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The Role of Personality Traits, Cognitive Performances, and Perceived Social Support on Job Satisfaction Among Individuals with Chronic Psychiatric Disorders

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Abstract

Background: This study was conducted due to the importance of job satisfaction in chronic psychiatric patients and the lack of sufficient information about the associated variables.

Objectives: The study aimed to assess the role of personality traits, cognitive performances, and perceived social support on job satisfaction among individuals with chronic psychiatric disorders employed in supportive-productive workshops in Semnan.

Methods: This cross-sectional study was conducted using a quantitative and descriptive-correlational regression method. It included 152 individuals (both male and female) with chronic psychiatric disorders employed in supportive-productive workshops in Semnan city in 2022. Participants were randomly selected through a lottery method. Data were gathered using the NEO Five-Factor Inventory by Costa and McCrae (1985), the Field and Roth Job Satisfaction questionnaire (1951), Zimet's (1988) scale for perceived social support, and the Montreal Cognitive Assessment (1996). Data analysis was performed using regression analysis with SPSS version 24.

Results: The regression analysis illustrated that although neuroticism, agreeableness, extraversion, conscientiousness, perceived social support, and cognitive performances had a significant predictive role on job satisfaction among patients with chronic psychiatric disorders, perceived social support and conscientiousness had the most significant effect, while cognitive performances had the least significant effect on predicting job satisfaction ($P < 0.05$).

Conclusions: It is recommended that authorities pay special attention to the perceived social support from society and family, as well as cognitive rehabilitation focusing on attention and concentration for individuals with chronic psychiatric disorders.

Keywords: Cognitive Performances, Job Satisfaction, Mental Disorders, Personality, Social Support

1. Background

Chronic psychiatric disorders are types of disorders that relapse and last for more than six months, severely affecting an individual's ability to perform daily and professional activities (1). In 2019, one in eight individuals worldwide and approximately 23% to 39.6% of people in Iran were affected by various types of chronic psychiatric disorders, a number that has increasingly risen with the onset of COVID-19 and its consequences (2). These individuals face numerous problems, such as personal, familial, cultural, and financial burdens due to unemployment (3). In fact, the relationship between psychiatric disorders and job satisfaction is two-sided (3). Consequently, employment is very difficult, challenging, and exhausting for individuals with chronic psychiatric disorders. They not only have to cope with their job and its executive guidelines but also with their illness and its symptoms. Additionally, such individuals are often subject to criticism from colleagues, employers, family members, and friends. As a result, these patients experience lower levels of job satisfaction and occupational health in the workplace, along with higher levels of job burnout, substance abuse, and suicide, which confirms this issue (4).

The fact that the work environment may potentially be stressful does not necessarily mean that all

individuals with chronic psychiatric disorders suffer from low job satisfaction, as each individual interprets and manages stress in their work environment according to their personality traits and life experiences. Therefore, personality traits play an important role in the development of stress, burnout, and low levels of job satisfaction, as those who actively and adaptively engage with their environment and situation manage it to their advantage (5). Among personality traits, extraversion, neuroticism, and negative affectivity (6) have been reported to be negatively associated with job satisfaction in non-patients (7, 8). However, there is insufficient information about the role of personality traits on job satisfaction in individuals with chronic psychiatric disorders.

In addition to personality traits, cognitive performances are another component that may be related to job satisfaction. Cognitive performances refer to a wide variety of skills necessary for preparing and executing complex behaviors such as attention and concentration. Another key aspect of cognitive performance is executive functions, which are responsible for the simultaneous performance of several cognitive processes effective in goal-directed, task-oriented, self-regulation, and behavior inhibition, as well as planning, working memory, mental flexibility, response inhibition, impulse control, and action monitoring (9). Although the effects of cognitive performances on job satisfaction in non-patient individuals (10) have been confirmed, it is still unclear what role they play in job satisfaction in individuals with chronic psychiatric disorders.

In addition, perceived social support can also impact job satisfaction as a protective factor and is recognized as an effective factor in adjusting to stressful situations such as the work environment (11) in non-patient individuals (12). However, it is unclear whether this effect is also confirmed in employed individuals with chronic psychiatric disorders in supportive workshops, and it is not clear which source of perceived social support (society, family, or friends) has the greatest impact.

Given the importance of job satisfaction in individuals with chronic psychiatric disorders and its role in financial and identity independence, self-esteem, and preventing relapse, this study was conducted to explore the predictors of job satisfaction in this population.

