

## Relation between Resilience and Mental Health Recovery among Psychiatric Patients

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### Abstract

**Background:** In the field of mental health, resilience and recovery have long been considered relevant variables; high level of resilience may prevent the development of an illness and help to promote recovery. **Aim:** the current study aimed to assess the relation between resilience and mental health recovery among psychiatric patients. **Research design:** A descriptive correlational research design was utilized. **Sample :** This study was conducted on 128 patients at New Minia Hospital for Mental Health and Addiction Treatment. **Tools:** Three data collection tools were applied; Structured Interview Questionnaire, Connor-Davidson Resilience scale and Mental Health Recovery Measure. **Results:** the presented study revealed that, less than two thirds (65.6%) of the patients had a low resilience level and less than three quarters (74.3%) of them had a low recovery level. **Conclusion:** There was a positive correlation between patients' resilience and mental health recovery. **Recommendations:** Psycho-educational training programs for patients to improve resilience and mental health recovery are highly recommended.

**Keywords:** Resilience. Mental Health Recovery, Psychiatric Patients

### Introduction:

Psychiatric disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or development processes underlying mental functioning. The World Health Organization (WHO, 2022) stated that approximately 21million individuals have schizophrenia and mental health problems, which accounting for 13% of total diseases worldwide (Sustrami et al., 2023). The evidence suggested that resilience level is lower among individuals with mental disorders which might hinder the recovery process (LaBelle., 2023).

Resilience can be defined as the capacity of the individual to adapt successfully to highly adverse events and to keep a healthy functioning by present resources such as feelings of self-efficacy, self-esteem, sense of mastery, optimism, positive affect, good emotional regulation skills or sense of coherence and having a purpose in life (Martin-Soelch., 2023). Indeed, psychological resilience is the ability to adapt and respond to distresses and return to a state of psychological balance According to the resilience framework, when people face stressors and challenges, the interaction between their external environment and psychological resilience will affect how they adapt to adversity. Individuals of psychosis and schizophrenia were found to be high risk for low resilience levels (Xiang et al., 2020).

Importantly, resilience does not refer to a state of invulnerability, also, the capacity for resilience does not end when one is diagnosed with a prolonged disorder or disease, despite the enduring legacy of pessimism regarding resilience in the population of people diagnosed with psychiatric disorders, a majority do recover and return to the normal life (Liebel., 2023). Many studies were performed on resilience in different mental disorders as post-traumatic stress disorder (PTSD), major depressive disorder and schizophrenia. Most of these studies revealed that resilience in patients with mental

disorders is generally less than resilience in healthy patients (Colizzi et al., 2020).

Indeed, the concept of recovery of patients with mental illness are about staying in control of their life rather than state of returning to the premorbid level of functioning, the approach which does not focus on full symptom resolution but emphasizes resilience and control over problems and life has been named as the recovery model (Chua et al.,2023). Mental health recovery can be defined as "being able to create and live a meaningful and contributing life in a community of choice with or without the presence of mental health issues (Mathew.,2023).

Interestingly, the recovery process provides a holistic view of people with mental illness that focuses on the person, not just their symptoms (Jamal., 2023) which is profoundly influenced by people's expectations and attitudes and requires a well-organized system of support from family, friends or professionals. It also requires the mental health system, primary care, public health and social services to embrace new and innovative ways of working (Muswerakuenda et al.,2023).

Recovery can be defined as a personal process of learning to live better with severe mental health problems and it involves more than recovery from the illness itself, recovery is not only about remission of symptoms of disease, internationally known as clinical recovery, because mental illnesses are often persistent. Therefore, it is important for people to learn to live with their vulnerabilities and start a process of strengthening resilience (Cheng et al., 2023)

Better understanding of the role of resilience in people who have psychological disorders may prompt the development of new interventions aimed at its promotion, so, better treatment options may become available to those people. These interventions could more effectively enhance rates of personal and clinical recovery (Heshmati et al., 2024). Hence, health care professionals play a significant role in improving patient's recovery by exhibiting optimistic attitudes; also they should have the appropriate skills to

support patients on their recovery process (Gunasekaran et al., al., 2022). Moreover, psychiatric nurses can use the therapeutic relationships with clients to improve patient's resilience and recovery by assisting them in decision-making process that support personal wellness and their recovery process (Hartley et al., 2021).

