INTERNATIONAL JOURNAL OF NURSING DIDACTICS

Homepage: https://www.nursingdidactics.com/index.php/ijnd

ISSN: 2231-5454

Resilience among Patients with Depression in an Egyptian Sample

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DOI: https://doi.org/10.52845/IJND/2024/14-12-2

Abstract: Depression is the most prevalent mental illness worldwide. Resilience has protective and compensatory effects against depression. Resilience is an individual's capacity to adapt and thrive in adverse stressful conditions effectively. Evaluating resilience and promoting it among patients with depression hugely influence their prognosis. ***Aim of this study:*** assess resilience among patients with depression. ***Method:*** A descriptive cross sectional research design was used with sixty depressed patients who were selected from Mansoura University Hospital's psychiatry inpatient department. Data was collected using three instruments: socio-demographic traits and clinical data sheet; Connor-Davidson Resilience scale (CD-RISC) and Beck Depression Inventory (BDI). ***Results:*** Current results in this study indicated that most of the patients in the study (93.3%) exhibited low resilience levels and only (6.7%) had moderate resilience levels; a highly significant negative correlation was revealed between total resilience and depressive symptoms severity. ***Conclusion:***Most of the subjects in the study reported low resilience levels. The present study provides additional evidence that resilience is associated with fewer mental health issues, not only that; it also change-sensitive, and predicts outcomes for patients with depression. ***Recommendation:*** The results of this study emphasize how crucial prevention and intervention strategies are for fostering resilience in persons with depression. Promoting resilience is recommended when providing care for individuals with depression since it has a major influence on the prognosis, treatment outcome and recovery. More research on the intervention to enhance resilience is required.

Key Words: Resilience, Depression.

INTRODUCTION

Depression is a prevalent mental illness that can be chronic or recurrent, significantly impeding capacity of the person to function at work or school, or adapt with daily life, influencing performance of job, routine activities, and productivity of the affected individual **(Chowdhury et. al., 2021).** Approximately 2.5 percent of the overall population suffers fromdepression. It is among the most common causes of disability, with a lifetime frequency of 5– 10% in the general population. In Egypt, the lifetime prevalence is 7% **(Abdel-Fattah et al., 2021).**

Depression is a leading cause of health-related disability and a major problem for public health **(Liu, 2020).** Symptoms of depression are linked with a high emotional burden and considerable deterioration in everyday life, such as hampered participation in the community **(Nagata et al., 2021).** Resilience may act as a buffer against onset of depression **(Loh, Schutte, &Thorsteinsson, 2014; Wang et al., 2020).**

Resilience is the capability of individual to cope to highly stressful events successfully and to maintain a healthy functioning by present resources such as sense of mastery, positive affect, feelings of self-esteem and self-efficacy, optimism, sense of coherence or effective emotional regulation skills and having a purpose in life **(Martin-Soelch, 2023).** Resilience has the prospect to be used as a defensive mechanism against particular mental health conditions and plays a crucial role in prevention and management of mental disorders, such as depression **(Stainton et al., 2019).**

Moreover, it has been related to positive assessment of stressful events as it affects one's ways of thinking and problem-solving skills. This illustrates the effect of resilience factors on some of cognitive processes that may be compromised in depression. Early interventions for psychological distress that foster resilience have been linked to a decrease in symptomatology **(Chmitorz et al., 2018; Rossouw&Rossouw, 2016).**

Resilience is a key component of mental health, which is defined as a person's ability to demonstrate mental health in circumstances that others find appalling, and might lessen emotional and mental challenges and so promote mental health **(Dehvan et al., 2018).** Additionally, it points out to the process of successfully dealing with stressful circumstances like chronic disease, and withstands maladaptation in the face of situations that pose a health risk **(Ntountoulaki et al., 2017; O'Dowd et al., 2018).**

Coping, optimism, hardiness, self-efficacy and adaptation are all regarded as components of resilience. People are able to learn from their experiences and overcome misfortune because of an innate energy or motivating life force **(Somaiya et al., 2015).** Resilience has been viewed as a protective element that promotes advantageous outcome for

those dealing with challenging situations, such as psychological disorders and increasing efficacy of psychotherapeutic treatments. Resilience improves medication adherence, reduces relapse, attempts of suicide, and enhances both cognitive survival and personal development **(Mokhtar et al., 2021).**

Study aim:

The study aims to assess resilience among patients with depression in an Egyptian Sample.

