






Study About the Stages of Recovery with Patients Hospitalized in Psychiatric Clinic According to Sociodemographic and Clinical Factors

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Received: 04.04.2023

Accepted: 04.08.2024

ABSTRACT

Objective: This study aims to describe the stages of recovery and the effect of sociodemographic and clinical factors on the recovery stages of individuals with mental illness under inpatient treatment.

Methods: 171 patients who received inpatient treatment between April 2021 and June 2021 were taken to the study. Data were collected by using the Introductory Information Form and the Stages of Recovery Instrument from participants.

Results: According to the nurse, awareness was the highest level of the recovery stages and, according to the patient, growth was the highest level of the recovery stages. The average of the subscales of stages of recovery scale was found as 12.57±7.54 for moratorium, 19.26±5.84 for awareness, 19.22±6.40 for preparation, 19.52±7.03 for rebuilding and 20.03±7.73 for growth. Social support was found effective in all stages of recovery except moratorium stage; income level was found effective in preparation, rebuilding, and growth stages; diagnosis of the illness was found effective in the awareness stage; going to the Community Mental Health Center (CMHC) was found effective in preparation stage and child presence was found effective in rebuilding stage of recovery.

Conclusion: Our findings are important for identifying the effects of situations that can be changed by intervention, such as level of social support, income level, and going to CMHC, on improvement, and for drawing attention to actions that legislators should take regarding to collaboration between mental health professionals and institutions.

Keywords: Mental illness, recovery, hospitalized, sociodemographic factors

1. INTRODUCTION

Recovery from mental illness has different meanings. The definition of “clinical recovery” used and evaluated by mental health professionals is considered more of an outcome or condition, an improvement in symptoms, and recovery does not differ between individuals (1,2). However, the definition of “personal recovery” that emerged after the 1980s (3,4) emphasizes that the person with mental illness, despite any limitations, lives a satisfying life that is subjectively self-defined and accepted as a process (1,5). Personal recovery is defined as having positive effect on well-being beyond the effects of clinical or symptomatic improvement (2). This personal recovery, is a consumer-driven and individuals during the process of personal recovery are active members of this process rather than passive care recipients (5). Although personal recovery is viewed as an individual

situation, approaches including incorporate complex realities of life and its relational nature seem important (6).

The concept of recovery is controversial in the current literature and mental health care. Having uncertainties in the concept of recovery, and difficulties about understanding this concept (7-11) also brings challenges (8,12). Furthermore, it has been determined that patients and clinicians do not perceive clinical improvement and personal healing in the same way and have different perspectives (13). While traditionally used clinical measures provide important information for clinicians, they may not assess constructs important to personal recovery (14). This situation shows that it is very difficult for patients and clinicians working with the same goal to meet at the same point. Therefore,

a common understanding about concept of recovery should be developed to be taken up seriously by both of health professionals and service users (9). However, to develop this common understanding, the concept of personal recovery needs to be well understood. In particular, determining which recovery stage the individual is in will provide a framework for determining interventions according to the characteristics of that stage (7). Additionally, it counts as another dimension of assessment that creates potential basis on better understanding of recovery process and developing targeted treatment approaches (14). Although many studies have been carried out to better explain the concept of recovery and determine the factors affecting it, it is not possible to say anything definite about the effects of these factors (15-18). It has been stated that religiosity and spirituality are related to all stages of recovery in different ways and that these concepts are values that can be used in recovery processes (19). Leith & Stein (17) found that internalized stigma predicted the moratorium stage and personal loss significantly predicted the growth stage. They stated that the scale identified these obstacles to recovery and that precautions should be taken in clinics against them (17). Since the complexity of recovery is added to the complex structure of human beings, it seems that more studies are needed to obtain clearer information on these issues. It can be said that studies using the recovery of stages scale provide important clues in the care of individuals with mental illness. For this reason, it is extremely important to try to learn how individuals with mental health problems perceive their recovery processes and the effect of sociodemographic and clinical variables on recovery. This study was conducted to see the effect of different variables on recovery in all patients hospitalized in psychiatry clinics with a general point of view, and each disease group could not be evaluated within itself. This study aims to describe the stages of recovery and the effect of sociodemographic and clinical variables on the recovery stages of individuals with mental illness under inpatient treatment. As far as we know, this is the first study in Turkey that investigate how inpatients with mental health problems perceive their recovery processes and the effects of sociodemographic and clinical variables on recovery.

The hypotheses of the study are as follows;

H₁: There is a difference between sociodemographic characteristics and the stages of recovery.

