

Psychosocial Factors Associated with Treatment Preference in Mental Health

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Abstract

Background: Studies examining the effects of incorporating patients' preferences into treatment outcomes highlight their impact on crucial aspects such as reduced dropout rates and enhanced effectiveness. Recognizing individuals' rights to participate in decisions about their treatments underscores the importance of studying treatment preferences and the factors influencing these choices.

Aim: This study aims to identify treatment preferences (psychological, pharmacological, or combined) among a sample of patients and to discern the psychosocial and clinical factors influencing these preferences.

Methods: A total of 2133 individuals receiving care at a community mental health unit completed assessments on anxious-depressive symptoms, social and occupational adjustment, and their treatment preference. Data analysis was conducted using SPSS, with descriptive statistics, Chi-square tests, and one-way ANOVA applied.

Results: Preferences for treatments were distributed as follows: Combined (49.8%), psychological (33%), and pharmacological (10.6%). Factors such as diagnosis, severity of depressive and anxious symptoms, and functional impact were related to treatment preference with a moderate effect size. Meanwhile, various sociodemographic factors correlated with the selected treatment, though with a weak effect size.

Conclusions: There is a pronounced preference for combined treatments. The significance of psychological treatments is evident, as four out of five participants favored them in their choices. Addressing these preferences calls for an exploration within the broader context of prescription freedom in mental health.

Keywords: Treatment preferences, shared decision-making, psychological treatment, mental health

Introduction

In recent decades, healthcare services have progressively transitioned to a patient-centered approach. This new paradigm emphasizes shared decision-making, a key component of which is the inclusion of patients' preferences regarding treatment alternatives.

The interest in patient participation in treatments and shared decision-making has been on the rise among the general population, as evidenced by the systematic review conducted by Chewning et al. (2012). Their findings demonstrate an increase in patients' preference for a shared decision-making role—from 50% in studies conducted before 2000 to 71% in those carried out in subsequent years.

The growing recognition of individuals' rights to participate in decisions about their treatments, involving informed choices from among various available alternatives, underscores the significance of studying patients' treatment preferences. This focus extends not only to the potential impact on the treatment itself but also to the factors influencing such choices. In this context, several systematic reviews and meta-analyses (Lindhiem et al., 2014; Preference Collaborative Review Group, 2008; Swift & Callahan, 2009; Swift et al., 2011; Windle et al., 2020) have emphasized the importance of considering preferences about one's treatments in the health sector, especially in mental health.

Furthermore, the American Psychological Association (APA) has recognized the inclusion of patient preferences as a crucial element of best practice standards since 2006 (APA, 2006). Similarly, the working group for the Clinical Practice Guideline on Adult Depression Management (2014) strongly advocates for the incorporation of patients' preferences as an essential step in the decision-making process.

Alongside the right to active participation in one's own health processes, it is essential to note the findings from studies examining the effects of incorporating stakeholders' preferences on treatment outcomes. These investigations highlight significant impacts, such as reduced dropout rates and enhanced effectiveness (Lindhiem et al., 2014; McHugh et al., 2013; Swift & Callahan, 2009; Umar et al., 2012; Williams et al., 2016).

Lindhiem et al. (2014) determined in their meta-analysis that providing the preferred treatment correlated with higher satisfaction, improved adherence to treatment, and better outcomes, exhibiting a moderate yet consistent effect size. Consistent with this, certain studies suggest that integrating preferences can influence outcomes by bolstering the therapeutic alliance (Iacoviello et al., 2007; Kwan et al., 2010). Conversely, other researchers have identified a robust link between treatment preferences and adherence to treatment (Dunlop et al., 2017; Gelhorn et al., 2011; Raue et al., 2009).

Swift and Callahan (2009) reviewed studies on the effects of aligning treatments with patient preferences and compared the outcomes across different study designs in their meta-analysis. They discovered an overall effect size of $r=.15$, $p<.001$ (CI.95%, .09 to .21), suggesting that patients matched to their preferred treatment had a 58% likelihood of demonstrating greater improvement. In contrast, those unmatched to their preferences had only a 42% likelihood. Additionally, individuals who received their preferred treatment were considerably less likely to terminate treatments prematurely. Windle et al. (2020), in a meta-analysis centered on psychosocial interventions, determined that obtaining the preferred treatment correlated with a stronger therapeutic alliance and a reduced dropout rate, both pivotal for the effectiveness of treatment.

In mental health, an essential initial decision pertains to the choice between pharmacological and psychological treatments. This choice carries significant implications, not only in terms of time and professional resources associated with each option but also concerning potential medication side effects that patients might endure. Regarding psychological treatments, numerous research findings robustly support various treatment alternatives. These are summarized in many systematic reviews and meta-analyses and are recommended by leading clinical practice guidelines. Furthermore, they are increasingly sought after by various demographic groups.

Several studies have delved into the possible factors influencing one preference over the other (Le QA et al., 2014; Williams et al., 2016). Given that cultural factors might significantly shape treatment preferences, it is intriguing to explore potential variances across different countries and societal contexts. In Spain, research on treatment preferences in mental health remains limited (Peral Cabrera et al., 2018). It is, therefore, of notable interest to identify the treatment preferences of the population served in mental health services with a view to facilitating the provision of the treatments most demanded by this population.

Patient preference becomes especially salient when multiple equally effective treatments are on offer. This is evident in cases of certain psychological disorders where delivering the preferred treatment could bolster acceptance and adherence while reducing the likelihood of treatment dropout.