2. Objectives

The study aimed to assess the role of personality traits, cognitive performances, and perceived social support on job satisfaction among individuals with chronic psychiatric disorders employed in supportive-productive workshops in Semnan city.

3. Methods

The study was descriptive-correlational using regression analysis and was conducted cross-sectionally. It was conducted to obtain a master's degree in clinical psychology with ethics code IR.IAU.SEMNAN.REC.1402.010. Among all individuals (both men and women) with chronic psychiatric disorders employed in productive-supportive workshops in Semnan City in 2022 (250 people), 152 people were selected randomly using the lottery method (assigning a code to each person and then selecting a set of codes randomly). The sample size was based on Cochran's Formula.

$$n = \frac{\frac{(1/96)^2 0.5\times 0.5}{0/05^2}}{1+\frac{1}{250}\left(\frac{(1/96)^2 0.5\times 0.5}{0/05^2}-1\right)}$$

The eligibility criteria included obtaining informed consent from the patients, ensuring they were not currently suffering from addiction, confirming their ability to read and write, diagnosing them with a chronic psychotic illness, confirming they were over 18 years old, and ensuring they were not taking sleeping pills. The exclusion criterion was any participant's unwillingness to continue in the study for any reason at any time. Before administering the questionnaires, the researcher (a clinical psychologist) introduced herself to the participants and obtained informed consent from all of them. The objectives of the study were explained to the participants, and they were informed that they could withdraw from the study at any time for any reason. The questionnaires were then distributed among them and collected after approximately 60 minutes.

To collect the data, five instruments were used:

(1) Demographic checklist: Used to collect demographic data.

(2) Job Satisfaction Questionnaire: Developed by Field and Roth (1951), it consists of 19 items rated on a 5-point Likert scale from "completely disagree = 1" to "completely agree = 5." The score range is between 19 and 95, with a cutoff point of 57. This questionnaire has demonstrated good validity and reliability, with a Cronbach's alpha coefficient of 0.87 and split-half reliability of 0.87 (13, 14).

(3) NEO Personality Inventory: Developed by Costa and McCrae in 1985 and revised in 1992. The short form consists of 60 items measuring five personality factors: Neuroticism (N), extraversion (E), openness (O), agreeableness (A), and conscientiousness (C). The scoring is based on a 5-point Likert scale (completely disagree, disagree, neutral, agree, completely agree) and is self-administered. The Cronbach's alpha values were reported as follows: Neuroticism = 0.93, extraversion = 0.90, openness = 0.89, agreeableness = 0.95, and conscientiousness = 0.92. The validity coefficients were reported to be between 0.56 and 0.62 (15).

(4) Montreal Cognitive Assessment (MoCA): Used for screening cognitive disorders and measuring executive functions, created by Ziad Nasreddine in Montreal in 1996. The test consists of 30 points and is administered over 10 minutes. The MoCA includes seven stages: Short-term memory, executive function, attention, concentration, executive functions, working memory, language, abstract reasoning, and time and place orientation (9). The reliability of this test was reported as 0.91 (16).

(5) Perceived Multidimensional Social Support Scale: Developed by Zimet, Dahlem, Zimet, and Farley in 1988, this 12-item scale measures perceived social support from three sources: Family, society, and friends, on a seven-point scale ranging from "completely disagree = 1" to "completely agree = 7." The total scale scores range from 12 to 84, and each subscale (family, social, friends) scores range from 4 to 28. A higher score indicates a higher level of perceived social support. The score for each subscale is calculated based on the sum of the item values. A previous study reported a Cronbach's alpha coefficient of 0.82 for the entire questionnaire (12).

Mean, standard deviation, skewness, and kurtosis tests were used to examine the normal distribution of variables. Additionally, Pearson correlation coefficient tests and regression analysis were used to examine the research hypotheses at a significance level of 0.05. SPSS version 24 was used for data analysis.

4. Results

A total of 152 patients with chronic psychiatric disorders were examined, with a mean age of 35.71 ± 8.38 years. Additionally, 72.4% (110 individuals) were single, and 27.6% (42 individuals) were married.

The linearity of the data was confirmed using a scatter plot. The normality of data distribution was tested using the Kolmogorov-Smirnov test.