H₂: There is a difference between clinical variables and the stages of recovery.

H₃: There is a difference between nurses' and patients' evaluations of recovery.

2. METHOD

2.1. Study Design, Setting and Sample

This descriptive, correlational, cross-sectional study is conducted between April 2021 and June 2021 on inpatients in a mental health and diseases hospital in Türkiye. The study

population is consisted of all inpatients in a mental health and diseases hospital between April 2021 and June 2021. The criteria for participation in the study were age over 18 years, having a diagnosis of mental illness and consent to participate in the study. Exclusion criteria of the study are illiterate has been diagnosed with mental retardation, is in the acute stage, and has difficulty understanding and answering questions. No sample selection was used in the study; 16 patients who failed to complete the forms were excluded from the study. The study was completed with 171 patients who agreed to participate. The nurses of all patients who filled out the study data were also interviewed face-to-face, the sub-dimensions of the scale were explained one by one, and they were also asked with a question at what stage their patients might be.

2.2. Measures

Introductory Information Form: This questionnaire is prepared by the researchers consists of 24 questions containing information on age, gender, education and employment status, income level perception, having children or not, diagnosis of mental illness, duration of treatment for mental illness, having registration in the Community Mental Health Center or not and having regular visits on CMHC or not, having physical illness or not and thoughts about recovery. In this form, participants were asked to indicate their assessment of their recovery status and life satisfaction on a scale from 0 (lowest score) to 10 (highest score). In addition, the stages of recovery were explained to each patient's nurse, and they were asked about which stage their patient was in.

Stages of Recovery Instrument (STORI-30): The Stages of Recovery Instrument was developed by Andresen et al. (5) to assess the recovery process at specific stages. Karakaş and Gürhan (20) studied its validity and reliability for our country, and the scale is a 6-point Likert scale. The questions on the scale are ranked between 0 and 5. While "0 = I do not agree" is expressed, "5" means "I fully agree." Five subscales with five stages are indicated in the scale. "1st stage=Moratorium is the stage where there is deep loss and hopelessness, the individual withdraws to protect him/herself", "2nd stage=Awareness involves the realization that all is not lost and a fulfilling life is possible", "3rd stage=Preparation is the stage where the individual works on recovery, evaluates his/her strengths and weaknesses and starts working to improve his/her recovery skills, "4th Stage=Rebuilding involves the individual actively working toward a positive identity, setting meaningful goals, and taking control of their life," and "5th Stage=Growth involves the individual taking control of the illness itself and living a fulfilling and meaningful life that is accompanied by the resilience and positive self-esteem" (5). There is no total score on the scale. The high scores obtained in the subscales of the scale indicate the person's stage. As we move from the moratorium to the growth stage, the perception of improvement also increases. The Cronbach's alpha values of subscales of scale was found range from

0.77 to 0.92 (20). In this study, it is found that the subscales Cronbach's alpha values ranged from 0.76 to 0.89.

2.3. Data Collection

After ethical and institutional approvals were obtained, patients were informed about the study, and study forms were distributed in person to those who volunteered to participate in the study. However, because the COVID-19 epidemic was still ongoing, patients were not left with them while filling out the forms; instead, they waited in the nurses' station, located near the patients, until they completed the forms. It took 15-20 minutes for patients to complete the forms.

2.4. Data Analysis

Statistical analyses were performed using the SPSS program (IBM SPSS Statistics 24). Frequency tables and descriptive statistics were used to interpret the findings. The with kurtosis and skewness values was used to evaluate the fit of the data to the normal distribution. It was used in the comparison of data "Independent Sample t", "ANOVA", "Mann-Whitney U" and "Kruskal-Wallis H" test. Bonferroni correction was applied for pairwise comparisons of variables with significant difference for three or more groups. Variables with a value of 5 or less were not considered when looking at the difference between variables.

2.5. Ethical Considerations

The research was conducted under the Declaration of Helsinki; and written approval was obtained from the study's institution and Non-Interventional Clinical Research Ethics Committee of Gazi University (02.03.2021-E.40777). Both verbal and written consent was obtained from the patients participating in the study.

3. RESULTS

3.1. Sociodemographic variables

The mean age of the study participants was 36.32 ± 11.05 ; 62% were male, 47.4% were single, 29.8% had secondary education, 48.5% had middle income, 80.1% lived with their family and 50% of the participants had good social support (Table 1).

3.2. Clinical features

It was found that 28.1% of the study participants were diagnosed with bipolar affective disorder, 88.9% had no additional mental illness, 40.4% had a treatment period less than one year, 39.8% had a duration of hospitalization as ≤ 7 days and 55.6% of them had 1 or 2 hospitalizations.

