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Research Article

Pharmacotherapy versus Psychotherapy in the Management of Male Bipolar Disorder at Pakistan Institute of Mental Health, Lahore, Pakistan

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Abstract: This exploratory study examined effectiveness of pharmacotherapy and psychotherapy treatment models to examine the factors contributing non-compliance of male bipolar disorder (BD) patients in the Punjab Institute of Mental Health (PIMH), Lahore, Pakistan and their impact on patients' quality of life. The data were collected from 100 patients. The 40-days data were collected from 12th January, 2014 to 22nd February 2014. The study revealed that psychotherapy is used just on and off (5%), pharmacotherapy alone in 35% cases and combination of both the therapies are used most commonly(60%). The results support the fact that the pharmacotherapy and psychotherapy both are helpful in treatment of bipolar disorder patient where as pharmacist plays an important and central role in treatment of BD by using pharmacotherapy interventions.

Keywords: Pharmacotherapy, psychotherapy, bipolardisorder

1. INTRODUCTION

Over the past 25 years, the role of pharmacist in the public and nonprofit sector has become limited to writing prescriptions in state and county institutions, community mental health centers, and other organized service settings, with most nonprofit health maintenance organizations following suit [1-2]. In the past decade, psychiatrists in the expanding managed private for-profit sector have been increasingly used as pharmacotherapists, while psychotherapy services have been provided by nonphysician mental health specialists [3-5].

According to WHO figures, in developing countries like Pakistan, one percent of the population suffers

from severe and 10% from mild mental disorders [5-6]. According to the Global Burden of Disease (GBD) the mental illnesses constitute 10.5% of GBD, which may rise up to 15% in the year 2020 [6-7]. Among the top ten major causes of disability, five are mental illnesses, contributing 29% of the total disabilities while behavioral problems contribute an additional 34% to the GBD. These figures do not include cases of mental retardation and drug addicts [5, 8-9]. It has been estimated that there are 5.1 million chronic drug abusers in Pakistan and according to NSDA (National Survey on Drug Abuse), 51% of the addicts are dependent on opiates particularly on Heroin [10-12]. The

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importance and gravity of the problems related to mental illnesses can well be estimated from the facts based on scientific studies by WHO that two-fifths (40%) of total disabilities at global scale are due to mental illnesses effecting human functionality which may disturb socio-economic scenario of any country [13-16].

In recent years, incidences of psychological disorders are increasing day by day [17]. The aim of present study was to evaluate patient characteristics, including history, social, cognitive, and work function, for prediction of the outcome of major depressive disorder. They provide indirect evidence of treatment specificity by identifying characteristics responsive to different modalities, which may be of value in the selection of patients for treatment. Main objective of this study was to evaluate the effectiveness of psychological intervention and pharmacotherapy interventions or combination of both.

2. METHODOLOGY

The study included treatment strategies given to male patients with bipolar disorder, data was collect from inpatient record as well from currently treated patients and by discussing it with experts (consultants, psychologists and hospital pharmacist).

Sample Size

Data from 100 patients who had bipolar disorder from medical record of male BD patients. Treatment plan given to those patients was studied in Pakistan Institute of Mental Health Lahore, Lahore, Pakistan.

Measures

40 days data was collected from 12-1-2014 to 22-2-2014.

Procedure

Study was carried out under these steps. Patient profile and their past medical history were studied. Laboratory findings were observed according to the treatment plan and physiological condition of patient. Different treatment choices were observed

and evaluated rational use of pharmacotherapy. Quality of care was observed with respect to patient whether patient was properly treated by medical staff and doctors. Pharmaceutical care was observed and analyzed with respect to patient treatment plan and medication dispensing. Treatment plan was observed and analyzed with respect to WHO guidelines.

Patient Elligibility Criteria

Inclusion Criteria

- In patients with bipolar disorder
- Bipolar affective disorder

Exclusion Criteria

- Patient who were not BIPOLAR were not selected.
- Patients with age <18 years were not selected.
- Patients with any other mental disorder
- Patients who take antidepressants prophylactically

Method of Study

i. Quantitative Methods

Sample survey

ii. Qualitative Methods

A structured questionnaire.

3. RESULTS

The criteria for data collection form was extracted from the guidelines of NIMH.