#### Significance of the Study:

Resilience has been considered as a protective factor that foster a positive outcome among individuals facing adverse circumstances like any psychological disorders and enhancing the effectiveness of psychotherapeutic treatments. Resilience improves compliance to medication, decrease relapse, suicidal attempt, promotes personal growth as well as cognitive survival (Mokhtar et al., 2021).

Previous study by Aagaard., (2021), the results illustrated that approximately 54,5 % of the participants meet the comprehensive criteria for full recovery. 9.0 % meet the criteria for partial recovery, making a total of 63.5 % participants achieving full/partial recovery. 22.7 % are in remission. Early intervention and treatment are very important during the first years of the illness, improvement can also be expected after two years period of illness. This is supported by the steadily increasing full recovery rate by together with the subgroup showing sustained recovery

The association of resilience and recovery is not universally shared and there is a little research related to the relationship between resilience/recovery style (Harry., 2023). So, the present study was carried out to assess the relation between resilience and mental health recovery among psychiatric patients. In the field of mental health, resilience and subjective recovery have long been considered relevant variables in medical disciplines, but little attention has been paid to these concepts (Zhao et al, 2021).

#### Aim of the Study:

This study aimed to assess the relation between resilience and mental health recovery among psychiatric patients.

#### Research questions:

What are the levels of resilience among psychiatric patients?

What are the levels of mental health recovery among psychiatric patients?

Is there a relation between resilience and mental health recovery among psychiatric patients?

#### Subjects and method:

##### Research design:

A descriptive correlational research design was used to achieve the aim of the current study and answer the research questions.

##### Setting:

This study was conducted at New Minia Hospital for Mental Health and Addiction Treatment, this hospital is affiliated to Ministry of Health located in New Minia City. It consists of two floors; the first floor for the outpatient clinics, pharmacy and female inpatient unit, the second floor includes hospital administration, addiction treatment department, male inpatient unit and nursing office. The hospital capacity is 53 beds for both gender, which serves all Minia governorate, and its nine districts.

#### Study sample:

**Sample Type:** A convenient sample was recruited for for this study.

#### Sample size:

The average number of patients is 425 patients in last year (2021) at The New Minia hospital for Mental Health and Addiction Treatment. So this study was conducted on 128 patients. The sample was calculated by using the **Adams and McGuire, (2022)** formula which is computed by  $(N= P*30/100)$ . N = sample, P= population,  $N=425*30/100$  , so, the sample was 128 patients.

#### Inclusion criteria:

- The patients' age of 18 years and more.
- Hospitalized patients
- After 15 days of admission and taking antipsychotic medication.

#### Exclusion criteria:

- Patients with mental retardation.
- Comorbid diagnosis of substance abuse.
- Patients with organic brain disease.

#### Tools of data collection:

Data collection was obtained by using the following tools

##### Tool 1: It was classified into two parts:

###### Part I: Structured interview questionnaire;

It was developed by the researcher to collect personal data about the patients; it includes such items as: age, gender, level of education, marital status, job, and residence.

###### Part II: Clinical data:

It was developed by the researcher and used to collect clinical data about the patients and encompass items such as diagnosis, duration of illness, hospital length of stay, mode of admission and number of admissions.

##### Tool (II) Connor-Davidson Resilience scale (CD-RISC):

This scale was developed by (Connor and Davidson, 2003) to measure the overall score of individual's aspects of resilience and capacity to change as well as cope with adversity. It is a self-report scale that widely considered the "gold standard" of resilience measures, it included 25 statements with each rated on a 7-point Likert scale as: never true =0, rarely true =1, sometimes but infrequently true =2, neutral =3, sometimes true =4, usually true =5 and always true= 6, but the Likert scale modified to five- points as: not at all true=0, rarely true=1, sometimes true=2, often true=3, and true nearly all of the time=4.

##### Scoring system of Connor-Davidson Resilience scale:

The total score of Connor-Davidson resilience scale was ranged from 0–100 point, with higher scores indicated higher resilience. The level of resilience shown as the following: 0-33: low Resilience, 34-66: moderate resilience and 67 to 100: high resilience.

