



A Study on Prescribing Practices in Psychiatric Outpatient Department of a Tertiary Care Hospital

Y. Ramesh¹, Swathi Kaveripakam*², Y. Prapurna Chandra³

¹Professor &HOD, Department of Pharmacy Practice, Ratnam Institute of Pharmacy, SPSR Nellore-524346 A.P, India.

²Department of Pharmacy Practice, Ratnam Institute of Pharmacy, SPSR Nellore-524346 A.P, India.

³Professor &Principal, Department of Pharmacology, Ratnam Institute of Pharmacy, SPSR Nellore-524346 A.P, India.

ABSTRACT

Mental health disorders affect a person's thinking, feeling, mood, or behavior and include conditions such as depression, anxiety, bipolar disorder, and schizophrenia. The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5) defines mental disorder as a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychologic, biological, or developmental processes underlying mental functioning. The present study aimed to assess prescribing patter of anti-epileptic drugs in a tertiary care hospital. In our study 46-56 years age patients were more 44 (36.66%) as compared to other ages. In our study male patients were more 66 (55%), as compared to female patients were 54 (45%). Type of Prescribed drugs for Psychiatric disorders treatment includes generic drugs prescribed patients were more 94 (78.33%), as compared to banded drugs prescribed patients were 26 (21.66%). Clozapine prescribed drugs patients were more 24(20%), as compared to other prescribed drugs. A periodical training program on prescription writing especially using the WHO core prescribing indicators helps to pave a better way for understanding and to know the importance of prescription writing among healthcare professionals which ultimately leads to a better health care system for the community. Also, a detailed history collection about the patient's comorbid conditions and concomitant drugs can help to overcome unwanted drug interactions.

Keywords: Mental health disorders, prescription writing, healthcare professionals, health care system.

ARTICLE INFO

*Corresponding Author:

Swathi Kaveripakam
Department of Pharmacy Practice
Ratnam Institute of Pharmacy,
SPSR Nellore-524346 A.P, India.

Article History:

Received : 12 March 2025
Revised : 30 March 2025
Accepted : 28 April 2025
Published : 16 May 2025

Copyright© 2025 The Contribution will be made Open Access under the terms of the Creative Commons Attribution-NonCommercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0>) which permits use, distribution and reproduction in any medium, provided that the Contribution is properly cited and is not used for commercial purposes.

Citation: Y. Ramesh, et al. A Study on Prescribing Practices in Psychiatric Outpatient Department of a Tertiary Care Hospital. A. J. Med. Pharm, Sci., 2025, 13(1):43-50.

Contents

1. Introduction.	43
2. Methodology.	44
3. Results and Discussion.	45
4. Conclusion	47
5. References.	48

1. Introduction

Mental health disorders affect a person's thinking, feeling, mood, or behavior and include conditions such as depression, anxiety, bipolar disorder, and schizophrenia. The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5) defines mental disorder as a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the

psychologic, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. People are identified for mental health treatment through a number of different mechanisms. Some people self-refer because they or their family members or friends become concerned about certain behaviors; some people are identified through

screenings in a given health care setting; and others are referred through medical professionals during an encounter for another condition. Less commonly, people may be identified as needing mental health care because of a risk to self or others. Individuals are then directed to a specific treatment depending on the treatment guidelines, their treatment history, patient preference, and treatment availability, among other factors. Non-mental health specialists may be involved in the treatment of people with mental health disorders. However, for those individuals with severe, persistent, and treatment-resistant disease, which might be disabling, the expectation is that they would be receiving psychiatric services from a variety of mental health professionals, including a prescriber (e.g., psychiatrist, advanced practice nurse), psychologist, or licensed clinician with a social work, counseling, or rehabilitation degree. For some populations (e.g., those in rural areas or small towns), however, care from qualified mental health professionals (e.g., specialized in evidence psychotherapy) might not be available.

Regardless of the causal pathway, mental conditions with comorbid chronic pain result in more work-loss days than do the individual conditions by themselves. The effect is additive except for chronic back pain, where the interaction with mental conditions has been found to be synergistic with respect to work loss. Additionally, a systematic review found no evidence of a difference in return-to-work rates between patients with chronic back pain and mental comorbidities (depression, bipolar disorder, panic disorder [PD] and chronic back pain patients without mental comorbidities. The same review, however, reported more work absence and more work-related disability in depressed chronic back pain patients than in patients without depression. The field still lacks reliable and valid biomarkers for depression, recovery, and prognosis. The most recent systematic review of predictors of depression treatment outcomes concluded that despite a vast amount of literature on the topic, there are still no reliable or valid biomarkers or other predictors that can be recommended for use in the clinic. This section describes two sets of patient-reported outcome measures, symptom measures and functional measures. Measures of depression symptom severity are the most widely used types of outcome assessment. Other psychotherapies may also improve PD symptoms, although their efficacy is less well established.