Out of 100 patients, 28 were between 20-30 years of age, 48 were between 30-40 years, 18 patients were between 40-50 years, and 6 were above 50 years having past medical history. 20% patients were un-educated, 42% had primary education, 6% had middle level, 24% had completed matriculation and 8% had passed intermediate level education. Out of 100 patients, 21 patients had family history and 79 had no family history. 38 patients had continuous course of illness and 62 patients had intermittent course of illness. 23% patient had euthymic, 68% had irritable and 9% had hypertymic temperament. 100% patients were educated by pharmacist on how to cope with

diseases. Drug interaction showed 34% patients had major drug interactions, 45 patients had minor, 12 had rare and 9 had no interaction. Most of the patients used antipsychotics. Most commonly used medications are resperidone and lorazepam. Psychomotor activity and patient compliance were also observed, as shown in Table 1. Provisional disgnosis showed 27% patients has BA, 48% had BP-1 and 25% had manic depressive illness. Most of patients received combinations of both psychotherapy and pharmacotherapy interventions. Between 75% patients had hallucination and 25% had no hallucinations Most of the patients were cooperative.13% patients had no previous admitions in PIMS.

4. DISCUSSION

According to American Psychiatric Association, pharmacotherapy is the first-line offense against episodes of bipolar disorder [18-19]. In recent study attempt was made to examine the impact of psychotherapy and pharmacotherapy for treatment of bipolar disorder patients. We specify the inclusion and exclusion criteria which help in selection of patients. We found the consistent decrease in number severity of condition when pharmacotherapy and combination of both pharmacotherapy and psychotherapy was used. Similar findings were also observed by Paola 2002 while studying the effectiveness pharmacotherapy and psychotherapy in treatment of bipolar disorder [20].

Although this study examined the effects of pharmacotherapy versus psychotherapy treatment on health care utilization, ultimately the more important question is the effectiveness of different models of treatment for different groups of patients [21]. Research should address the questions of which patients benefit most from which treatment models, including the broadly conceptualized models of pharmacotherapy versus psychotherapy. A better understanding of the qualitative differences between the two models of treatment and how the two models are structured might help explain

the observed differences [20-22]. Some evidence exists for the suggestion that subtypes of patients with bipolar disorder might benefit selectively from different treatment strategies, and given the controlled nature of managed care settings, different factors related to health systems must be taken into account [19].

Main objective of our project was to study about different therapies used in bipolar disorder, relapse of BD, social support, attitude of family and relatives towards BD patients and most important patient compliance. Throughout our study we observed the attitude of doctors, staff, psychiatrics, pharmacists towards patients and their contribution in patient prognosis improving his quality of life, as far as PIMH is concerned. We observed keenly consultants were all in all authority in treating patients, psychologists provide therapies only when needed but were not playing a major role. Staff members are much less than demand as patients are many in number.

PIMH is the largest institute in Asia with 1400 beds and only 3 pharmacists were appointed, which is insufficient so atleast WHO standards of 1 pharmacist for 200 beds should be fulfilled for proper source of guidance. Role of pharmacist in management of BD patient, which was unfortunately nil. Pharmacists were only providing distributive services, no pharmaceutical care nor pharmacovigilence was provided. Clinical pharmacist is entirely absent in PIMH but as we observed during our study that ratio of drug interaction was very high which need pharmaceutical intervention and TDM is required. One of the reasons of this lacking is due to the shortage of pharmacists.

The situation in Pakistan regarding improvement in mental health services is not at the pace to reach a satisfactory level. This important field of health is not popular, as it should be if we compare it to some other medical and surgical disciplines such as cardiology and ophthalmology, etc.

5. CONCLUSIONS

Because medication and psychotherapy play central

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Table 1. Characteristics of the patients with BD who received pharmacotherapy and psychotherapy in PIMH, Lahore, Pakistan.

