

## **The Relation between Emotional Intelligence and Quality of Life among Patients with Schizophrenia**

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**Abstract: Background:** One of the most challenges facing patients with schizophrenia is lack of emotional intelligence and quality of life. Emotional intelligence for those who have schizophrenia is very important to cope with them and also to interact properly with others; it helps individuals to become more productive and successful. Low level of emotional intelligence leads to difficulties in relationships due to lack of social interaction with others, lack of satisfaction, increase conflict and stress, all of this reflecting a bad quality of life among patients with schizophrenia. So, the **purpose** of this study was to assess the relation between emotional intelligence and quality of life among patients with schizophrenia. **Design:** A descriptive correlational design was utilized. **Setting:** The study was conducted at Shebin Elkom psychiatric hospital (Meet khalaf psychiatric hospital) and Banha psychiatric hospital. **Sample:** A Convenience sample was constituted for the study consists of 120 patients. Three **Instruments** were utilized for collection of data: Bar-on Emotional Intelligence (EI) quotient-Inventory Scale and quality of life (QOL) scale. **Results:** It was found that there was a highly statistical significant positive significant correlation between total emotional intelligence score, and total quality of life score. The study concluded that there was a significant relationship between emotional intelligence and quality of life among patients with schizophrenia. Therefore, it was **recommended** that patients with schizophrenia need an intervention programs to improve their emotional intelligence and quality of life.

**Keywords:** *Schizophrenia, Emotional Intelligence, Quality of Life*

### **Introduction**

Schizophrenia is a severe psychiatric disorder with periods of remission and relapse, schizophrenia affects most (if not all) major fields of mental and

social functioning (Brandt et al., 2023). According to the World Health Organization, schizophrenia is one of the top 10 diseases that contribute to

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the overall burden of disease because it is one of the most severe, persistent, and incapacitating mental disorders (Fischer & Buchanan 2020).

According to the International Classification of Diseases, 11th revision (ICD-11 for schizophrenia) there are many features to diagnose the patient with schizophrenia, schizophrenia is characterized by impaired assessment of reality and behavior, and by the presence of positive symptoms (delusions, hallucinations, disorganized thinking and behavior, and experiences of passivity and control), negative symptoms (flattened or suppressed affect) and psychomotor disturbances. The diagnosis of schizophrenia, is based on the presence of disorders in thought, perception, experience of self, cognition, volition, affect and behavior, which must have persisted for at least one month. Psychomotor disturbances such as catatonia may also be present. Symptoms must not be a manifestation of another health condition or of substance or medication use (Valle 2020).

Patients suffering from schizophrenia (SZ) report severe impairments in quality of life and emotional intelligence as compared to healthy individuals (Frajo-Apor et al., 2021). Emotional intelligence is a subset of social intelligence described by Salovey and Mayer (1990) as the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions (Tronchin et al., 2020). The study of emotional intelligence analyzes how people perceive and use emotions adaptively in different contexts. Patients with schizophrenia have consistently shown impairments in these aspects of social cognition, being linked to poor functioning across

different stages of the disorder (Harvey et al., 2019 & Romero-Ferreiro et al., 2022).

Deficiency of emotional intelligence among patients with schizophrenia not only restricted to facial emotion recognition but also include emotional prosody (tone of the voice) recognition deficits. They have been significantly associated with symptom severity and poor social functioning (Lado-Codesido et al., 2019). Emotional intelligence has a significant effect on quality of life. This means that by increasing emotional intelligence, the quality of life increases (Dizaji et al., 2021).

Quality of life (QOL) is a construct represented by an individual's subjective perception of his/her self in relation to his place and existence/adaptation in life, judged according to a cultural, social, and personal system of values (generally governed by objectives, expectations, standards, etc.). Quality of life (QOL) is a multidimensional concept comprising physical, social, emotional, productive, and material wellbeing which can be assessed both subjectively and objectively. QOL is measured in terms of the impact of health status on the well-being (physical, emotional and social) of an individual (Valiente et al., 2019). Poor socio-demographic characteristics among patients with schizophrenia as residence and socioeconomic level, lower exercise capacity, psychotic symptoms, depressive symptoms and insomnia, and frequent hospitalizations were significantly associated with poorer QOL (Lu et al., 2018 & Peng et al., 2021).