##### Tool (III): Mental Health Recovery Measure (MHRM):

This tool was developed by (Young and Bullock, 2005). It included 30 items to measure customer-based subjective, or personal recovery, each item was measured by

five-point likert scale as: strongly disagree=0, disagree=1, not sure=2, agree=3, strongly agree=4. The scale has eight domains under the three phases of the recovery process model: (Phase 1) overcoming stuckness (items 1, 2, 3, 4), (Phase 2) self-empowerment (items 5, 6, 7, 8) learning and self-redefinition (items 9, 10, 11, 12), basic functioning (items 13, 14, 15, 16), (Phase 3) overall well-being (items 17, 18, 19, 20), new potentials (items 21, 22, 23, 24), spirituality (items 25, 26) and advocacy/enrichment (items 27, 28, 29, 30).

Scoring system of mental health recovery measure:

The total mental health recovery scores were ranged from 0 (low recovery) to 120 (high recovery). The level of recovery shown as the following:

0-40: low Recovery, 41-80: moderate recovery and 81 to 120: high recovery

#### **Validity of the study tools:**

The study tools were translated into Arabic language and were reviewed for validity by five panels of jury experts in the faculty of nursing, Minia and Assuit University (psychiatric and mental health nursing department) to test the validity of tools. All necessary modifications were done according to the panel judgment on clarity of sentences, appropriateness of content and sequence of items.

#### **Reliability of the study tool:-**

Reliability for the study's tools (high) was done by the statistician and revised by the supervisors ,for testing the internal consistency of the tools. Reliability was assessed using Cranach's alpha test. It was measured by using reliability item deprived from scale and analyzes that found in SPSS program. It was reported as 0.821 and 0.856 for Connor-Davidson Resilience scale and Mental Health Recovery Measure respectively.

#### **Field work:**

Data collection of the study took about four months started at the beginning of January 2023, and completed by the beginning of May 2023. It involved the following:

#### **Procedures:**

- In order to understand the research problem and carry out the study, a search of the relevant literature that addresses various parts of the issues was conducted by utilizing the books and journals that were readily available.
- As well as an ethical approval on the ethical committee of Faculty of Nursing at Minia University was obtained
- An official letters was obtained from the dean of the faculty of nursing, Minia university and an official permission was obtained from the director of The New Minia Hospital for Mental Health and Addiction Treatment to collect data after explaining the purpose of the study

- The researcher translated the study's tools into Arabic and had them revised by the supervisors
- The researcher collected data through interviewing patients for two days/ week (Wednesday and Thursday) from 10 AM to 1 PM
- The researcher explained the aim of the study through a direct personal interview with the patients for getting their approval, cooperation and voluntary participation in the study.
- An informed oral consent was obtained from each psychiatric patient before inclusion in the study sample
- After obtaining patient acceptance, the researchers ask patient all questions in the questionnaire one after another systematically.
- The researcher was responsible for recorded points and choices based on the patient's answer
- Each participant was informed that they had the right to withdraw from the study at any time.
- Confidentiality and privacy were put into consideration regarding the collected data.

#### **Pilot study:**

A pilot study was conducted to assess the clarity of the study tools. It was performed on 10% of the study sample (13 patients) to test the comprehensiveness, accessibility, and applicability of the study tools and to estimate time needed to fill these tools, which was about 15 to 25 minutes. The outcomes of the pilot study revealed that the tools were applicable and didn't need changes, So, the pilot study was included in the study sample.

#### **Ethical consideration:**

An official letter was granted from the research ethics committee of the Faculty of Nursing, Minia University before the conduction of the pilot study as well as the actual study, oral consent was obtained from the patient to participate in the study after explaining the nature and purpose of the study sample . Patients had the right to refuse to participate or withdraw from the study without any rationale at any time. Privacy was considered during collection of data. Participants was assured that all data were highly confidential, anonymity was also be assured through assigning a number for each patient instead of names.

#### **IV) Statistical analysis:**

Data entry and data analysis were done using statistical package for the social science (SPSS) version 26. Descriptive statistics were used summarized, tabulated, and showed the data in either means or standard deviations as a measure of dispersion or number frequency and/or percentage for qualitative data. T test was used to compare mean, Chi-square test was used to show relation between variables. A Bivariate correlation was done to determine the association between total resilience score and recovery dimensions, P-value considered statistically significant when  $p < 0.05$ .