The current study seeks to discern preferences among fundamental treatment alternatives—pharmacological, psychological, and combined—in a clinical population from a community mental health unit, and to understand the psychosocial and clinical factors shaping these preferences.

Methodology

Subjects

Initially, the study included 3191 subjects attended in their first consultation, who were proposed for the evaluation. These are all the patients referred from primary care to the community mental health unit for the first time between 2013 and 2016. Of these, 2354 (73.8%) completed the various scales, 1501 women (63.8%) and 853 men (36.2%). The 837 subjects (26.2%) who did not complete them did so for the following reasons: 513 (16%) due to explicit rejection by the subjects, 131 (4.1%) due to comprehension difficulties, 127 (4%) due to psychopathological impossibility, and 66 (2.1%) for other reasons. Out of the total number of people who completed the scales, 221 did not fill in the item about treatment preference, so the final sample consisted of 2133 participants. Other data on the sociodemographic and clinical characteristics of the subjects who were finally included in the study are presented in Table 1.

Table 1

Instruments

Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001). This questionnaire consists of 9 items that evaluate the frequency of depressive symptoms present in the last 2 weeks. Each item is answered on a Likert scale from 0 ("Never") to 3 ("Nearly every day"). The total score is obtained from the sum of all items, with a range from 0 to 27. There is data on its psychometric characteristics in the Spanish primary care population (Muñoz-Navarro et al.,

2017) and in the hospital population (Diez-Quevedo et al., 2001). The internal consistency of the scale in the current sample is very satisfactory (Cronbach's Alpha of .86).

Generalized Anxiety Disorder-7 Scale (GAD-7; Spitzer et al., 2006). It consists of seven items, referring to the last two weeks, and measures the severity of various anxiety symptoms on a four-point scale ranging from 0 ("Not at all") to 3 ("Nearly every day"). The total score is obtained by adding the seven items, where a higher score represents greater severity. Several studies have confirmed its suitable psychometric characteristics (García-Campayo et al., 2010; Löwe et al., 2008). The consistency of the scale in the current sample is very satisfactory (Cronbach's Alpha of .87).

Work and Social Adjustment Scale (WSAS; Mundt et al., 2002). This is a self-report scale that assesses functional impairment attributable to an identified mental health problem. It consists of 5 items scored on a scale from 0 to 8, where 0 indicates no impairment and 8 indicates very severe impairment. The sum of the scores obtained in each of the five items provides a total score of the degree of functional impairment. The data obtained both in the original English version and in the Spanish adaptation show suitable validity and reliability (Mundt et al., 2002; Vázquez Morejón et al., 2021). In the current sample, Cronbach's Alpha also confirms high consistency with a score of .85.

Ad hoc questionnaire. In relation to treatment preference, an additional item was included with four response options and written as follows: "The treatment you believe you need is":
1) None, 2) Pharmacological, 3) Psychological, 4) Both, psychological, and pharmacological.

Procedure

All patients attending a first consultation at a community mental health unit who met the inclusion criteria were offered a first evaluation with the previously mentioned instruments. These are subjects who have been referred by primary care family medicine to specialized mental health services. This study is part of a broader project on emotional disorders and predictive factors carried out based on routine evaluations conducted in individuals attending a community mental health unit for the first time (project approved by the Ethics Committee with the code 0934-N-18). In all cases, their informed consent for participation in the study was requested. Diagnosis was made following the ICD-10 criteria by clinical psychology or psychiatry specialists after a clinical interview collecting their clinical history and psychopathological examination.

The Work and Social Adjustment Scale (WSAS) was included at a later stage, so it was only completed by 503 subjects. Subsequently, data were computerized and analyzed using the SPSS v22 software package.

Data analysis

Descriptive statistics were calculated for quantitative variables and frequency distribution for qualitative variables. To explore differences between included and excluded subjects, the T-test for independent groups was used for comparison of quantitative variables, and the Chi-square test was used for qualitative variables. For comparing means in variables with 2 or more subgroups, ANOVA was used, while Pearson's correlation was used to explore correlations between quantitative variables.

Results

Differences between Included and Excluded Participants

Possible differences between those included and excluded were explored regarding age, sex, education level, and marital status. Participants showed an average age of 43.9 years compared to 52.9 years for non-participants ($t=12.96$, $df=1234.7$; $p < .001$). As for sex, differences are observed with a small (28.7% vs. 24.7%) but significant (Chi-square 6.229; $df: 1$; $p= .130$) greater refusal on the part of men. The education level also shows significant differences, with a greater number of people participating as the education level increases (Chi-square 200.512; $df: 7$; $p < .001$), going from 62.2% in people with primary studies to 82.4% in people with university studies. On the other hand, concerning marital status, significant differences are observed (Chi-square 105.195; $df: 4$; $p < .001$) with greater participation in the case of single people (78.9%) and lesser participation in widowed people (45%). That is, slightly more female people, younger, single, and with a higher education level are included in the participating group.

However, it should be noted that the effect size of this relationship is weak in sex (Cramer's $V= .04$) and marital status (Cramer's $V= .18$) and moderate regarding education level (Cramer's $V= .03$) and age ($d=.56$).

Treatment Preferences

The distribution of the 2133 participants who answered the question about their treatment preference is shown in Table 2. Of the 2354 subjects included, 221 (9.4%), although they

completed the various scales, did not respond to the specific item related to treatment preference.