Psychiatric nurse should establish and maintain a high support law-demand therapeutic relationship by showing unconditional acceptance of the patient and family members as people of human worth, build trust by being

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open, honest, and consistent, demonstrate empathy, confirm human dignity by showing respect and, be genuinely caring. Nurse should provide honest reassurance combined with opportunities for the patient with schizophrenia to express feelings of discouragement and sadness. Nurse should encourage visits and letters from family and friends and introducing diversion activities of interest to relieve loneliness, social isolation and increase engagement with others, this can improve social interaction of patients with schizophrenia with others and improve quality of life for patient with schizophrenia (Fais Pradevi et al., 2021).

### **Significance of the study**

Schizophrenia is a problem that should be studied in greater depth since, in developed countries; it occupies the fifth place in the list of disorders associated with severe disability while the World Health Organization (WHO) reports that 50% of patients with this diagnosis cannot access adequate treatment and that 90% of patients with schizophrenia live in underdeveloped countries. Approximately 1% of the population worldwide suffers from schizophrenia, but the risk of suffering from it is 0.2%-2% in the general population (Alizioti & Lyrakos 2021). Despite the low prevalence of schizophrenia compared to other conditions, it is the 8th leading cause of disability-adjusted life years (DALYs) worldwide (Lim et al., 2020). Also, World Health Organization (WHO) in 2022 stated that schizophrenia affects approximately 24 million people or 1 in 300 people (0.32%) worldwide and among adults rate is 1 in 222 people (0.45%).

In Egypt, about 1 million patients in Egypt have schizophrenia, which

affects about 1% of the population (Okasha 2019). Then a national survey of mental disorders performed over 14,640 adults between the age of 18 and 64 showed that the prevalence of psychotic disorders in Egypt including schizophrenia was 0.19% (Mostafa et al., 2022). Additionally, schizophrenia affects around seven per thousand adults in Egypt, primarily those between the ages of 15 -35. Although the incidence is modest (3 per 10,000) (El-Azzab et al., 2022).

Emotional intelligence among patients with schizophrenia is an important factor that directly affects interpersonal relations and social behavior and can put them at risk of worsening symptoms and recurrence (Jung & Bae, 2022). Also, emotional intelligence is a significant in successfully dealing with daily environmental pressure; improve self-awareness, emotional control, relationships and effective communication (Alzoubi & Aziz, 2021). Enhancement of the emotional intelligence for patients with schizophrenia allow patients to be more flexible, creative, and active in social relations and can maintain motivations, gives individuals the ability to make accurate decisions since they are self-aware of their power and limitations. All of this has positive effects on quality of life and well-being among patients with schizophrenia (Lee et al., 2019). So, this study is very important to investigate the relationship between emotional intelligence and quality of life among patients with schizophrenia.

### **Theoretical and Operational Definitions:**

#### **Emotional intelligence:**

Is theoretically defined as the ability to perceive and manage emotional messages and information, perceive individual's and other's emotions, and

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the ability to understand the complexities of emotional transmission (Mayer et al., 2000 & Lo et al., 2023). In the present study it is operationally defined as the ability of patients with schizophrenia to manage and control emotions of self as well as emotions of others that will be measured by Bar-on emotional intelligence quotient-Inventory (Bar-on 2000), modified by translated by Emara (Emaraa et al. 2017) .

### **Quality of life:**

Is theoretically defined as individual's perception of their position in life, in the context of the culture and the value systems in which they live and in relation to their goals, expectations, standards and concerns (Kim 2020). In the present study it is operationally defined as the degree to which patients with schizophrenia experience satisfaction among four domains of life (physical health, Psychological, Social relationships and environment) which will be measured by WHO quality of life scale (World Health Organization. 1996). , translated into Arabic by Ibrahim, et al (Ibrahim et al. 2021).

### **Subjects and Methods**

#### **The purpose of the study:**

The present study was carried out to assess the relation between emotional intelligence and quality of life among patients with schizophrenia.

#### **Research questions:-**

- 1) What are the levels of emotional intelligence among patients with schizophrenia?
- 2) What are the levels of quality of life among patients with schizophrenia?
- 3) What is the relation between emotional intelligence and quality of life among patients with schizophrenia?

### **Research Design:**

Descriptive co-relational design was utilized to achieve the purpose of the study.