**Results:**

**Table (1) Frequency distribution of the studied patients according to their socio-demographic characteristic (N =128).**

Personal data	Patients (n= 128 )	
	N	%
<b>Age</b>		
• 18-27yrs	45	35.2
• 27-37yrs	57	44.5
• <38yrs	26	20.3
<b>Mean ± SD</b>	33.37±6.8	
<b>Gender</b>		
• Male	104	81.2
• Female	24	18.8
<b>Education level</b>		
• Illiterate	51	39.8
• Secondary	64	50.0
• University	13	10.2
<b>Marital status</b>		
• Single	70	54.7
• Divorce	42	32.8
• Married	16	12.5
<b>Occupation</b>		
• Work	83	64.8
• Not work	45	35.2
<b>Residence</b>		
• Rural	74	57.8
• Urban	54	42.2

**Table (1)** illustrates that more than two fifths (44.5%) of the studied patients were in age group (27-37) years old with a mean age of (33.37±6.8), while more than three quarters (81.2%) of them were males. On the other hand, half of the studied patients (50.0%) have a secondary education, slightly more than half (54.7%, 57.8%) of them were single and lived in rural areas respectively. Regarding to occupation, less than two thirds (64.8%) were employed.

**Table (2): Frequency distribution of the studied patient according to their clinical data (N=128).**

Clinical data	Patients (n = 128 )	
	N	%
<b>Diagnosis</b>		
• Depression	27	21.1
• Schizophrenia	60	46.9
• Mania	41	32.0
<b>Duration of illness</b>		
• <1year	35	27.3
• 1-<3years	29	22.7
• 3-<5years	11	8.6
• >5years	53	41.4
<b>Hospital length of stay</b>		
• Less than one month	117	91.4
• From one month to two months	11	8.6
<b>Number of admissions</b>		
• One time	53	41.4
• Two times	40	31.3
• Three times	14	10.9
• More than three times	21	16.4
<b>Mode of admission</b>		
• Voluntary	49	38.3
• Involuntary	79	61.7

**Table (2)** illustrates that, slightly less than half (46.9%) of the studied patients were diagnosed with schizophrenia, while slightly more than two fifths (41.4%) of them had illness for more than 5 years and admitted the hospital one time respectively. Indeed, the majority (91.4%) of the studied patients were stayed in the hospital for one month. Also, more than three fifths (61.7%) of them were admitted involuntary.

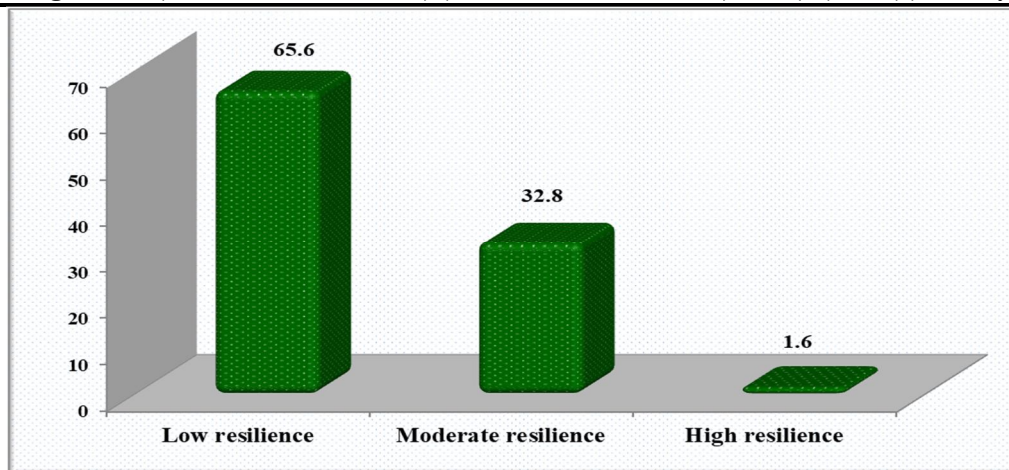


Figure (1): Frequency distribution of total resilience levels among the studied patients (N= 128)

Figure (1) demonstrates that, less than two thirds (65.6%) of the studied patients had a low resilience level and less than one third (32.8%) of them had a moderate resilience level. Moreover, only 1.6% of them had a high resilience level.

