Association between Community Integration and Mental Health Recovery among Patients with Psychiatric Disorders

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Abstract

Background: The practice of integrating mentally ill patients back into the community is drawing attention all over the world. Community integration is essential for people with mental illness because it promotes their physical and mental health, life satisfaction, well-being and quality of life. It requires the mental health system, public health, and social services to develop innovative ways to help patients with psychiatric disorders to regain their place in the communities. **Aim**: assess the levels of community integration and mental health recovery among patients with psychiatric disorders and explore the association between both of them. **Design:** Descriptive correlational research design was utilized. **Setting:** The study was conducted at psychiatric outpatient clinic that is affiliated to Tanta University. **Sample:** A purposive sample of 100 patients with psychiatric disorders. **Tools**: Three tools were used to collect data, Socio-demographic and clinical characteristics, Community integration scale for adult with psychiatric problems (CIS-APP) and Recovery assessment scale-revised (RAS-R). **Method**: Each patient who attend to the outpatient clinic and met the inclusion and exclusion criteria was interviewed by the researcher on an individual base, in privacy to establish rapport and gain his trust, sign the informed consent, and complete the study tools. **Results**: The majority of the patients had lower levels of community integration and mental health recovery. In addition, a statistically significant positive correlation between community integration and recovery was detected. **Conclusion:** The studied patients had poor community integration and mental health recovery. Community integration and recovery are correlated and influencing each other. Social community integration is the first main predictor of mental health recovery among the studied psychotic patients. **Recommendation:** Continuous efforts are needed to improve social community integration among the patients via applying different programs for social skills training and assertiveness skills that strengthen patient's ability to form relationships with others in the community and subsequently enhance their recovery.

Key words: Community Integration, Mental Health Recovery and Patients with Psychiatric Disorders.

Introduction

Over the past years psychiatric care encouraged hospitalization; however, social and economic pressures as well as advances in treatment, which were managed in a more integrated and effective fashion, articulating pharmacological, psychological and psychosocial interventions lead to changes in mental health service provision through deinstitutionalization and decrease of days spent in psychiatric hospitals ([1]) . The movement of deinstitutionalization is not only for the existing patients but also for the newly hospitalized patients, highlighting the importance of community integration for people with psychiatric disorders [(2)] . The practice of integrating mentally ill patients back into the community is drawing attention all over the world. It is perceived as a principle, value, and major goal of mental health policy [(3)].

Community integration is defined as the degree in which individuals with psychiatric disorders have the opportunity to benefits from the existing resources in their community and detached from the role of a psychiatric patient living in a protected environment, having an independent stance from their illness and assuming their self-management. [(4,5)] . Wong and Solomon (2002) attempted to clearly define community integration by dividing it into three dimensions: physical, social and psychological. Physical integration refers to participating in everyday community activities and using community resources; social integration refers to maintaining social relationships with community members and being aware of support resources in the surrounding environment; and finally psychological integration refers to developing affects and sense of belonging that help in developing social relationships. [(6)] Other recent studies have suggested that independence/self-actualization derived from independent living, meaningful and productive activity is critical factor for helping people with psychiatric disorders integrate into the community [(7,8)].

Factually, people with mental illness may experience more problems integrating into the community than people without mental illness [(9)]. Previous community integration studies have identified several factors such as psychopathology, public stigma, social functions, service program characteristics, and neighborhood characteristics [(10-14)]. These factors should be considered when developing a program to foster community integration among patients with mental

illness. The literature indicated that community integration is essential for people with mental illness because it promotes their physical and mental health, life satisfaction, well-being and quality of life (QOL) [15,16]. Moreover, it provides indirect support via casual community relationships developed through regular contact with other people who live and work in the same community and foster their recovery [7].

Along the same line, facilitation of recovery has become the goal of mental health systems around the world for individuals with psychiatric disorders (Salzer et al 2014) [18]. Recovery is defined as 'a way of living a satisfying, hopeful and contributing life even with limitations caused by illness. As such recovery implies that persons with mental disorders experiencing themselves as recovering a new sense of self and purpose within and beyond the limits of the disability. Hope, optimism, and positive identity are central features of recovery[19,20].