### **Setting:**

The study was conducted at two settings, Shebin Elkom psychiatric hospital (Meet khalaf psychiatric hospital) and Banha psychiatric hospital.

### **Subjects:**

Sample size was detected by using convenience sample from the previous settings.

All patients diagnosed with schizophrenia at Menofia Governate psychiatric hospital (Meet khalaf psychiatric hospital) and Banha psychiatric hospital (120 patients).

### **Instruments of the Study:**

Three tools were utilized to accomplish the purpose of the study.

#### **Instrument (1) Structured: socio-demographic questionnaire:**

It was developed by the researcher to obtain demographic data of the studied subject including age, sex, place of residence, and income, and educational level, number of admission to psychiatric hospital.

#### **Instrument (2) Bar-on On Emotional Intelligence (EI) Quotient -Inventory**

The inventory was developed by Bar-on (Bar-on 2000) .Translated and modified by Emara (Emaraa et al. (2017). It's used to measure emotional intelligence for the patients with schizophrenia .It consists of 40 emotional intelligence assessment items about five subscales (stress management (8 items), adaptability (7items), intrapersonal skills(9items),

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general mode(7 items), and interpersonal skills(9items) ,each was three points Liker scale (1 – 3) as (1) for Never, (2) for Usually, and (3) for Always.

**Total scores will be graded as follows:**

Low emotional intelligence	(40-66)
Moderate emotional intelligence	(67-93)
High emotional intelligence	(94-120)

It was tested for its validity by a panel of experts .The reliability of the tool was done using Cronbach alpha reliability test and proved to be strongly reliable at 0.86.

### **Instrument (3) quality of life (QOL)**

**scale:**

This scale was originally developed by WHO organization (World Health Organization. 1996), translated into Arabic by Ibrahim, et al (Ibrahim et al. 2021). It's used to assess the quality of life. This scale consists of 24 items divided into four domains psychological health (7 items), physical health (7 items), social relationships (3 items), and environmental health(7 items).Each item was examined in a three points Liker scale (1-3), with 1=No, 2=sometimes, and 3 = Yes . Three items were revised (1,2,and 24 ) i:e No=3, sometimes=2, and yes=1.

**Total scores will be graded as follows:**

Bad quality of life	(<43)
Average quality of life	(43-54)
Good QoL quality of life	(55 – 72)

It was tested for its validity by a panel of experts .The reliability of the tool was done using Cronbach alpha reliability test and proved to be strongly reliable at0.81.

### **Ethical consideration:**

A written approval was obtained from the Ethical and Research Committee of the Faculty of Nursing, Menoufia University. The researcher clarified the

purpose of the study to every participant in the study. Take his/ her informed consent for a formal written consent was obtained from the participants related to their acceptance to participation, and they were assured maintaining of the anonymity and confidentiality of their subjects' data. The patients were informed that participation in this study was voluntary and they had the right to participate to withdraw from the study at any time.

### **Procedure:**

Before starting any step in the study, an official letter was submitted from the Dean of the Faculty of Nursing to directors of the selected hospitals, requesting their cooperation and permission to conduct the study, Shebin El kom and Banha city , Egypt to obtain the official approval to collect data for the study. All of the authorized personnel provided by the needed information about the study from the researcher. All patients with schizophrenia were asked to fill the questionnaires according to the following steps: the researcher started data collection by introducing herself to the participant. Data collection was done through interviews with the patients in the hospital. The researcher started to collect the data from patients three days/ per week. Each interview lasted for 1 hour, depending on the response of the interview. The process of data collection took 3 months from February to April.

### **Statistical Analysis**

Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 20. Graphics were done using Excel program. Quantitative data were

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presented by mean (X) and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ( $\chi^2$ ) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Level of significance was set as P value <0.05 for all significant tests.

### **Results**

**Table (1):** Distribution of Studied patients with schizophrenia according to their Personal Characteristics (N=120): The table showed that more than half (50.8 %) of the them aged between 26 - 45 years with mean age of (27.8± 5.2 years), approximately two thirds were males (62.5%), married (46.7%), and live in rural areas (62.5%). Regarding their education, the highest percentage was illiterate (55.8%). One quarter of them had family history of mental disorder (25%), and more than one fifth of them suffer from physical disease.