Table (3): Mean score of mental health recovery phases among the studied patients (N=128)

Item	Mean±SD
<b>Phase 1</b> Overcoming stuckness	<b>3.55±2.69</b>
<b>Phases 2</b>	
Self-empowerment	4.48±3.20
Learning and self-redefinition	4.21±3.27
Basic functioning	4.30±2.95
<b>Total phase2</b>	<b>13.00±7.22</b>
<b>Phases 3</b>	
Overall well-being	4.08±2.98
New potentials	4.14±2.95
Spirituality	0.75±1.43
Advocacy/enrichment	6.71±3.19
<b>Total phase 3</b>	<b>15.69±7.62</b>

Table (3) illustrates that, the total mean score of the mental health recovery phases were 3.55±2.69, 13.00±7.22, and 15.69±7.62 respectively.

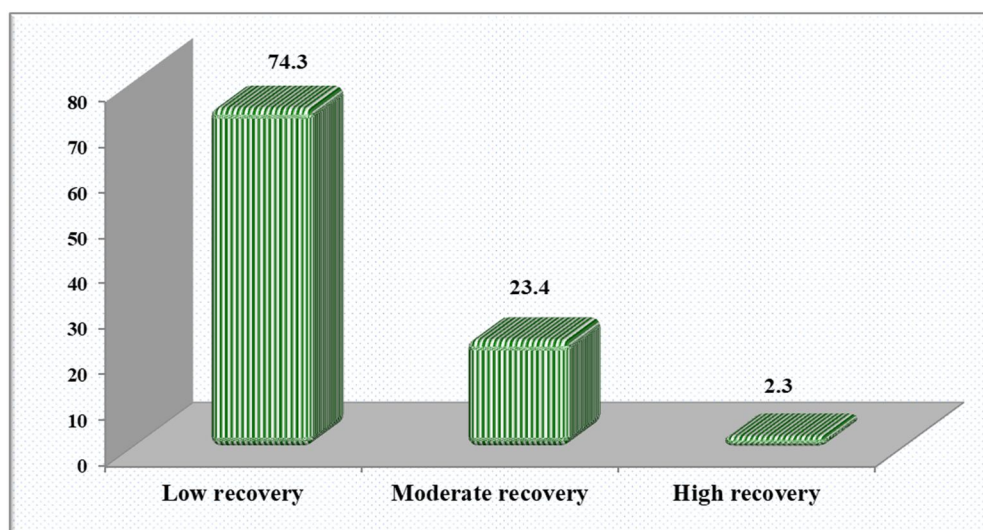


Figure (2): Frequency distribution of total recovery level among the studied patients (N= 128)

Figure (2) shows that, less than three quarters (74.3%) of the studied patients had a low recovery level, while less than one quarter (23.4%) of them had a moderate level. and 2.3% had a high recovery level.

**Table (4): Relation between Connor-Davidson Resilience scale and socio-demographic characteristics among the studied patients (N= 128).**

Personal data	Connor-Davidson Resilience scale						X <sup>2</sup>	P-value
	Low		Moderate		High			
	N	%	N	%	N	%		
<b>Age/years:</b>								
• 18-27yrs	29	34.5	16	38.1	0	0.0	<b>13.75</b>	<b>0.008**</b>
• 27-37yrs	34	40.5	23	54.8	0	0.0		
• <38yrs	21	25.0	3	7.1	2	100.0		
<b>Gender:</b>								
• Male	69	<b>82.1</b>	33	78.6	2	100.0	0.703	0.704
• Female	15	17.9	9	21.4	0	0.0		
<b>Education level:</b>								
• Illiterate	35	41.7	15	35.7	1	50.0	0.736	0.947
• Secondary	41	48.8	22	52.4	1	50.0		
• University	8	9.5	5	11.9	0	0.0		
<b>Marital status:</b>								
• Single	37	44.0	32	76.2	1	50.0	<b>12.64</b>	<b>0.013*</b>
• Divorce	35	41.7	6	14.3	1	50.0		
• Married	12	14.3	4	9.5	0	0.0		
<b>Occupation:</b>								
• Work	58	<b>69.0</b>	25	59.5	0	0.0	4.862	0.088
• Not work	26	31.0	17	40.5	2	100.0		
<b>Residence:</b>								
• Rural	49	<b>58.3</b>	24	57.1	1	50.0	0.067	0.967
• Urban	35	41.7	18	42.9	1	50.0		

Pearson Chi square test

(\*\*) highly statistical significant difference (p-value <0.01)

(\*) statistical significant difference (p-value <0.05)

No statistical significant difference (p-value >0.05)

**Table (4):** reveals that, there is a statistically significant relation between resilience, patients' age and marital status at p-value (0.008) and ( 0.013) respectively. While there is no statistically significant relation between resilience level and gender, educational level, occupation and residence.