Realistically, there is no single definition of the concept of recovery for people with mental health problems, but there is a guiding principle as the ability to control their life rather than the subtle state of returning to premorbid level of functioning. Recovery does not focus on full symptom resolution but emphasizes resilience and control over problems and life. The aims of recovery are to help people with mental illnesses and distress to look beyond mere survival and existence. It encourages them to move forward and set new goals. It supports the view that they should get on with their lives, do things and develop relationships that give their lives meaning [21-23].

As the recovery process is greatly influenced by people's expectations and attitudes, it requires a well-organized system of support from family, friends or professionals. It also needs the mental health system, public health, and social services to develop innovative ways to help patients with psychiatric disorders regain their place in the communities. Previous research has emphasized the importance of community integration as a core strategy to foster recovery in people with psychiatric disorders [17]. Therefore, it is necessary to understand how the multidimensional aspects of community integration affect mental health recovery. This knowledge can provide an empirical basis for establishing intervention strategies for mental health recovery in people with mental health difficulties living in the community.

Aim

-Assess the levels of community integration and mental health recovery among patients with psychiatric disorders.

-Explore the association between community integration and mental health recovery among patients with psychiatric disorders.

Subjects and Method

Research questions

- What are the levels of community integration and mental health recovery among patients with psychiatric disorders?
- Is there any association between community integration and mental health recovery among patients with psychiatric disorders?

Research design: Descriptive correlational research design was utilized.

Setting: The study was conducted at psychiatric outpatient clinic that is affiliated to Tanta University, the outpatient clinic works 4 days/week and 8 hrs. / day and offer free services to all psychiatric patients.

Subjects

A purposive sample of 100 patients with psychiatric disorders who lived at the community was recruited. The sample size was calculated using Epi-Info software statistical package. The criteria used for sample size calculation were as follows: 95% confidence limit and expected correlation between community integration and recovery is 70%. Based on the above-mentioned criteria the sample size should be 92 patients, so, the researchers decide to increase the sample size to 100 patients to increase reliability of the study results.

Inclusion criteria

- Diagnosed with psychiatric disorders based on DSM-5 criteria
- 21 years old and above.
- Able to communicate in a coherent and relevant manner

Exclusion criteria

Any evidence of organic brain disease, mental retardation, substance use disorder, and \ or other psychiatric comorbidity

Tools of the study

Three tools were used to collect data for this study.

Tool I: Socio-demographic and clinical characteristics.

It was developed by the researchers and covering patient's socio-demographic characteristics as age, sex, level of education, occupation, income, residence, and cohabitation. Clinical characteristics includes diagnosis, duration of illness and community services usage status.

Tool II: Community integration scale for adult with psychiatric problems (CIS-APP)

It is developed by Barreto Carvalho & Cabral (2012) [24] . It consists of 34 items divided into four subscales namely: the Physical Community Integration dimension (8 items) assessing the extent to which individuals spend their time outside their homes, participate and use community resources by self-initiative; the Social Community Integration dimension (12 items) assessing the degree with which individuals are involved in social interactions with other (healthy) members of their community, and the quantity and quality of these relationships; Psychological Community Integration dimension (7 items) assessing the extent to which individuals perceive themselves as a part of their community, bond emotionally to their neighbors, believe in their ability to satisfy their needs and to influence the community. Finally, the Independence dimension (7 items) assessing the individuals' capacity to develop their daily activities autonomously . Items are responded in a scale ranging from 1 (completely disagree) to 5 (completely agree), in which higher scores indicate higher levels of community integration. The score calculated as follow:

Less than 50% indicates poor community integration

A score of 50-75 indicates fair community integration

A score greater than 75% indicates good community integration

Tool III: Recovery assessment scale-revised (RAS-R)

It is developed by Giffort et al., (1999) [25]- . It is the most wildly used scale to measure mental health recovery. The scale consists of 24 items divided into five subscales namely, Willingness to ask for help (3 items), Goal and success orientation (5 items), Reliance on others (4 items), Personal confidence and hope (9 items), Not dominated by symptoms (3 items). The patient's responses were pointed on five points likert scale that ranging from 1 = strongly disagree to 5 = strongly agree . Higher scores indicating higher perceptions of mental health recovery.