**Table (2):** Distribution of levels of both total score of emotional intelligent subscales as well as its grand total score as perceived by studied patients with schizophrenia. This table reported that, The highest percentages were observed in low level of emotional intelligence in the following subscales (stress management, intrapersonal, general mode, and interpersonal EI skills) ( 85%, 85.8%, 93.3%, and 87.5% respectively). While the second subscale (adaptability) showed lowest percentage in low EI level (83.3%). Concerning grand total EI levels, the low level showed the highest percentage with 91.7%, followed by the moderate EI level (8.3%), and the lowest percentage was in high EI level (0%).

**Table (3) :** Relation between grand total EI levels and types of schizophrenia The table represented a non-significant association between types of schizophrenia and levels of emotional intelligence among studied patients with schizophrenia (P=0.14). Regarding to low emotional intelligence, The highest score is observed in low level of emotional intelligence is present among paranoid type a of schizophrenia (48.2%), while the lowest score is observed in low level of emotional intelligence is present among catatonic type of schizophrenia (1.9%). Regarding to moderate emotional intelligence, the highest score is observed in moderate level of emotional intelligence is present among undifferentiated type a of schizophrenia (60%), while the lowest score is observed in moderate level of emotional intelligence is present among residual type of schizophrenia (40%).

**Table (4):** Distribution of levels of both total score of quality of life domains as well as its grand total score as perceived by studied patients with schizophrenia (N = 120). This table showed that, the highest percentages were observed in bad QoL all domains, and ranged from 80% for psychological QoL to 84.2% for environmental QoL. Concerning grand total QoL, again, bad QoL showed the highest percentage with 83.3%, and the lowest percentage was in average QoL level (16.7%)

**Table (5):** Relation between grand total QOL levels and types of schizophrenia :The table demonstrated a high significant association between types of schizophrenia and levels of quality of life among studied patients with schizophrenia (P<0.0001). Regarding to bad quality of life, The highest score is observed in bad quality of life is present among paranoid type a of schizophrenia

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(51%), while the lowest score is observed among catatonic type of schizophrenia (2%). Regarding to average quality of life, The highest score is observed in average quality of life is present among

undifferentiated type a of schizophrenia (50%), while the lowest score is observed in average quality of life is present among residual type of schizophrenia (40%).

**Table 1: Distribution of Studied patients with schizophrenia according to their Personal Characteristics (N=120)**

Personal Characteristics	Schizophrenic patients	
	N	%
<b>Age:</b>		
18 - 25 years	36	30
26 - 45 years	61	50.8
46-55	23	19.2
<b>Mean± SD</b>	27.8± 5.2 years	
<b>Gender:</b>		
Male	75	62.5
Female	45	37.5
<b>Residence:</b>		
Rural	75	62.5
Urban	45	37.5
<b>History of Schizophrenia:</b>		
First admission	40	33.3
Recurrent admission	80	66.7
<b>Occupation:</b>		
Work	59	49.2
Not work	61	50.8
<b>Sociodeconomic level:</b>		
Low	21	17.5
Moderate	97	80.8
High	2	1.7
<b>Marital status:</b>		
Single	64	53.3
Married	56	46.7
<b>Income:</b>		
Enough	35	29.2
Not enough	85	70.8
<b>Level of education:</b>		
Illiterate	67	55.8
Diplom edu.	25	20.8
High edu.	28	23.4

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<b>Family history of mental dis.:</b>		
Yes	30	25
No	90	75
<b>Presence of any physical dis:</b>		
Yes	25	20.8
No	95	79.2
<b>Total</b>	<b>120</b>	<b>100 %</b>

**Table 2: Distribution of level of emotional intelligent among studied group**

The Schizophrenic patients' Emotional Intelligence levels							X ± SD
EI Subscales	Low		Moderate		High		
	N	%	N	%	N	%	
Stress Management	102	85	18	15	0	0	10.4 ± 3.2
Adaptability	100	83.3	20	16.7	0	0	10.9 ± 4.0
Intrapersonal	103	85.8	17	14.2	0	0	11.8 ± 3.1
General Mode	112	93.3	8	6.7	0	0	9.7 ± 2.4
Interpersonal	105	87.5	15	12.5	0	0	12.6 ± 4.3
<b>Grand total levels</b>	<b>110</b>	<b>91.7</b>	<b>10</b>	<b>8.3</b>	<b>0</b>	<b>0</b>	<b>53.5 ± 12.3</b>