It was observed that, more than three quarters (82.1%) of male had a low resilience level and more than two thirds (69.0%) of working patients had a low resilience, and less than three fifths (58.3%) who lives in rural areas had a low level of resilience.

**Table (5): Relation between Mental Health Recovery and socio-demographic characteristics among the studied patients (N= 128).**

Personal data	Mental Health Recovery						X <sup>2</sup>	P-value
	Low		Moderate		High			
	N	%	N	%	N	%		
<b>Age/years:</b>								
• 18-27yrs	35	36.8	10	33.3	0	0.0	7.389	0.117
• 27-37yrs	39	41.1	17	56.7	1	33.3		
• <38yrs	21	22.1	3	10.0	2	66.7		
<b>Gender:</b>								
• Male	75	<b>78.9</b>	26	86.7	3	100.0	1.601	0.449
• Female	20	21.1	4	13.3	0	0.0		
<b>Education level:</b>								
• Illiterate	39	41.1	11	36.6	1	33.3	2.583	0.630
• Secondary	46	48.4	17	56.7	1	33.3		
• University	10	10.5	2	6.7	1	33.3		
<b>Marital status:</b>								
• Single	48	50.5	20	66.7	2	66.7	2.877	0.579
• Divorce	34	35.8	7	23.3	1	33.3		
• Married	13	13.7	3	10.0	0	0.0		
<b>Occupation:</b>								
• Work	64	<b>67.4</b>	18	60.0	1	33.3	1.881	0.390
• Not work	31	32.6	12	40.0	2	66.7		
<b>Residence:</b>								
• Rural	55	<b>57.9</b>	18	60.0	1	33.3	0.796	0.672
• Urban	40	42.1	12	40.0	2	66.7		

Pearson Chi square test

(\*\*) highly statistical significant difference (p-value <0.01)

(\*) statistical significant difference (p-value <0.05)

No statistical significant difference (p-value >0.05)

**Table (5)** displays that, there is no statistically significant relation between mental health recovery and socio-demographic characteristics among the studied patients.

It was noticed that, more than three quarters (78.9%) of male patients had a low recovery and more than two thirds (67.4%) of working patients had a low recovery level. Indeed, less than three fifths (57.9%) of patients who lives in rural areas had a low level of recovery.

**Table (6): Correlation between Connor-Davidson Resilience and Mental Health Recovery among the studied patients (N= 128).**

Mental Health Recovery	Connor-Davidson Resilience	
Overcoming stuckness	R	.477**
	P-value	.000
Self-empowerment	R	.626**
	P-value	.000
Learning and self-redefinition	R	.643**
	P-value	.000
Basic functioning	R	.410**
	P-value	.000
Overall well-being	R	.483**
	P-value	.000
New potentials	R	.652**
	P-value	.000
Spirituality	R	.492**
	P-value	.000
Advocacy/enrichment	R	.452**
	P-value	.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table (6)** clarifies that there is a positive correlation between Connor-Davidson Resilience score and Mental Health Recovery sub scales as (overcoming stuckness, self-empowerment, learning and self-redefinition basic functioning, overall well-being, new potentials, spirituality, and advocacy/enrichment) at p value of (0.001, 0.001, 0.001, 0.001, 0.001, 0.001, 0.001 and 0.001) respectively.

**Discussion:**

Resilience and recovery styles have been identified as important factors in predicting psychiatric patients healing or symptom control, as well as improving psychosocial functioning, therapeutic adherence, and have begun to be considered as basic elements of recovery strategies (Kurtse & Köseoğlu, 2023). Moreover, further studies suggested that high resilience reduced the risk of suicide in psychiatric patients, and also had a positive impact on long-term recovery (Chuang et al., 2023). The current study aimed to assess the relationship between resilience and mental health recovery among psychiatric patients.

Regarding the studied patients' personal data, the current study result illustrated that more than two-fifths of the studied patients were in age group (27-37) years old with a mean age of (33.37±6.8). This result may be related to the fact that the prevalence of psychiatric disorders is high during this period of age, such as schizophrenia. Concerning gender, more than three-quarters of the studied patients were males. This result might be explained by the fact that, the prevalence of some psychiatric disorders like schizophrenia is higher among males than females. Indeed, the number of females' rooms and beds was less than those for males, where there were four rooms with only two beds in the females' section of the total capacity of the hospital.