Table 2

The preferred type of treatment is, firstly, the combined (psychological and pharmacological) with almost 5 out of every 10 people considering this combination as the treatment they need. Secondly, the preferred treatment is psychological treatment, considered as the only treatment needed by 1 in 3 people. Thirdly, pharmacological treatment, as the only treatment, is preferred by 1 in every 10 people. Lastly, it is worth noting a smaller number of subjects who consider that they do not require any treatment.

Preferences and Sociodemographic Variables

As for sex, the results (Table 2) show very significant differences in terms of treatment preferences, with a greater preference in the case of women for psychological treatments and combined treatments (Chi-square 19.566; $df=3$; $p<.001$), while men, although preferences maintain the same order, show a slight but significant greater preference than women for pharmacological treatments.

Age also appears to be related to the preferred type of treatment (Anova $F=48.723$; $df=3$; $p<.001$), with a higher age of people who prefer only pharmacological treatment ($M= 50.31$ years), slightly younger in those who choose combined treatment ($M= 45.49$ years), and the youngest of those who prefer psychological treatment ($M=39.23$ years).

By age intervals, this relationship is evidenced (Chi-square 160.548; $df=6$; $p<.001$) with an increase in preference for psychological treatments as age decreases, going from 22.5%, to

27.6%, and to 46.8%, corresponding to the three age intervals (<36, 36-65 and >65 years). In the case of pharmacological treatments, on the contrary, a tendency towards an increase in preference is observed as one moves from the first interval (< 36 years), with 6.9% of subjects with a preference for psychological treatments, to a second interval (36-65 years), with 10.8%, and a third (>65 years), with 26.1%.

Marital status, on the other hand, appears to be significantly associated with the preferred type of treatment (Chi-square 42.068; $df=12$; $p<.001$), with a greater preference for psychological treatments among single people (39%) and widows (33.8%), and somewhat lower among married (27.6%) and separated/divorced individuals (28.6%). Similarly, educational level shows a correlation with preferred types of treatment (Chi-square=47.50; $df=21$; $p<.005$) with a greater preference for psychological treatments as educational level increases.

Likewise, employment status shows a significant relationship with the preferred type of treatment (Chi-square=112.878; $df=15$, $p<.001$). While students double the number of pensioners in their preference for psychological treatments (49.1% versus 20.7%), pensioners and homemakers triple the number of students in terms of preference for pharmacological treatments (18% and 19.6% versus 5.5% respectively).

The situation of being on leave presents, on the other hand, a significant relationship with treatment preference (Chi-square=57.741, $df=3$, $p<.001$), especially showing a decrease in the number of subjects who prefer psychological treatment (24% in the group on leave versus 36% in the group not on leave), as well as an increase in subjects who prefer a combined treatment (63% in the people on leave versus 45% in those not on leave).

The effect size of the association with treatment preference is moderate in the case of age (eta squared =.06) and weak in the rest of the sociodemographic variables (ranging between .08 and .16 in the Cramer's V for marital status and being on leave respectively).

Preferences and Clinical Variables

Diagnosis. There is a significant relationship between treatment preference and diagnosis (Chi-square= 282.038; $df=39$; $p<.001$). Most diagnostic groups show the same preference order (combined, psychological, and pharmacological), albeit with two exceptions: first, people with eating disorders, in which the most preferred treatment is psychological, followed by combined, with no consideration for pharmacological treatment as the sole treatment. Secondly, bipolar disorder, in which the preferred treatment is combined, followed by pharmacological and lastly psychological (see Table 3). It is of interest to highlight that 1 in 4 people with psychosis prefers psychological treatment as the only treatment alternative.

Table 3

Intensity of Symptoms, Functional Impact, and Years of Evolution.

The intensity of depressive and anxious symptoms, evaluated with the PHQ-9 and GAD-7 scales respectively, shows a significant relationship with the preference for one treatment or another (Table 4). As the intensity increases, there is a shift from preference for pharmacological, psychological, and combined treatment, respectively.

On the other hand, differences are also observed in the preferred treatment according to the functional impact assessed by the WSAS. As the impact increases, a progression, similar to that detected in symptom intensity is observed (Table 4).

Regarding the years of evolution, significant differences are found in the chosen treatments. Participants with a shorter duration of symptoms prefer psychological treatment and those with more years of evolution indicate a preference for pharmacological or combined treatment (Table 4).

The effect size of the relationship of clinical variables with treatment preference is moderate in the case of diagnosis (Cramer's $V = .35$), depressive symptoms evaluated by the PHQ-9 (eta squared=.10), and anxious symptoms evaluated using the GAD-7 (eta squared = .08), previous treatments (Cramer's $V = .31$), and the impact on social adjustment evaluated using the WSAS (eta squared= .11). Only in the case of years of evolution is a weak effect size observed, although it is close to moderate (eta squared =.035).

Table 4

Discussion

An initial global analysis of the results allows us to assert that different treatment alternatives have very different preference percentages. The order of preference shows combined treatment as the first choice (49.8%), followed by psychological treatment (33%) and lastly pharmacological treatment (10.6%).

Churchill et al. (2000) found that 50.8% of participants showed a preference for psychological interventions, in contrast to the 15.3% who favored pharmacological ones. This proportion is very close to that observed in the meta-analysis by McHugh et al. (2013), where participants showed three times more preference for psychological treatments than for pharmacological ones, both in depression and in anxiety, a proportion identical to that obtained in the present study.

