



Concordance in psychopharmacological treatment before and after first mental health consultation

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ABSTRACT

Purpose: To analyse concordance between treatment prescribed before and after the first mental health consultation. We understand concordance in two different senses: first, as a similar amount of equivalent doses and drug type; second, as a similar treatment for each patient.

Method: This is an analytical, descriptive, retrospective study on psychopharmacological treatment before and after first mental health consultation of 1236 patients. Drugs were classified into four groups and the equivalent dose respect to reference medication was considered in each group in order to make a comparison between primary and mental health.

Results: Moderate concordance was found in prescribed treatments before and after first mental health consultation (except antidepressants). The average number of benzodiazepines decreased, as did average doses prescribed at mental health consultation respect to previously prescribed treatment; average doses of antidepressants, however, increased. From the patient's perspective, dose increase was more frequent than decrease. Nevertheless, a high percentage of polymedicated patients were found, although this percentage decreased after the first mental health consultation.

Conclusion: There exists a moderate concordance between the pharmacological treatment prescribed before and after the first mental health consultation. However, the use of benzodiazepines diminished significantly after the first consultation, mainly due to a decrease in the percentage of polymedicated patients.

Introduction

In the last decade changes in healthcare structure have taken place, resulting in an increase in the demand for Mental Health (MH) attention. It has been demonstrated, moreover, that in times of socio-economic crisis this demand for attention is characterized by the appearance of a higher number of people with common mental disorders (Bartoll et al., 2014; McInerney et al., 2013; Norberto et al., 2021).

Other factors to take into account are the psychologization and medicalization of daily life. In today's society, the “denial-concealment” of mental disease has now become psychologization of each difficulty in life, a situation which has led to an overload in specialized resources

(Calvo & Noriega, 2011). Progressive medicalization of daily life has resulted in the prescription, unnecessary in some cases, of psychopharmacological treatments which can have adverse effects (Lozano Serrano et al., 2014; Pérez et al., 2013; Sedler, 2016). Furthermore, the use of combinations of different psychotropic drugs is commonplace, and is associated with a greater risk of adverse reactions (Brett et al., 2020). It should be noted that with polypharmacy the probability of potentially inappropriate prescriptions increases, which means that the risk of suffering adverse effects from a drug is greater than the clinical benefit, and that other safer or more effective therapeutic alternatives exist (Salgueiro et al., 2018; Villafaina & Gavilán, 2011).

Many patients attend primary healthcare (PH) centres with

Abbreviations: AD, antidepressants; AP, antipsychotics; BZD, benzodiazepines; MH, mental health; PH, primary healthcare.

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psychological or psychiatric symptoms which are treated by their family doctor before they are referred to MH services. Several authors have analysed diagnostic concordance between PH and MH (Cruz et al., 2017; Landa et al., 2008; Martín-Jurado et al., 2012), but few have dealt in depth with concordance in psychopharmacological treatments. Chueca et al. (2003) found weak concordance for practically all the pharmacological groups, except in the case of neuroleptics, which was moderate, possibly due to its use in psychotic pathology, for which good diagnostic concordance was also obtained (Chueca et al., 2003).

Some of the patients who seek attention do not present clinical criteria of mental disorder, but are nevertheless referred to MH with prescribed psychopharmacological treatment. It is likely that the indiscriminate demand for healthcare assistance on the part of the population, together with an excessive tendency to use psychotropic drugs, would explain this phenomenon (Ortiz et al., 2006). Nevertheless, a certain controversy still exists regarding whether a crisis situation contributes to an increase in the consumption of psychotropic drugs (Arroyo et al., 2019; Barceló Rado et al., 2016; Nicieza-García et al., 2016).

It is important to know the concordance between previous treatments given to patients and those prescribed by specialists in MH, since this knowledge may be useful for improving collaboration strategies between MH and other services, especially PH, with the aim of optimizing health resources.

The results of the present study, carried out in a period of economic crisis, previous to the COVID-19 crisis, may help to anticipate what can happen in situations such as the present pandemic, in which there may be a rise in the incidence of mental disorders, or a worsening of those already existing (Satre et al., 2020; Zaami et al., 2020).

