Correlates of Caregiver Burden among Family Members of Patients with Schizophrenia at Benha Psychiatric Health and Addiction Hospital

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Abstract

Background: The role of caregivers in management and prognosis for patient with schizophrenia is crucial; caregivers are considered cornerstones in getting better outcome and quality of life. **Aim of the study:** Assess correlates of caregivers' burden among family members of patients with schizophrenia. **Research Design:** Descriptive correlation design was utilized in this study to fulfill the aim of this study. **Setting:** This study was conducted at Psychiatric Health and Addiction Hospital in Benha City, Qalubia Governorate. **Sample**: A purposive sample of hundred caregivers and their patients were included in the study. **Tools:** Four tools were used to measure the current study variables. **Tool (1)** Socio-demographic and clinical characteristics structured interview sheet. **Tool (2):** Assessment of positive and negative symptoms of schizophrenia. **Tool (3):** Zarit Burden Interview. **Tool (4):** The Connor-Davidson Resilience scale. **Results**: Indicated moderate to severe level of burden among caregivers. Also, results revealed that negative statistical significant correlation was found between caregivers of patients with schizophrenia burden and their resilience and statistical significant positive correlation was found between caregivers burdens and positive and negative symptoms among patients with schizophrenia. **Conclusion:** Family caregivers' burdens are associated with their age, educational level, patient number and duration of hospitalization and resilience. **Recommendation:** A rehabilitation program must be conducted for family caregivers to enhance their resilience and consequently their coping skills, and hence their quality of life becomes better.

Keywords: Burden, Schizophrenia, Caregiver, Family.

Introduction:

The estimation of the World Health Organization in 2019 reveals that around 20 million people are suffering from schizophrenia worldwide. Schizophrenia is one of the most debilitating diseases that makes patients suffer from the symptoms for several years, even after getting the treatment. Since it affects daily living and employment sustainability, the patient needs to get support and care for a long period of time. Data reveals that almost around 70% of schizophrenic patients in Asian countries and approximately 25- 50 % in Western countries depend on their families for the prolonged care **(James & Tungol, 2021).** Schizophrenia is a serious mental disorder whereby a person suffers from an unusual psychotic condition and it is one of the top 20 causes of disability worldwide **(Keepers et al., (2020).** Schizophrenia causes poor adaptation to and impairment in social context and more specifically deficient resilience, the dynamic process of adapting to and functioning in the face of adversity. Decreased resilience and in ability to cope with stress have negative effects which include impaired social adaptation, demoralization, hopelessness, lowered self- efficacy, self-esteem and

decrease patient's quality of life and life satisfaction (**Luther et al., 2020**).

A caregiver is defined as the person fulfills the need of physical and psychological wellbeing of the diseased individual. Caregiver burden is a multi-dimensional response to the perceived stress and negative appraisal resulting from taking care of an ill individual. A caregiver plays a significant role both physically and mentally by taking care of a chronic mentally ill person. Caregiver burden affects the psychological, physical and emotional health of the individual who cares for the illness of the chronic mentally ill patient (**Swain et al., 2017**).

The family is considered a cornerstone of support to mentally ill patients. Families not only provide practical help and personal care such as bathing, eating, taking drugs but also give emotional support to their relative with a mental disorder in the face of insufficient knowledge, skill to provide care, limited social support, and poor mental health facilities (**Khalil et al., 2021**).

The family caregiver is the one belongs to the informal care system to take of the responsibility of the patient, committing most of his time for the task of caregiving without receiving any remuneration. The demanding role of caregiving requires considerable amount of energy and time over a long duration, resulting in exhaustion that eventually affects the caregiver negatively. Caregivers of schizophrenics experience high levels of subjective burden. Subjective burden leads to affecting adversely the overall well-being of the caregiver. Considering the amount of physical and emotional burden on the family caregivers, they have often been recounted as forgotten patients. Attempt has been made in this paper to analyze the presence of this defeatist factor among the

family caregivers of schizophrenia patients and why psychosocial interventions are needed to address this adverse factor (**James & Tungol, 2021**).

Burden of caregiver, it can be either objective burden such as family disruption, financial crisis, limitations on activities of daily living and social interactions or subjective burden which is a perceived feeling of getting overwhelmed by the care they are providing. In general, burden among caregivers encompasses physical, psychological, emotional, social, and financial difficulties that family members faced because of taking care of responsibility for patients with mental illness (**Ayalew et al., 2019**).

Role of the Psychiatric Mental Health Nurse: Psychiatric mental health professionals utilize a care coordination model to improve care planning and increase the client's continuity of care and access to services outside of health. This inclusive approach aims to foster client recovery and reduce duplication of services. Care coordination involves interactions and planning between the client, clinicians, health care providers, the family and other significant stakeholders. It is directed at meeting the client's individual needs to enhance their independence and facilitate social connectedness while providing high quality safe mental health care during the client's transition back to primary health care and other community services (**Heslop et al., 2016**).

Role of the Psychiatric Mental Health Nurse toward caregiver: Psychiatric nursing intervention should be focused on the need of the caregivers and an emphasis placed on community care for mentally ill patients as well as family intervention. Mental health

professionals should increase attention to the caregivers in addition to the patients and develop more programs for families; they should be provided social support, especially by healthcare professionals, and they should also be provided psycho education **(Noori & Ebrhim ., 2020).**

Significance of the study

Schizophrenia is one of the most serious psychiatric disorders. According to the National Institute of Health, the prevalence rate of schizophrenia is between 0.6 and 1.9% worldwide. It has a significant individual, social, and economic pressure on both patients and their families. In developing countries, families have customarily been associated in the care of patients, and despite the difficulties forced on the families for the care of patients with schizophrenia, they prefer to deal with their patient at home instead of using long-term care services **(Ahmed & Ghaith, 2018).**

The World Health Organization reports that 20 million people worldwide have schizophrenia. The National Institute of Mental Health (NIMH) estimates that the worldwide prevalence of schizophrenia is around 0.33 to 0.75% (among non-institutionalized individuals). However, it can be difficult to estimate the exact number of people affected by schizophrenia for several reasons. Some factors that influence the ability to gather statistics on the condition are due to the complexity of making a diagnosis, the overlap with other psychiatric conditions, and the number of people go undiagnosed and untreated **(Cherry, 2020).** In Egypt by the end of 2019 the number of schizophrenic patients is estimated to be about (1 million) people **(Ramy, 2019).** Prevalence is higher than diabetes mellitus, Alzheimer's disease, and multiple sclerosis **(Tabangcora, 2021).**

Aim of the study

This study aimed to assess correlates of caregivers' burden among family members of patients with schizophrenia at Benha Psychiatric Health and Addiction Hospital.

