.7)
Don't know	39 (26.0)
Antidepressants often cause dependence	
True	36 (24.0)
False	65 (43.3)
Don't know	49 (32.7)
Treatment of a depressive episode lasts 8 to 12 months on average	
True	58 (38.7)
False	21 (14.0)
Don't know	71 (47.3)
Hypnotics should be prescribed for at least 2 months when treating insomnia	
True	28 (18.7)
False	36 (24.0)
Don't know	86 (57.3)
Sertraline can be prescribed to elderly patients	
True	27 (18.0)
False	11 (7.3)
Don't know	112 (74.7)
Sertraline is safe for pregnant women	
True	16 (10.7)
False	14 (9.3)
Don't know	120 (80.0)
Attitudes and practices related to psychotropic drug prescription	
How comfortable are you with prescribing psychotropic drugs?	
I don't prescribe psychotropic drugs	69 (46.0)
Neutral	19 (12.7)
Very uncomfortable	13 (8.7)
Uncomfortable	21 (14.0)
Comfortable	23 (15.3)
Very comfortable	5 (3.3)
Frequency of psychotropic drugs prescription	
Never	69 (46.0)
Less than once a week	65 (43.3)
Several times a week	11 (7.3)
Several times a day	5 (3.3)
Most prescribed class of psychotropic drugs	
Doesn't prescribe psychotropic drugs	69 (46.0)
Anxiolytics	46 (30.7)
Neuroleptics/antipsychotics	4 (2.7)
Hypnotics	5 (3.3)
Mood stabilizers	0 (0.0)
Antidepressants	26 (17.3)
Most frequent indications for psychotropic drugs prescription in your practice	
Insomnia	52 (34.7)
Depression	47 (31.3)
Anxiety	53 (35.3)

Table 1 (continued)

Variable	n (%)
Behavioral disorders	5 (6.2)
Pain	28 (18.7)
Digestive symptoms	10 (6.7)
Dermatological symptoms	6 (4.0)
Other	13 (8.7)

Undergraduate training and CME in psychiatry

Most participants (72%) declared receiving clinical training in psychiatry, 74.7% showed some level of satisfaction with their undergraduate training in psychiatry, while 7.3% were dissatisfied. Regarding CME, only 11.3% participants took part in at least one CME training in psychiatry in the last two years. About 54.7% of participants expressed interest in expanding their knowledge of prescribing psychotropic drugs. The most preferred forms of CME were workshops and master classes (30%), grand rounds (26%) and articles and newsletters (24%). Around 40% of participants preferred trainings in psychotropic drugs prescription related to their specialty, 26% preferred general training, and 34% were not interested in receiving further training (Table 2).

Discussion

The aim of this study was to describe the knowledge and practices concerning psychotropic drug prescribing among non-psychiatric specialists, and to enable the identification of gaps and training needs. Most participants failed to identify the correct management of common mental disorders. Similar findings have been reported in other studies [18, 22, 23]. This lack of knowledge can have profound consequences for patients and healthcare systems alike. Inappropriate prescribing practices can increase the risk of adverse effects and complications, resulting in prolonged suffering for patients and potentially exacerbating their symptoms. For example, an inadequate choice of medication or treatment duration could put patients at risk of experiencing another depressive episode [19]. This is also of special concern for vulnerable population such as the elderly or pregnant women. Choice of drug for these populations is crucial considering the presence of comorbidities, the risk of drug interactions, and drug teratogenicity [20, 21, 24]. Furthermore, inadequate management of mental health disorders in non-specialized settings can strain healthcare resources and exacerbate disparities in access to quality care. Patients may experience delays in receiving appropriate treatment, leading to prolonged illness duration and increased healthcare costs due to the need for additional consultations and interventions [23, 25, 26].

In this study, the most commonly prescribed classes of psychotropic drugs among non-psychiatric specialists were anxiolytics and antidepressants. These findings are

comparable to results from studies in Thailand [27], Australia [28], and the United States [29]. These prescription patterns reflect the high prevalence of depressive disorders and anxiety in the Moroccan population [13]. The high rate of anxiolytics prescription by non-psychiatric specialists in this study may also be explained by the fact that anxiolytics are often prescribed as a pre-operative sedative and for non-psychiatric medical conditions such as muscle spasms and chemotherapy-related nausea and vomiting [30]. Participants in this study rely on benzodiazepines as a first line treatment of anxiety. While benzodiazepines have the advantage of an early onset of action, they are recommended for short-term use (2 to 4 weeks). When prescribed excessively and for longer periods of time, they may result in dependence [31]. In fact, approximately half of patients who use benzodiazepines for longer than 1 month develop dependence [32].

In this study, the majority of participants underwent clinical training, and the majority had a placement of less than 9 weeks. Morocco is one of the few Arab countries that offer clinical rotation in psychiatry, along with other countries such as Qatar, Egypt, and the United Arab Emirates [33]. However, psychiatry is not taught as a major clinical discipline, as is the case in countries like Denmark, Britain and Malaysia [34]. Considering the shortage of mental health professionals in Morocco, improving the undergraduate training in psychiatry could enhance the management of mental disorders by non-psychiatric physicians and therefore decrease the need of referral to a specialist. It may also benefit non-psychiatric specialists directly by helping them recognize psychiatric manifestations of medical conditions and understand the implication and interaction of the psychotropic medications that the patient might have been receiving [19, 20, 35, 36].