SUBJECTS AND METHOD

Study design:

This study was carried out using a descriptive cross-sectional research design.

Setting:

The study was carried out at Mansoura University Hospital's inpatient psychiatric department.

Subjects:

Study's participants included 60 patients with depression who met the following requirements: all patients diagnosed with depression based on their medical records, aged between 18 and lower than 60 years old, both gender, those who could communicate and who agreed to participate in the research.

TOOLS

To gather data, three tools were utilized; involving:

Tool one: Socio-demographic characteristics and clinical data sheet

This tool was developed by the investigator after reviewing recent relevant literature. It contained information regarding:

- Socio-demographic information: age, sex, education, marital status, place of residence…etc.
- Clinical data: such as illness duration, previous admission, family history, treatment adherence …etc.

Tool Two: The Connor-Davidson Resilience Scale (CD-RISC)

Connor and Davidson (2003) developed Connor-Davidson Resilience scale (CD-RISC) to evaluate resilience in clinical samples and general population, as well as how a person is well-prepared to recover from traumatic events or stressful situations. It consists of twenty-five items, all of which are scored on a Likert scale of five-points that range from 0 (not true at all) to 4 (almost always true). The overall score is between 0 and 100.

Abd El-Ghafar, Abd El-Nabi, &Fathalla, (2018) translated and validated the Arabicversion. Cronbach's Alpha test (n=0.881) was used to assess its reliability. A scoring system of resilience scale follows the following: Low Resilience (less than 50); Moderate Resilience (50 - 70) and High Resilience (more than 70).

Tool three: Beck Depression Inventory (BDI-II)

Beck Depression Inventory (BDI-II) was developed by Beck et al., (1996). This instrument is intended to determine how severe depression symptoms are. This instrument includes 21 items, and the intensity of each one varies based on the degree of symptom severity. Each item allows the patient four choices from no or mild symptom to severe symptom. According to the BDI-II scoring system, there is no depression between 0 and 13, mild depression between 14 and 19, moderate depression between 20 and 28, and severe depression between 29 and 63.

Ghareeb (2000) translated this tool into Arabic, and its reliability and validity test was conducted. It is a valid and reliable tool for determining depression severity. Additionally, the researcher used the Cronbach's Alpha to test the tool's reliability, and the results equaled 0.947, indicating excellent internal consistency, according to **Gliem&Gliem (2003),** and 1 for the intra-rater reliability assessment, indicating perfect agreement, according to **Cuchna,Hoch, & Hoch (2016).**

Ethical considerations:

Research Ethical Committee of the Faculty of Nursing – Mansoura University provided an ethical approval. The Head of Psychiatric Department of Mansoura University Hospital formally approved the study conduct. Aim, risks, benefits and procedure of the study were explained to the patients. Additionally, they were notified that participation in the study is entirely voluntary. Those who agreed to participate in the study gave informed consent. Participants were assured that their personal data will be kept confidential. Additionally, they were told that they would not be penalized for leaving the research at any time.

Statistical analysis:

Results analysis was conducted using SPSS version 22. Numbers and percent were utilized to depict qualitative data. Continuous variables were depicted utilizing Mean ± standard deviation for parametric data.