In the 2016 network meta-analysis psychodynamic psychotherapies and supportive psychotherapy were found to have promising results, although further research is needed, particularly for supportive psychotherapy. Newer therapies for which evidence is accruing include third-wave therapies, which include features of CBT but focus on mindfulness, acceptance, and patients' values. There were fewer dropouts in psychodynamic therapy and third-wave therapies than in CBT, suggesting that people with PD may tolerate these therapies particularly well compared with other forms of psychotherapy. One of the commonly used clinician rated measures of severity, the MADRS, was designed to be particularly sensitive to change in treatment trials. Items were selected if they were prevalent in the

patients at the beginning of treatment (i.e., prevalence greater than 70%), showed the greatest change from baseline to week 4 of treatment, and change in scores from baseline to week 4 on the symptom showed the greatest correlation with change in total scores on the measure.

2. Methodology

The prospective observational study was carried out for a period of 6 months. The study was conducted in Psychiatry department in a tertiary care hospital. A written and informed consent was obtained from the recruited patients. A Total of 120 patients were enrolled in the study.

Study Design: It was Prospective observational study.

Study Period: The Present study was conducted for a period of six months.

Study site: The Present study was conducted in a Psychiatry department in a tertiary care hospital.

Sample size: It was 120 Patients.

Inclusion criteria

- Patients who are willing to give consent.
- Patients with Psychiatry symptoms.
- Patients of either sex, diagnosed with Psychiatry disorders.
- Patients with clinical profile of Psychiatry disorders.
- Patients receiving treatment for Psychiatry disorders.

Exclusion criteria

- Patients below 18 years.
- Patients who were not willing to join in the study.
- Patients who are not diagnosed with respiratory abnormalities.
- Special population including pregnant women and lactating women.
- Psychiatric abnormalities.

Institutional ethics committee (IEC) consideration:

The research protocol was submitted to ethical committee and ethical Committee was permitted to perform the research work in Psychiatric department.

Patient data collection and management:

The data collection form contains information regarding age, sex, BMI, diagnosis, past medical history, laboratory data, and diagnostic results. The information about risk factors, clinical laboratory reports, treatment, dose and frequency of administration and duration of therapy was collected from the patients treatment chart.

Statistical analysis:

The data was represented as percentages. The $P < 0.05$ was considered to indicate a statistically significant difference. The prospective observational study was carried out for a period of 6 months. The study was conducted in a Gastroenterology department in a tertiary care hospital. A written and informed consent was obtained from the recruited patients. A Total of 120 patients were enrolled in the study.

Study Design: It was Prospective observational study.

Study Period: The Present study was conducted for a period of six months.

Study site: The Present study was conducted in a Gastroenterology department of a tertiary care hospital.

Sample size: It was 120 Patients.

Inclusion criteria

- Patients with gastro intestinal abnormalities.
- Patients who are willing to give consent.

Exclusion criteria

- Patients below 18 years.
- Patients who were not willing to join in the study.
- Patients who are not diagnosed with gastro intestinal abnormalities.
- Special population including pregnant women and lactating women.
- Psychiatric abnormalities.

Institutional ethics committee (IEC) consideration:

The research protocol was submitted to ethical committee and ethical Committee was permitted to perform the research work in the Gastroenterology department.

Patient data collection and management:

The data collection form contains information regarding age, sex, BMI, diagnosis, past medical history, laboratory data, and diagnostic results. The information about risk factors, clinical laboratory reports, treatment, dose and frequency of administration and duration of therapy was collected from the patients treatment chart.

Statistical analysis:

The data was represented as percentages. The P<0.05 was considered to indicate a statistically significant difference.

3. Results and Discussion

Table 1: Age wise distribution

20-25 years age patients were 36 (30%), 26-36 years age patients were 40 (33.33%), 46-56 years age patients were 44 (36.66%).

S.No	Age	Total (N=120)	Percentage (%)
1.	20-25	36	30
2.	26-36	40	33.33
3.	46-56	44	36.66
	Total	120	

Table 2: Gender

In our study male patients were 66 (55%), female patients were 54 (45%).

S.No	Gender	Total (N=120)	Percentage (%)
1.	Male	66	55
2.	Female	54	45
	Total	120	

Table 3: Social Habits

In our study Social Habits includes smoking patients were 95 (79.16%), alcohol patients were 25 (20.83 %).