It was determined that 93% of the participants had no chronic physical illness, 12.3% were registered with the CMHC, and 8.8% went to the CMHC. In addition, according to the nurse of the patient in our study, the highest stage of recovery was the awareness stage with 35.7%; but according to the patient, the highest stage of recovery was the growth stage with 44.4%. It was found that patients rated their recovery status as 6.06 ± 2.62 out of 10 points on average, and satisfaction with life was 5.35 ± 2.91 out of 10 points on average (Table 2).

Table 1. Sociodemographic features

Variable	n	%
<i>Gender</i>		
Male	106	62.0
Female	65	38.0
<i>Age</i>		
18-27	44	25.7
28-37	56	32.7
38-47	45	26.3
≥ 48	26	15.3
<i>Marital status</i>		
Married	56	32.7
Single	81	47.4
Divorced	29	17.0
Widowed	5	2.9
<i>Having a child</i>		
Yes	72	42.1
No	99	57.9
<i>Income level perception</i>		
High	52	30.4
Middle	83	48.5
Low	31	18.2
Very low	5	2.9
<i>Educational level</i>		
Primary school	35	20.5
Secondary education	51	29.8
High school	52	30.4
Associate degree	12	7.0
Bachelor and above	21	12.3
<i>Social support level</i>		
Very high	14	8.1
High	87	50.9
Middle	47	27.5
Low	23	13.5
<i>Type of social support</i>		
Emotional support	48	28.1
Financial support	27	15.8
Information support	15	8.7
General support	74	43.3
All	7	4.1
<i>Who do you live with</i>		
Alone	28	16.4
With family	137	80.1
Relative	6	3.5

3.3. Mean of STORI-30 subscale and Cronbach Alpha values

The mean score of STORI-30 subscale moratorium was 12.57±7.54, the mean score of subscale awareness was 19.26±5.84, and the mean score of subscale preparation was 19.22±6.40, the mean of the rebuilding subscale was 19.52±7.03, the mean of the growth subscale was 20.03±7.73, and the Cronbach alpha values were 0.813, 0.799, 0.760, 0.825, and 0.893, respectively (Table 3).

Table 2. Clinical features

Variable (N:171)	n	%
<i>Diagnosis</i>		
Bipolar disorder	48	28.1
Depression	33	19.3
Psychosis	36	21.1
Substance abuse	44	25.7
Anxiety disorders	10	5.8
<i>Day of hospitalization</i>		
≤7 day	68	39.8
8-15 day	55	32.2
16-23 day	28	16.3
≥24 day	20	11.7
<i>Number of hospitalizations</i>		
1-2	95	55.6
3-4	36	21.1
5-6	22	12.9
≥7	18	10.4
<i>Time of treatment</i>		
≤1 year	69	40.4
2-5 year	37	21.6
6-10 year	28	16.4
>10 year	37	21.6
<i>Registration a CMHC</i>		
Yes	21	12.3
No	150	87.7
<i>Going to CMHC</i>		
Yes	15	8.8
No	156	91.2
<i>Additional physical illness</i>		
Yes	12	7.0
No	159	93.0
<i>Additional mental illness</i>		
Yes	19	11.1
No	152	88.9
<i>Self recovery stage according to the patient</i>		
Moratorium	23	13.5
Awareness	33	19.3
Preparation	14	8.2
Rebuilding	25	14.6
Growth	76	44.4
<i>Patient's recovery stage according to the nurse</i>		
Moratorium	52	30.3
Awareness	61	35.7
Preparation	41	24.0
Rebuilding	14	8.2
Growth	3	1.8

CMHC= Community Mental Health Center

Table 3. The distribution of outcomes concerning scale

Scale (N:171)	Mean	S.D.	Median	Min.	Max.	Cronbach-α
Moratorium	12.57	7.54	12.0	0.0	30.0	0.813
Awareness	19.26	5.84	20.0	0.0	30.0	0.799
Preparation	19.22	6.40	19.0	0.0	30.0	0.760
Rebuilding	19.52	7.03	20.0	0.0	30.0	0.825
Growth	20.03	7.73	21.0	0.0	30.0	0.893

STORI-30= Stages of Recovery Instrument

3.4. Comparison of sociodemographic features and recovery stage values

It was found that rebuilding scores ($p < .05$) those with a child; and preparation scores ($p < .05$), rebuilding scores ($p < .05$) and growth scores ($p < .05$) were significantly higher among those with high income.