The score calculated as follow:

- Less than 50% indicates poor mental health recovery
- A score of 50-75 indicates fair mental health recovery
- A score greater than 75% indicates good mental health recovery

Methods

- An official approval was obtained from the director of the psychiatric outpatient clinic to collect the study data.

-Tool I was developed by the researchers after thorough review of literature.

- Tools II & III were translated into Arabic language by the researchers and then back translated. Results showed that the back translation were similar with the original one. Content validity was examined by panel composed of five experts in the psychiatric nursing fields. No modification was required.

- A Pilot study was carried out on 10% of patients with psychiatric disorders to ensure the clarity and applicability of the study tools. According to its results no modifications were done.

-Tools II & III were then tested for their reliability by using Cronbach alpha and found to be α=0.829 and 0.659 respectively which indicates good internal consistence.

- During the actual study, the researchers firstly interviewed with the responsible physicians and staff nurses at the outpatient clinic to illustrate the purpose of the study and to gain their support and assistance. Following this step, each patient who attends to the outpatient clinic and met the inclusion and exclusion criteria was referred to the researchers by the treated psychiatrist. The researchers then verified the appropriateness of the potential subjects by using patients' health records.

-Each patient was contacted on an individual base and interviewed in privacy by the researcher to establish rapport and gain his trust, sign the informed consent, and complete the study tools.

- Each interview lasted between 30 to 45 minutes. Data collection was completed over a period of 3 months starting from the first of November 2020 to the end of January 2021.

Ethical considerations

- Study procedure was revised and approved by the Ethical Committee of the Faculty of Nursing, Tanta University.

- Informed consent was obtained from the patients after explanation of the purpose of the study.

-The participant's right to refuse participation in the study was maintained. They also reassured about the confidentiality of their obtained information.

Statistical analysis

The collected data was organized, tabulated and statistically analyzed using SPSS version 19 (Statistical Package for Social Studies) created by IBM, Illinois, Chicago, USA. For numerical values, the range, mean and standard deviations were calculated. The differences between two mean values were

employed using student's t test. For categorical variable, the number and percentage were calculated. The correlation between two variables was estimated using Pearson's correlation coefficient (r) if the two variables are numerical and Spearman's rank correlation (rho) if one of the two variables was ordinal. Regression analysis used for the parameters of community integration. The level of significant was adopted at $p<0.05$.

Result

Table (1) presents the socio-demographic and clinical characteristics of the studied participants. In relation to age, the total subjects mean age was 34.38+9.53 years with 38 % being in the age group ranging from 20 to less than 30 years. As for sex, male patients outnumbered females (68% & 32% respectively). Concerning marital status, patients who were single and married nearly take the same percent 36% & 39% respectively). As regards the educational status, the highest percentage (36%) was for university education while the least one was for primary education (14%). In relation to residence, around two thirds of the studied patients (65 %) were living in urban compared to 35% who were living in rural areas and more than half of them (54%) reported that their monthly income is not enough. The vast majority of patients (88%) were living with their families and 60% using community services. Regarding diagnosis, more than half of patients (54%) were schizophrenic with a mean 6.88+4.93 for duration of illness in which 53% had a duration of illness ranged from four to six years.

Table (2) shows the distribution of the studied participants according to total score of community integration and recovery scales. Regarding to community integration scale; 81% of patients had poor community integration in total score with a mean of 46.31+4.70. In relation to community integration subscales, 67 % of patients had poor level in physical and social subscales. Around three quarter of them (74%) had poor integration in psychological subscale and finally 56% of patients had poor level of independence subscale while 47% had fair level. Speaking of the mean score; the highest mean 46.98+6.43 was for social subscale and the lowest one 45.25+7.85 was for physical subscale.

As regards recovery scale; the vast majority of patients (93%) had poor level of recovery in total score with a mean of 43.69+6.00. As for recovery subscales, 87%, 85% & 84% of the studied participants had poor levels in goal and success orientation subscale,

willing to ask for help subscale and not dominated by symptoms subscale respectively. Moreover, 67% had poor level in personal confidence and hope. Lastly, 55% had poor level in reliance on others subscale compared to 44 % who had fair level. In relation to the mean score, the greatest score was for personal confidence and hope 46.22+9.03 and the smallest one for not dominated by symptoms subscale 41.13+10.72.