S.No	Residential status	Total (N=65)	Percentage (%)
1.	Smoking	95	79.16
2.	Alcohol	25	20.83
	Total	120	

Table 4: Education

In our study Literate patients were 96 (80%), Illiterate patients were 24 (20%).

S.No	Education	Total (N=120)	Percentage (%)
1.	Literate	96	80
2.	Illiterate	24	20
	Total	120	

Table 5: Duration of Psychiatric illness

In our study duration of Psychiatric illness includes 1-2 years duration psychiatric illness patients were 85 (7083%), 3-4 years duration psychiatric illness patients were 35 (29.16%).

S.No	Duration of Psychiatric illness	Total (N=120)	Percentage (%)
1.	1-2 years	85	70.83
2.	3-4 years	35	29.16
	Total	120	

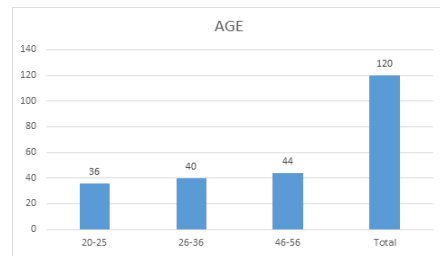


Fig 1: Age wise distribution

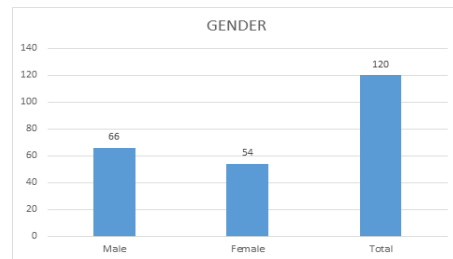


Figure 2: Gender

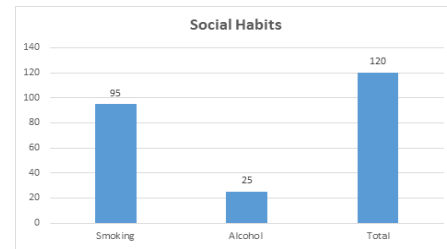


Figure 3: Social Habits

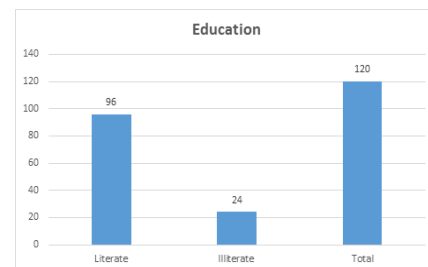


Figure 4: Education

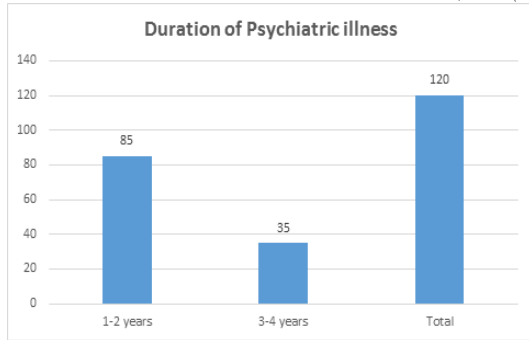


Figure 5: Marital status

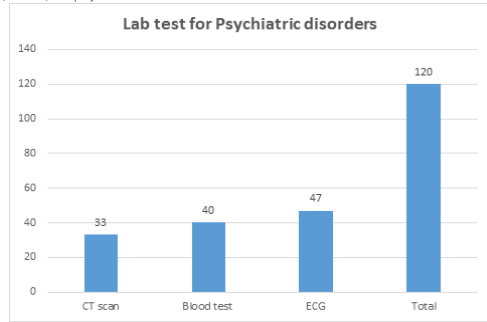


Figure 8: Lab test for Psychiatric disorders

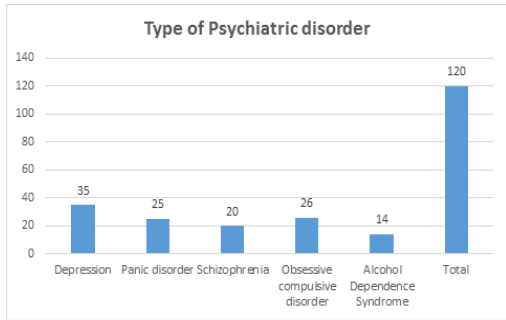


Figure 6: Type of Psychiatric disorder

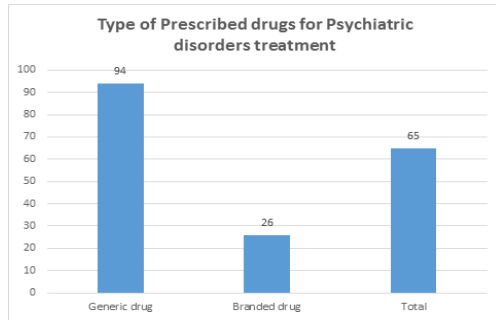


Figure 9: Type of Prescribed drugs for Psychiatric disorders treatment

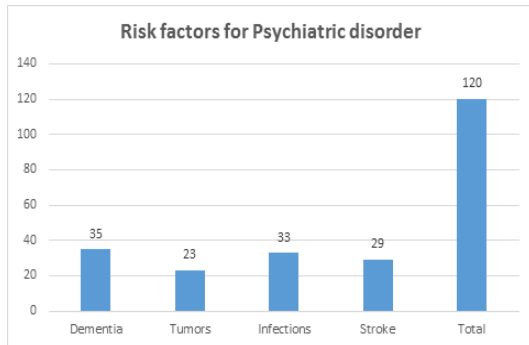


Figure 7: Risk factors for Psychiatric disorder

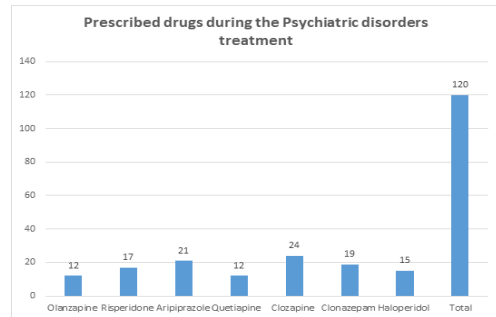


Figure 10: Prescribed drugs during the Psychiatric disorders treatment

Table 6: Type of Psychiatric disorder

Depression patients were 35 (29.16%), Panic disorder patients were 25 (20.83%), Schizophrenia patients were 20(16.66%), Obsessive compulsive disorder patients were 26 (21.66%), and Alcohol Dependence Syndrome patients were 14 (11.66%).

S.No	Type of Psychiatric disorder	Total (N=120)	Percentage (%)
1.	Depression	35	29.16
2.	Panic disorder	25	20.83
3.	Schizophrenia	20	16.66
4.	Obsessive compulsive disorder	26	21.66
5.	Alcohol Dependence Syndrome	14	11.66
Total		120	

Table 7: Risk factors for Psychiatric disorder

Dementia patients were 35 (29.16%), Tumors patients were 23 (19.16%), Infections patients were 33 (27.5%), stroke patients were 29 (24.16 %).

S.No	Risk factors	Total (N=120)	Percentage (%)
1.	Dementia	35	29.16
2.	Tumors	23	19.16