RESULTS

Table 1: the distribution of study's participants based on their Socio-demographic characteristics:

Socio-demographic Characteristics	No (60)	(100) %
Age in years		
18 to less than 30 years	10	16.6 %
30 to less than 45 years	42	70 %
45 to less than 60 years	8	13.3 %
Mean ± SD = 36.87 ± 5.86 years		
Sex		
Males	28	46.7 %
Females	32	53.3 %

Education Level		
Illiterate	8	13.3 %
Read & write	14	23.3 %
secondary school or Diploma	27	45 %
University	11	18.3 %
Marital status		
Single	17	28.3 %
Married	28	46.7 %
Divorced/Separated	15	25 %
Occupation		
Not working	14	23.3 %
House wife	25	41.7 %
Manual work	18	30 %
Professional work	3	5 %
Place of Residence		
Urban	28	46.7 %
Rural	32	53.3 %
Income		
Insufficient	46	76.7 %
Sufficient	14	23.3 %
total	60	100 %

Table (1) indicates that patients in the study were between the ages of 18 and under 60 years,with a mean ± SD of (36.37 ± 8.09); More than two thirds of the patients (70%) were between the ages of 30 to 45 years. over half of the patients (53.3%) were female. Concerning educational level, about half of the patients (45%) were Diploma or secondary school. Concerning marital status, more than half of the studied sample of the patients in the study reported that they were either single or divorced (28.3% and 25%) respectively. Regarding occupation, over two thirds of the patients in the study (65%) did not have a job. As regards to the residence, more than half of the patients in the study (53.3%) reside in rural areas. Concerning income sufficiency three quarters of the patients in the study (76.7%) reported inadequate income.

Table 2: frequency distribution of the study's participants based on their clinical data:

Clinical data	No (60)	(100) %
Family history of psychiatric illness		
No	34	56.7 %
Yes	26	43.3 %
Duration of disease		
1 years < 3 years	20	33.3 %
3 < 5 years	11	20 %
5 < 10 years	15	26.7 %
10 +	14	23.3 %
Mode of hospital admission		
Involuntary	34	56.7 %
Voluntary	26	43.3 %
Number of hospitalization		
No	7	11.7 %
Once	14	23.3 %
Twice	25	41.7 %
Three times and more	14	23.3 %
Previous psychiatric treatment		
No	4	6.7 %
Yes	56	93.3 %
Medication adherence		
No	33	55 %
If Yes	27	45 %
Yes regularly	9	15 %
Yes interrupted	18	30 %
total	60	100 %

Table (2) shows that around half (43.3%) of the patients in the study had a family history ofmental illness. As regards illness duration, half (50%) of the participants in the study reported that they had depression for five to more than ten years. Involuntary hospital admissions accounted for more than half of the group under study (56.7%) and over two thirds of the studied group (65%) had two or three hospital admissions. 93.3% of the study group had previously taken psychiatric medications. As regard to medication adherence, (55%) of the study group didn't take their medication as prescribed.

Table (3) Frequency distribution of the studied subjects based on their resilience level

Resilience Level	**N(60)**	**100%**
Low resilience level (less than 50)	56	93.3%
Moderate resilience level (50 – 70)	4	6.7%
total	**60**	**100%**

Table (3) reveals that 93.3% of study's participants had low resilience level while only 6.7% had moderate level of resilience.

Table (4) the relationship between subjects' resilience levels and their socio-demographic characteristics & clinical data

Socio-demographic characteristics and clinical data	**Resilience** **Test of Significance**	
	R	**P**
Age	.139	.291
Education	.019	.883
Illness duration	**-.316***	**.014**
Treatment adherence	**.509****	**.000**
Number of Hospitalization	**-.432****	**.001**
Sleep Disturbance	**-.277***	**.032**
Social Interaction: **Social Initiation** **Social Maintenance**	 **.463**** **.267***	 **.000** **.039**

table 4 shows the relation between socio-demographic characteristics & clinical data of the depressed patients and resilience. Resilience was significantly correlated negatively with duration of illness (r =-.316, p =.14); and sleep disturbance (r= - 0.277 with significance .032). Additionally, resilience and treatment adherence were significantly correlated positively (r =.445, p=.000). There is a highly significant negative correlation between number of hospitalizations and resilience (r =-.432, p =.001). Regarding Social Interaction; a highly positive correlation was found between resilience and social initiation (r =.463, p =.000); as well as between resilience and social maintenance there is a significant positive correlation (r =.267, p =.039).