Table (3) displays the correlation between total scores and subscales of community integration and recovery scales. From this table it can be observed that, there is a statistically significant positive correlation between total score and subscales of community integration scale and total score and subscales of recovery scale.

Table (4) present regression analysis for the parameters of community integration Concerning to sex, there was a statistically significant positive correlation between sex and total score of community integration and almost all its subscales except social subscale only. (P= 0.001*, 0.010*, 0.001* & 0.002* respectively). In this respect, female patients had the highest mean 49.05±6.47, 48.13±11.04, 50.18±10.13 & 54.11±10.91 respectively.

affecting recovery. The table shows that three subscales of community integration namely, social, psychological and independence had a significant effect on recovery level of the studied patients. (P= 0.001*, 0.027* & 0.008* respectively)**.**

Table (5) illustrates the relationship between community integration total score and subscales and sociodemographic and clinical characteristics. It was noted that, age had a statistically significant positive correlation with total score of community integration and all its subscales namely, physical, psychological, social, and independence. (P= 0.008*, 0.001*, 0.001*, 0.001*& 0.001* respectively). In which those patients with age ranged from 20 to less than thirty years had the highest mean 48.02±6.32, 48.06±10.73, 50.63±9.38, 48.98±8.33 & 54.92±9.90 respectively compared to other age group.

Again, a statistically significant positive correlation was detected between educational level and total score of community integration and all its subscales (P= 0.001*). It was found that patients with university level of education had the uppermost mean 50.25±3.75, 50.90±7.37, 50.24±8.84, 50.60±6.56 & 55.48±10.05 respectively.

On the other hand, no statistically significant positive correlation was detected between total score of community integration and all its subscales and the rest of socio-demographic and clinical characteristics explicitly, marital status, residence, use of community services, diagnosis, and duration of illness.

Table (6) illuminate the relationship between total score and subscales of recovery and socio-demographic and clinical characteristics. It was found that a statistically significant positive correlation was noticed between total score and subscales of recovery and some of socio-demographic characteristics namely, age, sex and educational level, while paradoxically no statistically significant correlation was detected with the rest of socio-demographic and clinical characteristics. More specifically, the patients with age group ranging from 20 to less than 30 years had the highest mean in total score of recovery and all subscales compared to other age group (47.36 ± 7.64, 50.68 ± 11.44, 48.89 ± 11.93, 23.61 ± 3.60, 50.14 ± 11.49 & 46.11 ± 10.20 respectively).

Regarding to sex, female patients take the highest mean in total score as well as in all subscales (47.37±7.92, 50.21±11.84, 50.84±11.70, 23.19±3.86, 49.38±12.23 & 47.50±12.30 respectively). Finally, as for educational level, university educated patients had the peak mean in total score and all subscales (47.43±6.89, 50.31±10.33, 49.05±9.64, 22.56±3.63, 48.33±10.89 & 43.52±10.63 respectively)

Table (1): Socio-demographic and clinical characteristics of the studied participants

Socio-demographic and clinical characteristics	Number (n=100)
Age in years:	
20-	38
30-	29
40-	23
50-	10
Range	20-55
Mean+SD	34.38+9.53
Sex:	
Males	68
Females	32
Marital status	
Single	36
Married	39
Divorced	23
Widow	2
Educational level:	
Illiterate	17
Primary	14
Secondary	33
University	36
Residence:	
Rural	35
Urban	65
Monthly income:	
Enough	46
Not enough	54
Cohabitation:	
Alone	12
With family	88
Use of community service:	
Used	60
Not used	40
Diagnosis:	
Schizophrenia	56
Bipolar disorders	35
Major Depressive Disorders	9
Duration of illness (in years)	
1-3	15
4-6	53
7-9	16
10+	16
Range	1-22
Mean+SD	6.88+4.93

Table (2): Distribution of studied participants by level of total score and subscales of community integration and recovery