For these reasons, and the fact that a scarce number of studies exist to shed light on this situation, we decided to analyse concordance between treatment prescribed before and after the first MH consultation and to investigate in depth the use of psychopharmacological polytherapy. We understand concordance in two different senses: first, as a similar amount of equivalent doses and drug type; and second, as a similar treatment for each patient.

Material and methods

Study design and population

An analytical, descriptive, retrospective, observational study was conducted which included patients of over 18 years who requested a first consultation at the MH Service in Almendralejo (Badajoz, Spain) ($N = 1236$), a city with a population of approximately 50,000 inhabitants. The study was conducted in the period 2011–2015. Patients' data were obtained from the clinical histories on file at the MH Service and those which fulfilled the study criteria were included. Complete information on previous and subsequent pharmacological treatment of 1236 patients was obtained. The percentage of referrals from PH was 82.8%, and the rest were from other specialized services.

Variables

Sociodemographic variables

Age, sex, civil status (single, married, divorced or widowed), employment situation (unemployed, employed or inactive), and educational level, distinguishing between low (illiterate or primary education), medium (secondary or vocational education), and high (university degree).

Clinical variables

Diagnosis (Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR) (A. P. A., 2002), psychopharmacological treatment before and after first consultation at an MH centre, separated into the following pharmacological groups: Benzodiazepines (BZD), Antidepressants (AD), Antipsychotics (APS) and Other Drugs.

Equivalent doses of BZD, AD and APS were calculated based on defined daily doses presented by the World Health Organisation's Collaborative Centre for Drug Statistics Methodology (Norwegian Institute of Public Health, 2020).

When more than one drug was prescribed for the same group (BZD, AD, APS or Other Drugs), the most frequently prescribed drug was considered the principal one, and the others secondary.

Statistical analysis

Data were collected and analysed using the SPSS software statistical package version 22.

The variables were analysed from a descriptive perspective. Prescribed drugs were classified into four groups: BZD, AD, APS and the fourth one named Other Drugs, consisting of a miscellany of other medications (less than 20% of total prescriptions, according to a Pareto chart).

Concordance between pharmacological treatments prescribed in PH and after consultation with the specialist at the MH centre was evaluated from two perspectives. Firstly, each group of medications was considered separately. A comparison between the most consumed drugs in both phases was made. Then, proper statistical analysis of concordance between PH and MH was carried out throughout corresponding kappa index values, taking into account both number of drugs prescribed and total equivalent doses respect to reference medication. Notice that each group can be reduced to a single drug by using equivalent doses. The references were: diazepam for BZD, fluoxetine for AD and olanzapine for APS. Obviously, there was no reference medication for Other Drugs. The average comparison between drugs prescribed before and after consultation with the specialist was made by means of the paired samples *t*-test for total number of prescribed drugs as well as for total equivalent doses. For each group of drugs, the above-mentioned analyses were restricted to those patients who had received medication in at least one of the phases.

From the second perspective, concordance analysis focused on classifying patients according to their evolution in the total number of prescribed medications, as well as in total equivalent doses. The McNemar test was carried out to check tendencies.

Ethical aspects

The study was authorized by the Clinical Investigation Ethical Committee of the Health District of Badajoz, and by the Bioethical Committee of the University of Extremadura. Confidentiality of data was maintained at all times in accordance with current legislation.

Results

With regard to sociodemographic data, the average age of the sample studied was 46.6 years (ST: 18.29). The sample consisted of 764 (61.8%) women and 472 (38.1%) men, the average age of the women being 47.56 years (ST: 18.82) and the average of men 45.03 years (ST: 17.35). The majority of the patients were married (68.3%), and most were unemployed (27.8%), followed by retired workers (23.1%) and active population (21.5%). Educational levels were mostly primary level (54.3%), followed by patients with secondary or vocational studies (17.5%). The various diagnoses recorded in the clinical histories can be seen in Table 1.