Awareness scores ($p < .01$) and preparation scores ($p < .001$) for individuals with very high levels of social support compared to individuals with low levels of social support, as well as rebuilding scores for individuals with very high income compared to individuals with low income were found ($p < .01$) and growth scores ($p < .001$) were significantly higher (Table 4).

No significant relationship was found between gender, age, marital status, educational level, and the subscales of recovery stages.

3.5. Comparison of clinical features and recovery stage scores

It was found that awareness scores ($p < .05$) were higher in those with substance abuse than those with psychosis and anxiety disorders; and rebuilding scores ($p < .05$) were higher in those with mental illness than without additional mental illnesses. In addition, it was found that the preparation scores of those who went to the CMHC were higher ($p < .05$) than those who did not (Table 5).

On the other hand, no significant association was found between the recovery scale subscales for additional physical illnesses, time of diagnosis, number of relapses, duration of treatment, day of hospitalization, and number of hospitalizations.

3.6. The relationship between the degree of evaluation of patients' recovery status and the degree of satisfaction with life and the subscales of recovery stages

It was found that patients' self-assessment scores and recovery stages were negatively correlated with the subscale moratorium, weakly ($p < .001$); positively correlated with the subscale preparation, and weakly ($p < .01$); positive correlation with the rebuilding subscale, weakly ($p < .001$), and positive correlation with growth subscale with moderately statistically significant relationship. It was found that the level of life satisfaction and the stages of

recovery were negatively correlated with the moratorium subscale, weakly ($p < .001$) and positively correlated with the awareness subscale, weakly ($p < .05$); positive correlation with the subscale preparation, weakly ($p < .001$);

positive correlation with the subscale rebuilding, weakly ($p < .001$) and positive correlation with the subscale growth, moderately ($p < .001$), statistically significant relationship were found (Table 6).

Table 4. Comparison of sociodemographic features and recovery stage values

Variable (N=171)	n	Moratorium	Awareness	Preparation	Rebuilding	Growth
		$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$
<i>Gender</i>						
Male	106	12.70±7.66	19.18±6.31	19.06±6.55	19.35±6.93	19.77±7.77
Female	65	12.35±7.39	19.38±5.03	19.49±6.17	19.80±7.24	20.45±7.71
