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Impact of Patients' Motivation and Scheme of Positive and Negative Symptoms among Patients with Psychotic Disorders

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ABSTRACT

Positive motivations toward treatment are an important factor that plays a significant role in the treatment outcomes and patients' recovery process. The present study investigates the impact of patients' motivation toward treatment and its impact on patients positive, negative, and general psychopathological symptoms among patients with psychosis. A total of 200 participants diagnosed with psychotic disorders were approached from different hospitals and clinics in Faisalabad and Karachi. 11 out of 200 participants were excluded due to comorbid conditions and unclarity in diagnostic symptoms. 189 participants met the inclusion and exclusion criteria of the study. Both male 112(59.26%) and females 77(40.74%). patients were included in this study. Participants were taken from all socioeconomic statuses. Participants' age range was between 20 to 45 years with M±SD=34.53±2.57. Findings show that patients a significant difference was estimated in positive, negative and general psychopathological symptoms between patients with low motivation and high motivation. Furthermore, results indicate that a significant difference was estimated in positive, negative and general psychopathological symptoms between patients with schizophrenia disorder and other psychotic disorders among patients with psychotic disorders. It is concluded that low motivation toward treatment is suspected a lower chance of engagement in treatment as compared to those who have high motivation. Patients with schizophrenia disorder perceived relevantly high symptom severity on positive, negative, and general psychopathological symptoms as compared to other psychotic disorders.

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1. Introduction

A psychotic disorder is characterized by a profound disruption in a person's thoughts, emotions, and perception of reality, often leading to symptoms such as hallucinations, delusions, disorganized thinking, and impaired cognition (Burns & Marder, 2023). Hallucinations, which involve experiencing sensory perceptions without external stimuli, and delusions, false beliefs resistant to evidence, are hallmark symptoms (Perrotta, 2020). Disorganized thinking, reflected in disjointed speech and impaired communication, alongside disorganized or abnormal motor behavior, further contribute to the clinical picture (Ryan, Trotman, Mittal, Tessner, & Walker, 2017). Negative symptoms, including diminished emotional expression and reduced motivation, are also common features (Kirschner, Aleman, & Kaiser, 2017). These symptoms can vary in severity and presentation, with schizophrenia being a

prototypical example of a psychotic disorder (Correll & Schooler, 2020). Other psychotic disorders include schizoaffective disorder, brief psychotic disorder, delusional disorder, and substance-induced psychotic disorder (Bègue, Kaiser, & Kirschner, 2020). Psychologists usually perform a comprehensive evaluation to make the diagnosis, taking into account the severity and duration of symptoms as well as how they affect day-to-day functioning (Goldsmith & Rapaport, 2020). Early intervention and continued assistance are stressed in treatment, which generally includes antipsychotic medicines, psychotherapy, and individualised support (Bègue et al., 2020). A diverse mental condition, schizophrenia, affects 0.3 to 0.7 percent of the global population, with higher prevalence in some locations. Worldwide, WHO recorded 21 million cases in 2018, with a higher risk of premature death (Akter, 2018). Adult prevalence rates range from 1.10 percent in Bangladesh to 3 per 1000 in India and 1.5 percent in Pakistan. Schizoaffective disorder and short psychotic disorder also contribute considerably to global prevalence, emphasising the necessity for early detection and care to improve outcomes and quality of life (Bègue et al., 2020).

Motivation affects psychotic disorder treatment engagement, adherence, and functional recovery. Numerous studies have shown the importance of motivation in psychotic illnesses (Yıldız & Aylaz, 2021). Motivation is crucial for psychotic patients to actively participate in treatment. Motivation improves treatment engagement and drug adherence, according to research (Hargreaves, Lucock, & Rodriguez, 2017). In addition, motivation is essential for independent living, social and professional functioning, and general quality of life during functional recovery. Over time, those who are more motivated typically show more progress in these areas (Lawrence, Becker, & McGorry, 2023). The efficiency of symptom management techniques might be influenced by motivation. Research indicates that individuals with a higher level of motivation are more likely to engage in cognitive-behavioral therapy (CBT) and other psychosocial interventions, which can improve overall symptom management and reduce symptoms more effectively (Schlosser et al., 2018). In cases of psychotic disorders, motivation is also related to long-term consequences. Higher motivation levels at the beginning of therapy are typically associated with better long-term outcomes, such as decreased hospitalization and relapse rates and enhanced general functioning (McNeely, Letts, Martin, & Strong, 2023). In summary, motivation plays a crucial role in the management and outcomes of psychotic disorders, influencing treatment engagement, adherence, functional recovery, symptom management, and long-term outcomes. The research gap involves exploring how patients' motivation affects positive and negative symptoms of psychotic disorders. This understanding can shape tailored interventions to enhance treatment outcomes and meet diverse patient needs. Studying the impact of patients' motivation on symptom schemes in psychotic disorders is vital for improving treatment adherence, symptom management, and long-term recovery. By clarifying this relationship, clinicians and researchers can devise targeted strategies to optimize mental health care practices and individualize treatment approaches.