Psychopharmacological treatment before and after first MH consultation

Table 2 shows the most frequently prescribed drugs, together with a comparative analysis of the medication prescribed before and after first MH consultation, differentiating between the types of drugs BZD, AD, APS and Other Drugs. For each group, only the patients with medication in at least one phase of the study were considered. The total numbers

Table 1
Diagnoses according to DSM-IV-TR.

| Mental disorders | | F (%) |
|--------------------|-----------------------------|------------|
| Adaptive disorders | | 408 (33.0) |
| Mood disorders | | 236 (19.1) |
| Anxiety disorders | | 178 (14.4) |
| Without diagnosis | | 249 (20.1) |
| Others | Delirium, dementia, amnesia | 26 (2.1) |
| | Substance-related disorders | 17 (1.4) |
| | Schizophrenia | 27 (2.2) |
| | Eating disorders | 12 (1.0) |
| | Postponed diagnosis | 53 (4.3) |
| | Other diagnoses | 30 (2.4) |
| Total | | 1236 (100) |

were $N = 661$ in the case of BZD, $N = 691$ in AD, $N = 91$ in APS, and $N = 125$ in Other Drugs.

The drugs which were prescribed most frequently both before and after the first MH consultation were alprazolam and lorazepam in the BZD group, and escitalopram and paroxetine in the AD group. The most frequently prescribed APS in the treatment before the MH consultation

were quetiapine, risperidone and olanzapine, and after the consultation olanzapine was the most frequent followed by quetiapine and risperidone.

In the case of BZD, 533 patients were prescribed a BZD-type drug as the principal treatment, (one of the 5 most frequent ones), and of those patients, 359 (67.4%) repeated the principal treatment after the MH consultation. Regarding frequency of prescription, lorazepam was the BZD which was prescribed most frequently after the first consultation (previous treatment 29.4%, subsequent treatment 35.0%), and alprazolam that which was least frequently prescribed (previous treatment with alprazolam 29.1%, and subsequent 26%).

A total of 471 patients were prescribed as principal treatment an AD of the 7 most frequent ones shown in Table 2, and of those patients 300 (63.7%) continued with it as principal drug following consultation with the specialist. Regarding the frequency of AD prescription, escitalopram and fluoxetine were the drugs from their group which diminished most in frequency (treatment before MH consultation, 28.3% and 7.1%, and after MH consultation, 23.6% and 5.6%, respectively). Frequency of prescription of sertraline increased (from 7.15 to 9.4%).

Of those patients who initially took one of the 4 most frequent APS,

Table 2
Comparative analysis between medication prescribed before and after first MH consultation (frequency of most-prescribed drugs (F), average doses, equivalent doses and average number of drugs).