Characteristic	N = 100	Percent (%)
Past Psycatric History	28 (20-30)	28
	48 (30-40)	48
	18 (40-50)	18
	6 (Above 50)	6
Education	20 (Nil)	20
	42 (Primary)	42
	6 (Middle)	6
	24 (Matriculation)	24
	8 (Intermediate)	8
Family History	21(Yes)	21
	79 (No)	79
Past Medical History	24 (20-30)	24
	52 (30-40)	52
	14 (40-50)	14
	10 (Above 50)	10
Duration of Present Complaint	24 (20-30)	24
	32 (30-40)	32
	34 (40-50)	34
	10 (Above 50)	10
Course of Illness	62 (Continuous)	62
	38 (Intermittent)	38
Temperament of Patient	23 (Euthymic)	23
	68 (Irritable)	68
	9 (Hyperthymic)	9
Patients Educated by Pharmacist (that how to cope with his disorder?)	100	100
Type of Drug Interaction	34 (Major)	34
	45 (Minor)	45
	12 (Rare)	12
	9 (None)	9
Class of Antipsychotics Drugs being Used	44 (Antipsychotics)	44
	34 (Antidepressants)	34
	19 (Anxiolytics)	19
	3 (Antiepileptic & mood stabilizers)	3
Drugs Commonly Used	24 (Riserperidone)	24
	20 (Haloperidol)	20
	21 (Fluphenazine)	21
	23 (Lorazepam)	23
	12 (Chloropromazine)	12

Table 1 (contd...)

Characteristic	N = 100	Percent (%)
Psychomotor Activity	38 (Normal)	38
	45 (Hyperactive)	45
	17 (Aggressive)	17
Patient Compliance	68 (Compliant)	68
	32 (Non-compliant)	32
Provisional Diagnosis	27 (BAD)	27
	48 (BP-1)	48
	25 (Manic)	25
Which Treatment Patient is Receiving	35 (Pharmacotherapy)	35
	5 (Psychotherapy)	5
	60 (Both)	60
Frequency of Hallucination	75 (Yes)	75
	25 (No)	25
Patient is Cooperative	69 (Yes)	69
	31 (No)	31
Previous Admitions in PIMS	13 (None)	13
	42 (Once)	42
	12 (Twice)	12
	30 (3-5Time)	30
	3 (Several Time)	3
Suicidal Thoughts	66 (Yes)	66
	34 (No)	34
Differential Diagnosis	41 (DIP)	41
	37 (SCZ)	37
	19 (Both)	19
	3 (Psychosis)	3

roles in the scientifically based treatment of BD, these preliminary findings, while not definitive, are suggestive and should be followed up. Both psychotherapy and pharmacotherapy is a practice and a point of view that has in effect been legislated without evidence. The strength of the preliminary findings poses a powerful challenge and invites serious investigation and further study. We hope that this study is only one in a series of long-

awaited benefits to be realized by the development of unprecedentedly comprehensive data sets by the new national managed care industry that can be used to help us learn to take better and more costeffective care of our patients.

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7. REFERENCES

- 1. Kupfer, D.J. The increasing medical burden in bipolar disorder. *Journal of American Medical Association* 293(20): 2528-2530 (2005).
- 2. Nurnberger, J.I., Jr. & T. Foroud. Genetics of bipolar affective disorder. *Current Psychiatry Report* 2(2): 147-157 (2000).
- Potash, J.B., J. Toolan, J. Steele, E.B. Miller, J. Pearl, P.P. Zandi, T.G. Schulze, L. Kassem, S.G. Simpson, V. Lopez, D.F. MacKinnon & F.J. McMahon. The bipolar disorder phenome database: a resource for genetic studies. *American Journal of Psychiatry* 164(8): 1229-1237 (2007).
- 4. Sachs, G.S. & M.E.. Thase. Bipolar disorder therapeutics: maintenance treatment. *Biological Psychiatry* 48(6): 573-581 (2000).
- Gogtay, N., A. Ordonez, D.H. Herman, K.M. Hayashi, D. Greenstein, C. Vaituzis, M. Lenane, L. Clasen, W. Sharp, J.N. Giedd, , D. Jung, T.F. Nugent Iii, W.A. Toga, E. Leibenluft, P.M. Thompson & J.L. Rapoport. Dynamic mapping of cortical development before and after the onset of pediatric bipolar illness. *Journal of Child Psychol Psychiatry* 48(9): 852-862 (2007).
- Kessler, R.C., P. Berglund, O. Demler, R. Jin, K.R. Merikangas & E.E. Walters. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archieved of General Psychiatry* 62(6): 593-602 (2005).
- 7. Krishnan, K.R. Psychiatric and medical comorbidities of bipolar disorder. *Psychosomatic Medicine* 67(1): 1-8 (2005).
- 8. Schneck, C.D., D.J. Miklowitz, S. Miyahara, M. Araga, S. Wisniewski, L. Gyulai, M.H. Allen, M.E. Thase & G.S. Sachs. The prospective course of rapid-cycling bipolar disorder: findings from the STEP-BD. *American Journal of Psychiatry*, 165(3): 370-378 (2008).
- 9. Bizzarri, J., A. Sbrana, P. Rucci, L. Ravani, J. Massei, C. Gonnelli, S. Spagnolli, R. Doria, F. Raimondi, J. Endicott, L. Dell'Osso & G. Cassano. The spectrum of substance abuse in bipolar disorder: reasons for use, sensation seeking and substance sensitivity. *Bipolar Disorder* 9(3): 213-220 (2007).
- Mueser, K.T., L.B. Goodman, S.L. Trumbetta, S.D. Rosenberg, C. Osher, R. Vidaver, P. Auciello & D.W. Foy. Trauma and posttraumatic stress disorder in severe mental illness. *Journal of Consulting and Clinical Psychology* 66(3): 493-499 (1998).
- Calabrese, J.R., M.D. Shelton, D.J. Rapport, E.A. Youngstrom, K. Jackson, S. Bilali, S.J. Ganocy & R.L. Findling. A 20-month, double-blind, maintenance trial of lithium versus divalproex in rapid-cycling bipolar disorder. *Amweican Journal* of *Psychiatry* 162(11): 2152-2161 (2005).