2. Materials and Methods

2.1. Research Design

In this study, we used the cross-sectional research design. All the participants were taken from different psychiatric hospitals and clinics between January 2022 to August 2023. We made the comparison between patients with schizophrenia disorders and other psychiatric disorders.

2.2. Participants

A total of 200 participants diagnosed with psychotic disorders were approached from different hospitals and clinics in Faisalabad and Karachi. 11 out of 200 participants were excluded due to comorbid conditions and unclarity in diagnostic symptoms. 189 participants met the inclusion and exclusion criteria of the study. Both male 112(59.26%) and females 77(40.74%). patients were included in this study. Participants were taken from all socioeconomic statuses. Participants' age range was between 20 to 45 years with M±SD=34.53±2.57.

2.3. Inclusion and exclusion criteria

Participants who met the diagnostic criteria of schizophrenia disorder and other psychotic disorders (i.e. delusional disorder & schizoaffective disorder) were included in the study. All the participants were diagnosed with the DSM-V. Participants who were enrolled in

the OPD especially those who were targeted and patients who had severe symptoms and were admitted in the in-patient setting were excluded. Participants' duration of illness was established between 1 year to 10 years. Participants with comorbid conditions or with any kind of intellectual/physical disability were excluded from the study.

2.4. Measures

Positive and Negative Syndrome Scale (PANSS): The PANSS was originally designed to assess positive, negative, and general psychopathological symptoms among patients with psychotic disorders (Kay, Fiszbein, & Opler, 1987). It is a 30-item scale with which is comprised of three domains i.e. positive symptoms, negative symptoms, and general psychopathological symptoms. The positive symptoms subscale comprised of 7 positive symptoms (i.e. hallucination), negative symptoms comprised of 7 negative symptoms (i.e. blunted affect), and similarly, the general psychopathological symptoms subscale is comprised of 16 general symptoms (i.e. somatic concerns). Each item is scored from 7 points Likert scale of 1 (absent) to 7(extremely severe). A low score indicates lower symptoms and a high score indicates high symptom severity PANSS has good psychometric properties (i.e. positive .70, negative=83 & general psychopathological =.79, which reflects that the scale has sound psychometric properties. Self-prepared checklist to assess patients' motivation toward treatment was designed. This checklist was structured after consultation with 4 field relevant experts and after completion, it was administered to 10 patients as a pilot trial. After getting feedback from the patients, again the findings were discussed with the experts and some changes were made the final checklist was administered to the patients. This checklist is comprised of 10 items and each statement has a rating from 0(poor scores) -10(higher score). Score below 10 indicates patient has poor motivation and score close to 100 indicates higher motivation toward treatment.

2.5. Procedure

After getting approval from the Research Ethical Committee (REC) patients were approached from different hospitals and clinics. Participants who showed willingness to participate in the study were asked to sign the consent form. Therapist also briefed the patients that you may withdraw from the study any time when you feel any kind of discomfort. A purposive sampling technique was used to collect the data. Psychological assessment, pretest and posttest assessments procedures were completed individually.

2.6. Statistical Analysis

Descriptive statistics (M, SD & f) were used to calculate sample demographic characteristics. Further, t-test statistics were used to find the difference between patients with low and high motivation and patients with schizophrenia and other psychotic disorders. An alpha of .05 was used to perform all analyses with *p*-value <.05 using IBM SPSS Statistics (Version 24).

3. Results

A total of 200 participants were taken, 11(5.5%) participants were excluded and 189(94.5%) were included in the study. Patients with schizophrenia disorder were 102(53.96%) and other psychotic disorders (i.e. delusional disorder & schizoaffective disorder) were 87(46.04%). Men patients were 112(59.26%) and women were 77(40.74%). Single participants were 76(40.21%), married 91(48.15%) and divorced/widow 22(11.64%). Participants below the metric were 56(29.63%), metric 80(42.33%), intermediate 30(15.87%) and bachelor 20(12.17%) with age range between 20 to 45 years (M±SD=34.53±2.57).