Table (5) the patient's frequency distribution based on how severe their depression symptoms were:

Severity of Depressive Symptoms	**N(60)**	**100%**
Mild Depression	9	15%
Moderate depression	41	68.3%
Severe Depression	10	16.7%
total	**60**	**100%**

Table (5) shows that most of the participants suffer from moderate (68.3%) and severe depression (16.7%).

Table (6) Correlation between studied subjects′ level of resilience and depressive symptoms severity according to Beck Depression Inventory (BDI-II) scale

	Depressive Symptoms Severity Test of Significance	
	R	P
Resilience Level	**-.438****	.000

Table (6) shows that there is a highly significant negative correlation between resilience level and severity of depressive symptoms (r =-.436, P =.000).

DISCUSSION

With regard to socio-demographic characteristics of the study's participants, current results revealed that the age of the study's participants ranged from 18 to less than 60 years, with a mean ± SD of (36.37 ± 8.09); More than two thirds of the participants were between the ages of 30 to 45 years. This may be related to emotional disturbances, interpersonal problems, and marital relationships troubles, job difficulties and academic setbacks so these stressors may result in depression. This is in line with the findings of **Niroula&Upadhyay (2020)** who reported that people usually experience depressive episodes duringtheir fourth decade of life. But according to **Ibrahim & Adam (2017)** depression may occur at any age from early childhood to later adulthood, its prevalence is highest in young adulthood.

Over half of the participants in the study were female. The possible explanations for higher prevalence of depression between females involve a number of potential causes such as normal hormonal changes they encountered throughout their lifetime; hormonal changes that may cause a variety of depressive disorders. Moreover, females are more likely than men to spend time reflecting on past experiences. The study result is in line with **Li et al., (2022)** who revealed that the prevalence of depression is higher between women compared to men. But according to **Handley et al., (2019)** gender wasn't a significant factor for depression.

According to level of education, approximately half of the participants had secondary and high education. This could be because the person turned to finishing school in order to preserve their social standing and to guarantee that they would be offered employment possibilities that would allow them to develop their personal abilities. Current result was in line with **Osama, Sabra, &Barakat (2023)** who reported that one-third of his sample had completed secondary and advanced education. On the other hand, **Zein-Elabdeen,Ibrahim &Elbilsha (2024)** stated that the majority of study's participants were eitherilliterate or can read and write.

With regard to marital status, over half of the participants in the study reported that they were either single or divorced. That could be attributed to the fact that about half of the patients in the study were in the age group between 30 and 45 years old which is a marriageable age so being a patient with a mental illness delaying the marriage due to the stigma. This result is in agreement with **Zhao et al., (2022)** who reported that divorced and never married patients are more likely to develop depression in comparison with married others. This result contradicted the finding of **Li et al., (2020)** which revealed that the most of the patients in his study were married.

Regarding occupation, over two thirds of the patients in the study were jobless. This could be because of the stigma associated with the illness as well as a deficiency of interpersonal skills and concentration that impair productivity and capacity of patients to function alongside with their family responsibility. This is in line with **Amiri, (2022)** who found that about two third of their patients were unemployed. This findings is contradicted with **Zhou et al., (2020)** who stated that the highest percentage of the patients in the study were permanent or fixed-term employees.

Concerning income sufficiency, over three quarters of the patients of the study reported inadequate income. This finding might be because over two thirds of study's patients were jobless, which affected their income and left them unable to cover treatment costs or living requirements. In the same line **Rady et al., (2021),** reported that almost all the study's patients report inadequate income. In contrast to present study results, **Mumang et al.,(2020)** found that depression was more common among high income groups than low incomegroups.

As regards to clinical characteristics of the patients in the study; current results found that nearly half of the patients report family history of mental illness. This may be related to the influence of hereditary and genetics factors, which are a predisposing factor of mental illness. This is in agreement with a research conducted by **Parami et al., (2021).**

With regard to duration of disease, about half of the patients in the study had experienced depression for five to over ten years. This may be because over half of the patients in the study did not take their medications as prescribed, in addition one third of them took the treatment intermittently, which exacerbate symptoms and lead to chronicity of the depression. The result agrees with the research done by **Hamzaa&Wahba (2022).**

Regarding the mode of admission, over half of the patients in the study were taken against their will to the hospital. The stigma of mental illness and how people view them may be

a reason that patients refuse to enter psychiatric hospitals. The result was in agreement with **Correll et al., (2023) and Nordenskjöld et al., (2018)** who revealed that around half of the participants were involuntarily admitted. However, **Osama et al., (2023)** reported that all the patients in his study were voluntarily admitted.