**Table 3 : Relation between grand total emotional intelligent levels and types of schizophrenia**

The Schizophrenic patients' Emotional Intelligence levels							Total		P value	
Types of scz	Low		Moderate		High				χ <sup>2</sup> /LR	P
	N	%	N	%	N	%	N	%		
Paranoid type	53	48.2	0	0	0	0	53	44.1	<b>LR=2.1</b>	=0.14 NS
Undifferentiated	27	24.5	6	60	0	0	33	27.5		
Residual type	16	14.5	4	40	0	0	20	16.7		
Disorganized type	12	10.9	0	0	0	0	12	10		
Catatonic type	2	1.9	0	0	0	0	2	1.7		
<b>Total</b>	<b>110</b>	<b>91.7</b>	<b>10</b>	<b>8.3</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>100</b>		

NS=Not significant

LR= Likelihood Ratio

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**Table 4: Distribution of level of quality of life domains among studied group (N = 120)**

The Schizophrenic patients' Quality of Life levels							X± SD
QoL Domains	Bad		Average		Good		
	N	%	N	%	N	%	
Psychological	96	80	23	19.2	1	.80	14.1 ±3.4
Physical	99	82.5	21	17.5	0	0	14.0 ± 3.1
Social	97	80.8	21	17.5	2	1.7	6.7 ± 1.8
Environmental	101	84.2	19	15.8	0	0	14.6 ± 3.5
Grand total QoL	100	83.3	20	16.7	0	0	49.4 ± 10.2

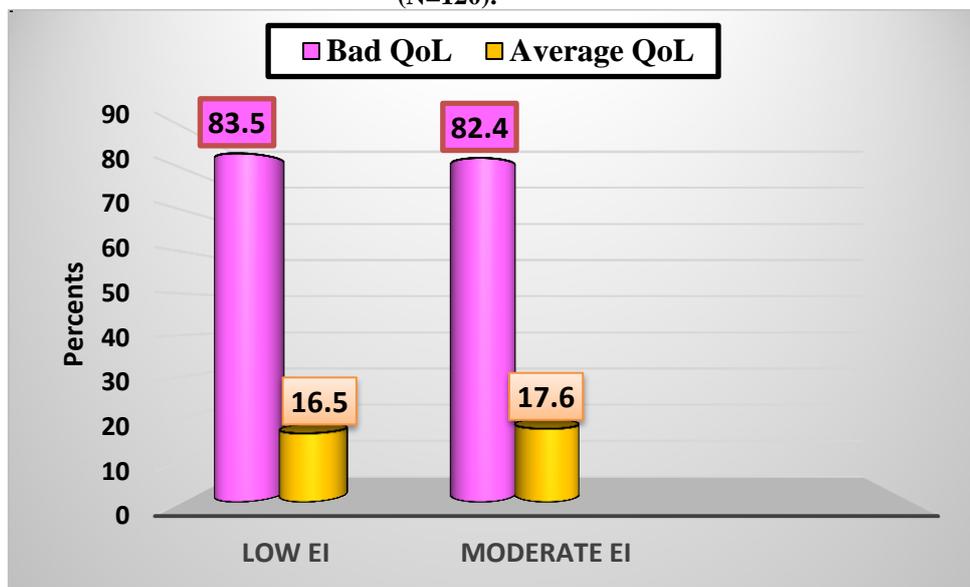
**Table (5) :- Relation between grand total QOL levels and types of schizophrenia**

The Schizophrenic patients' Quality of Life levels							Total		P value	
Types of scz	Bad		Average		Good				N	%
	N	%	N	%	N	%				
Paranoid type	51	51	2	10	0	0	53	44.1	18.9	<0.0001 HS
Undifferentiated	23	23	10	50	0	0	33	27.5		
Residual type	12	12	8	40	0	0	20	16.7		
Disorganized type	12	12	0	0	0	0	12	10		
Catatonic type	2	2	0	0	0	0	2	1.7		
Grand total QoL	100	83.3	20	16.7	0	0	120	100		