Research questions:

1.What are the correlations with caregivers' burden among family members of patients with schizophrenia at Benha Mental Health Hospital?

2. What is the association between patients' socio-demographic characteristics and their family caregivers' burden of care?

3. What is the association between family caregivers' personal characteristics and their burden of care?

Subject and methods

Research design:

Descriptive correlational design was utilized in this study to fulfill the aim of this study.

Research setting:

This study was conducted at Psychiatric Health and Addiction Hospital in Benha City, Qalubia Governorate, which is affiliated to General Secretariat of Mental Health in Egypt. It has 5 departments (4 males and 1 female): with a capacity of 220 beds and the total number of patients were 150 patients (120 male and 30 female). The hospital provides care 24 hours per day and on weekdays. The hospital provides care for patients diagnosed with acute and chronic mental illnesses that need institutional care and receiving new cases for diagnosis and treatment and in addition to providing follow up for patients after discharge.

Research subject:

Sample size & sample technique:

The study was conducted on 100 patients and 100 caregivers at Benha Mental Health and Addiction Hospital.

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Tools of Data Collection:

To achieve the aim of study, the following tools were used.

Tool (I): Socio-demographic and clinical characteristics structured interview sheet

The questionnaire was developed by the researcher based on scientific review of literature to assess the following parts:

Part I: Socio-demographic data:

For patients: It consisted of 6 items to elicit data about the studied patient's such as (age, sex, marital status, educational level, occupation, type of work, and residence).

For family caregivers: it includes, age, sex, level of education, occupation, period of the time spends in caring for their patients, occupation, Type of work, Number of family member, Marital status, , and the degree of kinship to the patient ,who participate in expense.

Part II:- Clinical data: It consisted of 8 items include (age at onset of the disease, number of previous hospitalization, duration of hospitalization and mode of admission, by whom in case of involuntary admission, family history of psychiatric disease, type of disease, and patient's relation to him).

Tool (II): Assessment of positive and negative symptoms of schizophrenia

First part: scale for Assessment of Negative Symptoms. The negative symptoms Scale was originally developed by (Andreasen, 2011). The scale was used to assess negative symptoms of schizophrenia; it was translated into Arabic and re-translated by the researcher. The scale compromises 22 items, 4 subscales (Attention and concentration, Affect, Anhedonia asociality, Grooming and hygiene).

Second Part: Scale for Assessment of Positive Symptoms. The scale was used to assess positive symptoms of schizophrenia

The scale compromises 36 items, 5 subscales (Delusion, Perception, Affect, Bizarre behavior and positive formal thought disorder).

Tool (III) Zarit Burden Interview (ZBI)

It was developed by (**Zarit et al., 1980**) is a 22-item instrument for measuring the caregiver's perceived burden of providing family care. The 22 items are assessed on a 5-point Likert scale, ranging from 0 = 'never' to 4 = 'nearly always. Item scores are added up to give a total score ranging from 0 to 88, with higher scores indicating greater burden and a modification was done to the likert scale of Zarti burden scale from five to three points to be clear and simple for the patients and their caregivers The questions focus on major areas such as (physical and mental health, Impact of routine care on caregiver, Responsibility toward patient, relation with others and Care strategies

Scoring System:

- 0 - 21 little or no burden
- 21 - 40 mild to moderate burden
- 41 - 66 moderate to severe burden

Tool (IIII): The Connor-Davidson Resilience scale (CD-RISC 25)

The scale was developed by **Connor &Davidson, (2007)**. It is a self-administered scale containing 25 items that exhibit good psychometric properties, all of which carry a 5 point scale range of response, as follows: not true at all (0), rarely true (1), sometimes true(2), often true (3), and true nearly all of the time (4). Modification was done to the likert scale resilience scale from five to three points to be clear and simple for the patients and their caregivers The questions focus on major areas such as (Personal competence, Control, Acceptance of change and secure relationships, Trust /tolerance/strengthening effects of stress and Spiritual influences)

Scoring System:
- Low resilience = (<50%).
- Moderate resilience = (50-70%).
- High resilience = (>70%).

Methods

Phase 1: Preparation phase:

This phase was carried out through review of local and international related literature about the various aspects of the researcher problem. This helped the researchers to be acquainted with the magnitude and seriousness of the problem and guided the researchers to prepare the required study tool.

Administrative approval:

A written letter was issued from the Dean of the Faculty of Nursing Benha University to obtain the approval from the director of Psychiatric Health and Addiction Hospital in Benha City, Qalubia Governorate and then from General Secretariat of Mental Health in Egypt to conduct the proposed study. Also, approval from the hospital's nursing director at Psychiatric & Mental Health Hospital in Benha City was taken before data collection. The aim and the nature of the study were explained to the administrative personnel.

Validity of tools:

The researchers prepared the tools for data collection. Once ready, the tools were evaluated by five jury experts in psychiatric and mental health nursing. They were from different academic categories in Faculty of Nursing at Benha University who reviewed the tools for clarity, comprehensiveness, relevance, accuracy, simplicity, understanding and applicability. The jury recommended paraphrasing the wards of some sentences and a modification was done to the likert scale of Zarti burden scale and resilience from five to three points to be clear and simple for the patients and their caregivers.