Variables	Poor (<50%)	Faire (50-75%)	Good (>75%)	Mean+SD
Community integration sub scale				
Physical	67	33	0	45.25+7.85
Psychological	74	26	0	46.23+7.59
Social	67	33	0	46.98+6.43
Independence	56	47	0	46.77+10.14
Total score	81	19	0	46.31+4.70
Recovery scale				
Personal confidence and hope	67	32	1	46.22+9.03
Goal and success orientation	87	13	0	41.64+7.92
Willing to ask for help	85	14	1	43.93+10.47
Reliance on others	55	44	1	45.50+9.20
Not dominated by symptoms	84	15	1	41.13+10.72
Total score	93	6	1	43.69+6.00

Table (3): Association between total scores of community and integration and recovery scales

Community integration scale	Recovery scale									
	Physical		Psychological		Social		Independence		Total score	
	r	p	r	p	r	p	r	p	r	p
Personal confidence and hope	0.577	0.001*	0.514	0.001*	0.778	0.001*	0.418	0.001*	0.524	0.001*
Goal and success orientation	0.302	0.002*	0.366	0.001*	0.218	0.028*	0.210	0.036*	0.265	0.008*
Willing to ask help	0.432	0.001*	0.491	0.001*	0.256	0.010*	0.322	0.001*	0.393	0.001*
Reliance on others	0.438	0.001*	0.403	0.001*	0.704	0.001*	0.323	0.001*	0.394	0.001*
No dominated by symptoms	0.452	0.001*	0.409	0.001*	0.429	0.001*	0.300	0.002*	0.402	0.001*
Total score	0.649	0.001*	0.715	0.001*	0.691	0.001*	0.282	0.005*	0.618	0.001*

*Significant

Table (4): Regression analysis for the parameters of community integration affecting recovery

Community integration subscales	OR (95% CI)	P value
Physical	0. ٦٥٨(0.269 – 1.203)	0.062
Social	0.418 (0.186 – 0.748)	0.001*
Psychological	0.572 (0.296 – 0.857)	0.027*
Independence	0.528 (0.095 – 0.829)	0.008*

Table (5): Relationship between community integration total score and subscales and socio-demographic and clinical characteristics

Socio-demographic and clinical characteristics		Community integration subscales				
		Physical	Psychological	Social	Independence	Total score
Age	20-	48.06±10.73	50.63±9.38	48.98±8.33	54.92±9.90	48.02±6.32
	30-	46.77±5.29	46.31±4.21	48.68±5.32	51.19±3.03	48.01±3.06
	40-	42.88±3.37	41.98±4.02	44.62±3.72	43.85±7.62	46.34±2.47
	50-	39.46±4.62	41.84±5.21	42.62±2.51	46.12±12.37	43.53±2.89
	f. test	5.829	10.836	5.695	9.488	4.133
	p value	0.001*	0.001*	0.001*	0.001*	0.008*
Sex	Males	43.82±5.47	44.20±5.07	46.03±5.16	47.94±8.35	45.44±3.37
	Females	48.13±11.04	50.18±10.13	48.70±8.41	54.11±10.91	49.05±6.47
	t. test	2.613	3.942	1.954	3.115	3.668
	p value	0.010*	0.001*	0.054	0.002*	0.001*
Marital status	Married	44.04±7.31	45.49±6.89	45.73±7.12	50.04±10.36	46.26±4.28
	Not married	45.94±8.23	46.51±8.02	47.62±5.94	49.84±9.22	47.40±4.82
	t. test	1.177	0.652	1.439	0.101	1.201
	p value	0.242	0.516	0.153	0.920	0.233
Educational level	Illiterate	35.29±2.14	46.22±6.41	41.18±5.03	44.71±10.05	40.55±1.40
	Primary	41.07±2.72	37.14±4.76	41.07±3.79	47.76±9.92	44.75±1.98
	Secondary	45.83±5.65	45.37±2.74	48.23±3.75	47.45±5.34	47.60±3.43
	University	50.90±7.37	50.24±8.84	50.60±6.56	55.48±10.05	50.25±3.75
	f. test	31.980	14.333	19.904	8.024	39.346
	p value	0.001*	0.001*	0.001*	0.001*	0.001*
Residence	Rural	43.93±8.73	45.71±7.65	46.29±7.49	49.55±9.40	46.12±5.06
	Urban	45.88±7.40	46.33±7.58	47.20±5.87	50.11±9.82	47.40±4.35
	t. test	1.183	0.386	0.677	0.276	1.330
	p value	0.240	0.701	0.500	0.783	0.187
Use of community services	Used	44.13±7.90	45.57±7.20	46.64±6.78	48.81±8.74	46.39±4.76
	Not used	46.81±7.72	46.93±8.13	47.25±6.02	51.57±10.73	47.79±4.34
	t. test	1.681	0.877	0.462	1.412	1.494
	p value	0.096	0.383	0.645	0.161	0.138
Diagnosis	Schizophrenia	45.04±8.63	46.89±7.91	47.05±7.00	49.03±8.75	46.83±5.13
	Bipolar/MDD	45.40±6.97	45.13±7.09	46.67±5.77	51.04±10.65	47.11±3.93
	t. test	0.221	1.154	0.296	1.035	0.304
	p value	0.826	0.251	0.768	0.303	0.762
Duration of illness	1-3	44.00±5.81	44.19±7.78	43.89±5.76	47.05±10.63	46.51±3.35
	4-6	45.24±8.34	46.63±6.86	48.02±6.40	50.67±8.28	46.93±5.08
	7-9	47.50±8.22	48.04±9.23	47.19±5.26	50.18±12.52	48.20±4.48
	10+	43.91±7.96	44.29±7.88	45.63±7.72	49.82±10.11	46.21±4.32
	f. test	0.704	1.060	1.882	0.550	0.562
	p value	0.552	0.370	0.138	0.650	0.642