These results are also consistent with what has been observed in various studies where a wide acceptance of combined treatments is found and a greater preference for psychological treatments over medication in samples of people with depression (Peral Cabrera & Ruisoto, 2018; Winter & Barber, 2013). Similarly, these preferences largely correspond with the recommendations made by Furukawa et al. (2021), based on their network meta-analysis on the effectiveness of treatments for depression. Moreover, they also coincide with the results of various studies in terms of a greater preference for psychological treatments in relation to pharmacological treatments in various disorders (Dorow et al., 2018; Dunlop et al., 2012; Hanson et al., 2016; Mohlman, 2012; Valencia Agudo et al., 2015).

This proportion is also repeated in studies of specific psychological treatments (Deacon et al., 2005), who found that the preference for a specific psychological treatment (cognitive-behavioral therapy), in relation to a pharmacological treatment, is 3 to 1.

Regarding the variables related to preferences, the results reveal a significant relationship between treatment preferences and various sociodemographic variables such as sex, age, marital status, educational level, and employment status.

A greater preference for psychological treatments is observed in women, which is in line with the findings in the meta-analysis by McHugh et al. (2013), who also find women as the group most likely to prefer psychological treatments. Likewise, Peral Cabrera and Ruisoto (2018) find greater preferences for psychological treatments in women, especially among the younger ones. Although men also prefer psychological treatments over pharmacological ones (Sierra Hernandez et al., 2014) various studies find a slightly higher acceptance of pharmacological treatments in men (Burg et al., 2011; Liddon et al., 2018; Peral Cabrera & Ruisoto, 2018). Gender roles could play a role in these preferences, resulting in a lower tendency in men to address their emotional problems (Liddon et al., 2018).

On the other hand, it is worth noting the greater preference for psychological treatments observed in younger people, which coincides with the findings of McHugh et al. (2013). In the same vein, Dorow et al. (2018) find that age and educational level are the main variables associated with treatment preference, with younger people and those with higher education showing a greater preference for psychological treatments. Shepardson et al. (2021) also identify educational level as a variable associated with treatment preference. It can be thought that with a lower educational level, there may be less knowledge about psychological alternatives and their characteristics. In this sense, some authors (Juntunen et al., 2022; Zimmerman et al., 2020) have drawn attention to the need to adapt psychological treatments to people with fewer resources, highlighting that in many cases the design of these treatments is tailored to people with a higher level of education, which makes access to these treatments difficult for people with these characteristics.

In general terms, the results show that the profile of those who believe that they only need pharmacological treatment tends to be male, older, and with a lower level of education.

With regard to the clinical factors associated with preference, it is worth noting that most diagnostic groups present the same sequence in terms of treatment preference: combined, psychological, and pharmacological, with the exception of: 1) the diagnosis of eating disorders (ED), in which only psychological treatment is considered as the first preference and combined as the second, with pharmacological treatment not contemplated as a treatment preference in any case, and 2) people diagnosed with bipolar affective disorder, who show preference first for combined treatment and second for pharmacological, with less preference for psychological treatment as the only treatment. In other words, this group appears to be the most likely to consider pharmacological treatment as the only treatment, which could be closely related to beliefs about the biological causes of the disorder. Moreover, it is interesting to note the significant proportion of people diagnosed with psychosis, 1 in 4, who express their preference for psychological treatments as the only treatment alternative, which contrasts with the usual practice of generalized indication of pharmacological treatment as the first and sometimes the only alternative. Considering the recommendations of the NICE Guide for psychosis (2014), which recommends including psychological treatment in the first episodes and in relapse periods, as well as the significant adherence problem of this population, it would be of great interest to guarantee early access to these psychological treatments for their acceptance and usefulness, and as a first contact that can facilitate adherence with the therapeutic team.

On the other hand, it is of interest to note that the greater severity of symptoms appears to be associated with an increase in preference for combined treatments. As Peral Cabrera and Ruisoto (2018) point out, in more severe cases, the preference for combined treatments may be due to the belief that two treatments can be more effective than one alone. In any case, at

least in the case of depression, this preference seems consistent with the recommendations of the NICE Guide for the treatment of depression (2022).

Regarding the years of evolution, it is noteworthy that patients with less time of evolution prefer psychological treatments, while pharmacological treatment is chosen in patients with greater chronicity. It must not be forgotten that, in order to be attended to in mental health units, patients must first go through primary care, a setting in which, due to lack of resources, the most common approach is pharmacological treatment. This leads to a high percentage of people referred to mental health already presenting with prescribed pharmacological treatment. The longer the time of evolution, the higher the likelihood of having started pharmacological treatment. In the early years of evolution and among younger subjects, there is a tendency to consider psychological treatment as more appropriate. This highlights the need to offer psychological treatments earlier, which are more accepted in the early years and are more likely to impact outcomes.

Regarding the limitations of the study, it is necessary to point out the percentage of subjects not included for various reasons (rejection, impossibility, etc.). Possible differences between those included and not included in the study can imply biases that must be taken into account when interpreting the results. However, it should be noted that this percentage of rejections is similar to that observed in various studies (Lang, 2005; Wetherell et al., 2004), in which rejection rates of around 40% are observed. It is also important to note that this is a population attended to in mental health services, whose preferences may vary from the general population and the population attended to in primary care centers.