Reliability of tools:

The reliability of the tools was conducted to determine the internal consistency and homogeneity of the used tools by Alpha Cronbach test and results were (0.72) for PANSS scale, (0.82) for Burden scale and (0.84) for Conner Resilience Scale.

Ethical consideration:

The researcher clarified the purpose and the aim of the study to every participant in the study, oral consent obtained from each nurse before conducting the interview; the nurse who agreed to participate in the study were assured about the confidentiality and anonymity of the study. They were informed that they could withdrawal from the study at any time.

Pilot study:

A pilot study was undertaken after adaptation of the tools and before starting the data of collection. It was conducted on (10%) 8 nurses (included in study) after taking their oral approval and explanation the purpose of the study to test the applicability, feasibility and clarity of the tools. In addition, it served to estimate the approximately time required for interviewing the nurse as well as to find out any problem that might interfere with data collection.

Phase 2: Actual study (collection procedure).

- The process of data collection took a period of 3 months from the first of March2022 to the end of May2022, 3 days/ week (Saturday, Tuesday and Thursday), from 9 A.M.: 2 P.M., 3 hours/ day, 3 days/week, 3 patients and caregivers / day, 1 patient and 1 caregiver/ hour, 12 day/ month about 33-34 patients and caregivers /month.

The study was started and finished through these steps:

- The researcher started data collection by introducing herself to the patients and their caregivers.

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• Brief description about the purpose of the study and the type of questionnaire required to fill was given to each patient and their caregivers.

• The sample was selected by interviewing 100 schizophrenic patients and 100 caregivers purposively that met the previous prescribed criteria and about 50 patients (9 female and 41 male) from total number of patients were excluded as doesn't met the inclusion criteria.

• The researcher followed the specific precautions (wear mask) due to corona virus circumstances after explanation and reassurance of patients.

• Data collection was done by interviewing each patient individually and according to his condition such as aggressive and excited patient unable to complete the assessments.

Statistical analysis and Data Manipulation:
All data collected were organized, coded, computerized, tabulated and analyzed by using The Statistical Package for Social Science (SPSS) program (version 20), which used frequencies and percentages for qualitative descriptive data, Chi-square was used for relation tests, mean and standard deviation was used for quantitative data and person correlation coefficient (r) was used for correlation analysis and degree of significance was identified. A highly statistical significant difference was considered if p-value < 0.001, statistical significant difference was considered if p-value < 0.05 and non-statistical significant difference was considered if p-value p > 0.05.

Results:
Table (1) shows that the mean age of the studied patients with schizophrenia was 38.1± 9.91. However 53% of them were between 40 to <50years old and 29% of them were 30 to <40years respectively. 82% were male, 45% were single 62% were unemployed. As regards educational level 63% and 33% of the studied patients were secondary education and read and write respectively. Also table (1) reveals that 64% of the studied patient with schizophrenia from rural area.

Table (2) shows that the mean age of the studied caregivers of patients with schizophrenia were 40.44 ± 9.17.However, 36% of them were between 45 to less than 55years and 33% of them were between 35to less than 45 years.81% of them were females , and 98% of them were first degree family member. Also, 65% of the studied caregivers had 4-6 and ≥ 8 family members, and 49% were single. As regards education 57%, 21% and 18% of caregivers had secondary education, university education and read & write respectively.

Figure (1) Shows that levels of burden as perceived by caregivers were 82.0% and 18.0% had high and moderate level of burden respectively.

Figure (2) reveals that 63%, 33% and 4% of the studied caregivers have low, moderate and high levels of resilience as reported by caregivers.

Table (3): reveals that, statistical relation were found between socio-demographic and personal characteristics of the studied caregivers (age and educational level) and their total level of burden when X2 =6.14 and 6.58 at p=<0.05 respectively.

Table (4) reveals that, no statistical significant relations were found between caregivers 'burden of care and their patients' clinical and medical data at p>0.05.

Table (5) reveals that there was negative statistical significant correlation was found between caregivers of patients with schizophrenia burden and their resilience where r=-0.77 at p= <0.01.Also statistical significant positive correlation was found

between burden among caregivers and positive and negative symptoms among patients with schizophrenia when r=0.43 at p=<0.01.

Table (1): Socio-demographic characteristics of the studied patients with schizophrenia (n=100).

Items	N	%
Age (years)		
• 20-	16	16.0
• 30-	29	29.0
• 40 -	53	**53.0**
• 50 -	2	2.0
Mean ± SD	38.1 ± **9.91**	
Sex		
• Male	82	**82.0**
• Female	18	18.0
Marital status		
• Single	45	**45.0**
• Married	21	21.0
• Divorced	34	34.0
Educational level		
• Illiterate	2	2.0
• Read and write	33	33.0
• Secondary	63	**63.0**
• University	2	2.0
Occupation		
• Employed	38	38.0
• Unemployed	62	**62.0**
Type of work (n=38)		
• Employee	2	5.2
• Not employee	4	10.5
• Free works	8	21.2
• Archive works	4	10.5
• Craft works	20	**52.6**
Residence		
• Rural	64	**64.0**
• Urban	36	36.0

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Table (2): Socio-demographic and personal characteristics for studied caregivers of patients with schizophrenia (n=100).