Statistical Analysis* Probability		t=0.289 ^a p=.773	t=-0.223 ^a p=.824	Z=-0.293 ^b p=.769	t=0.406 ^a p=.685	Z=-0.485 ^b p=.628
<i>Age</i>						
18-27	44	12.84±7.75	18.16±6.46	17.84±7.07	16.95±8.08	17.45±8.79
28-37	56	11.76±7.15	19.48±5.57	19.13±6.14	20.16±5.84	20.96±7.12
38-47	45	14.40±7.43	20.29±5.84	20.71±6.32	20.76±7.09	20.11±8.04
≥48	26	10.65±7.86	18.85±5.23	19.19±5.61	20.34±6.66	22.23±5.44
Statistical Analysis* Probability		F=1.696 ^c p=.170	$\chi^2=3.862^d$ p=.277	$\chi^2=4.973^d$ p=.174	$\chi^2=6.496^d$ p=.090	$\chi^2=5.701^d$ p=.127
<i>Marital status[≠]</i>						
Married	56	12.45±7.01	19.21±6.22	19.98±6.14	20.59±6.87	21.34±6.40
Single	81	12.04±7.83	18.69±5.97	18.56±6.83	18.38±7.35	18.92±8.36
Divorced	29	13.83±7.26	21.06±4.74	19.72±5.77	20.83±6.05	20.76±7.99
Statistical Analysis* Probability		$\chi^2=1.184^d$ p=.553	$\chi^2=3.881^d$ p=.144	$\chi^2=2.540^d$ p=.281	$\chi^2=4.162^d$ p=.125	$\chi^2=2.245^d$ p=.326
<i>Having a child</i>						
Yes	72	13.13±7.41	19.99±5.76	19.75±5.88	20.83±6.77	21.24±6.75
No	99	12.16±7.64	18.73±5.86	18.84±6.75	18.57±7.10	19.15±8.29
Statistical Analysis* Probability		t=0.825 ^a p=.411	Z=-1.931 ^b p=.053	Z=-1.029 ^b p=.303	Z=-2.018 ^b p=.044	Z=-1.315 ^b p=.189
<i>Income level [≠]</i>						
High ⁽¹⁾	52	12.73±8.17	20.56±5.55	20.77±5.98	21.33±7.13	21.69±7.67
Middle ⁽²⁾	83	12.54±7.45	18.67±5.96	19.03±6.08	18.99±6.91	19.62±7.38
Low ⁽³⁾	31	13.35±6.81	18.84±5.65	16.81±7.56	17.39±6.95	17.42±8.32
Statistical Analysis* Probability Difference		F=0.130 ^c p=.878	F=1.820 ^c p=.165	$\chi^2=7.166^d$ p=.028 [1-3]	F=3.412 ^c p=.035 [1-3]	$\chi^2=6.724^d$ p=.035 [1-3]
<i>Educational level</i>						
Primary school	35	13.40±7.79	17.95±5.76	18.49±6.92	18.94±7.53	19.45±7.25
Secondary education	51	12.84±7.72	20.51±5.12	19.76±6.14	19.31±6.11	20.53±7.00
High school	52	12.69±7.35	19.45±6.05	19.33±6.53	19.88±7.81	19.65±9.25
Associate degree	12	11.83±5.65	16.92±7.23	17.67±7.63	18.83±9.30	19.58±6.97
Bachelor and above	21	10.61±8.33	19.29±5.90	19.76±5.27	20.48±4.97	20.95±6.95
Statistical Analysis* Probability		$\chi^2=2.227^d$ p=.694	$\chi^2=3.643^d$ p=.457	$\chi^2=0.689^d$ p=.953	$\chi^2=1.021^d$ p=.907	$\chi^2=0.786^d$ p=.940
<i>Social support level</i>						
Very high ⁽¹⁾	14	8.86±5.40	22.36±4.16	22.93±4.23	24.64±4.43	22.93±5.92
High ⁽²⁾	87	11.97±7.85	20.09±5.85	20.37±5.91	20.24±6.70	21.97±6.81
Middle ⁽³⁾	47	13.87±6.56	17.85±5.77	18.02±6.46	18.32±7.07	18.68±7.29
Low ⁽⁴⁾	23	14.39±8.57	17.09±5.63	15.09±6.86	16.13±7.49	13.69±9.09
Statistical Analysis* Probability Difference		$\chi^2=7.181^d$ p=.066	F=4.088 ^c p=.008 [1-4]	F=6.907 ^c p=.000 [1-4]	$\chi^2=16.263^d$ p=.001 [1-3,4]	$\chi^2=20.310^d$ p=.000 [1-3,4] [2-3,4]