HS= High Significant

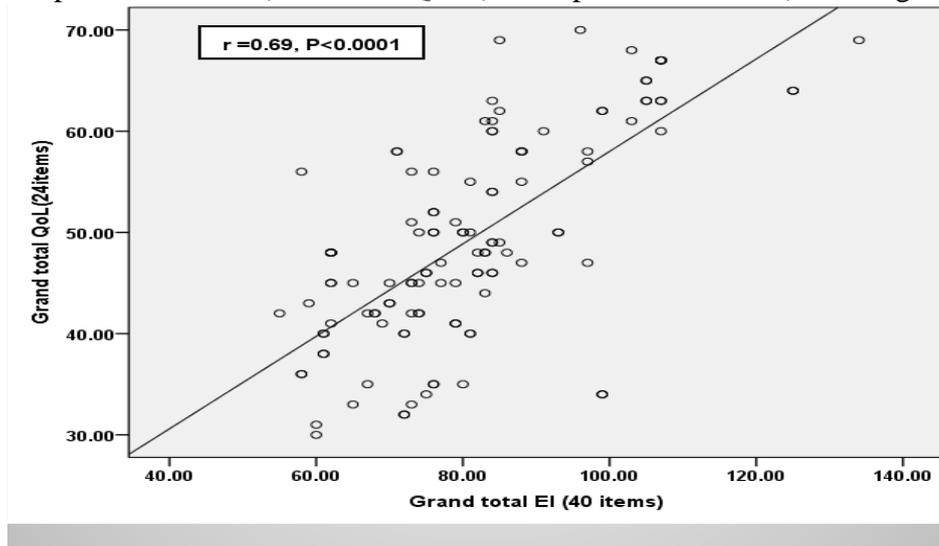
LR= Likelihood Ratio

**Fig.1: The relation between emotional intelligence and quality of life among studied group (N=120).**



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**Fig.2:** Correlation Coefficient between emotional intelligence of patients with schizophrenia (as independent variable) and their QoL (as a dependent variable) with regression line



### **Discussion**

#### **Part I: Distribution of studied patients with schizophrenia according to their personal characteristics.**

The current study demonstrated that above half of the patients with schizophrenia aged between 26-45 years with the mean of age ( $27.8 \pm 5.2$  years), from the investigator point of view, this may be due to schizophrenia may start in the mid- to late 20s and can start later, up to the mid-30s, also, schizophrenia occur commonly in late adolescence and early adulthood. This study is agreed with the study by Blažinović et al., (2019) which revealed that above half of inpatients ages was from 26 to 45 years. In addition to, this study is consistent with the study by Aunjitsakul & Pitanupong (2018) which revealed that mean age was  $39.6 \pm 10.4$  years with the greatest proportion ranging from the ages of 26-40 years. While contradicted with Ageeb et al., (2022) and Desalegn, et al., (2020) which revealed that, less than half of the studied sample were 18-30 years old. This may be explained

by the fact that schizophrenia disorders usually manifest in childhood.

Regarding to the socio-demographic characteristics of the studied patients with schizophrenia, the present study showed that nearly two third of the patients were male, from the investigator point of view, this may be explained by the fact that schizophrenia affects male more than female with a ratio 1.4:1, also, stigma of hospitalization of female patients is common and this decrease number of female patients at psychiatric hospitals. The study is consistent with the study conducted by Abd-Elmonem, et al., (2019) who discovered that more than two third of patients with schizophrenia were male as a result of cultural and attitudinal differences that view female admittance as stigmatizing so as to prevent female hospitalization. Also, the present study is consistent with the study by Russo et al., (2022) who revealed that more than two third of investigated sample was male. Moreover, the study by Oliveri et al., (2020) which showed that nearly two third of investigated patients with schizophrenia was male.

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Related to the occupation, the current study revealed that more than half of the studied subject was unemployed. From the investigator point of view, this may be caused by that patient's capacity to work being impaired by mental illness and low educational attainment as schizophrenia cause an impairment in occupational functioning that lead to unemployment. Additionally, employers refuse to recruit psychiatric patients in organization, also, societal stigma may deter people from getting job due to lack of commitment to rules, low levels of empowerment and self-efficacy.