Regarding future lines of research, it would be important to conduct new studies in larger and more diverse samples, especially considering the significance of various sociodemographic

variables when choosing between different therapeutic alternatives. In this sense, it would be interesting to explore preferences in a sample of the general population or in samples of the population attended to in primary care services. Furthermore, it would be interesting to explore, as various authors suggest, potential differences in the benefits of considering treatment preferences in different diagnostic groups (Lindhiem et al., 2014; Mott et al., 2015) and in various specific groups (Wetherell et al., 2004), such as young people (Benjet et al., 2020) or women in the perinatal period (Hadfield et al., 2019; Westgate et al., 2023).

In turn, it is of interest to consider more specific aspects, such as treatment intensity, face-to-face vs virtual modality, or individual vs group settings, in line with the approach of Lokkerbol et al. (2019).

To summarize, beyond the inherent value of respecting individual rights to be actively involved in health-related decisions, recognizing treatment preferences holds significant relevance given its influence on adherence, satisfaction, and overall treatment outcomes (Lindhiem et al., 2014; McHugh et al., 2013; Umar et al., 2012; Williams et al., 2016).

Within mental health care, the inclination towards pharmacological treatments is deeply entrenched, largely because prevailing health practices often shape expectations wherein medication is seen as the primary solution within the biomedical model. Nonetheless, the data strongly underscores the necessity of meeting the demand for psychological interventions: five out of six individuals express a desire for psychological therapy, half in conjunction with medication. Notably, a third prefers it as the exclusive mode of treatment. Consequently, a pressing challenge for public health services lies in ensuring this freedom of choice, emphasizing the delivery of psychological treatments at the frequency and

intensity recommended by clinical practice guidelines, thereby ensuring the quality and efficacy of these interventions.

References

- APA Presidential Task Force on Evidence-Based Practice (2006). Evidence-based practice in psychology. *The American Psychologist*, *61*(4), 271-285.
- Benjet C, Wittenborn A, Gutierrez-García RA, Albor YC, Contreras EV, Hernández SC, Valdés-García KP, Monroy IR, Peláez Cedrés AJ, Hernández Uribe PC, Covarrubias Díaz-Couder A, Quevedo Chávez GE, Paz-Peréz MA, Medina-Mora ME, Bruffaerts R (2020) Treatment Delivery Preferences Associated With Type of Mental Disorder and Perceived Treatment Barriers Among Mexican University Students. *Journal of Adolescent Health*, *67*, 232-238. Doi: 10.1016/j.jadohealth.2020.01.025
- Burg, M. M., Rieckmann, N., Clemow, L., Medina, V., Schwartz Jr., & Davidson, K. W., (2011) Treatment preferences among depressed patients after acute coronary syndrome: the COPES observational cohort. *Psychotherapy and Psychosomatics*, *80*(6), 380-3823. Doi: 10.1159/000323615
- Cooper, M. & Norcross, J.C. (2016). A brief, multidimensional measure of clients' therapy preferences: the Cooper-Norcross Inventory of Preferences (C-NIP). *International Journal of Clinical and Health Psychology*, *16*(1), 87-98. Doi: 10.1016/j.ijchp.2015.08.003
- Chewning, B., Bylund, C. L., Shah, B., Arora, N. K., Gueguen, J. A., & Makoul, G. (2012) Patient preferences for shared decisions: a systematic review. *Patient Education and Counseling*, *86*(1), 9-18. Doi: 10.1016/j.pec.2011.02.004

Churchill, R., Khaira, M., Gretton, V., Chilvers, C., Dewey, M., Duggan, C. et al. (2000). Treating depression in general practice: factors affecting patients' treatment preferences. *British Journal of General Practice*, 50(460), 905-906.

Cuijpers P, Gentili C (2017) Psychological treatments are as effective as pharmacotherapies in the treatment of adult depression: a summary from Randomized Clinical Trials and neuroscience evidence. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 20,147-152. Doi: 10.4081/ripppo.2017.273

Deacon, B. J., & Abramowitz, J. S. (2005). Patients' perceptions of pharmacological and cognitive behavioral treatments for anxiety disorders. *Behavior Therapy*, 36(2), 139-145. Doi: 10.1016/S0005-7894(5)80062-0

Diez-Quevedo, C., Rangil, T., Sanchez-Planell, L., Kroenke, K., & Spitzer, R. L. (2001) Validation and utility of the patient health questionnaire in diagnosing mental disorders in 1003 general hospital Spanish inpatients. *Psychosomatic medicine*, 63(4), 679-686. Doi: 10.1097/00006842-200107000-00021

Dorow, M., Löbner, M., Pabst, A., Stein, J., & Riedel-Heller, S. G. (2018). Preferences for Depression Treatment Including Internet-Based Interventions: Results From a Large Sample of Primary Care Patients. *Frontiers in Psychiatry*, 9, 181. Doi: 10.3389/fpsy.2018.00181

Dunlop, B. W., Kelley, M. E., Mletzko, T. C., Velasquez, C. M., Craighead, W. E., & Mayberg, H. S. (2012). Depression beliefs, treatment preference, and outcomes in a randomized trial for major depressive disorder. *Journal of Psychiatric Research*, 46, 375-381. Doi: 10.1016/j.jpsychires.2011.11.003