Table 1: t-test statistics between patients with low and high motivation toward treatment among patients with psychotic disorder (N=189)

	Patients with Low Motivational Level n=92, M(SD)	Patients with High Motivational Level n=97, M(SD)	t	P	SE	95% Confidence Interval	
						Lower	Upper
P1	4.97±1.965	2.86±1.658	8.601	.000	.245	1.627	2.594
P2	4.01±2.007	2.25±1.492	7.378	.000	.239	1.291	2.232
P3	4.88±2.075	2.61±1.841	8.606	.000	.265	1.756	2.799
P4	2.89±1.875	2.30±1.500	2.571	.011	.229	.137	1.041
P5	4.14±1.841	3.18±2.047	3.627	.000	.262	.435	1.469
P6	4.61±2.289	3.30±1.798	4.715	.000	.278	.762	1.857
P7	4.34±2.266	3.56±2.250	2.570	.011	.305	.183	1.383

N1	2.58±0.768	2.28±0.924	2.631	.009	.114	.075	.52681
N2	2.98±0.934	2.50±1.206	3.348	.001	.145	.200	.77300
N3	2.89±0.731	2.50±0.898	3.510	.001	.110	.169	.60476
N4	2.81±0.858	1.72±1.026	8.521	.000	.127	.834	1.3372
N5	2.99±0.826	1.79±0.914	10.242	.000	.117	.970	1.4333
N6	3.08±0.915	2.09±0.995	7.672	.000	.128	.735	1.2434
N7	2.57±0.708	2.04±0.912	4.826	.000	.110	.314	.74769
G1	3.05±1.875	2.38±1.502	2.917	.004	.229	.217	1.121
G2	3.42±1.456	2.78±1.390	3.353	.001	.192	.265	1.022
G3	3.31±1.500	2.50±1.619	3.854	.000	.210	.396	1.226
G4	2.83±1.694	2.81±1.863	.090	.929	.240	-.452	.495
G5	2.27±1.700	1.65±1.404	2.942	.004	.210	.204	1.034
G6	3.29±1.473	2.83±1.316	2.406	.017	.188	.082	.825
G7	1.91±1.023	1.68±0.951	1.734	.084	.133	-.032	.494
G8	1.70±0.930	1.72±0.826	-.186	.853	.119	-.256	.212
G9	2.72±1.969	2.20±1.720	2.080	.039	.249	.027	1.010
G10	2.86±1.548	2.30±1.067	3.080	.002	.180	.199	.907
G11	2.41±1.659	1.66±1.356	3.643	.000	.204	.342	1.148
G12	3.47±1.652	2.58±1.862	3.654	.000	.244	.410	1.371
G13	3.99±1.836	3.72±1.738	1.142	.255	.241	-.200	.751
G14	3.23±2.058	2.92±1.876	1.192	.234	.266	-.207	.840
G15	3.19±2.061	2.68±1.598	2.050	.042	.249	.020	1.001
G16	3.67±2.095	3.02±1.977	2.360	.019	.275	.107	1.190

Note: p=<.01, p=<.05; SE=Standard Error Difference

Findings show that a significant difference was estimated in positive, negative and general psychopathological symptoms between patients with low motivation and high motivation among patients with psychotic disorders (Table 1).

Table 2: t-test statistics between patients with schizophrenia disorder and other psychiatric disorders on positive, negative, and general psychopathological symptoms (N=189)

PANSS	*Patients with schizophrenia disorder* (n=102) M±SD	Patients with *other psychiatric disorders* (n=87) M±SD	SEM	T	p	95% Confidence Interval	
						Lower	Upper
P-1	3.930±2.101	3.410±1.767	.038	15.454	.000	.512	.662
P-2	3.140±1.975	2.487±1.295	.063	10.404	.000	.527	.773
P-3	3.750±2.66	2.955±1.764	.053	15.102	.000	.696	.904
P-4	2.600±1.721	2.173±1.324	.052	8.168	.000	.325	.531
P-5	3.660±1.999	3.277±1.863	.055	7.063	.000	.279	.494
P-6	3.960±2.158	3.385±1.757	.058	9.965	.000	.463	.691
P-7	3.950±2.287	3.427±1.809	.069	7.618	.000	.391	.664
N-1	2.436±0.861	1.790±0.942	.061	10.669	.000	.527	.765
N-2	2.741±1.103	2.450±0.862	.040	7.260	.000	.209	.364
N-3	2.700±0.839	2.500±0.749	.027	7.399	.000	.147	.253
N-4	2.273±1.089	2.210±1.056	.032	1.993	.047	.001	.127
N-5	2.396±1.067	2.150±0.948	.033	7.317	.000	.176	.306
N-6	2.591±1.075	2.510±1.270	.034	2.315	.022	.012	.143
N-7	2.305±0.856	2.120±1.545	.108	1.733	.085	-.026	.398
G-1	2.710±1.729	2.300±1.488	.037	11.122	.000	.337	.482
G-2	3.100±1.457	2.690±1.165	.050	8.396	.000	.320	.516
G-3	2.900±1.609	2.650±1.430	.029	8.648	.000	.197	.313
G-4	2.821±1.776	2.370±1.298	.051	8.784	.000	.349	.551
G-5	1.960±1.581	1.881±1.514	.071	1.215	.226	-.054	.226
G-6	3.060±1.413	2.540±1.346	.037	14.157	.000	.454	.601
G-7	1.800±0.993	1.680±0.916	.021	5.299	.000	.071	.156
G-8	1.710±0.878	1.561±0.812	.024	6.327	.000	.106	.203