The present study is consistent with the study of Hasan & Musleh (2018), who discovered that nearly two third of mentally disorder patients lacked a job and There were more than half of patients were schizophrenic. Also, the current study is in agreement with the study conducted by Evensen et al. (2016) who revealed that unemployment rate for individuals with schizophrenia is very high, from 80 to 90% , and that individuals with schizophrenia have a high-unemployment rate and low earnings before the onset of disease , suggesting that ability to work is impaired already during the prodromal phase. In addition to, the study is in the same line with Kaminga et al. (2019) who concluded that the majority of studied patients with schizophrenia were unemployed.

Regarding to level of education, the present study concluded that more than half of the patients under study were illiterate, from the investigator point of view, this could be as a result of the fact that parental ignorance and poverty are significant contributors to illiteracy. Also, schizophrenia cause severe impairment in academic performance of patient's .The study is consistent with the findings of Desai &

Nayak (2019), who found that the majority of the patients under study had less schooling. Also, the present study is in the same line with the study by Hellinger et al., (2019) which concluded that more than half of the sample was illetrate. In addition to, the current study is in agreement with the study by Çetin & Aylaz (2021) showed that more two fifth of the studied sample had primary school.

As regard to residence of studied patients with schizophrenia , the current study revealed that nearly two third of patients live in rural area .From the investigator point of view, this may be result from cultural difference and habits of rural area, also, in rural residence there is an ignorance of concept of mental health among individuals living in rural residence .The present study is consistent with the study by Antonsen et al., (2020) which showed that more than one third of sample live in rural area.

### **Part II: The levels of emotional intelligence (EI) among patients with schizophrenia from their' perspective.**

The current study revealed that the vast majority had low level of emotional intelligence (EI) in the following subscales (stress management, intrapersonal, general mode, and interpersonal emotional intelligence skills. While the second subscale (adaptability) showed that the majority of studied sample had low EI level. From the investigator point of view, this might be due to poor social skills among patients with schizophrenia, difficulty managing their emotions, severity of psychopathological symptoms, lack of self-awareness, unable to understand their moods and emotions, patients can't empathize with others, lack of motivation due to hospitalization. Also residence may be

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another cause for lack of emotional intelligence among patients with schizophrenia as more than half of our sample live in rural area. All of the above-mentioned reasons caused a deficit in emotional intelligence among patients with schizophrenia.

The current study is in the same line with study conducted by Macfie et al. (2023) which concluded that patients with schizophrenia demonstrated low emotional management and social management scores, this reduction of social knowledge was associated with worse functioning and negative symptoms, also, were associated with reduced role and social functioning and more severe sociality, positive symptoms and disorganization, Also, the present study is consistent with Martins et al. (2019) who discovered that the majority of the study's patients displayed severe emotional intelligence impairment either in understanding of blend and changes between and among emotions, as well as their regulation of emotions in everyday life.

Also, the study is in the same line with Chen et al. (2021) that demonstrated that the emotional intelligence score was significantly low among patients with schizophrenia and patients with schizophrenia during the symptomatic phase have more severe impairment of social cognitive performance.

In addition to the present study is in congruence with Frajo-Apor et al. (2016) which revealed that patients with schizophrenia showed significantly low level of emotional intelligence which is largely influenced by non-social cognitive functioning.

Moreover, this study is in agreement with study conducted by Trémeau, (2022) which showed that patients with schizophrenia show dysfunctions at emotional intelligence in the three domains of emotion expression, emotion experience, and emotion recognition, and these dysfunctions

seem independent of each other across domains. In addition to the study conducted by Chowdary et al. (2018) which revealed that patients with schizophrenia scored significantly low on emotional intelligence and patients with past history of suicide scored significantly low on emotional intelligence in comparison of patients without past history of suicide.

In accordance with study conducted by Ageeb et al. (2022) which demonstrated that above two third of patients had low emotional intelligence, while near quarter of the patients had moderate level of emotional intelligence. Also, the study conducted by Fernanda de Marzio et al. (2019) showed a significant impairment of emotional intelligence in patients with schizophrenia spectrum disorder.

### **Part III: The levels of quality of life (QoL) among patients with schizophrenia.**

The current study revealed that the majority of studied sample is observed in bad quality of life (QoL) followed by less than one-fifth of studied sample is observed in average level of QoL. From the investigator point of view, this decrease in QOL may be related to the following: First, psychotic symptoms and comorbidities, such as depression and anxiety, medication-induced side effects could have an adverse impact on QOL. Second, poor nutrition, reduced physical activity, and metabolic syndrome that are common in schizophrenia subjects, have been associated with lower QOL. Third, social isolation, inadequate social support and lack of access to environmental resources, stigmatization of the illness and discrimination. Also, longer illness duration, frequent hospitalization and

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unemployment were associated with bad QOL.