Descriptive information related to personality traits, perceived social support, cognitive functions, and job satisfaction is reported in Table 1. According to Table 1, the skewness and kurtosis of the research variables were less than 3 and 10, respectively. Therefore, the distribution of all research variables among individuals with chronic psychiatric disorders employed in supportive-productive workshops in Semnan city was normal and can be analyzed using parametric tests.

The data related to the correlation coefficient between variables are presented in Table 2. According to Table 2, the correlation between job satisfaction and personality traits, including neuroticism, extraversion, openness, and conscientiousness, but not with agreeableness, was significant. Additionally, job satisfaction had a significant correlation with perceived social support in general and specifically from family and community, but not from friends. Furthermore, job satisfaction had a significant correlation with cognitive performances in general and specifically with memory, attention, and executive function, but not with concentration.

According to Table 3, 59% of the variability in job satisfaction can be explained by personality traits, cognitive performances, and perceived social support.

The results of the regression coefficients for personality traits, cognitive functions, and perceived social support are reported in Table 4. All variables, including perceived social support, cognitive performances, and personality traits, were simultaneously entered into the regression equation. An increase of one standard deviation in cognitive function, social support, neuroticism, extraversion, openness, and conscientiousness scores resulted in a 0.15, 0.49, 0.51, 0.37, 0.77, and 0.40 increase in the standard deviation of job satisfaction scores, respectively. It should be noted that the personality trait of openness was not able to significantly predict the variability in job satisfaction.

5. Discussion

The aim of this study was to predict job satisfaction among patients with psychiatric disorders employed in supportive-productive workshops based on personality traits, cognitive performances, and perceived social support. The results indicated that neuroticism, agreeableness, extraversion, conscientiousness, perceived social support, and cognitive performances had a significant predictive role in job satisfaction among patients with chronic psychiatric disorders. However, perceived social support and conscientiousness had the most significant effect, while

Table 1. Descriptive Statistics of Research Variables

Research Variables	Skewness	Kurtosis	Minimum	Maximum	Mean	Standard Deviation
Job satisfaction	-0.320	-0.112	39	90	69.20	12.65
Personality traits						
Neuroticism	0.166	27	48	37.58	5.69	-0.837
Extraversion	0.121	35	54	42.80	4.77	-0.872
Openness	-0.514	32	48	40.25	3.44	-0.269
Agreeableness	0.046	33	51	41.32	4.17	-0.292
Conscientiousness	0.307	24	37	30.00	3.28	-0.350
Perceived social support						
Family support	-0.182	8	20	14.94	3.63	-1.171
Friends support	0.182	6	21	12.59	4.38	-1.018
Society support	0.226	8	24	15.02	4.53	-0.787
Total score	-0.005	24	60	42.56	8.21	-0.120
Executive functions						
Memory	0.262	0	5	2.12	1.47	-0.839
Attention	0.546	0	5	1.67	1.53	-0.896
Concentration	0.419	0	6	2.38	1.74	-0.914
Executive performance	0.352	0	4	1.52	1.32	-1.038
Total score	-0.209	2	22	12.03	6.05	-1.052

Table 2. Correlation Matrix of Research Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Neuroticism	1														
Extraversion	0.20 [a]	1													
Openness	0.22 [a]	0.43 [b]	1												
Agreeableness	0.48 [a]	0.21 [b]	0.20 [b]	1											
Conscientiousness	-0.26 [a]	-0.60 [a]	-0.13 [b]	-0.20 [b]	1										
Job Satisfaction	-0.38 [a]	0.194 [b]	0.21 [a]	0.024	0.19 [b]	1									
Cognitive Functions	-0.17 [b]	0.080	0.094	0.16 [b]	0.36 [a]	0.37 [a]	1								
Memory	-0.086	0.092	-0.10	-0.096	-0.059	0.23 [a]	0.57 [a]	1							
Attention	-0.024	-0.042	0.12	-0.28 [a]	0.22 [a]	0.41 [a]	0.66 [a]	0.49 [a]	1						
Concentration	0.074	0.068	0.069	0.28b	0.061	0.057	0.74 [a]	0.50 [a]	0.55 [a]	1					
Executive Functions	-0.078	-0.067	0.094	0.17 [b]	0.43 [a]	0.20 [b]	0.70 [a]	0.061	0.35 [a]	0.29 [a]	1				
Social Support	0.15	0.17 [b]	0.17 [b]	0.072	-0.25 [a]	-0.39 [a]	0.035	0.063	0.11	0.010	-0.13	1			
Family Support	-0.21 [a]	0.25 [a]	0.22 [a]	0.080	-0.17 [a]	0.39 [a]	-0.16 [a]	-0.28 [a]	-0.079	-0.045	-0.20 [b]	0.68 [a]	1		
Friends Support	0.52 [a]	-0.19 [a]	0.020	0.25 [a]	0.010	-0.018	0.032	-0.092	0.17 [b]	0.098	0.029	0.51 [a]	-0.035	1	
Society Support	-0.063	0.29 [a]	0.11	-0.046	-0.33	0.41 [a]	0.039	0.20 [b]	0.10	-0.041	-0.10	0.76 [a]	0.47 [a]	0.00	1

[a] $P < 0.05$.