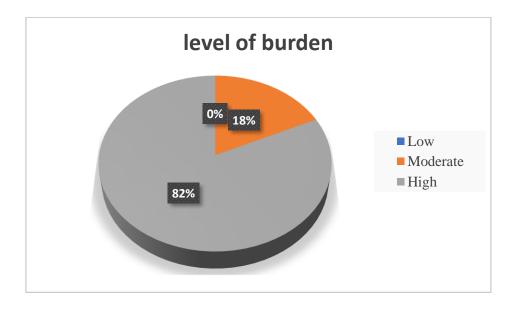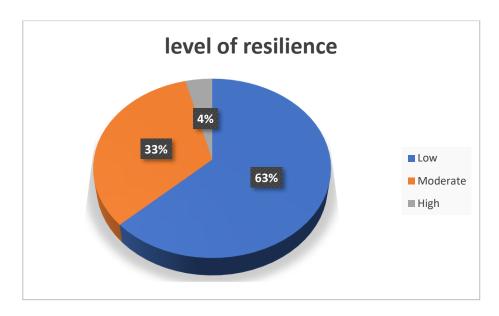| Items	N	%
Age		
• 25-	31	31.0
• 35-	33	33.0
• 45-	36	**36.0**
• 55 and more	0	0.0
Mean ± SD	40.44 ± **9.17**	
Sex		
• Male	18	18.0
• Female	81	**81.0**
Relation to patient		
• First degree	98	**98.0**
• Others	2	2.0
Number of family member		
• < 4	2	2.0
• 4-6	65	**65.0**
• 7-8	31	31.0
• >8	2	2.0
Marital status		
• Single	49	**49.0**
• Married	29	29.0
• Divorced	4	4.0
• Widow	18	18.0
Educational level		
• Illiterate	4	4.0
• Read and write	18	18.0
• Secondary	57	**57.0**
• University	21	21.0

Figure (1): Levels of burden as perceived by studied caregivers (N=100).

Figure (2): levels of resilience as reported by the studied caregivers of patients with schizophrenia. N=100

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Table (3): Relationship between socio-demographic and personal characteristics of the studied caregivers and their total level of burden (n=100).

Socio-demographic characteristics		Total of burden								X²
		Severe (n=82)		Moderate (n= 18)		Mild (n=0)		Little (n=0)		
		N	%	N	%	N	%	N	%	
Age (year)	25-	24	29.3	7	**38.9**	0	0	0	0	6.14*
	35-	24	29.3	9	50	0	0	0	0	
	45-	34	**41.5**	2	11.1	0	0	0	0	
Sex	Male	15	18.5	3	16.7	0	0	0	0	.034
	Female	66	81.5	15	83.3	0	0	0	0	
Relation to patient	First degree	80	97.6	18	100	0	0	0	0	.44
	Others	2	2.4	0	0	0	0	0	0	
Number of family member	Less than 4	2	2.4	0	0	0	0	0	0	1.37
	4-6	54	65.9	11	61.1	0	0	0	0	
	7-8	24	29.3	7	38.9	0	0	0	0	
	More than 8	2	2.4	0	0	0	0	0	0	
Marital status	Single	40	48.8	9	50	0	0	0	0	3.37
	Married	24	29.3	5	27.8	0	0	0	0	
	Divorced	2	2.4	2	11.1	0	0	0	0	
	Widow	16	19.5	2	11.1	0	0	0	0	
	Separated	0	0	0	0	0	0	0	0	
Educational level	Illiterate	4	4.9	0	0	0	0	0	0	6.58*
	Read and write	8	9.8	0	0	0	0	0	0	
	Elementary	6	7.3	4	22.2	0	0	0	0	
	Secondary	48	58.5	9	50	0	0	0	0	
	University	16	19.5	5	27.8	0	0	0	0	
	Postgraduate	0	0	0	0	0	0	0	0	

Table (4): Relationship between the clinical and medical data of the studied patients and their caregivers' burden and total score (n=100).

Clinical data		Total burden								X^2
		Severe (n=82)		Moderate (n= 18)		Mild (n=0)		Little (n=0)		
		N	%	N	%	N	%	N	%	
Age at the onset of the disease (years)	15- < 20	0	0	0	0	0	0	0	0	1.009
	20-<25	**58**	**70.7**	14	77.8	0	0	0	0	
	25-<30	20	24.4	4	22.2	0	0	0	0	
	30-<35	4	4.9	0	0	0	0	0	0	
	≥35	0	0	0	0	0	0	0	0	
Duration of hospitalization (years)	**1-3**	2	2.4	0	0	0	0	0	0	.697
	4-6	22	26.8	6	33.3	0	0	0	0	
	7 and more	**58**	**70.7**	12	66.7	0	0	0	0	
Mode of admission	Voluntary	76	92.7	18	100	0	0	0	0	1.40
	Involuntary	6	7.3	0	0	0	0	0	0	
family history of psychiatric disorders	Yes	57	69.5	14	77.8	0	0	0	0	2.195
	No	25	30.5	4	22.2	0	0	0	0	
Relation to the patient	Father/mother	32	39	1	5.6	0	0	0	0	3.732
	Brother/ sister	27	32.9	7	38.9	0	0	0	0	
	Uncle /aunt	17	20.7	10	55.6	0	0	0	0	
	Grandpa / grandma	6	7.3	0	0	0	0	0	0	

Table (5): Correlation between patients positive and negative symptoms of schizophrenia, total resilience and perceived burden among studied caregivers of patients with schizophrenia. N=100

Items		Resilience	Burden
Total resilience	R		
	P		
Total burden	R	-0.77**	
	P	<0.01	
PANSS	R	-0.57	0.43**
	P	<0.01	<0.01

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Discussion:

The current study aimed on assessing correlates of caregivers' burden among family members of patients with schizophrenia at Benha Psychiatric Health and Addiction Hospital. Data emerging from the study showed that, regarding to socio-demographic characteristics of the studied patients, the age of majority of the studied sample were between 40 to less than 50 years From the view point of researcher, this may be due to schizophrenia disease typically may develop at "late onset" after age of 44 years, These results come in agreement with a study done by **Barranha et al., (2020)** Living conditions of patients with schizophrenia spectrum disorders in the region of 'Tâmega e Sousa' (Portugal)**,** founded that, only one quarter of the patients belonged to30 to 40 year age group and the majority aged between 40 to 50 years.