3.	Infections	33	27.5
4.	Stroke	29	24.16
Total		120	

Table 8: Lab test for Psychiatric disorders

CT scan patients were 33 (27.5 %), Blood test patients were 40 (33.33 %), and ECG patients were 47 (39.16 %).

S.No	Lab test	Total (N=120)	Percentage (%)
1.	CT scan	33	27.5
2.	Blood test	40	33.33
3.	ECG	47	39.16
	Total	120	

Table 9: Type of Prescribed drugs for Psychiatric disorders treatment

Type of Prescribed drugs for Psychiatric disorders treatment includes generic drugs prescribed patients were 94 (78.33%), banded drugs prescribed patients were 26 (21.66%).

S.No	Prescribed drugs	Total (N=65)	Percentage (%)
1.	Generic drug	94	78.33
2.	Branded drug	26	21.66
	Total	65	

Table 10: Prescribed drugs during the Psychiatric disorders treatment

S.No	Prescribed drugs	Total (N=120)	Percentage (%)
1.	Olanzapine	12	10
2.	Risperidone	17	14.16
3.	Aripiprazole	21	17.5
4.	Quetiapine	12	10
5.	Clozapine	24	20
6.	Clonazepam	19	15.83
7.	Haloperidol	15	12.5
	Total	120	

Discussion

- In our study 46-56 years age patients were more 44 (36.66%) as compared to other ages.
- In our study male patients were more 66 (55%), as compared to female patients were 54 (45%).
- In our study Social Habits includes smoking patients were 95 more (79.16%), as compared to alcohol patients were 25 (20.83 %).
- In our study Literate patients were more 96 (80%), as compared to Illiterate patients were 24 (20%).
- In our study duration of Psychiatric illness includes 1-2 years duration psychiatric illness patients were more 85 (70.83%), as compared to 3-4 years duration psychiatric illness patients were 35 (29.16%).
- Depression patients were more 35 (29.16%), as compared to Panic disorder patients were 25 (20.83%), Schizophrenia patients were 20(16.66%), Obsessive compulsive disorder patients were 26 (21.66%), Alcohol Dependence Syndrome patients were 14 (11.66%).
- Dementia patients were more 35 (29.16%), as compared to Tumors patients were 23 (19.16%), Infections patients were 33 (27.5%),stroke patients were 29 (24.16 %).
- ECG patients were more 47 (39.16%) as compared to other lab test.
- Type of Prescribed drugs for Psychiatric disorders treatment includes generic drugs prescribed patients were more 94 (78.33%), as compared to banded drugs prescribed patients were 26 (21.66%).

