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Self-Compassion, Body Image and Depressive Symptoms among Patients with Systemic Lupus Erythematosus

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Abstract
Background: Systemic Lupus Erythematosus is a chronic auto-immune disease that affects physical and psychological wellbeing of patients, which in turn altering body image, increasing level of depression and self-compassion negatively correlated with these effects. **Aim of the study:** Assess the relation between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus. **Study design:** This study utilized a descriptive-correlational design. **Study setting**: The study was conducted at rheumatology department of Benha university hospital, which is affiliated to the ministry of higher education in Benha City, Qalyubia Governorate. **Subjects:** A convenience sample of 100 patients with Systemic Lupus Erythematosus. **Tools for data collection:** A structured Interview Questionnaire to collect socio-demographic and clinical data of the studied sample, Self-Compassion Scale, Body Image Disturbance Questionnaire and Patient Health Questionnaire. **Results:** The findings revealed that more than half of the studied patients had a moderate level of self-compassion, more than half had moderate level of body image disturbance, while half of them had moderately severe level of depression. **Conclusion:** There was a highly statistically significant negative correlation between total self-compassion, total body image disturbance and total severity of depression, while there was a highly statistically significant positive correlation between total body image disturbance and total depressive symptoms. **Recommendation:** Psycho-educational intervention programs targeting beliefs, self-compassion and perception of body image among patients with Systemic Lupus Erythematosus can reduce depressive symptoms.

Keywords: Body Image, Depressive Symptoms, Lupus & Self-Compassion.

Introduction
Systemic lupus erythematosus (SLE) is a chronic autoimmune disease characterized by inflammation and immune-mediated damage to several organ systems, such as the musculoskeletal, hematologic, renal, and mucocutaneous systems (**Siegel & Sammaritano, 2024).** According to WHO research, women between the ages of 15 and 45 years are more likely than men to have SLE **(Mizukami et al., 2023).** The incidence and prevalence of SLE vary widely throughout the world depending on the geographical location and race. Incidence rate ranges from 9 to 240 instances per 100,000 individuals, with a higher prevalence observed in women of reproductive age (9:1 female to male ratio) **(AbdElzaher et al., 2023).**

The etiology of systemic lupus erythematosus is unknown. It seems to result from a complicated interplay between an individual's genetic susceptibility and environmental factors that trigger the onset of the illness. SLE is typified by an ongoing, active illness or by alternating periods of exacerbations and remissions, during which the body's tissues and organs are mistakenly attacked by the immune system **(Dixon et al., 2022).**

At least one of the numerous symptoms of SLE, such as excessive tiredness, painful joints, abnormal blood counts (anemia, low platelets, or low white blood cells), nephritis, cognitive dysfunction, hair loss and eczema resembling a butterfly on the face, is typically experienced by patients. SLE is persists as life-threatening disease that without known cure. The goal of the lifelong treatment is to manage symptoms while preventing the immune system from causing further harm to the body preventing their body from being harmed by the immune system. Whenever patients suffer the physical manifestations, they often find it difficult to adapt psychologically and manage the illness **(Ratanasiripong et al., 2020).**

Emotional problems such as sadness, depression, dread, worry, guilt, anger, and wrath are experienced patients with SLE. These morbidities may have a major negative impact on their capacity, which could result in major psychological issues like depression. In individuals with SLE, depression symptoms are widely acknowledged as a serious mental health issue that can worsen quality of life and exacerbate pain, fatigue, sleeplessness, and sluggishness. Additionally, it restricts an individual's capacity for physical

performance and social interaction **(Narupan et al., 2022).** Patients with SLE can be at risk of anxiety and depression due to the way their symptoms affect their day-to-day functioning, physical functioning, fear the disease progression, another aggravation or spreading to new organs and fear of the future **(Hu & Zhan, 2022; Chen et al., 2022).**

Numerous research' findings indicate that prevalence rates of depression in SLE patients vary widely, from 2.1 to 78.6% **(Liao et al., 2022; Moustafa et al., 2020). Shaaba et al., (2022)**, they discovered that the prevalence of depression in Egyptian SLE patients was 71.6%. Previous studies have shown that the interaction between SLE and depression can result in poor treatment adherence, a higher rate of suicide ideation, a higher functional disability, and body image disturbance (BID) **(Du et al., 2020).** Additionally, depression was discovered in SLE patients and was found to be substantially connected with body image disturbance, according to a study by **Chen et al. (2022).**

Body image disturbance results from changes in physical appearance brought on by the course of the disease and its treatment **(Hyde, 2023).** Patients with SLE often experience physical appearance-related symptoms such as weight gain, hair loss, joint changes, discoid rash, classic erythema on the face, lesions with a tendency to scar, skin atrophy, and anxiety about partner reactions. These symptoms can make patients feel less attractive and embarrassed. Additionally, patients report increased photosensitivity and susceptibility to bruises and obesity and unattractive skin lesions are side effects of glucocorticosteroid medication. Many patients thus experience a decline in confidence and a decrease in their level of pleasure with their body image **(Narupan, et al., 2022).**