While this study is contradicted with a study done in the outpatient clinic in Al-Zahraa University Hospital, Cairo, Egypt, (Cytokine profile among a sample of bipolar and schizophrenic patients) a comparative study by **Arafa &Abdelhafeez, (2020)** ,founded that more than one third of the studied patient's age ranged between to 20 less than30 .Also, in a study by **Okasha et al., (2020)** (Vitamin D serum level in major depressive disorder and schizophrenia) done in the outpatient clinics of Ain Shams University, Psychiatry Department, Cairo, Egypt, founded that half of the studied patients their age ranged from 20 less than 30. As regards to sex, the majority of the studied sample was male this may be related to that the hospital has 4 departments for male and 1 for females. These result come in line with a study done by **Dhaka et al., (2020)** Cognitive impairment in patients with schizophrenia: A

comparative study from western Rajasthan reported that the majority of the study were male ,another studies done by **Awaad et al., (2020)** Role of traditional healers in the pathway to care of patients with schizophrenia in Egypt reported that two thirds of the study were males ,another study by **Jaberi et al., (2020)** Prevalence of metabolic syndrome in schizophrenia patients treated with antipsychotic medications , mentioned that more than three quarters of the studied patients were males. Concerning marital status, the result of this study revealed that less than half of the studied sample was single. From point of view of the researcher, this may be related to the debilitating nature or impact of the illness on the overall functioning of the individual could be the barrier and make patients face difficulties to keep up marital relations. In addition to, schizophrenic patients may experience difficulties in social relationships due to societal stigmatization that lead to reduced opportunities for socialization and marriage. This result was in the same line with a study done in Turkey by **Cetin & Aylaz, (2021)** The relationship of mindfulness-based psych education provided to schizophrenic patients with their sociodemographic characteristics in increasing insight, reported that less than half of the studied patients were single , another study by **Abdeen et al., (2019)** Characteristics of the schizophrenia suicide attempts in comparison with the suicide attempts with other diagnosed psychiatric disorders: An Egyptian study founded that, less than half of the studied patients were single. In the other hand, this study was contradicted with a study done in Egypt, Evidence-Based Using Mobiles Health-Education to Improve Quality of Life among schizophrenic' Patients by **Abd el Fatah et**

al., (2020) founded that more than half of the studied patients were married. As regard to educational level, this study revealed that less than two thirds of the studied sample had secondary level. This result may be due to disturbances on the cognitive functions of the patient which affect everything from speech, and perception to psychomotor behavior, interpersonal relationships, and sense of self especially, if it occurs in the adolescence stage where these skills under development which hinder them from accomplishing education. The result come contradicted with a study done in Psychiatric Hospital "Sveti Ivan", Zagreb, Croatia, gender differences in early onset of chronic physical multimorbidity's in schizophrenia spectrum disorder: Do women suffer more? by **Filipcic et al., (2020)** founded that less than half of the studied patients had secondary education. Also, the result contradicted with a study, by **El-Bilsha, (2019)** Effectiveness of a psycho-social intervention on negative symptoms of patients with schizophrenia in conjunction with anti-psychotic drugs reported that, less than half of the studied patients were secondary.

Regarding occupation, less than two thirds of the studied sample were unemployed. This may be due to schizophrenia cause profound disturbance in all aspects of daily life and occupation and interferes with productivity, limits occupational and earning potential. The result of this study was in the same line of a study by **Manea et al., (2020,** reported that less than two thirds of the studied sample were unemployed.

Also the study agreed with **El-Monsheda & Amr, (2020)** The relationship between insight and quality of life among schizophrenic patients in Egypt showed that two thirds were un employed , In the other side, this result is contradicted with a study

done in Egypt, Characteristics of the schizophrenia suicide attempts in comparison with the suicide attempts with other diagnosed psychiatric disorders: An Egyptian study by **Abdeen et al., (2019)** founded that, half of the studied patients were employed. Concerning residence, the result of this study revealed that, less than two thirds of the studied sample from rural areas. This may be due to the fact that such areas had low socioeconomic status of the individuals is a risk factor of incidence of schizophrenia. In addition to, such type of mental diseases attributed to possession by demons punishments by god for evils which in turn might have resulted in delaying in disease discovery, beginning of treatment and poor prognosis in rural areas. The result of this study come in agreement with a study by **Luo et al., (2020)**, Gender difference in the association between education and schizophrenia in Chinese adult founded that more than half of the patients live in rural area. The result of this study is contradicted with a study by **Manea et al., (2020)** done in Egypt, The relationship between insight and quality of life among schizophrenic patients founded that, the majority of the patients with schizophrenia were lived in urban area and another study by **Setiawati & Suaryan, (2020)**, Differences in socio-demographic characteristics of schizophrenia patients between rural and urban Areas in Badung Regency founded that, the majority of the patients with schizophrenia were lived in urban area.

According to socio demographic characteristics of the studied caregivers, the current study showed that the majority of caregivers were between 45-55 years with mean 40.44 ± 9.17 years, near three quarter of patients their relative was father/ mother and more than half of them were secondary education. This is the same as the study, by

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Chen et al., (2019) studied " The burden, support and needs of primary family caregivers of people experiencing schizophrenia in Beijing communities: a qualitative study" and reported that the majority of caregivers were between 40-59 years ,most of them were parents and had secondary education.

Data emerging from this study showed that, regarding to socio-demographic characteristics of the studied caregivers, were females. This is explained by the fact that women are more concerned about the well-being of the people they provide care for. They also tend to be more emotionally attached to the patients as well as the cultural norms in Eastern society that put the responsibility of caregiving in general over the women shoulders. This is the same as a study by **Khalil et al., (2021**) conducted in Egypt, burden of care and burn out syndrome in caregivers of an Egyptian sample of schizophrenia patients found that two third of the caregivers were females**.** It is also consistent with another study **Yazici et al., (2016)**, Burden on caregivers of patients with schizophrenia and related factors in Turkey reported that two third of caregivers were women**.**

Concerning level of education, the current study revealed that half of the studied caregivers had secondary education, this may be due to that family caregivers with an intermediate education level may be trusted more in their ability to understand physician directions regarding medication schedule compared to those with lower education. This study is in consistent with the study by **Ahmed et al., (2022)**, effect of Family caregiver expressed emotion control program on relapse among patients with Schizophrenia done in Psychiatric Mental Health Hospital in Benha City, Qalyubiya Government reported that the level of education among caregivers was less than two thirds of the family caregivers had intermediate education.