Dunlop BW, Kelley ME, Aponte-Rivera V, Mletzko-Crowe T, Kinkead B, Ritchie JC, Nemeroff CB, Craighead WE, Mayberg HS; PReDICT Team (2017) Effects of Patient Preferences on Outcomes in the Predictors of Remission in Depression to Individual and Combined Treatments (PReDICT) Study. *American Journal of Psychiatry*, 174, 546-556. Doi: 10.1176/appi.ajp.2016.16050517

Ferreres, V., Pena-Garijo, J., Ballester Gil de Pareja, M., Edo, S., Sanjurjo, I. & Ysern, L (2012). ¿Psicoterapia, farmacoterapia o tratamiento combinado? Influencia de diferentes variables clínicas en la elección del tratamiento. *Revista de la asociación española de neuropsiquiatría.*, 32(114), 271-286. Doi: 10.4321/S0211-57352012000200005

Furukawa, T. A., Shinohara, K., Sahker, E, Karyotaki, E., Miguel, C., Ciharova, M., ... & Cuijpers, P. (2021). Initial treatment choices to achieve sustained response in major depression: a systematic review and network meta-analysis. *World Psychiatry* 20(3), 397-396. Doi: 10.1002/wps.20906

García-Campayo, J., Zamorano, E., Ruiz, M. A., Pardo, A., Pérez-Páramo, M., López-Gómez, V., Freire, O., Rejas, J. (2010). Cultural adaptation into Spanish of the generalized anxiety

disorder-7 (GAD-7) scale as a screening tool. *Health and Quality of Life Outcomes*, 20(8),1-11. Doi: 10.1186/1477-7525-8-8.

Gelhorn, H. L., Sexton, C. C., Classi, P. M. (2011). Patient preferences for treatment of major depressive disorder and the impact on health outcomes: A systematic review. *The primary care companion for CNS disorders*, 13(5), 27083. Doi: 10.4088/PCC.11r01161

Hadfield H, Glendenning S, Bee P, Wittkowski A (2019) Psychological therapy for postnatal depression in UK primary care mental health services: a qualitative investigation using framework analysis. *Journal of Child and Family Studies*, 28, 3519-3532.

Hanson, K., Webb, T. L., Sheeran, P., & Turpin, G. (2016). Attitudes and preferences towards self-help treatments for depression in comparison to psychotherapy and antidepressant medication. *Behavioural and Cognitive Psychotherapy*, 44(2), 129-139. Doi: 10.1017/S1352465815000041

Iacoviello, B. M., McCarthy, K. S., Barrett, M. S., Rynn, M., Gallop, R., Barber, J. P. (2007). Treatment preferences affect the therapeutic alliance: Implications for randomized controlled trials. *Journal of Consulting and Clinical Psychology*, 75(1), 194-198. Doi: 10.1037/0022-006X.75.1.194

Ilton, J. (2018). *The effect of treatment preference on compliance and satisfaction for social anxiety disorder*. University of Ottawa. Ottawa theses. Doi:10.20381/ruor-22669

Joosten, E. A., DeFuentes-Merillas, L., de Weert, G. H., Sensky, T., van der Staak, C. P., & de Jong, C. A. (2008) Systematic review of the effects of shared decision-making on patient satisfaction, treatment adherence and health status. *Psychotherapy and Psychosomatics*, 77(4), 219-26. Doi: 10.1159/000126073.

Juntunen, C. L., Pietrantonio, K. R., Hirsch, J. K., Greig, A., Thompson, M. N., Ross, D. E., & Peterman, A. H. (2022). Guidelines for psychological practice for people with low-income and economic marginalization: Executive summary. *American Psychologist*, 77(2), 291-303. Doi: 10.1037/amp0000826

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613. Doi: 10.1046/j.1525-1497.2001.016009606.x

Kwan, B. M., Dimidjian, S., & Rizvi, S. L. (2010). Treatment preference, engagement, and clinical improvement in pharmacotherapy versus psychotherapy for depression. *Behaviour Research and Therapy*, 48(8), 799-804. Doi: 10.1016/j.brat.2010.04.003

Lang, A. J. (2005). Mental health treatment preferences of primary care patients. *Journal of Behavioral Medicine*, 28(6), 581-586. Doi: 10.1007/s10865-005-9019-2

Le, Q. A., Doctor, J. N., Zoellner, L. A., & Feeny, N. C. (2014). Cost-effectiveness of prolonged exposure therapy versus pharmacotherapy and treatment choice in posttraumatic stress

disorder (the Optimizing PTSD Treatment Trial): a doubly randomized preference trial. *The Journal of Clinical Psychiatry*, 75(3), 222-230. Doi: 10.4088/jcp.13m08719

Lindhiem, O., Bennett, C. B., Trentacosta, C. J., & McLear, C. (2014). Client preferences affect treatment satisfaction, completion, and clinical outcome: a meta-analysis. *Clinical Psychology Review*, 34(6), 506-517. Doi:10.1016/j.cpr.2014.06.002

Liddon, L., Kinglerlee, R., & Barry, J. A. (2018). Gender differences in preferences for psychological treatment, coping strategies, and triggers to help-seeking. *British Journal of Clinical Psychology*, 57(1), 42-58. Doi: 10.1111/bjc.12147

Lokkerbol, J., van Voorthuijsen, J. M., Geomini, A., Tiemens, B., van Straten, A., Smit, F., ... & Hiligsmann, M. (2019). A discrete-choice experiment to assess treatment modality preferences of patients with anxiety disorder. *Journal of Medical Economics*, 22(2), 169-177. Doi: 10.1080/13696998.2018.1555403

Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., Herzberg, P. Y. (2008). Validation and standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the general population. *Medical Care*, 46(3), 266-74. Doi: 10.1097/MLR.0b013e318160d093

Marcus, S. C., & Olfson, M. (2010). National trends in the treatment for depression from 1998 to 2007. *Archives of General Psychiatry*, 67(12), 1265-1273. Doi: 10.1001/archgenpsychiatry.2010.151

McHugh, R. K., Whitton, S. W., Peckham, A. D., Welge, J. A., & Otto, M. W. (2013). Patient preference for psychological vs pharmacologic treatment of psychiatric disorders: a meta-analytic review. *The Journal of Clinical Psychiatry*, 74(6), 595-602. Doi: 10.4088/JCP.12r07757

Mohlman, J. (2012) A community based survey of older adults preferences for treatment of anxiety. *Psychological Aging*, 27 (4), 1182-1190. Doi: 10.1037/a0023126.

Mott, J., Koucky, E., & Teng, E. (2015). The impact of patient preference on mental health treatment: a methodological critique and suggestions for future research. *European Journal for Person Centered Healthcare*, 3(1), 26-36. Doi: 10.5750/ejpch.v3i1.861

Mundt, J. C., Marks, I. M., Shear, M. K., & Greist, J. M. (2002). The Work and Social Adjustment Scale: a simple measure of impairment in functioning. *The British Journal of Psychiatry*, 180(5), 461-464. Doi: 10.1192/bjp.180.5.461

Muñoz-Navarro, R., Cano-Vindel, A., Medrano, L. A., Schmitz, F., Ruiz-Rodríguez, P., Abellán-Maeso, C., ... & Hermsilla-Pasamar, A. M. (2017). Utility of the PHQ-9 to identify major depressive disorder in adult patients in Spanish primary care centres. *BMC Psychiatry*, 17, 1-9. Doi: 10.1186/s12888-017-1450-8.

National Institute for Health and Care Excellence (2022) Depression in adults: Treatment and management. NICE Guideline N° 222

National Institute for Health and Care Excellence (2014) Psychosis and schizophrenia in adults: treatment and management. NICE Guideline N° 178

Peral Cabrera, B., & Ruisoto, P. (2018). Análisis del efecto de la exposición a información, del sexo y de la edad sobre las preferencias de tratamiento en depresión leve a moderada. *Apuntes de Psicología*, 36 (1-2), 85-92.

Preference Collaborative Review Group. (2008). Patients' preferences within randomised trials: Systematic review and patient level meta-analysis. *BMJ*, 31, 337:a1864. Doi: 10.1136/bmj.a1864.

Raue, P. J., Schulberg, H. C., Heo, M., Klimstra, S., & Bruce, M. L. (2009). Patients' depression treatment preferences and initiation, adherence, and outcome: a randomized primary care study. *Psychiatric Services*, 60(3), 337-343. Doi: 10.1176/ps.2009.60.3.337.

Ricou, M., Marina, S., Vieira, P. M., Duarte, I., Sampaio, I., Regalado, J., & Canário, C. (2019). Psychological intervention at a primary health care center: predictors of success. *BMC Family Practice*, 20(1), 1-8. Doi.org/10.1186/s12875-019-1005-9 2

Shepardson, R. L., Buckheit, K. A., Funderburk, J. S. (2021). Anxiety treatment preferences among veteran primary care patients: Demographic, mental health, and treatment-related correlates. *Families, Systems and Health*, 39, 4, 563-575. Doi: 10.1037/fsh0000628.

- Sierra Hernandez, C. A., Oliffe, J. L., Joyce, A. S., Söchting, I., & Ogradniczuk, J. S. (2014). Treatment preferences among men attending outpatient psychiatric services. *Journal of Mental Health, 23*(2), 83-87. Doi: 10.3109/09638237.2013.869573
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine, 166*(10), 1092-1097. Doi: 10.1001/archinte.166.10.1092
- Swift, J. K., & Callahan, J. L. (2009). The impact of client treatment preferences on outcome: A meta-analysis. *Journal of Clinical Psychology, 65*(4), 368-381. Doi: doi.org/10.1002/jclp.20553
- Swift, J. K., Callahan, J. L., & Collmer, B. M. (2011). Preferences. In J. Norcross (Ed.), *Psychotherapy relationships that work: Evidence based responsiveness* (2nd ed., pp. 301-315). New York, NY: Oxford University Press.
- Tompkins, K. A., Swift, J. K., Rousmaniere, T. G., & Whipple, J. L. (2017). The relationship between clients' depression etiological beliefs and psychotherapy orientation preferences, expectations, and credibility beliefs. *Psychotherapy, 54*(2), 201. Doi: 10.1037/pst0000070.
- Umar, N., Litaker, D., Schaarschmidt, M. L., Peitsch, W. K., Schmieder, A., & Terris, D. D. (2012). Outcomes associated with matching patients' treatment preferences to physicians'

recommendations: study methodology. *BMC health services research*, 12(1), 1-10.
Doi:10.1186/1472-6963-12-1.