[b] $P < 0.01$.

cognitive performances had the least significant effect on predicting job satisfaction.

Although there is insufficient information on job satisfaction in individuals with chronic psychiatric disorders, previous studies have shown that neuroticism plays a significant role in predicting job satisfaction among patients with mental disorders (17) and non-patients (11, 18, 19). Another study identified cognitive performances and their components, such as attention and concentration, as important variables in

Table 3. Regression Analysis of Personality Traits, Perceived Social Support, Cognitive Functions on Job Satisfaction

Model	Multiple Correlation Coefficient (R)	Coefficient of Determination (R^2)	Adjusted R^2	Standard Error of Estimate	P-Value	F	Sig.
1	0.78	0.61	0.59	8.06	1.88	32.50	0.00

Table 4. Regression Coefficients Results for Personality Traits, Perceived Social Support, and Cognitive Functions on Job Satisfaction

Predictor Variables	B	Std.Error	Beta	T	Sig.	VIF	Tolerance
Cognitive functions	0.31	0.12	0.15	2.44	0.016	1.42	0.7
Perceived Social support	0.75	0.084	0.49	8.98	0.00	1.1	0.90
Neuroticism	-1.14	0.13	-0.51	-8.42	0.00	1.39	0.71
Extraversion	0.99	0.21	0.37	4.69	0.00	2.36	0.42
Openness to experience	0.28	0.22	0.077	1.26	0.207	1.36	0.73
Agreeableness	0.60	0.18	0.20	3.29	0.001	1.35	0.73
Conscientiousness	1.55	0.30	0.40	5.05	0.00	2.37	0.42

predicting job satisfaction among non-patients (19), which aligns with the results of this study.

Another important point is that only perceived social support from society and family had a positive and significant relationship with job satisfaction among patients with chronic psychiatric disorders. However, perceived social support from friends did not have a significant relationship with job satisfaction. This finding agrees with previous studies on the role of perceived social support in job satisfaction as a protective factor in adjustment to stressful situations such as the work environment (11) in non-patient individuals (12). This study provides more detail about which sources of perceived social support have the greatest impact.

In explaining the results of this study, it can be said that when conscientiousness and perceived social support from family and society, as well as attention and concentration, are combined, they create a sense of ability to perform assigned tasks accurately and regularly in the workplace. This leads to increased enthusiasm and a sense of confidence that they can succeed in the workplace. Additionally, in case of any problem or recurrence of the disease, they can benefit from the support of family and society (3, 17, 19). Therefore, job satisfaction among these patients increases and improves. Furthermore, attention helps the individual accept responsibility for what is happening, control and manage signs and symptoms of psychotic disorders, and show better performance and function in the workplace when signs and symptoms of psychiatric disorders occur (19).

It is recommended that authorities pay special attention to perceived social support from society and family, as well as cognitive rehabilitation for attention and concentration, for individuals with chronic psychiatric disorders. This may contribute to their success in the workplace. The limitations of this study included relatively weak cooperation from patients in supportive-productive workshops and the large number of questions in the questionnaires, which could have caused boredom among participants.

Footnotes

Authors' Contribution: This article is based on the master's thesis of the first author in the clinical psychology at Islamic University of Semnan. M. B. developed the original idea and the protocol, abstracted and analyzed data, wrote the manuscript, and is a guarantor. S. A. and M. B. contributed to the development of the protocol, abstracted data, and prepared the manuscript.

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Data Availability: The dataset presented in the study is available on request from the corresponding author during submission or after publication.

Ethical Approval: This study is approved under the ethical approval code of IR.IAU.SEMNAN.REC.1402.010 .

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Informed Consent: Before administering the questionnaires, the researcher (a clinical psychologist) introduced herself to the participants and obtained informed consent from all of them.

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