≠(n=166) *a= Independent Sample-t; b= Mann-Whitney U; c= ANOVA; d= Kruskal-Wallis H

Table 5. Comparison of clinical features and recovery stage scores

Variable (N=171)	n	Moratorium	Awareness	Preparation	Rebuilding	Growth
		$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$
Diagnosis						
Bipolar disorder ⁽¹⁾	48	12.44±7.62	19.10±5.83	19.90±6.55	19.54±6.67	20.29±7.62
Depression ⁽²⁾	33	12.52±6.06	18.94±6.22	19.52±7.03	18.73±7.99	20.33±7.71
Psychosis ⁽³⁾	36	12.81±8.12	18.19±5.29	17.89±6.65	19.42±6.60	20.33±7.30
Substance abuse ⁽⁴⁾	44	13.86±7.72	21.11±5.80	19.78±5.63	19.82±7.15	19.18±7.70
Anxiety disorders ⁽⁵⁾	10	6.80±7.23	16.70±5.52	17.40±5.89	21.10±7.41	20.40±10.90
Statistical Analysis* Probability Difference		$\chi^2=6.420^d$ p=.170	$\chi^2=11.980^d$ p=.018 [4-3,5]	$\chi^2=4.974^d$ p=.290	$\chi^2=0.824^d$ p=.935	$\chi^2=1.337^d$ p=.855
Day hospitalization						
≤7 day	68	13.06±7.66	19.79±5.76	19.78±5.91	19.63±7.39	19.53±8.25
8-15 day	55	12.18±7.36	18.94±5.98	18.75±6.54	18.89±7.06	19.89±7.78
16-23 day	28	10.57±6.96	18.11±6.36	18.75±7.40	20.18±7.28	21.42±6.70
≥24 day	20	14.75±8.16	19.90±5.04	19.30±6.41	19.95±5.47	20.15±7.36
Statistical Analysis* Probability		F=1.367 ^c p=.255	F=0.683 ^c p=.564	$\chi^2=0.887^d$ p=.828	F=0.256 ^c p=.857	$\chi^2=0.812^d$ p=.847
Number of hospitalizations						
1-2	95	12.22±7.39	19.51±6.38	19.07±6.59	19.91±7.22	20.18±7.69
3-4	36	13.50±8.09	20.17±4.52	19.72±6.51	19.39±6.61	19.89±8.37
5-6	22	14.14±7.75	17.18±5.40	17.86±5.61	17.73±7.07	18.68±8.00
≥7	18	10.61±6.89	18.67±5.93	20.67±6.15	19.94±6.97	21.17±6.51
Statistical Analysis* Probability		F=0.972 ^c p=.407	$\chi^2=5.382^d$ p=.146	F=0.724 ^c p=.539	$\chi^2=1.781^d$ p=.619	$\chi^2=0.798^d$ p=.850
Time of treatment						
≤1 year	69	11.84±8.06	20.17±6.57	19.75±6.97	20.08±7.35	21.04±7.57
2-5 year	37	12.10±6.46	18.54±4.81	18.70±5.71	19.16±7.26	18.92±7.75
6-10 year	28	12.89±7.30	19.14±6.05	18.93±7.00	18.71±7.29	18.61±9.26
>10 year	37	14.14±7.73	18.35±5.09	19.00±5.57	19.45±6.11	20.32±6.68
Statistical Analysis* Probability		F=0.808 ^c p=0.491	$\chi^2=6.225^d$ p=0.101	$\chi^2=1.586^d$ p=0.663	$\chi^2=1.119^d$ p=0.772	$\chi^2=2.550^d$ p=0.466
Going to CMHC						
Yes	15	11.87±8.60	20.40±4.95	22.40±5.62	21.60±5.37	23.73±5.69
No	156	12.63±7.45	19.15±5.92	18.92±6.39	19.32±7.15	19.67±7.82
Statistical Analysis* Probability		Z=-0.451 ^b p=.652	Z=-0.752 ^b p=.452	Z=-2.062 ^b p=.039	Z=-1.050 ^b p=.294	Z=-1.898 ^b p=.058
Additional physical illness						
Yes	12	11.83±9.85	19.42±7.57	18.50±8.12	19.92±9.38	19.17±8.10
No	159	12.62±7.37	19.25±5.72	19.27±6.27	19.49±6.86	20.09±7.72
Statistical Analysis* Probability		Z=-0.257 ^b p=.797	Z=-0.245 ^b p=.806	Z=-0.006 ^b p=.995	Z=-0.312 ^b p=.755	Z=-0.436 ^b p=.663
Additional mental illness						
Yes	19	15.42±7.15	21.84±5.16	21.79±5.98	22.63±6.26	20.63±8.47
No	152	12.21±7.53	18.93±5.85	18.90±6.39	19.13±7.04	19.95±7.66
Statistical Analysis* Probability		t=1.761 ^a p=.080	Z=-1.928 ^b p=.054	Z=-1.743 ^b p=.081	Z=-1.976 ^b p=.048	Z=-0.492 ^b p=.622

CMHC= Community Mental Health Center; *a= Independent Sample-t; b= Mann-Whitney U; c= ANOVA; d= Kruskal-Wallis H

Table 6. Examination of the relationships between some parameters and subscales

Correlation ¹ (N:171) STORI-30		The level of evaluation of recovery status (0-10)	The level of satisfaction with life (0-10)
Moratorium	<i>r</i>	-0.417	-0.388
	<i>p</i>	.000***	.000***
Awareness	<i>r</i>	0.048	0.157
	<i>p</i>	.533	.047*
Preparation	<i>r</i>	0.233	0.342
	<i>p</i>	.002**	.000***
Rebuilding	<i>r</i>	0.361	0.482
	<i>p</i>	.000***	.000***
Growth	<i>r</i>	0.534	0.605
	<i>p</i>	.000***	.000***

STORI-30= Stages of Recovery Instrument, 1Spearman correlation, **p*<.05, ***p*<.01, ****p*<.001

4. DISCUSSION

This study is made to determine the stages of recovery and the effects of sociodemographic and clinical factors on the stages of recovery in individuals with mental illness during inpatient treatment.

It was found that there was correlation between having a child and the rebuilding subscale of the stages of recovery scale. While there is a limited evidence base for incorporating parenting as a component of recovery for adults with mental illness, recovery-oriented interventions “designed to support a parent in the context of his or her mental illness” had been shown effective on improving parent, child and family well-being (21). The family-focused practice had also shown being an effective approach to supporting individuals with mental illness (22). This study, it is thought that the significant relationship between having a child and the restructuring subscale can be due to the fact that having a child forces them to rebuild their lives and having control over their families.