- 12. Bowden, C.L., J.R. Calabrese, S.L. McElroy, L. Gyulai, A. Wassef, F. Petty, H.G. Pope, Jr., J.C. Chou, P.E. Keck, Jr., L.J. Rhodes, A.C. Swann, R.M. Hirschfeld, P.J. Wozniak & D.M.S. Group. A randomized, placebo-controlled 12-month trial of divalproex and lithium in treatment of outpatients with bipolar I disorder. *Archives of General Psychiatry* 57(5): 481-489 (2000).
- 13. Huxley, N.A., S.V. Parikh & R.J. Baldessarini. Effectiveness of psychosocial treatments in bipolar disorder: state of the evidence. *Harvard Review of Psychiatry* 8(3): 126-140 (2000).
- Joffe, H., L.S. Cohen, T. Suppes, W.L. McLaughlin, P. Lavori, J.M. Adams, C.H. Hwang, J.E. Hall & G.S. Sachs. Valproate is associated with new-onset oligoamenorrhea with hyperandrogenism in women with bipolar disorder. *Biological Psychiatry* 59(11): 1078-1086 (2006).
- Kupka, R.W., W.A. Nolen, R.M. Post, S.L. McElroy, L.L. Altshuler, K.D. Denicoff, M.A. Frye, P.E. Keck, Jr., G.S. Leverich, A.J. Rush, T. Suppes, C. Pollio & H.A. Drexhage. High rate of autoimmune thyroiditis in bipolar disorder: lack of association with lithium exposure. *Biological Psychiatry* 51(4): 305-311 (2002).
- 16. Miklowitz, D.J. A review of evidence-based psychosocial interventions for bipolar disorder. *Journal of Consult Clinical Psychology* 67(11): 28-33 (2006).
- 17. Sachs, G.S. & M.E. Thase. Bipolar disorder therapeutics: maintenance treatment. *Biol Psychiatry* 48(6): 573-581 (2000).
- 18. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 3rd ed rev. American Psychiatric Association, Washington, DC, USA (1987).
- 19. American Psychiatric Association. Practice guideline for the treatment of patients with bipolar disorder. *American Journal of Psychiatry* 12 (suppl): 1–36 (1994).
- Rucci, P., E. Frank, B. Kostelnik, A. Fagiolini, A.G. Mallinger, H.A. Swartz & D.J. Kupfer. Suicide attempts in patients with bipolar I disorder during acute and maintenance phases of intensive treatment with pharmacotherapy and adjunctive psychotherapy. *American Journal of Psychiatry* 159(7): 1160-1164 (2002).
- 21. Pinquart, M., P. Duberstein, & J. Lyness. Treatments for later-life depressive conditions: a meta-analytic comparison of pharmacotherapy and psychotherapy. *American Journal of Psychiatry* 163(9): 1493-1501 (2006).
- 22. De Jonghe, F., M. Hendricksen, G. van Aalst, S. Kool, V. Peen, R. Van & J. Dekker. Psychotherapy alone and combined with pharmacotherapy in the treatment of depression. *The British Journal of Psychiatry* 185(1): 37-45 (2004).