This result is in agreement with Kaşlı & Badeli, (2020), who found that more than half of the studied psychiatric patients were males. In the same line Awaad et al. (2020) and Philip et al. (2020) mentioned that more than three quarters of the studied patients were male. Also, Saber et al, (2022) found that slightly less than two fifths of the studied patients their age was ranged from 28-38 years. The majority of them were males, and more than one half of them were single.

In the same respect, the current study result shows that, half of the studied sample had a secondary educational level. This outcome could be the result of the patient's can't finish their schooling due to their family's financial problems or the death of their father, so, they work to support their families. Also slightly more than half of them were single. This result could be attributed to the problem of getting

married with psychiatric problems, especially in Arab societies, because of the stigma of psychiatric disorders.

This result is in agreement with Mahmoud et al. (2021) who reported that more than half (61.9%) of the studied patients were single, while less than half (45.2%) of them were secondary educated. Additionally, Mohammadzadeh et al. (2020), demonstrate that nearly a quarter of the studied sample had experienced stigma, this might disturb the patient's relations with other people at work, home, friends, marriage or totally away from reality.

Concerning occupation, less than two-thirds of the studied patients were working. This result is contradicted with Abd ElRahman et al. (2023) who reported that, more than half of the studied sample weren't working, they were fired or left their work because of the symptoms of their illness that hinder them to proceed in work effectively, and disturb the relationship between them and their workmates.

The current study results revealed that, slightly more than half of patients were lived in rural areas. This result was in agreement with the study done by Ebrahim et al. (2021), who stated that the majority of the patients were from rural areas. This result may be interpreted to the similarity of the cultures for the both studies. This result also was consistent with a study by ElMonshed and Amr (2020), who found that more than half of schizophrenic patients were from rural area.

Concerning the clinical data of the studied patients, the current study clarified that slightly less than half of the studied patients were diagnosed with schizophrenia. This finding may be due to the fact that schizophrenia is the most common prevalent diagnosis that is present in many psychiatric hospitals. Also schizophrenia as psychiatric disorders begins in early onset of age.

In the same vein Manea et al. (2020) reported that schizophrenia was the most common chronic psychotic disorder in Egypt that affects about 1.5 million people, and represents the major bulk of patients in mental hospitals. Moreover Ibrahim et al.,( 2022), reported that less than one quarter of the studied patients diagnosed as schizophrenia.

On the other hand, slightly more than two-fifths of them had a duration of illness more than 5 years. This finding could be attributed to the chronicity of psychiatric disorders

especially schizophrenia. Indeed, non-adherence of the patient with anti-psychotic medications, and a lack of the patients and their families' information about mental health care.

Is in the same line with **Rabei et al., (2019)**, who found that less than half of the studied patients had illness from 5 to 10 years. Similar to the previous findings, **Saber et al. (2022)** reported that slightly less than two-fifths of the studied patients had duration of illness > 5 years.

Concerning the total resilience level, the current study result reveals that less than two thirds of the studied patients had a low resilience level, while less than one third of them had a moderate resilience level. This could be related to lack of patient insight about their illness, lack of coping with their symptoms, also when patient level of resilience is not effective this leads to the patient unable to form safe relations with others, haven't the ability to think clearly, inability to take difficult decisions, as well as impaired ability to deal with bad feeling, it can lead to extreme mental illness.

In the same vein **Mokhtar et al. (2021)**, and **Abdulrahman et al., (2020)** revealed that, more than three quarters of the studied patients had a low level of resilience. Moreover, **Zhang et al. (2020)** demonstrate that resilience had negative associations with anxiety and depression, since patients with higher levels of resilience experienced lower levels of anxiety and depression. It is possible that patients who had higher levels of resilience can cope with psychological distress more successfully because the patient able to remain positive despite the life-threatening event.

Regarding resilience items of psychiatric patients, the present study illustrated that the majority of the studied patients answered not at all true for "tend to bounce back after illness or hardship this result from patient because he is inability to adapt to difficult or challeng life experiences, absent of mental, emotional, and behavioral flexibility and adjustment to external and internal demands. Less than three quarters of them answered not at all true for "best effort no matter what" this result may be the patient feel no have any energy and knowledge to assist for them and other ."strong sense of purpose" respectively related to the patient no have self confidence and no present purpose in life to achieve . Also more than two thirds of the studied patients answered not at all true for pride in their achievements patients say not to do any thing to fell achievements. This explore the defected items that needed to be alert regard it and wanted to improved.