Table (6): Relationship between total score and subscales of recovery and sociodemographic and clinical characteristics

Socio-demographic and clinical characteristics		Recovery subscales					
		Personal confidence and hope	Goal and success orientation	Willing to ask help	Reliance on others	No dominated by symptoms	Total score
Age	20-	50.68 ± 11.44	48.89 ± 11.93	23.61 ± 3.60	50.14 ± 11.49	46.11 ± 10.20	47.36 ± 7.64
	30-	47.87 ± 6.21	40.00 ± 4.40	18.67 ± 1.40	47.92 ± 5.88	45.37 ± 10.67	43.96 ± 4.17
	40-	40.77 ± 3.07	41.80 ± 11.09	19.69 ± 4.41	40.00 ± 4.69	34.87 ± 5.75	41.57 ± 3.47
	50-	42.06 ± 6.66	41.91 ± 8.44	19.43 ± 2.98	39.64 ± 4.14	33.33 ± 9.06	41.55 ± 4.63
	f. test	9.146	4.865	13.136	11.272	12.048	6.772
	p value	0.001*	0.003*	0.001*	0.001*	0.001*	0.001*
Sex	Males	44.35±6.68	40.69±8.07	19.71±3.51	43.68±6.73	38.14±8.45	42.75±4.32
	Females	50.21±11.84	50.84±11.70	23.19±3.86	49.38±12.23	47.50±12.30	47.37±7.92
	t. test	3.162	5.050	4.478	3.005	4.441	3.778
	p value	0.002*	0.001*	0.001*	0.003*	0.001*	0.001*
Marital status	Married	44.73±9.81	44.10±9.87	20.92±4.07	44.10±8.73	38.80±10.13	42.95±5.34
	Not married	47.18±8.45	43.83±10.92	20.75±3.92	46.39±9.45	42.62±10.91	45.04±6.42
	t. test	1.327	0.129	0.207	1.218	1.756	1.694
	p value	0.188	0.898	0.836	0.226	0.082	0.093
Educational level	Illiterate	42.09±9.51	41.96±7.73	20.24±3.80	42.35±11.34	36.08±8.84	41.76±6.13
	Primary	37.94±3.07	48.15±11.83	21.43±4.11	37.14±3.23	38.57±16.78	38.27±3.78
	Secondary	47.41±5.23	38.18±7.12	18.97±3.57	47.58±3.78	42.22±7.39	44.52±2.73
	University	50.31±10.33	49.05±9.64	22.56±3.63	48.33±10.89	43.52±10.63	47.43±6.89
	f. test	9.828	7.970	5.633	7.425	3.322	11.558
	p value	0.001*	0.001*	0.001*	0.001*	0.042*	0.001*
Residence	Rural	46.86±10.77	44.00±10.87	21.20±4.63	44.43±8.89	42.48±12.64	43.64±5.84
	Urban	45.88±8.02	43.90±10.33	20.62±3.57	46.08±9.37	40.41±9.57	44.54±6.23
	t. test	0.514	0.047	0.702	0.854	0.918	0.701
	p value	0.608	0.963	0.484	0.395	0.361	0.485
Use of community services	Used	45.52±9.31	44.00±10.57	20.67±4.11	45.33±9.82	41.33±11.70	44.18±6.65
	Not used	47.28±8.61	43.83±10.45	21.05±3.76	45.75±8.29	40.83±9.21	44.29±5.20
	t. test	0.954	0.078	0.472	0.221	0.228	0.089
	p value	0.343	0.938	0.638	0.826	0.820	0.929
Diagnosis	Schizophrenia	46.83±9.48	44.17±11.20	20.93±4.28	46.16±9.86	42.62±11.77	44.88±6.66
	Bipolar/MDD	45.46±8.47	43.64±9.59	20.68±3.56	44.66±8.31	39.24±9.00	43.39±5.20
	t. test	0.751	0.250	0.308	0.809	1.575	1.220
	p value	0.454	0.803	0.759	0.420	0.119	0.225
Duration of illness	1-3	41.78±7.38	45.33±11.32	21.33±4.39	43.67±5.50	35.11±9.25	42.56±5.16
	4-6	47.30±9.23	42.01±10.75	20.49±3.96	45.49±9.33	42.39±9.62	44.75±6.59
	7-9	48.61±8.07	47.08±10.46	21.88±3.90	44.69±8.46	42.08±8.68	45.94±4.22
	10+	44.45±9.70	45.84±8.03	20.38±3.74	41.88±8.73	41.67±15.49	42.34±6.33
	f. test	2.108	1.357	0.645	1.379	1.928	1.461
	p value	0.104	0.261	0.588	0.186	0.130	0.230