Body image disturbances can take many different forms, such as severe dissatisfaction with appearance, continuous checking, and worry over being judged for one's looks. Body image disturbances are defined as the distortion of perceptions or cognition related to body weight or shape **(Rodrigues et al., 2021)**. Patients with SLE are very concerned about changes in their appearance caused by the disease. These individuals show avoidance behaviors, unwillingness to socialize, decreased mobility, fatigue and elevated psychological strain as a result of alterations in their body image. These disruptions have consistently been linked to psychological consequences, such as depression symptoms **(Chen et al., 2022).** As reported by **Mostafa et al., (2023)**, 84.6% of SLE patients felt that their body image was fair. In this context, the impact on the patients' quality of life, psychological pressure, and body image should all be taken into consideration.

Another psychological aspect that is crucial for managing psychological difficulties which should not be avoided or disregarded is self-compassion (SC) **(Misurya et al., 2020).** In actuality, SC refers to treating oneself with kindness when going through difficult times or pain is it caused by mistakes made by the self or by outside obstacles in life. Self-compassion can take a tender, nurturing form, especially when it is directed toward body acceptance or alleviation of difficult feelings like depression. However, it can also take a fierce, strong, active, in particular when it`s used to meet our essential needs, protect ourselves, or inspire change **(Neff, 2023; Neff, 2021)**.

Self-compassion is a multifaceted construct consisting of six components: common humanity (a sense that one's experiences are a part of the greater human condition rather than an isolated experience), mindfulness (a balanced and present awareness of one's thoughts, feelings, and body sensations without over-identifying with them), and self-kindness (having greater self-understanding and kindness to oneself in moments of distress not be self-judgment). People are able to understand their experiences and pain and, as a result, be more willing to move past them by practicing self-compassion. Self-compassion, for example, might encourage the use of adaptive coping strategies and lessen anxiety, despair, and feelings of loneliness **(Al-Refae, 2021).**

Prior research showed that self-compassion is positively correlated with body appreciation and negatively correlated with body dissatisfaction, and that it is just as effective in enhancing body image as cognitive restructuring **(Ferreiraet al., 2013; Homan & Tylka, 2015).** Conversely, lower levels of anxiety, perceived stress, and depressive symptoms were linked to higher levels of self-compassion **(Bui et al., 2021; Murfield et al., 2020)** and predicted lower levels of depressive symptoms **(Bates et al., 2021; Biddle et al., 2020).** By improving mindful awareness, emotion control, and the capacity to perform self-compassionate action, promoting self-compassion might decrease depression symptoms **(Adie et al., 2021; Bui et al., 2021).** Therefore, it is necessary to recognize the risk of these comorbidities to optimally manage SLE disease.

Self-compassion is a relatively new concept in the field of social and clinical psychology, and body image is one of the psychological variables that is crucial for patient with SLE. Assessing both of these aspects in patients may assist find factors causing depression that have not been previously explored. As there hasn't been any research done in Egypt on the association between self-compassion and body image in SLE patients with depressive symptoms. In light of this, the present study was conducted to assess

relation between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus.

Significant of the study:

Systemic lupus erythematosus (SLE) is a multisystem chronic autoimmune disease characterized by periods of remission and relapses **(Vaillant et al., 2024).** The most prevalent psychological symptom that could worsen pain, fatigue, sleeplessness, and sluggishness in people with SLE is depression. A prior study revealed that among SLE patients, low levels of self-compassion and body-image satisfaction were highly significant predictors of depressive symptoms **(Narupan, 2022).**

This results in social and psychological effects brought caused by visibility of the disease. The patient reported to have experienced social isolation, sadness, and hopelessness because of their disease-related self-image **(Rodrigues et al. 2021)**. It also restricts a person's capacity for social interaction and physical performance. Furthermore, the burden of SLE combined with depression may lower quality of life and raise the risk of suicide **(Mizukami et al., 2023)**. Nurses and other healthcare professionals can offer patients psychological education programs by recognizing and resolving these problems. This emphasizes how critical it is to assess the relation between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus.

Aim of the Study:

The aim of this study was to assess the relation between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus.

Research Questions:

1- What are the levels of self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus?
2- Is there a relationship between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus?

Materials:

Research Design: This study used a descriptive correlational design to achieve its goal.

Research Setting:

The study was conducted at the rheumatology department of Benha University Hospital, which is affiliated to the Ministry of Higher Education in the Kaluybia Governorate, located in Benha City. Because of the good flow rate of patients with systemic lupus erythematous, this setting was selected.

Subjects

Sample size:

Based on a confidence interval 95%, and at power analysis 80%, the sample size ranged from 80 to 100 patients with SLE. Ultimately, a sample size of 100 patients was selected based on the number of recurring patients from the previous year.