G-9	2.460±1.864	2.441±1.818	.019	1.417	.158	-.011	.065
G-10	2.580±1.357	2.550±1.290	.023	1.574	.117	-.009	.082
G-11	2.040±1.558	1.660±1.041	.047	8.055	.000	.285	.470
G-12	3.030±1.858	2.410±1.598	.037	16.712	.000	.545	.691
G-13	3.850±1.790	3.020±1.197	.059	14.244	.000	.721	.952
G-14	3.081±1.972	2.721±1.846	.032	10.968	.000	.291	.418
G-15	2.940±1.589	2.550±1.463	.042	9.244	.000	.304	.469
G-16	3.350±2.058	3.311±2.031	.022	1.463	.145	-.011	.075

Findings show that a significant difference was estimated in positive, negative and general psychopathological symptoms between patients with schizophrenia disorder and other psychotic disorders among patients with psychotic disorders (Table 2).

4. Discussion

Positive symptoms in schizophrenia, such as hallucinations and delusions, are often reported to be more severe compared to other psychotic disorders. Research studies have consistently shown that individuals with schizophrenia tend to experience more intense and persistent positive symptoms than those with other psychotic disorders like bipolar disorder with psychotic features or schizoaffective disorder (Bègue et al., 2020). Negative symptoms are a common characteristic of schizophrenia and include affective flatness, social disengagement, and decreased motivation. Research indicates that when compared to other psychotic diseases, the severity of negative symptoms in schizophrenia is typically higher (Goldsmith & Rapaport, 2020). In people with schizophrenia, this could lead to worse results and increased functional impairment. Symptoms of general psychopathology include a variety of experiences, including disordered behaviour, disordered thinking, and cognitive deficits (Thompson et al., 2015). Although these symptoms can be found in a variety of psychotic diseases, they can vary in intensity. Studies show that compared to people with other psychotic diseases, those with schizophrenia frequently display more severe and widespread general psychopathological symptoms (O'Connell et al., 2022). There may be underlying neurobiological distinctions between other psychotic diseases and schizophrenia in terms of how severe the symptoms are. Genetic and neuroimaging research have shown unique patterns of brain abnormalities and genetic markers linked to schizophrenia (Kraguljac et al., 2021).

This could be a factor in the intensity and enduring nature of the symptoms this condition exhibits. Additionally, the degree of symptoms may affect how well a treatment works (Morgan et al., 2019). According to studies, people with schizophrenia could react to antipsychotic drugs differently than people with other psychotic diseases. Optimizing treatment outcomes for patients with psychotic disorders requires customising treatments based on the kind and intensity of symptoms (Thermenos et al., 2013). Our results show that, in comparison to individuals with low motivation, those with strong motivation likely to report better outcomes across positive, negative, and general psychopathological symptoms. Lack of information and understanding is frequently the root cause of low motivation, which causes patients to avoid exerting themselves and instead depend only on medicine to treat their symptoms (Halding et al., 2018). In addition to causing functional impairment, avoidance behaviour also alters reality contact and attitudes toward therapy when combined with cognitive deficiencies (Finan & Garland, 2015). A positive treatment experience is facilitated by increasing patients' motivation for their treatment, which promotes optimism and involvement (Graffigna & Barello, 2018). On the other hand, low motivation is linked to persistent symptomatology, negative attitudes, cognitive distortions, and a gradual development in depression symptoms (Constantino, Ametrano, & Greenberg, 2012).

5. Conclusion

A study found that the severity of positive, negative, and general psychopathological symptoms associated with schizophrenia is significantly higher than those associated with other psychotic disorders. Possibly, its severity can be attributed to some neurological differences. There is also a correlation between motivation and the outcomes of schizophrenia therapy, with higher motivation leading to improvements in symptom reduction and function. It is therefore possible to increase treatment efficacy and quality of life by managing the intensity of symptoms and motivating people who suffer from schizophrenia.

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