Discussion

Recovery from mental illness is a multidimensional and a complex process [26]. Community integration is significant in the recovery process and is an indicator of patient well-being. During the recovery process, the patient seeks to give up his illness and create his personal identity to regain their meaning in life and to be socially effective in the community [27] .The present study aimed to assess the levels of community integration and mental health recovery among patients with psychiatric disorders and explore the association between both of them.

The findings of the current study revealed that the majority of the studied patients had poor level of community integration in total score and in all subscales (physical, social, psychological and independence). Really, there are many factors that may lead to poor community integration, among these factors are poor social and communication skills in the patients which are part from illness process, prevailing stigma and negative attitude toward people with mental illness, lack of adequate support from all patients' surroundings, and prolonged and recurrent hospitalization which may affect negatively on patient's ability to face the community and live independently within it. Research revealed that despite the importance of community integration, in most societies, persons with mental disorders are still marginalized. Their social networks are small and provide a low level of social support, and because of social stigma, they have limited opportunities for employment, housing, and education. [28, 29].

Moreover, previous community integration studies have identified predictors of community integration of persons with mental disorders, among these factors is social functioning of the patients. [30,31]. Unfortunately, social skills among psychotic patients are very deteriorated and may be totally lost because the early age of onset of the diseases and its negative effect on the quantity and quality of social network of the patients and their abilities to be assertive. These factors hinder patients' community integration and act as an obstacle to fulfil their sense of belonging and connectedness.

The present findings go in line with some research that showed evidence that patients' level of community integration was clearly lower than others [17, 32] On the same line, Cabral, et al (2018) reported that community integration levels were significantly lower in people with mental health difficulties than in the general population [7]. On the other hand,

other studies have found that the level of social integration in persons with mental disorders is not lower compared to the general population and non-disabled persons [33] or that there is little, if any, differences[34].