Most participants in our study declared being satisfied with their undergraduate training in psychiatry and were mainly interested in CME relevant to their specialty. This may be due to the perception that treatment of mental disorders is not the responsibility of non-psychiatric specialists [37]. Many studies support that physicians' attitude is one of the most important factors in the detection and management of mental disorder [11, 37]. In that regard, medical faculties are encouraged to implement high quality psychiatry training as part of the undergraduate curriculum. Examples of successful international programs include the Responding to experienced and anticipated discrimination (READ) anti-stigma training for medical students towards patients with mental illness [38] and the Psychiatry Early Experience Programme (PEEP) where students are paired with specialists in psychiatry allowing to have firsthand exposure to a wide range of mental health problems [39]. A longer period of clinical rotation was also shown to improve the attitude

Table 2 Assessment of needs for continuing medical education (CME) in psychiatry

Variable	n (%)
Clinical training in psychiatry during undergraduate studies	
No	42 (28.0)
Yes	108 (72.0)
Level of satisfaction with undergraduate training in psychiatry	
Doesn't remember	27 (18.0)
Dissatisfied	11 (7.3)
Somewhat satisfied	85 (56.7)
Satisfied	23 (15.3)
Very satisfied	4 (2.7)
Participation in psychiatry training programs in the past two years	
Never	133 (88.7)
Less than once a year	10 (6.7)
Once a year	5 (3.3)
Several times a year	2 (1.3)
Interest in CME in psychotropic drugs prescription	
Strongly disagree	18 (12.0)
Disagree	9 (6.0)
Neutral	41 (27.3)
Agree	39 (26.0)
Strongly agree	43 (28.7)
Preferred format of CME in psychotropic drugs prescription	
Workshops/Master classes	45 (30.0)
Lectures/conferences	22 (14.7)
Articles/newsletters	36 (24.0)
Grand rounds	39 (26.0)
Diploma/certificate	0 (0.0)
Others	1 (0.7%)
I do not wish to receive training	51 (34.0)
Preferred breadth of CME in psychotropic drugs prescription	
General training	39 (26.0)
Training related to my specialty	60 (40.0)
I do not wish to receive training	51 (34.0)

of medical students towards psychiatry [10]. In this study, a considerable number of participants declared not feeling confident prescribing psychotropic drugs. In the Netherlands, a post-academic hands-on training developed by Van Os and al. was shown to improve knowledge about pharmacotherapy related to the choice of drug, appropriate dosage, adequate duration, and psychoeducation [40].

Only 11.3% of respondents in this study participated in at least one CME in psychiatry in the last two years. These findings raise an important issue which is the lack of interest in mental health care among non-psychiatric specialists. Co-occurrence of mental and general medical disorders is among the most common combinations. A global survey from 17 countries estimated that mental disorders were associated with 1.5–13.3% of all general medical conditions [41]. Based on these numbers, non-psychiatric specialists are likely to encounter mental disorders in their everyday practice. Therefore,

it is important to raise awareness on their roles as active providers of mental health care. Another point of concern is the adequacy of the training received. Curating the content and format of training, that is, in the case of our study population, training related to their specialty mainly in the form of workshops and masterclasses, offers a more practical, specialty-specific approach to the delivery of mental health services in non-specialized setting.

This study has several limitations which should be acknowledged when interpreting the results. First, it was conducted on a small sample in selected healthcare facilities, and findings should be generalized with caution. Second, the practices were self-reported and may be subject to recall bias. Nonetheless, this study has several strengths. The results present new data regarding the use of psychiatric drugs by non-psychiatric physicians in Morocco. Observations drawn from this study can serve as a base for planning actions to address the increased burden of mental health in Morocco's patient population and help reduce the impact of shortages in mental health professionals. A better understanding of training needs of non-psychiatric specialists will pave the way for targeted capacity building interventions. This, in turn, has the potential to address and bridge the current gaps in service provision faced by the healthcare system.

Conclusion

Our research raises important issues. Given the large role of non-psychiatric specialists in psychotropic drug prescribing, gaps in knowledge can compromise their ability to offer adequate care to patients. Therefore, it is crucial to train non-psychiatric specialists adequately. Enhancing psychiatric education from the undergraduate level is essential. Continuing Medical Education should be tailored to the specific needs and preferred learning methods of non-psychiatric physicians. This will ensure they stay updated with current guidelines and recommendations, thereby improving their engagement and effectiveness in managing mental disorders.

Abbreviations

READ	Responding to experienced and anticipated discrimination
PEEP	Psychiatry early experience programme
CME	Continuing medical education

Acknowledgements

We express our gratitude to the participants who volunteered for this study.

Author contributions

MK and RB co-designed the study. ID contributed to data collection and data analysis. IBK and OB contributed to data analysis, results, and finalized the manuscript. MK, RB, AN, MO, AB and LB revised the manuscript. All authors have read and approved the final manuscript.

Funding

This study did not receive any funding.

Data availability

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations**Ethics approval and consent to participate**

This study was approved by the Hospital-University Ethics Committee of Tangier (AC48OC). This study adheres to the latest version of the Declaration of Helsinki guidelines. All participants provided written informed consent

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Received: 12 December 2023 / Accepted: 26 July 2024

Published online: 03 September 2024

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