It is determined that individuals with high income have significantly higher scores in preparation, rebuilding, and growth subscale than individuals with low income. Previous studies have shown that poverty plays an important role in people with mental illness who have difficulty maintaining friendships, developing old and new relationships, and re-establishing their relationships after a crisis (23). In addition, financial support in the form of “activity support” for 9 months period for people with mental illness was found to produce significant changes in quality of life, self-esteem, increasing social relationships, and decreasing symptoms (24). The high-income perception may have contributed to the decrease in symptoms of illness by increasing the quality of life that had deteriorated during the illness, restoring social ties, and increasing self-esteem.

The awareness subscale scores were significantly higher in individuals diagnosed with substance dependence than those diagnosed with anxiety and psychosis. On the other

hand, Leith and Stein (17) found no significant difference between psychosis and mood disorder diagnoses on the stages of recovery scale (17). The awareness stage involves realizing that not everything is over and fulfilling life is still possible. On the other hand, Insight is explained as the awareness of one’s internal state and changes at the level of insight in many psychiatric disorders is a well-known reality (25). The biggest handicap in the evaluation of these results is the heterogeneity of the sample and the fact that each patient group was not evaluated within itself. Considering that there are periodic insight differences even within the diseases themselves, it is certain that there are insight differences between the diseases. For this reason, it would not be appropriate to make a clear assessment among diseases. however, this study has not been done to determine clear differences anyway. The aim was to present a more general perspective. In this context, it is thought that one of the reasons why the scores of individuals with substance addiction are significant may be that hospitalized addicted patients are in the detox process, which is the first stage of treatment, and this process reduces the person’s physical addiction and increases awareness.

It is found that individuals with an additional mental illness had significantly higher rebuilding scores than individuals without additional mental illness. The detailed analysis found that 63% of individuals diagnosed with an additional mental illness had diagnosis of substance dependence. This suggests that treatment for the additional mental illness may have contributed to the individual’s rebuilding.

This study found that individuals with good social support had higher scores on the awareness, preparation, rebuilding, and growth subscales. In the study of Gandotra et al. (16) is found similar results to our study. In the literature, it is found that perceived social support positively affects recovery (19,26), and there is a positive relationship between the level of social support and quality of life (27). In a systematic review study of personal recovery, social support is found as one of the factors supporting recovery (28). These studies can be accepted as indicators of that social support and functionality play an important role in recovery.

The preparation scores of those who went to CMHC were higher than those who did not go to CMHC. The preparation stage is a period of which the person begins to work on improving their recovery skills. Previous studies have found that services provided in CMHC have a positive impact on many factors that contribute to improvements, such as patients’ insight, quality of life, and functionality (29,30). In the study by Kurt et al. (31), it was determined that individuals who used CMHC services perceived greater personal recovery than the outpatient clinic group (31). It was also found that mental health services significantly predicted process-based recovery (17). In our study, this situation can be interpreted as the patients who went to CMHC were in preparation for recovery or that CMHC services helped the patients to prepare for the recovery process. However, it

can be interpreted that either way CMHC contributes the patients to internalize their recovery processes.

In our study, scores for the preparation, rebuilding, and growth subscales were higher in patients with undergraduate and postgraduate education, but the difference was not significant. Gandotra et al. (16) found that the group with the lowest educational level had lower scores for the preparation, rebuilding, and growth subscales. In addition, it was determined that as the level of education increases in people with mental illness, functional improvement (32) and functionality (33) also increase. However, O'Shea and Salzer (34) found that individuals with higher levels of education had lower scores in recovery and quality of life (34). Although there are different results about education levels in the literature, it is thought that high education levels may bring positive features such as using effective and different coping methods, but no result confirming this view has been reached. The fact that there are different results in the literature suggests that the effect of individual development on recovery may also be an important factor.

While in our study, 44.4% of patients considered themselves to be in the growth stage, it was determined that the nurses who took care of these patients considered that only 1.8% of the same patients were in growth stage. Similarly, in other studies also was found that most patients viewed themselves as being in the growth stage (18,35). The study, the patient's nurse also assessed the patient's recovery stage, considering the same stage scales. It was found that the stage of recovery that patients set for themselves and the stages that their nurses hold for the patient were very different. Previous study has found that patients and clinicians have different perspectives on personal recovery, this finding supported our study result (13). Our third hypothesis was confirmed. These results may be an indication that both clinicians and patients may not have the same evaluation of recovery. Clinicians are advised to pay attention to this issue.