| Pharmacological group | Drug | Before MH consultation | | | | After MH consultation | | | | Kappa |
|-----------------------|------------------|------------------------|--------------|------------------|---------------------|-----------------------|--------------|-------------------|---------------------|-------|
| | | F (%) | Average dose | Equivalent dose* | Average n° of drugs | F (%) | Average dose | Equivalent dose* | Average n° of drugs | |
| Benzodiazepines | Lorazepam | 204 (29.4) | 2.08 | 8.53 | 1.05 | 191 (35.0) | 2.25 | 7.04 (p < 0.001) | 0.83 (p < 0.001) | 0.536 |
| | Alprazolam | 202 (29.1) | 2.50 | | | 142 (26.0) | 1.88 | | | |
| | Clonazepam | 50 (7.2) | 2.06 | | | 44 (8.1) | 2.44 | | | |
| | Diazepam | 53 (7.6) | 6.35 | | | 35 (6.4) | 5.56 | | | |
| | Bromazepam | 44 (6.3) | 2.55 | | | 29 (5.3) | 2.60 | | | |
| | Other | 141 (20.3) | | | | 105 (19.2) | | | | |
| | Total | 694 | | | | 546 | | | | |
| Antidepressants | Escitalopram | 183 (28.3) | 2.73 | 20.61 | 0.93 | 160 (23.6) | 2.68 | 23.61 (p < 0.001) | 0.98 (p = 0.115) | 0.310 |
| | Paroxetine | 82 (12.7) | 2.69 | | | 80 (11.8) | 3.37 | | | |
| | Duloxetine | 73 (11.3) | 2.68 | | | 61 (9.0) | 2.72 | | | |
| | Fluoxetine | 46 (7.1) | 4.22 | | | 38 (5.6) | 4.83 | | | |
| | Venlafaxine | 49 (7.6) | 3.59 | | | 57 (8.4) | 3.30 | | | |
| | Sertraline | 46 (7.1) | 3.33 | | | 64 (9.4) | 2.65 | | | |
| | Desvenlafaxine | 43 (6.6) | 1.82 | | | 42 (6.2) | 1.64 | | | |
| | Other | 125 (19.3) | | | | 177 (26.1) | | | | |
| | Total | 647 | | | | 679 | | | | |
| Antipsychotics | Quetiapine | 17 (22.1) | 8.41 | 4.70 | 0.86 | 17 (20.7) | 8.12 | 4.88 (p = 0.540) | 0.90 (p = 0.742) | 0.480 |
| | Risperidone | 14 (18.2) | 1.96 | | | 8 (9.8) | 1.00 | | | |
| | Olanzapine | 13 (16.9) | 3.73 | | | 19 (23.2) | 4.24 | | | |
| | Haloperidol | 8 (10.5) | 3.03 | | | 11 (13.4) | 2.53 | | | |
| | Other | 25 (32.5) | | | | 27 (32.9) | | | | |
| | Total | 77 | | | | 82 | | | | |
| Other drugs | Pregabalin | 25 (27.5) | 1.28 | | | 43 (38.1) | 1.74 | | | 0.375 |
| | Gabapentine | 16 (17.6) | 2.11 | | | 12 (10.6) | 2.00 | | | |
| | Topiramate | 13 (14.3) | 2.69 | | | 23 (20.4) | 2.26 | | | |
| | Valproate sodium | 11 (12.1) | 1.90 | | | 10 (8.8) | 1.55 | | | |
| | Other | 26 (28.6) | | | | 25 (22.1) | | | | |
| | Total | 91 | | | | 113 | | | | |

35 out of 53 patients (66.0%) repeated this medication. After the first MH consultation, the antipsychotic drug which was prescribed most frequently was olanzapine (treatment before MH, 16.9%, treatment after MH, 23.2%), and the drug which decreased its prescription was risperidone (treatment before MH, 18.2%, treatment after MH, 9.8%).

In the Other Drugs group, 46 out of 63 patients (73.0%) repeated the drug which was initially one of the 4 most frequently prescribed. The prescription of gabapentin in the Other Drugs group decreased its frequency (from 17.6% to 10.6%) in favour of pregabalin, which was the most frequently prescribed drug in the treatment before MH consultation (from 27.5% to 38.1%).

Thus, the proportion of patients who maintained the most frequently prescribed medication after specialist consultation is approximately two thirds for all the drug groups.

Statistical analysis of concordance itself between the medication prescribed before and after consultation with the specialist gave kappa index values of 0.536, 0.310, 0.480 and 0.375 for the BZD, AD, APS groups and Other Drugs, respectively, which may be considered as moderate concordance, except for AD, which was weak.

Regarding the evolution in number of prescribed drugs and average equivalent dose, for the BZD group a significant decrease was observed ($p < 0.001$) in the average number of drugs consumed, of 1.05 before MH to 0.83 after MH. The average equivalent dose also diminished significantly ($p < 0.001$). For the AD group, however, a slight though not significant increase was observed in the average number of drugs prescribed ($p = 0.115$), which went from 0.93 to 0.98, with a significant rise in average equivalent dose (from 20.61 to 23.61; $p < 0.001$). For the APS group, no significant change was observed either in the average number of drugs, which went from 0.86 to 0.90 ($p = 0.540$), or in average equivalent dose, which passed from 4.70 to 4.88 ($p = 0.742$).

The polymedication analysis for the 1236 patients in the study gave an average number of drugs (of all types) consumed in the previous phase of 1.22, whereas the average number in the subsequent phase was 1.15. The decrease was significant ($p = 0.005$) according to the Student *t*-test.

Classification of patients

A classification of each subject was made based on their evolution, firstly according to the number of prescribed treatments. The results of these classifications are summarised in Table 3 and show a distinction between three categories: without pharmacological treatment, in treatment with monotherapy, and with psychopharmacological polytherapy.