As regard total recovery levels, the present study result reported that less than three quarters of the studied patients had a low recovery level, while less than one quarter of them had a moderate level. A low degree of recovery could be caused by the patient's non-adherence to medications after being discharged, or it could be the result of their lack of insight into their illness.

In the same vein, the study done by **Benestad, (2020)** showed that the prevalence of recovery among 9642 individuals was 38 %, while, 30 % of them met the criteria for recovery. On the other side, the study **Aagaard,(2021)** illustrates that approximately 54,5 % of the participants meet the comprehensive criteria for full recovery. While 9, 0 % meets the criteria for partial recovery, making a total of 63, 5 % participants achieve full or partial recovery

Concerning the relation between the total resilience level and the personal data among the studied patients, the current study result revealed that there was a highly statistically significant relation between the total resilience level and patients' age as well as marital status. This finding

might be attributed to that level of resilience can be improved in the presence of successful marriage especially cooperative and empathetic partners who can understand the emotional needs and nature of psychiatric illness of another partner.

This result was in the same line with **Dehvan et al. (2018)**, who reported that there was a statistically significant relationship between the total resilience level and the studied patients' age as well as marital status. Also, there is no statistically significant relationship between total resilience level and the studied patients' gender and educational level.

In addition, more than two fifths of the studied patients who in the age group between 27–37-year-old had a low resilience level. This result may be due to effect of psychiatric illness symptoms on patients' quality of life especially at youth age which affect negatively on patient's chance of work and marriage that cause low resilience. This result agrees with a study done by **Wei et al. (2020)**, who reported a significant relationship between resilience level and age at the onset of the disease in patients. While this result was not in agreement with **Deng et al. (2018)**, who reported no significant relation between resilience and age at the onset of disease in the patients.

As regard to the relation between the total recovery level and the personal data, existing study result displayed that there was no statistical relation between total recovery and studied patients' age, gender, educational level, marital status, occupation, and residence. Congruent with previous findings, **(Biran-Ovadia et al., 2023)**, demonstrated that there was no statistical relation between total recovery and studied patients' age, and educational level.

This result was contradictory to **Marder & Cannon (2019)**, who demonstrate the younger age that might contribute to the high recovery rates of conditions such as schizophrenia. It is important to note that the age effect seems to exist in adult-onset schizophrenia, as the prognosis with early-onset schizophrenia is considered significantly worse, but it seems that a younger age only increases the chance of a successful outcome.

As regard correlation between total resilience and recovery dimensions among the studied patients, the current study result clarified that there was a positive correlation between total resilience score and overcoming stuckness, self-empowerment, learning and self-redefinition, basic functioning, overall well-being, new potentials, spirituality, and advocacy/enrichment. This result may be explained as there is a strong relationship between resilience and recovery in the field of mental health. Show the importance of resilience in recovering from various psychological disorders. Resilience, which can be understood as a "self-righting force" or a "sort of character strength" .less resilient individuals did not show significant signs of recovery.

In the same context, **Sedie et al. (2021)**, found that there was a positive correlation between the total resilience score and empowerment, learning and self-redefinition, basic functioning, advocacy and enrichment, new potentials, and spirituality. This agreement supports the vital relationship between resilience and mental health recovery dimensions. Moreover, **Mousavizadeh and Bidgoli (2023)** reported that when resilience is impaired, people with mental disabilities often find that they lose their sense of self due to their illness.



**Conclusion:**

From the findings of the current study it can be concluded that the studied patients had a low resilience and recovery level; less than two thirds (65.6%) and less than three quarters (74.3%) of them had a low resilience level and low recovery level respectively, Moreover, there is a positive correlation between resilience and mental health recovery.

**Recommendations:**

**The subsequent recommendations were offered based on the outcomes of the present research:**

- Psycho-educational training program should be applied for psychiatric patients to improve resilience and mental health recovery.
- Enhancing resilience through mindfulness program, identifying strengths, and self-efficacy, sense of coherence, resourcefulness and building a positive identity to improve resilience and mental health recovery of psychiatric patients.

Psycho-educational training program for psychiatric nurses and families of patients to increase awareness of resilience and mental health recovery through helping patient for medication adherence and follow up after discharge

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