The second main finding of the present study is that almost all studied patients had poor level of mental health recovery in total score and subscales also. This result could be explained by poor level of community integration among patients that is mentioned before. The literature indicated that, community participation by adults with mental illnesses was identified as a predictor of outcomes such as recovery, quality of life, and a meaningful life [35]. Kim and Lee (2012) stressed that sense of belonging, including community integration, should be promoted as an intervention against self-stigma in people with a diagnosis of schizophrenia living in the community [36]. Considering that self-stigma is closely associated with quality of life and recovery in people with mental health difficulties [27].

When investigating relationship between community integration and recovery, strong positive correlations were found between them. In other words, community integration affecting patient's recovery and vise verse. This is consistent with what is commonly known about role of patients' recovery on community integration. Some researchers believed that recovery has concrete social implications which are expressed in community integration, including redefining oneself beyond psychiatric illness and reintegrating into valued roles in society [37,38]. However, other researchers stress that the connection between recovery and community integration is only correlative and not causal, so that it has not been determined whether recovery contributes to community integration or vice versa [39,40]. On the same line, Lloyd et al., (2010) reported a relatively weak correlation between community integration and recovery [41].

Moreover, in the present study, regression analysis was done to analyze the impact of community integration variables on patients' recovery. Social integration was above all, a significant predictor of patients' recovery. This finding signifies the importance of building and maintaining social relationships with other members in the community, presence of social network and support system to be available to the patients and the importance of increasing socialization among psychotic patients. These factors will help patients to be more socialized and promote their recovery. A previous study was conducted by Lee & Seo (2020) about community integration of persons with mental

disorders compared with the general population, found that a small social network in persons with mental disorders becoming chronic with lower social functioning which means that they are socially isolated and faced challenges in obtaining the social support needed to live in their communities. Such isolation poses the risk that their psychopathology will deteriorate [42]. Social integration is the most important predictor of quality of life among psychotic patients [43,44]. Therefore, low social integration is seen as a challenge to overcome for their quality of life and recovery.

Another important finding in the current study is the presence of statistically significant relationship between some of the socio-demographic characteristics of psychotic patients and their levels of community integration and recovery. These are age, sex and educational levels. More specifically, young age patients had higher level of community integration and recovery. The possible explanation for this may be that young age patients may be newly diagnosed with mental illness and still had no chronicity. Subsequently, recurrent hospitalization is not the case for them which means that they lived in the community more time and maintain their integration within social network which enhanced their recovery. This justification is consistent with Lee & Seo (2020) who reported that age had a significant effect on social network size and psychological integration in psychotic patients in their study [42].

Nevertheless, research findings on the relationship between age and community integration are inconsistent. While many studies reported no associations between age and community integration of persons with mental disorders [45]. Others reported evidence of their relationship [46, 47].

The second socio-demographic variable that has a significant relationship is sex, in which female patients had higher level of community integration and recovery. Basically, it is well known that age of onset of mental illness among female patients is later than in male patients. This is giving opportunity for female patients to develop their personalities, choose career, build relationship with different personnel and being well integrated in the community which consequently affect positively their recovery. However, this result is not consistent with results of previous studies which indicated that gender was not significantly associated with community integration [33,34].

Lastly, university educated patients had a high significant level in community integration and recovery. This result could be explained by the

effect of higher education on person's ability to be independent, take his own decisions, solve problems and be initiative in everything. In addition, highly educated patients may have ability to form satisfying relationships with others and use of community resources which help in their community integration and recovery. This explanation goes in line with Lee & Seo (2020) they reported a positive effect of higher education on physical integration and social network size in persons with a mental disorder. Other studies, however, argued that at a significant level, the educational level does not predict community integration [33, 42, 47].

Conclusions

The data obtained from the current research confirmed that, the studied patients had poor community integration and mental health recovery. Community integration and recovery are correlated and influencing each other. Furthermore, social community integration is the first main predictor of recovery among psychotic patients.

Recommendation

Based on the findings of the present study the following recommendation was suggested

1- Community Mental Health Nurses should continuously evaluate the level of community integration among the patients and develop intervention programs to improve it.

2- Mental health recovery in patients with psychiatric disorders need to be assessed regularly and enhanced through increasing personal confidence and hope among the patients and expand their community integration.

3- Continuous efforts are needed to improve social community integration among the patients via applying different programs for social skills training and assertiveness skills that strengthen patient's ability to form relationships with others in the community and subsequently enhance their recovery.

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