As we can see, 395 patients were initially polymedicated and maintained this condition, while 619 maintained the opposite condition; however, 102 patients who were initially polymedicated passed to non-medicated, and 16 to monomedicated; conversely, 31 of the non-medicated patients passed to polymedicated, as did 73 monomedicated patients. Thus, the percentage of polymedicated patients dropped from 41.5% to 40.4% after consulting the specialist, although this decrease was not significant according to the McNemar test ($p = 0.383$).

Table 4 provides more specific information than Table 3 since it classifies patients according to their evolutions in terms of doses. As we can see, 276 patients maintained the same equivalent doses after consulting MH. This group, in addition to the 391 patients who were not treated in any of the phases and the 65 whose changes were approximately balanced, totalled 732 patients. This means that there was concordance in this respect between PH and MH for 59.2% of subjects. On the other hand, 60 patients without treatment in PH were treated in

Table 4

Classification of patients according to their evolution in terms of doses of the prescribed medications.

| Simplified casuistry | Decreased after MH | Concordance | Increased after MH |
|---|--------------------|--------------|--------------------|
| Non-medicated in PH and MH | – | 391 | – |
| Same doses for each group in PH and MH ^a | – | 276 | – |
| Non-medicate - medicated | – | – | 60 |
| Medicated - non-medicated | 174 | – | – |
| Changes only in BZD ^b | 15 | – | 27 |
| Changes only in AD ^b | 20 | – | 105 |
| Changes only in APS ^b | 1 | – | 11 |
| Changes only in other drugs ^c | 0 | – | 15 |
| Changes in at least two groups ^d | 13 | 65 | 63 |
| Total | 223 (18.04%) | 732 (59.22%) | 281 (22.73%) |

^a The equivalent dose did not vary in any group of drugs prescribed.

^b Changes in equivalent doses only involved one group of drugs and an evaluation was made of whether this change was an increase or a decrease.

^c For the group other drugs, number of medications was considered.

^d There were changes in at least two groups of drugs in the sense explained above. If the number of drug groups with an increase was greater than the number with a decrease, the subject was classified as increased after MH, as decreased if the opposite was true, and as concordance if they were the same.

Table 3

Classification of patients according to their evolution in number of prescribed drugs. Shaded cells mean changes from polymedicated to non-polymedicated or vice versa.

| | | After MH Consultation | | | Total (%) |
|------------------------|---------------|-----------------------|-------------|---------------|------------|
| | | Non-medicated | Monotherapy | Polymedicated | |
| Before MH Consultation | Non-medicated | 391 | 29 | 31 | 451 (36.5) |
| | Monotherapy | 72 | 127 | 73 | 272 (22.0) |
| | Polymedicated | 102 | 16 | 395 | 513 (41.5) |
| Total (%) | | 565 (45.7) | 172 (13.9) | 499 (40.4) | 1236 |

MH while, conversely, 174 medicated patients passed to non-medicated in MH (this information is also available in Table 3). For the remaining possibilities, there were more patients whose dose increased after MH consultation, (27 increases vs 15 decreases when changes only affected BZD, 105 vs 20 for AD, 11 vs 1 for APS, 15 vs 0 for Other Drugs and 63 vs 13 for several groups involved). In all, prescribed dose increased in MH for 22.7% of patients while it decreased for 18.1% ($p = 0.032$, McNemar test). This slight tendency does not contradict the results obtained in Table 2; it simply means that the 174 patients whose treatment was cancelled in MH, in particular the 102 patients who were polymedicated in PH, made the difference in terms of total BZD consumption.

Discussion

In our study the percentage of patients diagnosed with a mental disorder at the first consultation was 79.9%, with principally adaptive disorders, mood and anxiety disorders, and 20.1% of patients without diagnosis.