The result of the current study found that less than one third of the studied caregiver's unemployed and the majority of the studied sample employed with sufficient income. This may be due to, medical treatment and the care of the patient with schizophrenia require high costs this in addition to the financial resources for the family caregiver. This is result was similar to the study by **Ahmed et al., (2022)**, effect of Family Caregiver Expressed Emotion Control Program on Relapse among Patients with Schizophrenia reported that more than half of caregivers were employed, another study by **Goldberg, (2020),** types of Schizophrenia revealed also about nearly to one quarter were homemaker and the majority had fairly sufficient income.

In this study the caregiving burden was higher in caregivers provided caregiving constantly and for a long duration, because of the caregiving burden intensifies with long-term and constant caregiving. Patients with schizophrenia require long-term support from their caregivers, and the burden develops when the demand for caregiving increases. This finding is similar to the study by **Rahmani et al. (2022),** caregiver burden and the associated factors in the family caregivers of patients with schizophrenia, reported the same result. Another study, by **Alexander et al., (2016**), burden of caregivers of adult patients with schizophrenia reported that the length of caregiving is inversely related to caregiving burden.

Regarding the correlation between caregiver's burden and positive and negative symptoms of schizophrenia, the present study reported that there was a statistical significant

positive correlation between them. This may be due to if the symptoms of schizophrenia is severe, this put a huge responsibility on caregivers to take care of their relative because of severity of symptoms made the patients totally dependent on their caregivers. This study is agreed with the study by **Pazvantoglu et al., (2014)**, the dimensions of caregiver burden in schizophrenia: the role of patient functionality conducted in turkey reported that there was significant positive correlation between caregivers burden and negative symptoms of schizophrenia.

Regarding the correlation between resilience and burden, the present study revealed a statistically significant negative correlation between resilience level of caregivers and their burden. This means that greater resilience levels led to lower levels of burden and vice versa. This result is expected because all of us know that a resilient person is characterized by self-efficacy. This person views stress as a challenge/opportunity, has commitment, engages the support of others, accepts reality, has an extraordinary ability to adapt to significant change, believes that life is meaningful. Additionally, they have a sense of humor, action-oriented approach, patience, tolerance of negative effects, and optimism. This study is in the same line with the study, resilience, burden, and quality of life in Egyptian family caregivers of patients with schizophrenia done by **Abd El-Ghafar et al., (2018)** founded the same result.

Regarding the correlation between resilience and positive and negative symptoms of schizophrenia, the present study revealed a statistically significant negative correlation between resilience level and PANNS, this study agreed with the study in Singapore, resilience and its inter-relationship with symptomatology, illness course, psychosocial functioning, and meditational roles in schizophrenia done by **Yeo et al.,**

(2022), founded greater level of resilience was associated with lower severity of specific symptomatology including positive, negative, depressive symptoms, less suicidal ideation, cognitive deficits, and better insight.

According to total level of resilience among the studied caregivers, the result of this study revealed that the majority of the studied sample had moderate level of total resilience subscales (personal competence, control, acceptance of change and trust / tolerance/strengthening effects of stress, spiritual influences), this study is in the same line with the study conducted at psychiatric outpatient clinic of Mental Health Hospital in Tanta City, Egypt , resilience, burden, and quality of life in Egyptian family caregivers of patients with schizophrenia, done by **Abd El-Ghafar et al., (2018)** founded that half of the family caregivers have moderate level of resilience. Presence of support may provide a means to adapt to circumstances within the caregiver role leading to more resilience.

Regardless of the fact that mental illness, especially schizophrenia, is a chronic disease, and the rate of recovery is very weak, it is necessary to take actions to decrease burden on caregivers through some therapeutic interventions, including training, support, and psychotherapy could have a dramatic effect on reducing negative emotional excitement of the family caregivers and may predispose to improving the quality of care and physical and mental health of caregivers. Emotion regulation helps people have a grasp of their emotions and improves quality of life of caregivers to decrease level of burden and achieving high level of resilience among them. Caregivers require training in caregiving skills beyond the routine advice given by health service providers. Providing guidance in managing the functional activities of the care recipient, appropriate information

relating to medication, accessing community resources and follow up communication.

Conclusion:

The present study revealed that family caregivers of patients with schizophrenia had moderate level of resilience, experiencing moderate to severe level of burden. Caregiver's burden was negatively correlated with resilience. This finding leads to creating more strain of decreasing family caregivers' burden and enhancing their quality of life by emphasizing the significant role of resilience.

Recommendations:

Recommendation for caregivers:

• Family caregivers should be encouraged to attend support groups that provide information about illness, treatment, coping skills and opportunities to learn from the experiences of others who have similar caregiving experiences.

• Supportive networks must be organized could besides enabling caregivers to vent their frustrations and anxieties in a safe environment may also facilitate experience sharing and learning from mutual experience.

Recommendation for practice:

• Training programs should be designed for caregivers to enhance psychological well-being and social support and decrease levels of burden in caregivers.

• Creating family support groups for caregivers that would increase social support and family function leading to decrease in their burden and an increase in life satisfaction.

Recommendation for education:

• Individual families must meet periodically with a professional involved in the patient's treatment to receive information, advice, or support according to their needs.