For variables such as gender, age, occupation, marital status, additional physical illness, duration of illness, day of hospitalization, number of hospitalizations, and duration of treatment, no significance was found concerning the subscales of the stages of recovery scale. In other studies, no significant relationship was determined between recovery stages and different sociodemographic variables such as age (15), age and gender (17), gender, marital status, and duration of illness (16), age, gender, marital status, and occupation (18). It was seen that our first hypothesis could not be confirmed importantly. Although many studies, including ours, have found that sociodemographic variables alone are not effective; it is believed that it may be useful to conduct more studies in-depth quantitative and addressing different variables.

Variables such as day of hospitalization, number of hospitalizations, illness, and duration of treatment were the variables thought to contribute to an individual's recovery status. In the study by Gandotra et al. (16), no significant difference was found concerning to the

duration of illness and type of treatment (pharmacological-pharmacological+psychological) variables. It was seen that our second hypothesis could not be confirmed importantly. One of the significant factors in the emergence of these result may be the heterogeneous sample and the lack of a separate evaluation for the diseases. In addition, factors such as the severity of the disease, its duration, the duration of hospitalization and treatment may have been effective, such as the fact that many factors were evaluated according to this heterogeneous sample and could not be detailed. In addition to these, the absence of a significant difference in terms of these variables in our study may also be considered that these variables alone may not have a significant effect on the psychological recovery process for all patients hospitalized in the psychiatry clinic. It can be said that there is a need for more detailed studies on these variables, considering all these possible causes. Although our study has some important shortcomings, it is thought that it can provide a general perspective for patients hospitalized in psychiatry clinics.

There was a negative and weak relationship between patients' the level of satisfaction with life and the degree of evaluation of their recovery and the moratorium stage. In addition, as we go from the moratorium stage to the growth stage, the direction of the relationship is positive and gradually increased. A parallel relationship was observed between patients' level of satisfaction with life and recovery. Also, it was found that the degree of evaluation of their recovery was very similar and consistent with the scale stages. This result can be seen as an indication that the answers given by the patients are consistent.

This study has some limitations. The first one is that the study was conducted in only one institution. The second one is, data of the study was based on self-report in which patients may have perceived or reported their recovery differently. Third one is that the time interval of the study was limited for 3 months and as the number of COVID-19 cases increased during this period of the study; therefore, the number of patients had been smaller than desired. The fourth one is that patients' perceptions of recovery were measured with a single measurement tool. Fifth, there is no detailed evaluation to address each patient group separately.

5. CONCLUSION

In conclusion, in this study, between all recovery stages except the moratorium stage and social support; between preparation, rebuilding, and growth stages and income level perception; between the awareness stage and the diagnosis of the disease; It has been found that there was a significant relationship between the preparation stage and the state of going to the CMHC and between the rebuilding stage and having a child. Our results are important to see the effect on recovery by improvement of these situations, such as the level of social support, income level, and going to the CMHC, which can be modified by an intervention, and to draw attention to the actions that legislators should take regarding

to collaboration between mental health professionals and institutions. In addition, it is suggested that the basis of care interventions for patients should be formed according to the characteristics the stage of recovery in which the patient is located. In this way, rather than a general approach to patients, the factors that are specific to the individual and important for his/her recovery will be determined. In further studies, we recommend to determining the changes on recovery by providing social support and income levels with interinstitutional collaboration.

Acknowledgement: *The authors are grateful to all the patients for their cooperation in this study.*

Funding: *The author(s) received no financial support for the research.*

Conflicts of interest: *The authors declare that they have no conflict of interest.*

Ethics Committee Approval: *This study was approved by Non-Interventional Clinical Research Ethics Committee of Gazi University, (approval date 02.03.2021 and number E.40777)*

Peer-review: *Externally peer-reviewed.*

Author Contributions:

Research idea: MK, NG

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Acquisition of data for the study: MK, AK, HE

Analysis of data for the study: AK, NG, HE

Interpretation of data for the study: MK, AK, HE, ZA

Drafting the manuscript: MK, AK, NG, ZA, HE

Revising it critically for important intellectual content: ZA, HE

Final approval of the version to be published: MK, AK, NG, ZA, HE

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How to cite this article: Karakaş M, Gürhan N, Arıkan Z, Koç A, Ensari H. Study about the Stages of Recovery with Patients Hospitalized in Psychiatric Clinic According to Sociodemographic and Clinical Factors. *Clin Exp Health Sci* 2024; 14: 657-666. DOI: 10.33808/clinexphealthsci.1276776