Our data show that 63.5% of the patients sought MH attention with previously prescribed pharmacological treatment, which corresponds to a high extent to BZD. The data in the literature vary in this respect. In one study published by Martín-Jurado et al. (2012), 47.7% of the patients attended an MH centre with previously prescribed AP psychopharmacological treatment. In these patients, the most frequent treatments were anxiolytic or hypnotic (39.5%), anxiolytic-antidepressant (35.8%), or antidepressant (18.3%) (Martín-Jurado et al., 2012). Díaz et al. (2017) conducted an analysis of the inter-consultation reports in which they observed that 46.7% of the patients referred to an MH specialist were already taking psychopharmacological drugs, mostly anxiolytics (30.2%) or AD (23.7%) (Díaz et al., 2017), whereas in other studies the percentage of patients with medication prescribed from PH was as high as 78%, with AD alone or combined with anxiolytics being the most frequently prescribed drug group (Ferrerías et al., 2011).

Anxiety is a frequent symptom in many disorders, and for this reason it is normal that the BZD drugs are the most frequently prescribed. In fact, in our study a high frequency of previous treatment with BZD (56.1%) was observed, which coincides with other studies in which BZD has a high level of prescription (López-Peig et al., 2006; Padierna et al., 2004). Consumption of BZD has increased considerably in recent years in Spain (Vicente Sánchez et al., 2013), and there are even older studies which reported the existence of a **hyper-prescription** of BZD by primary care doctors (Chueca et al., 2003; Codony et al., 2007), this group of drugs therefore being those which are most frequently prescribed in a potentially incorrect way (Salgueiro et al., 2018). It has been observed that long-term use of BZD presents problems of dependence, diminishes cognitive functions (Stranks & Crowe, 2014), increases risk of falls (Pollmann et al., 2015), and worsens quality of life (Lugoboni et al., 2014). Scientific evidence suggests, therefore, that it can often be “de-prescribed” with satisfactory results, providing that the patient is properly involved in the process (Pottie et al., 2018).

In our study the most frequently prescribed BZD-type drugs were lorazepam and alprazolam. Several studies have analysed psychotropic drug prescription in Spain. Barceló Rado et al. (2016) found that anxiolytic drugs were the most consumed in the years 2005–2012, in the crisis period, including alprazolam (45.7%), diazepam (32.2%), and lorazepam (19.2%), with results similar to ours. In the case of the most frequently prescribed AD-type drugs, in the study by Barceló Rado et al. (2016), the most commonly used drugs in this group were paroxetine (15.9%) and escitalopram (8.9%) (Barceló Rado et al., 2016), which coincides with our study.

We found that the most frequently prescribed APS drugs were risperidone and olanzapine. Similar results were found by Catalan et al. (2020) who on evaluating APS use in seven teams of early intervention reported that the most used were risperidone (26.5%), and olanzapine (18.7%) (Catalan et al., 2020). In one study on psychiatrists' preferences

regarding prescription of antipsychotics, olanzapine was selected as the antipsychotic drug with greatest adherence and efficacy (Campos et al., 2020); in fact, as we have seen in our study, olanzapine is the most frequently prescribed APS in MH.

Our data show a moderate level of **concordance** between the treatments prescribed before and after the first MH consultation, except for group AD, in which it is weak. These data coincide partially with the study by Chueca et al. (2003), who found weak concordance for almost all the pharmacological groups, except for APS, which was moderate. The authors state that this could be due to the type of pathology for which they are used and for which a good diagnostic concordance was obtained (Chueca et al., 2003). With regard to the remaining pharmacological groups, it is thought that the weak concordance is possibly a consequence of the hyper-prescription of AD and BZD observed in PH. In the case of AD drugs, however, we found weak concordance and also a significant increase in average equivalent doses of AD, which would seem to suggest that its use is favoured more in MH than in PH. This can be explained because there was an increase in the number of patients being treated with antidepressants, possibly referred from PH to MH due to the greater complexity in the use of these drugs.

Our results overall show changes in prescriptions between PH and MH. Ferreras et al. (2011) assessed the treatment of patients referred to MH from PH and reported that there was a significant tendency on the psychiatrist's part to change the treatment which was initially prescribed in PH (Ferreras et al., 2011).

With regard to the use of **combinations** of drugs, of the 554 patients who were prescribed AD-type medication, 71.8% were also prescribed BZD-type medication; 8.7% took APS-type medication apart from antidepressants, and 13.0% were medicated under the category Other Drugs.