• Regular self-management training and rehabilitation programs could be tailored to

Patients with severe schizophrenia cared for at home for long periods of time to assist them in reintegrating into their communities

Recommendation for research:

• Carry out further studies in our country to assess the needs of family caregivers while dealing with mentally ill patients and examine the association between patients' characteristics and level of burden, and to explore models of family interventions.

• Health care professionals should collaborate with the schizophrenia caregiver to assess factors that affect their burden and quality of life to find appropriate support and specific intervention to the schizophrenia caregiver.

• Future studies are warranted to further assess the differences in family caregiving burden and its clinical correlates (including social functioning and severity of symptoms) at different stages throughout the trajectory of the illness.

• Further studies must conduct to assess the needs of family caregivers while dealing with mentally ill patients and examine the association between patient's characteristics and level of burden, and to explore models of family interventions.

References:

Abdeen, M., Shaker, N., Elrassas, H., Hashim, M., & Abo Zeid, M. (2019). Characteristics of the schizophrenia suicide attempts in comparison with the suicide attempts with other diagnosed psychiatric disorders: An Egyptian study. International Journal of Social Psychiatry. 65, (5), pp 368 – 377.

Abd-Elfatah, W., Mahmoud, O., & Zaki , H.(2020). Evidence-based using mobiles health- education to improve quality of life among schizophrenic patients. Egyptian Journal of Health Care.11 , (3), pp 369- 391.

Abd Elghafar, S., Abd El-Nabi, A. A., & Fathalla, H. E. D. (2018). Resilience, burden, and quality of life in Egyptian family caregivers of patients with schizophrenia. Egyptian Nursing Journal, 15(2),196.

Arafa, S., & Abdelhafeez, S. (2020). Cytokine profile among a sample of bipolar and schizophrenic patients: a comparative study. Egyptian Journal of Psychiatry.41,(1), pp41 -50 .

Ahmed, H., & Ghaith, R. (2018). Effect of psycho-educational program on families' perception of burden and attitudes toward mental illness among caregivers of patients with schizophrenia. Egyptian Nursing Journal, 15(3), 331.

Ahmed, H., Abdel Aal, M., Shalaby, M., & Ahmed, F. (2022). Effect of Family Caregiver Expressed Emotion Control Program on Relapse among Patients with Schizophrenia. Journal of Nursing Science Benha University, 3(1), 855-872.

Alexander, G., Bebee, C., Chen, K., Vignes, R., Dixon, B., Escoffery, R., Francis, C., Francis, D., Mendoza, Z., Montano, S., Nelson, M., Ramcharan, S., Richards, S., & Jackson, M. (2016). Burden of caregivers of adult patients with schizophrenia in a predominantly African ancestry population. Quality of Life Research, 25(2), 393–400.

Andreasen, N. (2011). Scale for the assessment of positive symptoms Psychiatric, University Hospital Zurich, Division of Clinical Psychiatry.

Awaad, M., Ibrahim, N., Naguib, R., Khalil,S., Elhabiby, M., &Mohamed, Z. (2020). Role of traditional healers in the pathway to care of patients with schizophrenia in disease Study. The Lancet.390 ,pp 1211-1259

Ayalew , M ., Workicho , A ., Tesfaye , E ., Hailesilasie , H ., &Abera , M .(2019). Burden among caregivers of people with mental illness at jimma university medical center, south west Ethiopia: a cross sectional study :Annals of general psychiatry vol 18.

Barranha, R., Teixeira , T., Quarenta, J., &Doellinger, O. (2020). Living conditions of patients with schizophrenia spectrum disorders in the region of Tâmegae Sousa' (Portugal) International Journal of Social Psychiatry.2, (1),Pp1-7.

Çetin, N., & Aylaz, R. (2021). The relationship of mind fulness- based psycho-education provided to schizophrenic patients with their sociodemographic characteristics in increasing insight. Perspectives in Psychiatric Care.56 , (2), pp1 – 12.

Chen, L., Zhao, Y., Tang, J., Jin, G., Liu, Y., Zhao, X., ... & Lu, X. (2019)a. The burden, support and needs of primary family caregivers of people experiencing schizophrenia in Beijing communities: a qualitative study. BMC psychiatry, 19(1), 1-10.

Cherry, K., (2020). How Prevalent Is Schizophrenia? Available on www.verywellmind.com

Conner, k. & Davidson, J .(2007). The Connor Davidson +Brief Resilience Scales. Positive Psychology.

Dhaka, N., Koolwal, A., Agarwal, A.,Awasthi, A., & Das Koolwal, G. (2020). Cognitive impairment in patients with schizophrenia: A comparative study from western Rajasthan. Advances in HumanBiology10 , (3), pp144 -148 .

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El-Bilsha, M. (**2019**). Effectiveness of a psycho-social intervention on negative symptoms of patients with schizophrenia in conjunction with anti-psychotic drugs. International Journal of Novel Research in Healthcare and Nursing. 6, (1), pp 735-747.

El-Monsheda, A., & Amr, M. (**2020**). Association between perceived social support and recovery among patients with schizophrenia. International Journal of Africa Nursing Sciences. 13, (2), pp 236-242

Filipcic, I., Ivezić, E., Jaksic, N., Mayer, N., Grah, M., Kuzman, M., Herceg. M., & Filipcic, I. (**2020**). Gender differences in early onset of chronic physical multimorbidities in schizophrenia spectrum disorder: Do women suffer more? Early Intervention in Psychiatry. 14, pp 418–427.

Goldberg, J. (**2020**). Types of Schizophrenia, Schizophrenia Health Center. Available at www.webmd.com/ Schizophrenia / guide /Schizophrenia – types,

Heslop, B., Wynaden, D. & Tohotoa, J. (**2016**). Mental health nurses' contributions to community mental health care: An Australian study , Vol , (25) P.p .426-433

James, R., & Tungol, J. (**2021**). Aggravating Factors and Adverse Impacts of Subjective Burden of Family Caregivers of Schizophrenia Patients. Indian Journal of Health and Wellbeing, 12(4), 413-416. (3), pp310 –314.