- Clozapine prescribed drugs patients were more 24(20%), as compared to other prescribed drugs.

4. Conclusion

This study highlights the importance of regular prescription auditing which not only helps to improve the overall quality of prescription writing patterns but also helps to provide a piece of updated knowledge on the newer drugs, their action, the prevalence of drug-drug interactions, and other common errors which take place in the prescription writing part among health care professionals. As well, they also provide an idea to improve the overall quality of prescriptions. A periodical training program on prescription writing especially using the WHO core prescribing indicators helps to pave a better way for understanding and to know the importance of prescription writing among healthcare professionals which ultimately leads to a better health care system for the community. Also, a detailed history collection about the patient's comorbid conditions and concomitant drugs can help to overcome unwanted drug interactions. Prescription monitoring studies were needed periodically to assess the prescribing trends of physicians and promote the rational utilization of drugs. It is also required to improve patient compliance and decrease the costs and healthcare burden on the patients. Atypical and newer classes of drugs were given more preference than the conventional group of drugs for treating psychiatric disorders. The availability of drugs at the hospital pharmacy was up to the mark. Polypharmacy was within the limits, indicating rational prescribing trends. There was slight overutilization of anticholinergics, especially in combination with antipsychotic drugs, which could lead to the occurrence of side effects like drying of the mouth,

blurring of vision, constipation, and so on, and troublesome over the long term.