In Spain, the combined use of psychotropic drugs has been reviewed, and it is estimated that 58% of prescribed AD were combined with another psychotropic drug (42% with anxiolytics, 6.5% with antipsychotics, 5% with hypnotics, and 4.5% with other antidepressants) (De la Gándara Martín et al., 2002). The reasons why specialists use combined treatments have been analysed. In the case of AD, the various reasons for using polytherapy are: latency of response time, insufficient rates of response/remission, persistent residual symptomatology, treatment of comorbidities, or for the treatment of secondary effects (De la Gándara et al., 2005; Rojo García, 2019).

The concomitant use of more than one antipsychotic drug is very prevalent, with estimated rates of between 20 and 50% (Barnes & Paton, 2011; Gallego et al., 2012). In the study by Campos et al. (2020) in which the pattern of prescription of olanzapine was investigated, it was found that 95% of the patients interviewed reported that they used combinations of APS, usually consisting of two APS (66.0%) (Campos et al., 2020). The use of combinations of APS is an acceptable option for patients who do not respond favourably, for those with high relapse rates, and for patients with serious mental illness (Bolstad et al., 2011; Mané, 2019). We must bear in mind, however, that polypharmacy is not only combinations with APS or AD, but also with other psychotropic drugs. It is frequently found that patients under treatment with APS are also taking AD, BZD and/or mood stabilizers. In any case, little is known with certainty about these combinations (Roca Andreu, 2019).

Although the use of psychopharmacological polytherapy is common in MH, it has been demonstrated that the combined use of these drugs increases the risk of pharmacological interactions and problems related with the medication (Rubio-Valera et al., 2014), which suggests that more careful consideration of potentially inappropriate prescriptions is necessary (Brett et al., 2020).

In our study, the percentage of polymedicated patients was lower in MH; this decrease was not significant, although the average number of drugs was. It should be noted that 174 (14.0%) polymedicated medicated patients passed to monotherapy in MH, 102 of them to non-medicated. This is the main reason for the decrease in the average dose of BZD in MH detected in our sample.

Several different factors may have a bearing on the analysis of these data, but one possible explanation is that specialists tend to leave poly-medication for more serious or non-responsive patients.

We consider that the lack of information relating to treatment in clinical histories was the principal limitation of the present study. The strengths of the study lie in two fundamental aspects: firstly, the data are taken from the whole study population, since all the clinical histories were revised; and secondly, in addition to the analysis of concordance, these data have permitted us to determine the extent of the use of psychopharmacological polytherapy both in relation to the type of combinations and to the number of drugs prescribed in PH and MH.

It is important to note that in times of socio-economic crisis, the rise in unemployment, and with it the emergence of economic problems in families, may be one of the reasons for the higher incidence of common mental disorders. This puts a greater burden on health care services and creates the need to optimize recourses (Norberto et al., 2021). Recent studies on COVID-19 reveal that this pandemic is a particularly relevant threat, and may contribute to increase or exacerbate mental disorders resulting in a rise in consumption of psychotropic drugs (Satre et al., 2020; Zaami et al., 2020). This constitutes a new challenge for medical attention professionals (Andrade et al., 2020).

Conclusions

There exists a moderate concordance between the pharmacological treatment prescribed before and after the first MH consultation. The use of BZD diminished significantly after the first consultation, both in number of drugs and in average doses. Despite the risks arising from psychopharmacological polytherapy, a high percentage of poly-medicated patients was found, although this decreased after the first consultation.

Studies on psychopharmacological concordance and polytherapy are useful to know how treatments are managed between the different levels of healthcare. This knowledge can help us to establish coordinated protocols of procedure in order to provide more suitable treatments before patients are referred to MH. It is especially relevant in times of crisis when the demand and consumption of psychotropic drugs is greater, and may help to prevent saturation of specialized services.

CRediT authorship contribution statement

MJN, LRS and MCL designed the study. MJN monitored the data collection. All authors analysed and interpreted the data. The manuscript was drafted by MCL and MJN. All other authors have read and revised different versions of the manuscript.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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