Jaberi, N., Faramarzi, E., Farahbakhsh, M.,Ostadarahimi, A., Jafarabadi, M., &Fakhari, A. (**2020**). Prevalence of metabolicsyndrome inschizophreniapatients treatedwith antipsychotic medications. CaspianJournal of Internal Medicine.11 ,

Keepers, G., Fochtmann, L., Anzia, J., Benjamin, S., Mojtabai, R., & Buckley, P. (**2020**). The American psychiatric association practice guideline for the treatment of patients with schizophrenia. Am J Psychiatry. 177, (9), pp 868-872.

Khalil, S.., Elbatrawy, A., Saleh, N., & Mahmoud, D. (**2021**). The burden of care and burn out syndrome in caregivers of an Egyptian sample of schizophrenia patients. International Journal of Social Psychiatry, 0020764021993155.

Luo, Y., Pang, L., Zhao, Y., Guo, C., Zhang, L., & Zheng, X. (**2020**). Gender difference in the association between education and schizophrenia inChinese adult. BMC Psychiatry. 20, (296), pp 366- 374.

Luther, L., Rosen, C., Cummins, S., & Sharma, P. (**2020**). The multidimensional construct of resilience across the psychosis spectrum: Evidence of alterations in people with early and prolonged psychosis. Psychiatric Rehabilitation Journal. 43, (3), pp 225–233.

Manea, A., Zaki, R., & Morsi, A. (**2020**). The relationship between insight and quality of life among schizophrenic patients. Egyptian Journal of Health Care. 11, (4), pp 212-224.

Noori, L. K., & Ebrahim, S. A. (**2020**). Family Caregivers Burden and Coping strategies for Patient With Schizophrenia in Mosul City. Mosul Journal of Nursing, 8(2), 215-224.

Okasha, T., Sabry, W., Hashim, M.,Abdeen, M., & Abdelhamid, A. (**2020**). Vitamin D serum level in majordepressive disorder and schizophrenia.Middle East Current Psychiatry.27 ,(34), pp320 -328

Pazvantoglu, O., Sarisoy, G., Boke, O., Aker, A., Ozturan, D., & Unverdi, E. (2014). The dimensions of caregiver burden in schizophrenia: the role of patient functionality. Dusunen Adam The Journal of Psychiatry and Neurological Sciences, 27(1), 53.

Rahmani, F., Roshangar, F., Gholizadeh, L., & Asghari, E. (2022). Caregiver burden and the associated factors in the family caregivers of patients with schizophrenia. Nursing Open.

Ramy, H. (2019). Former "mental health" secretary: 5 million Egyptians suffer from depression. Available at:https://.masrawy.com/news/news_egypt/det ails/2019/1/ 30/1505535/. Retrieved on 14, April, 2020.

Setiawati, M., & Suaryan, L. (2020). Differences in socio-demographic characteristics of schizophrenia patients between rural and urban Areas in Badung Regency. Warmadewa Medical Journal. 5, (2), pp 76-84.

Swain, S ., Behura. , S ., & Dash. , M . (2017). A comparative study of family burden and quality of life between caregivers of schizophrenia and dementia patient : International Journal of Community Medicine and public health Vol 4 (6) .

Tabangcora, I. (2021). Schizophrenia. Available on https://nurseslabs.com/schizophrenia/

Yazici, E., Karabulut, Ü., Yildiz, M., Tekeş, S., Inan, E., Çakir, U., & Turgut, C. (2016). Burden on caregivers of patients with schizophrenia and related factors. Nöro Psikiyatri Arşivi, 53(2), 96.

Yeo, J., Chew, Q, & Sim, K. (2022). Resilience and its inter-relationship with symptomatology, illness course, psychosocial functioning, and mediational roles in schizophrenia: A systematic review. Asia-Pacific Psychiatry, 14(2), e12486.

Zarit, S. H., Reever, K. E.,& Back-Peterson, J. (1980). Relatives of the impaired elderly: correlates of feelings of burden. The Gerontologist, 20, 649-655

ارتباط عبء مقدمى الرعاية بين أفراد أسرة المرضى الذين يعانون من الفصام في مستشفي الصحه النفسيه والادمان ببنها

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ازدادت مسؤولية مقدميي الرعاية في رعاية المرضى عقليًا خاصة الفصام مما أثر بشكل سلبي علي مقدمي الرعايه ، مما قد يؤثر بدوره بشكل مباشر على الرعاية التي يقدمونها لمرضي الفصام مما سبب لهم إجهاد مزمن في حياتهم اليومية بسبب الطبيعة المدمرة والمتقدمة للحالة حيث أن الرعاية المستمرة لمرضى الفصام يمكن أن يكون لها تأثير سلبي على الصحة العقلية لأفراد الأسرة ويمكن أن تؤدي إلى فقدان العمل ، والضغط المالي ، والتأثير السلبي على الأنشطة الترفيهية والاجتماعية والعلاقات الأسرية ، والتي بدورها يمكن أن تخلق المزيد من الحالة النفسية. الضائقة والتأثير على قدرة الأسرة على التأقلم والعمل. لذلك هدفت الدراسه الي تقييم الارتباطات بين عبء مقدمي الرعاية بين أفراد أسرة المرضي المصابين بالفصام. وقد اجريت الدراسه علي 100 مريض مصاب بالفصام و100 فرد من مقدمي الرعايه لهؤلاء المرضي بمستشفي الصحه العقليه والادمان ببنها. وقد كشفت النتائج انه توجد علاقة إيجابية ذات دلالة إحصائية عالية بين تقديم الرعايه لمرضي الفصام ومستوي العب التي يشعر بيها مقدمي الرعايه. كما اوصت الدراسة بتنفيذ برامج تأهيل لمقدمي الرعاية لتعزيز قدراتهم علة الصمود والتأقلم وذلك لتحسين نوعية حياتهم.