Regarding number of admission to hospital, over two thirds of the participants in the study admitted to the hospital twice or three times. This can be attributed to that over half of the individuals in the study didn't take medication as prescribed. This finding is in the same line with **Eissa et al., (2020)**, but contradicts findings by **Husain et al., (2020)** who claimed that over two thirds of participants in his study had no prior admission to a psychiatric ward.

According to current results, most of the sample had a history of taking psychiatric medications. The finding can be attributed to chronicity of the disorder. The result is consistent with **Mojtabai et al., (2023)** who revealed that two thirds of studied subjects received psychiatric medications.

Concerning medication adherence, over half of the patients in the study did not take their medications as prescribed. This may be explained by the findings of our study such as low income. Additionally, beliefs about psychiatric medications in our culture, as patients with depression had a concept that taking antidepressant medications lead to dependence and addiction. The result displayed concordance with **Abegaz et al., (2017) and Marasine et al.,(2020)** both of them reported lower levels of adherence to antidepressant drugs.

As regards to resilience, the majority of sample exhibited low levels of resilience. Various factors, including hospitalization, a lack of social and behavioral skills, disrupted interpersonal interactions, ineffective role functioning, and stigma, might contribute to this outcome. This finding is concordance with **Abdel-Rahman, et al., (2020)** who reported that over three quarters of the patients in the study exhibited low resilience levels. Additionally, patients diagnosed with depression exhibit lower levels of resilience, according to **Park(2016).**

Additionally, total resilience was significantly correlated with illness duration and number of hospitalizations. This could be explained by that variety of factors have an impact on resilience such as individual's perception of social support from family, friends and community which may be lost by admission to hospital and illness duration; also, hospitalization cause exacerbated feelings of isolation and patients are admitted against their will that result in increased stress level which in turn resilience decline. That finding was consistent with a research by **Mokhtar, et al., (2021)** which demonstrated a highly statistically significant relationship between patient's total resilience and number of prior hospitalizations and illness duration. This finding also aligned with **Senormanci, et al.,(2020)** who revealed a significant relationship between numbers of hospitalized admission,illness duration and resilience.

According to correlation between total resilience levels and severity of depressive symptoms, a highly statistically significant negative correlation was found; a low resilience predicted larger increases in depressive symptoms, this can be explained by that resilience improve positive attitude towards one's own capacity to endure and manage crises; additionally promote emotional stability, hopefulness, adaptive behavior and strong social interaction, positive cognitive style, which in turn help to counteract susceptibility to depressive patterns of thinking and behavior **(Weitzel et al., 2022; Meule et al., 2024)**. This result aligned with numerous researches revealed that resilience correlates negatively with depressive symptoms **(Hu et al., 2015; Pakalniskien et al., 2016; Mesman et al., 2021;Meule et al., 2024).**

CONCLUSION

The current study revealed that almost all patients in the study exhibited low resilience levels. In addition, total resilience and severity of depressive symptoms are negatively correlated in a highly statistically significant way.

RECOMMENDATIONS

On the basis of current results, following recommendations are proposed to be helpful for the management of depressed patients

- Further research regarding psycho-educational programs involving positive behavior skills and training techniques to improve patient's resilience.
- Targeting intervention programs that focus on enhancing resilience may help decrease severity of symptoms and relapse's rate among depressed patients.
- Implementing a resilience training program through identifying strengths and self-efficacy to improve resilience of depressed patients.

ACKNOWLEDGMENTS

The author wishes to express her sincere appreciation and gratitude to the research advisers. She also extends her thanks to the hospital administrator for permitting the study to take place, along with the patients who participated in it.

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