5. References

- [1] Abdel-Baki A, Letourneau G, Morin C, Ng A. Resumption of work or studies after first-episode psychosis: The impact of vocational case management. *Early Intervention in Psychiatry*. 2013;7(4):391–398.
- [2] Abramowitz JS, Foa EB, Franklin ME. Exposure and ritual prevention for obsessive–compulsive disorder: Effects of intensive versus twice-weekly sessions. *Journal of Consulting and Clinical Psychology*. 2003;71(2):394–398.
- [3] Acarturk C, Smit F, de Graaf R, van Straten A, ten Have M, Cuijpers P. Incidence of social phobia and identification of its risk indicators: A model for prevention. *Acta Psychiatrica Scandinavica*. 2009;119(1):62–70.
- [4] Achim AM, Maziade M, Raymond E, Olivier D, Merette C, Roy MA. How prevalent are anxiety disorders in schizophrenia? A meta-analysis and critical review on a significant association. *Schizophrenia Bulletin*. 2011;37(4):811–821.
- [5] Adler DA, Lerner D, Visco ZL, Greenhill A, Chang H, Cymerman E, Azocar F, Rogers WH. Improving work outcomes of dysthymia (persistent depressive disorder) in an employed population. *General Hospital Psychiatry*. 2015;37(4):352–359.
- [6] Alonso P, Cuadras D, Gabriels L, Denys D, Goodman W, Greenberg BD, Jimenez-Ponce F, Kuhn J, Lenartz D, Mallet L, Nuttin B, Real E, Segalas C, Schuurman R, du Montcel ST, Menchon JM. Deep brain stimulation for obsessive–compulsive disorder: A meta-analysis of treatment outcome and predictors of response. *PLoS One*. 2015;10(7):e0133591.
- [7] Amerio A, Odone A, Marchesi C, Ghaemi SN. Treatment of comorbid bipolar disorder and obsessive–compulsive disorder: A systematic review. *Journal of Affective Disorders*. 2014;166:258–263.
- [8] Andrews G, Davies M, Titov N. Effectiveness randomized controlled trial of face to face versus internet cognitive behaviour therapy for social phobia. *Australian and New Zealand Journal of Psychiatry*. 2011;45(4):337–340.
- [9] Andrews G, Bell C, Boyce P, Gale C, Lampe L, Marwat O, Rapee R, Wilkins G. Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of panic disorder, social anxiety disorder, and generalised anxiety disorder. *Australian and New Zealand Journal of Psychiatry*. 2018;52(12):1109–1172.
- [10] APA. Practice guideline for the treatment of patients with panic disorders. Washington, DC: American Psychiatric Publishing; 2010.
- [11] APA. Diagnostic and statistical manual of mental disorders, 5th ed. (DSM-5). Washington, DC: American Psychiatric Publishing; 2013.
- [12] Asnaani A, Kaczkurkin AN, Alpert E, McLean CP, Simpson HB, Foa EB. The effect of treatment on quality of life and functioning in OCD. *Comprehensive Psychiatry*. 2017;73:7–14.
- [13] Bagby RM, Ryder AG, Schuller DR, Marshall MB. The Hamilton Depression Rating Scale: Has the gold standard become a lead weight? *American Journal of Psychiatry*. 2004;161(12):2163–2177. [PubMed]
- [14] Baker SL, Heinrichs N, Kim HJ, Hofmann SG. The Liebowitz Social Anxiety Scale as a self-report instrument: A preliminary psychometric analysis. *Behaviour Research and Therapy*. 2002;40(6):701–715.
- [15] Baldessarini RJ, Salvatore P, Khalsa HM, Gebre-Medhin P, Imaz H, Gonzalez-Pinto A, Perez J, Cruz N, Maggini C, Tohen M. Morbidity in 303 first-episode bipolar I disorder patients. *Bipolar Disorders*. 2010;12(3):264–270.
- [16] Bandelow B, Seidler-Brandler U, Becker A, Wedekind D, Ruther E. Meta-analysis of randomized controlled comparisons of psychopharmacologic and psychological treatments for anxiety disorders. *World Journal of Biological Psychiatry*. 2007;8(3):175–187.
- [17] Bandelow B, Sher L, Bunevicius R, Hollander E, Kasper S, Zohar J, Moller HJ. Guidelines for the pharmacologic treatment of anxiety disorders, obsessive–compulsive disorder, and posttraumatic stress disorder in primary care. *International Journal of Psychiatry in Clinical Practice*. 2012;16(2):77–84.
- [18] Barkowski S, Schwartz D, Strauss B, Burlingame GM, Barth J, Rosendahl J. Efficacy of group psychotherapy for social anxiety disorder: A meta-analysis of randomized controlled trials. *Journal of Anxiety Disorders*. 2016;39:44–64.
- [19] Batelaan NM, de Graaf R, Penninx BW, van Balkom AJ, Vollebergh WA, Beekman AT. The 2-year prognosis of panic episodes in the general population. *Psychologic Medicine*. 2010; 40(1):147–157.
- [20] Bauer M, Gitlin M. Natural course of bipolar disorder and implications for treatment. In: Bauer M, Gitlin M, editors. *The essential guide to lithium treatment*. Basel, Switzerland: Springer International Publishing; 2016. pp. 11–23.
- [21] Baumeister H, Knecht A, Hutter N. Direct and indirect costs in persons with chronic back pain and comorbid mental disorders—A systematic review. *Journal of Psychosomatic Research*. 2012;73(2):79–85.
- [22] Baune BT, Malhi GS. A review on the impact of cognitive dysfunction on social, occupational, and general functional outcomes in bipolar disorder. *Bipolar Disorders*. 2015;17(Suppl 2):41–55.
- [23] Beesdo K, Bittner A, Pine DS, Stein MB, Hofler M, Lieb R, Wittchen HU. Incidence of social anxiety disorder and the consistent risk for secondary depression in the first three decades of