The present study is in consistent with study conducted by Aunjitsaku & Pitanupong (2018) who revealed that the high prevalence of schizophrenia was a moderate quality of life (QoL) and the environmental domain presented the highest percentage among its comparisons. Interestingly, more than one –third of subject had a poor quality of life (QoL) related with the social relationship domain. The highest percentage is observed in environmental domain while the lowest percentage is observed in Social relationships domain. This may be caused by cultural difference and changes of socio-economic standard.

Also, the current study is in disagreement with Hoseinipalangi et al. (2022) who estimated that quality of life (QoL) in patients with schizophrenia was in a good and moderate status. This improvement occur through considering different life aspects of people living in various contexts and clarifying the determinants of QOL .

In contrast, the present study is in agreement with Dong et al. (2019) which revealed that schizophrenia subjects showed significantly lower quality of life (QOL) in all its four domains. The highest percentage is observed in physical health while lowest percentage is observed in psychological domain. In addition, the current study is consistent with study conducted by Hjorth et al. (2017) which revealed that patients with schizophrenia presented with low QoL and elevated risk factors for poor physical health.

Also, the current study is in the same line with the study conducted by Hoertel et al. (2020) which revealed that patients with schizophrenia had low mean of quality of life total score, all psychiatric symptoms, including

positive symptoms, negative symptoms and affective symptoms, as well as their co-occurrence and their severity, decrease quality of life in this population.

### **Part VI: Relation between variables of the study**

#### **The relation between emotional intelligence and quality of life among patient with schizophrenia.**

The current study demonstrated that there were a high significant positive correlation between total score of emotional intelligence (EI) and total score of quality of life (QoL) and each of its four subscales: adaptability, intrapersonal skills, general mood, and interpersonal skills while stress management skills subscale was not correlated with QoL total score. The majority of patients with schizophrenia, who had low EI, had bad QOL. In addition, less than one fifth of the patients who had moderate EI had average QOL. from the investigator point of view, Being able to understand and manage emotions can lead to an overall better outlook on life and leave a feeling more positive about self and situations, emotional intelligence augments positive attitudes, altruistic behavior and decrease conflict , high EI help to build relationships, reduce stress, defuse conflict and improve satisfaction and quality of life.

At the same line, the study by Akbari & Hossaini (2018) which indicated that emotional intelligence and quality of life were correlated with one another; patients who had low level of emotional intelligence were more likely to had low level of quality of life. Additionally, Ziyakhodadiyan et al .(2019) which showed that emotional intelligence parameters such as happiness, independence, the ability

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to bear mental stress, realism and continence had a significant and direct relation with quality of life . Also it is in agreement with; Chen et al. (2022) revealed that emotional intelligence had positive correlation with quality of life.

Moreover, this study is agreed with a study conducted by Para (2022) which revealed that positive correlation was found between emotional intelligence and quality of life. The current study is in congruence with Andrei et al., (2022) which revealed that emotional intelligence levels act as protective factor for a good quality of life and emotional intelligence showed a positive correlation with quality of life. Moreover, the present study is in the same line with the study conducted by Frajo-Apor et al.( 2021) that reported a significant correlation of EI with QoL was observed in patients with schizophrenia.

### **Conclusion:**

The current study concluded that, the vast majority of studied patients with schizophrenia suffer from low emotional intelligence. Majority of studied patients with schizophrenia had a bad quality of life. There was a significant positive relationship between emotional intelligence and quality of life.

### **Recommendations:**

This study recommended that patients with schizophrenia should be included in the comprehensive intervention programmers to improve the emotional intelligence and quality of life. Establish an educational program for psychiatric nurses to teach them how to improve emotional intelligence and quality of life among patients with schizophrenia. Increasing the community awareness about the needs and problems of psychiatric patients especially patients with schizophrenia,

how to adjust with it and to make an appropriate referral and the available community mental health services. Emphasizing on the need to focus on improving the environment and support systems for patients with schizophrenia.

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