Valencia Agudo, F, García Haro, J., de la Viuda Suarez, M. E., Pérez Zabalza, A., & Gimeno Peón, A. (2015). Análisis de la demanda en Salud Mental en el Principado de Asturias (II): expectativas, preferencias e información de los usuarios. *Revista de la Asociación de Neuropsiquiatría*, 35 (127): 473-485. Doi: 10.4321/S0211-57352015000300003

Vázquez Morejón, A.J., Vázquez-Morejón, R. y Conde Álvarez, P. (2021). Work and Social Adjustment Scale (WSAS): Psychometric characteristics of a Spanish adaptation in a clinical population. *Behavioural and Cognitive Psychotherapy*, 49(6), 764-768. Doi: 10.1017/S1352465821000308

Westgate V, Manchanda T, Maxwell M (2023) Women's experiences of care and treatment preferences for perinatal depression: a systematic review. *Archives of Women's Mental Health*, 26, 311-319.

Wetherell, J. L., Kaplan, R. M., Kallenberg, G., Dresselhaus, T. R., Sieber, W. J., & Lang, A. J. (2004). Mental health treatment preferences of older and younger primary care patients. *The International Journal of Psychiatry in Medicine*, 34(3), 219-233.

Williams, R., Farquharson, L., Palmer, L., Bassett, P., Clarke, J., Clark, D. M., & Crawford, M. J. (2016). Patient preference in psychological treatment and associations with self-reported

outcome: national cross-sectional survey in England and Wales. *BMC Psychiatry*, 16(1), 1-8. Doi: 10.1186/s12888-015-0702-8

Windle, E., Tee, H., Sabitova, A., Jovanovic, N., Priebe, S., & Carr, C. (2020). Association of patient treatment preference with dropout and clinical outcomes in adult psychosocial mental health interventions: a systematic review and meta-analysis. *JAMA Psychiatry*, 77(3), 294-302. Doi: 10.1001/jamapsychiatry.2019.3750

Winter, S. E., & Barber, J. P. (2013). Should treatment for depression be based more on patient preference?. *Patient Preference and Adherence*, 7, 1047-1057. Doi: 10.2147/PPA.S52746.

Zimmerman, J., Barnett, J. E, Campbell, L. F. (2020). *Bringing Psychotherapy to the Underserved. Challenges and Strategies*. Oxford University Press

Table 1. Sociodemographic and Clinical Information (*N*=2133)

	<i>N</i>	%
Sex		
Female	1357	63.6
Male	776	36.4
Marital Status		
Single	800	37.5
Married/In a relationship	331	15.5
Separated/Divorced	83	3.9
Widowed		
Educational Level		
Incomplete Primary School	248	11.6
Primary School	244	11.4
Secondary School	770	36.2
High School Diploma/Vocational training	806	37.8
University	65	3.0
Type of Coexistence		
Alone	391	18.3
Own family/partner	991	46.5
Family of origin	597	28
Own family and family of origin	19	0.9
Other relatives or friends	42	2
Institutions	14	0.7
Others	79	3.7
Sick Leave		
Yes	560	26.3
No	1484	69.6
Not specified	89	4.2
Diagnosis		
Depression	292	13.7
Anxiety	528	24.8
Adjustment Disorder	740	34.7
Personality Disorder	117	5.5
Eating Disorder	74	3.5
Psychosis	133	6.2
Bipolar Disorder	38	1.8
Others	85	4.0
No pathology	126	5.9

Table 2. Total and Sex-Specific treatment preferences ($N=2133$)

Type of treatment	Female		Male		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
None	80	5.9	60	7.7	140	6.6
Psychological	475	35	229	29.5	704	33
Pharmacological	119	8.8	108	13.9	227	10.6
Combined (psychological and pharmacological)	683	50.3	379	48.8	1.062	49.8

Table 3. Treatment preferences by diagnostic groups ($N=2133$)

Diagnosis	Type of preference							
	None		Pharmacological		Psychological		Combined	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Psychosis	15	11.3	23	17.3	31	23.3	64	48.1
Bipolar Disorder	1	2.6	9	23.7	4	10.5	24	63.2
Depression	5	1.7	29	9.9	77	26.4	181	62
Anxiety-Somatization	16	3	60	11.4	167	31.6	285	54
Eating Disorders	4	5.4	0	0	37	50	33	44.6
Personality Disorder	6	5.1	7	6	37	31.6	67	57.3
Adjustment Disorders	43	5.8	70	9.5	282	38.1	345	46.6
No Pathology	43	33.7	14	10.9	49	37.8	23	17.6
Others	10	12.3	17	20.6	21	26	34	41.1

Table 4. Severity of symptoms and treatment preference ($N=2133$)

Scale	None $N=140$		Pharmacological $N=227$		Psychological $N=704$		Combined $N=1062$		ANOVA		
	<i>M</i>	<i>d.t.</i>	<i>M</i>	<i>d.t.</i>	<i>M</i>	<i>d.t.</i>	<i>M</i>	<i>d.t.</i>	<i>F</i>	<i>d.f.</i>	<i>p</i>
PHQ-9	9.11	5.81	12.62	6.61	13.97	5.67	16.24	6.12	75.93	3	<.001
GAD-7	7.38	4.97	10.54	5.37	11.68	4.89	13.03	4.97	62.43	3	<.001
WSAS	9.74	8.98	15.72	11.77	18.56	9.66	22.28	9.76	21.62	3	<.001
Years of Evolution	5.60	9.49	12.92	14.29	8.97	10.47	13.13	12.88	20.55	3	<.001