- life. Archives of General Psychiatry. 2007;64(8):903–912.
- [24] Bergeron R, Ravindran AV, Chaput Y, Goldner E, Swinson R, van Ameringen AM, Austin C, Hadrava V. Sertraline and fluoxetine treatment of obsessive–compulsive disorder: Results of a double-blind, 6-month treatment study. Journal of Clinical Psychopharmacology. 2002;22(2):148–154.
- [25] Bernardy NC, Friedman MJ. Pharmacological management of posttraumatic stress disorder. Current Opinion in Psychology. 2017;14:116–121.
- [26] Bhalla RK, Butters MA, Mulsant BH, Begley AE, Zmuda MD, Schoderbek B, Pollock BG, Reynolds CF, 3rd, Becker JT. Persistence of neuropsychologic deficits in the remitted state of late-life depression. American Journal of Geriatric Psychiatry. 2006;14(5):419–427.
- [27] Bienvenu OJ, Onyike CU, Stein MB, Chen LS, Samuels J, Nestadt G, Eaton WW. Agoraphobia in adults: Incidence and longitudinal relationship with panic. British Journal of Psychiatry. 2006;188:432–438.
- [28] Blanco C, Bragdon LB, Schneier FR, Liebowitz MR. The evidence-based pharmacotherapy of social anxiety disorder. International Journal of Neuropsychopharmacology. 2013;16(1):235–249.
- [29] Bögels SM, Alden L, Beidel DC, Clark LA, Pine DS, Stein MB, Voncken M. Social anxiety disorder: Questions and answers for the DSM-5. Depression and Anxiety. 2010;27(2):168–189.
- [30] Boscarino JA. Posttraumatic stress disorder and mortality among U.S. Army veterans 30 years after military service. Annals of Epidemiology. 2006;16(4):248–256. [PubMed]
- [31] Braga DT, Manfro GG, Niederauer K, Cordoli AV. Full remission and relapse of obsessive–compulsive symptoms after cognitive–behavioral group therapy: A two-year follow-up. Brazilian Journal of Psychiatry. 2010;32(2):164–168.
- [32] Brown LT, Mikell CB, Youngerman BE, Zhang Y, McKhann GM II, Sheth SA. Dorsal anterior cingulotomy and anterior capsulotomy for severe, refractory obsessive–compulsive disorder: A systematic review of observational studies. Journal of Neurosurgery. 2016;124(1):77–89.
- [33] Brown TA, Barlow DH. Anxiety and related disorders interview schedule for DSM-5 (ADIS-5)—Adult and lifetime version: Clinician manual. New York: Oxford University Press; 2014.
- [34] Brown TA, Campbell LA, Lehman CL, Grisham JR, Mancill RB. Current and lifetime comorbidity of the DSM-IV anxiety and mood disorders in a large clinical sample. Journal of Abnormal Psychology. 2001;110(4):585–599.
- [35] Bruce SE, Yonkers KA, Otto MW, Eisen JL, Weisberg RB, Pagano M, Shea MT, Keller MB. Influence of psychiatric comorbidity on recovery and recurrence in generalized anxiety disorder, social phobia, and panic disorder: A 12-year prospective study. American Journal of Psychiatry. 2005;162(6):1179–1187.
- [36] Bruce TJ, Spiegel DA, Hegel MT. Cognitive–behavioral therapy helps prevent relapse and recurrence of panic disorder following alprazolam discontinuation: A long-term follow-up of the Peoria and Dartmouth studies. Journal of Consulting and Clinical Psychology. 1999, 67(1):151–156.
- [37] Buist-Bouwman MA, De Graaf R, Vollebergh WAM, Ormel J. Comorbidity of physical and mental disorders and the effect on work-loss days. Acta Psychiatrica Scandinavica. 2005;111(6):436–443.
- [38] Burgel PR, Escamilla R, Perez T, Carre P, Caillaud D, Chanez P, Pinet C, Jebrak G, Brinchault G, Court-Fortune I, Paillasseur JL, Roche N. Impact of comorbidities on COPD-specific health-related quality of life. Respiratory Medicine. 2013;107(2):233–241.
- [39] Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive–behavioral therapy: A review of meta-analyses. Clinical Psychology Review. 2006;26(1):17–31.
- [40] Byers AL, Yaffe K, Covinsky KE, Friedman MB, Bruce ML. High occurrence of mood and anxiety disorders among older adults: The National Comorbidity Survey Replication. Archives of General Psychiatry. 2010;67(5):489–496.
- [41] CANMAT (Canadian Network for Mood and Anxiety Treatments). CANMAT 2016 clinical guidelines for the management of adults with major depressive disorder. Canadian Journal of Psychiatry. 2016;61(9):504–603.
- [42] Canton J, Scott KM, Glue P. Optimal treatment of social phobia: Systematic review and meta-analysis. Neuropsychiatric Disease and Treatment. 2012;8:203–215.
- [43] Carvalho AF, Dimellis D, Gonda X, Vieta E, McIntyre RS, Fountoulakis KN. Rapid cycling in bipolar disorder: A systematic review. Journal of Clinical Psychiatry. 2014;75(6):e578–e586.
- [44] Cerimele JM, Goldberg SB, Miller CJ, Gabrielson SW, Fortney JC. Systematic review of symptom assessment measures for use in measurement-based care of bipolar disorders. Psychiatric Services. 2019;70(5):396–408.
- [45] Comer JS, Blanco C, Hasin DS, Liu SM, Grant BF, Turner JB, Olfson M. Health-related quality of life across the anxiety disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). Journal of Clinical Psychiatry. 2011;72(1):43–50.
- [46] Conradi HJ, Ormel J, de Jonge P. Presence of individual (residual) symptoms during depressive episodes and periods of remission: A 3-year prospective study. Psychological Medicine. 2011;41(6):1165–1174.
- [47] Costa-Black KM, Loisel P, Anema JR, Pransky G. Back pain and work. Best Practice & Research:

- Clinical Rheumatology. 2010;24(2):227–240. [PubMed]
- [48] Covin R, Ouimet AJ, Seeds PM, Dozois DJ. A meta-analysis of CBT for pathological worry among clients with GAD. *Journal of Anxiety Disorders*. 2008;22(1):108–116.
- [49] Cuijpers P, Dekker J, Hollon SD, Andersson G. Adding psychotherapy to pharmacotherapy in the treatment of depressive disorders in adults: A meta-analysis. *Journal of Clinical Psychiatry*. 2009a;70(9):1219–1229.
- [50] Cuijpers P, van Straten A, Warmerdam L, Andersson G. Psychotherapy versus the combination of psychotherapy and pharmacotherapy in the treatment of depression: A meta-analysis. *Depression and Anxiety*. 2009b;26(3):279–288.
- [51] Cuijpers P, Karyotaki E, Weitz E, Andersson G, Hollon SD, van Straten A. The effects of psychotherapies for major depression in adults on remission, recovery and improvement: A meta-analysis. *Journal of Affective Disorders*. 2014a;159:118–126. [PubMed]
- [52] Cuijpers P, Sijbrandij M, Koole S, Huibers M, Berking M, Andersson G. Psychologic treatment of generalized anxiety disorder: A meta-analysis. *Clinical Psychology Review*. 2014b;34(2):130–140. [PubMed]
- [53] Davidson JR, Miner CM, De Veugh-Geiss J, Tupler LA, Colket JT, Potts NL. The Brief Social Phobia Scale: A psychometric evaluation. *Psychologic Medicine*. 1997;27(1):161–166.
- [54] Davidson J, Rothbaum BO, Tucker P, Asnis G, Benattia I, Musgnung JJ. Venlafaxine extended release in posttraumatic stress disorder: A sertraline- and placebo-controlled study. *Journal of Clinical Psychopharmacology*. 2006;26(3):259–267.
- [55] Davis ML, Smits JA, Hofmann SG. Update on the efficacy of pharmacotherapy for social anxiety disorder: A meta-analysis. *Expert Opinion on Pharmacotherapy*. 2014;15(16):2281–2291.
- [56] Deschenes SS, Burns RJ, Schmitz N. Associations between depression, chronic physical health conditions, and disability in a community sample: A focus on the persistence of depression. *Journal of Affective Disorders*. 2015;179:6–13.
- [57] Dèttore D, Pozza A, Andersson G. Efficacy of technology-delivered cognitive behavioural therapy for OCD versus control conditions, and in comparison with therapist-administered CBT: Meta-analysis of randomized controlled trials. *Cognitive Behaviour Therapy*. 2015;44(3):190–211.
- [58] Dickinson T, Becerra R, Coombes J. Executive functioning deficits among adults with bipolar disorder (types I and II): A systematic review and meta-analysis. *Journal of Affective Disorders*. 2017, 218:407–427.
- [59] Donovan MR, Glue P, Kolluri S, Emir B. Comparative efficacy of antidepressants in preventing relapse in anxiety disorders A meta-analysis. *Journal of Affective Disorders*. 2010;123(1–3):9–16.
- [60] Dow MG, Kenardy JA, Johnston DW, Newman MG, Taylor CB, Thomson A. Prognostic indices with brief and standard CBT for panic disorder: II. Moderators of outcome. *Psychologic Medicine*. 2007;37(10):1503–1509.
- [61] Drake RE, Frey W, Bond GR, Goldman HH, Salkever D, Miller A, Moore TA, Riley J, Karakus M, Milfort R. Assisting Social Security Disability Insurance beneficiaries with schizophrenia, bipolar disorder, or major depression in returning to work. *American Journal of Psychiatry*. 2013; 170(12):1433–1441.
- [62] Eskildsen A, Hougaard E, Rosenberg NK. Pre-treatment patient variables as predictors of drop-out and treatment outcome in cognitive behavioural therapy for social phobia: A systematic review. *Nordic Journal of Psychiatry*. 2010;64(2):94–105.
- [63] Faller H, Braehler E, Harter M, Keller M, Schulz H, Wegscheider K, Weis J, Boehncke A, Richard M, Sehner S, Koch U, Mehnert A. Performance status and depressive symptoms as predictors of quality of life in cancer patients. A structural equation modeling analysis. *Psycho-Oncology*. 2015; 24(11): 1456–1462.
- [64] Fang SC, Schnurr PP, Kulish AL, Holowka DW, Marx BP, Keane TM, Rosen R. Psychosocial functioning and health-related quality of life associated with posttraumatic stress disorder in male and female Iraq and Afghanistan war veterans: The valor registry. *Journal of Women's Health (Larchmont)*. 2015;24(12):1038–1046.