Sample type and technique:

A convenience sample of 100 patients with systemic lupus erythematosus was recruited consecutively from rheumatology department according to the following inclusion criteria: confirmed diagnosis of systemic lupus erythematosus, absence of psychiatric disorders, and willingness to participate in the study.

Tools of Data Collection:

Tools I: Structured Interviewing Questionnaire Sheet.

Socio-demographic and clinical data tool:

It was developed by the researchers following a review of relevant literature and included socio-demographic data which included (age, sex, marital status, educational level, occupation, residence) and clinical data which included (duration of illness, part of body can be affected by SLE, compliance to medication, hospitalization, social support, complications of disease, frequency for visiting doctor, and treatment cost covered).

Tools II: Self-Compassion Scale (SCS):

The self-compassion scale developed by **Neff, (2003)**, consisted of 26 items to assess the characteristics of self-compassion by explicitly represent the thoughts, emotions, and behaviors associated with the various components of self-compassion. The scale divided into six subscales, 3 positive and 3 negative subscales; The 3 positive subscales include; **self-kindness**: 5 items (e.g., I try to be loving toward myself when I'm feeling emotional pain), **common humanity:** 4 items (e.g., I try to see my failings as part of the human condition), and **mindfulness**: 4 items (e.g., When something painful happens I try to take a balanced view of the situation).

The 3 negative subscales include; **self-judgment**: 5 items (e.g., I'm disapproving and judgmental about my own flaws and inadequacies), **isolation**: 4 items (e.g., When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world), and **over-identification:** 4 items (e.g., When I'm feeling down I tend to obsess and fixate on everything that's wrong). Each item was rated on 5-point Likert scale (1= almost never to 5= almost always).

Scoring system:

The total score ranging from 26-130; with higher scores reflecting higher self-compassion. The total score was divided into the following:

Low self-compassion = 26-64
Moderate self-compassion = 65-91
High self-compassion = 92-130.
In our current investigation the Cronbach's alpha coefficient for Arabic version of SCS was 0.84, attesting a high level of scale reliability and internal consistency.

Tools III: Body Image Disturbance Questionnaire (BIDQ):
BIDQ developed by **Cash et al., (2004).** The BIDQ is a 7-item self-report questionnaire commonly used as a clinical screening tool for detecting psychopathology associated with body image disturbance. The BIDQ assessed individuals' levels of body image disturbance, including dysphoria and body dissatisfaction. A sample item includes, "Are you concerned about the appearance of some part(s) of your body. Items are rated on a 5-point Likert scale ranging from 1 (Not at all concerned) to 5 (Extremely concerned).

Scoring system: The overall score for this measure was calculated from 7-35 scores, with higher scores indicating a greater degree of overall body image disturbance. Scores between7-14 indicated low body image disturbance, scores between15-26 indicated moderate body image disturbance, while scores from 27-35 indicated high level of body image disturbance. In our current investigation the Cronbach's alpha coefficient for BIDQ was 0.90, signifying a high level of scale reliability and internal consistency.

Tools IV: Patient Health Questionnaire (PHQ-9):
The questionnaire developed by **Robert et al., (1999**), consists of 9-items to assess the severity of depression. Items were rated on a 4-point Likert scale ranging from 0 to 3 (0-not at all; 1-several days; 2-more than half of the days or 3-nearly every day).

Scoring system: The total score ranging from 0-27; with higher scores reflecting greater severity of depression. Scores between 0-4 indicate minimal depression; scores between 5-9 indicate mild depression; scores between 10-14 moderate depression; scores between 15-19 indicate moderately severe depression, while scores from 20-27 indicate severe depression. In our current investigation the Cronbach's alpha coefficient for PHQ-9 was 0.89, signifying a high level of scale reliability and internal consistency.

Methods:
The following steps were used in carrying out the study:

Preparatory phase:
This phase included reviewing of past, current, local and international relevant literature and different studies related to the topic of research. To gain a thorough understanding of every facet associated with the research topic, books, journals, magazines, and the internet were reviewed. This directed the researchers in preparing the necessary data gathering instruments and helped them understand the scope and gravity of the issue.

Validity of Tools:
To gather data, the researchers created a participant information form. The tools were translated into Arabic according to standard procedures and then they were translated back into English to ensure linguistic and cultural appropriateness. Confirmatory Factor Analysis (CFA) was used to verify that the translated tools maintained content validity. Additionally, a five-person panel of specialists from the Psychiatric and Mental Health Nursing department at Faculty of Nursing, Benha University assessed the face validity of the scales. The panel determined that the scales adequately evaluated the intended constructs.

Ethical Considerations:
The approval of the Scientific Ethical Committee, Faculty of Nursing, Benha University was obtained for the study setting to gather the required data (REC.PSY.N.P.10). Additionally, an official letter was also issued from dean of faculty of nursing to the head of the hospital authorities in the identified setting to obtain their permission to collect the necessary data. Following a detailed explanation of the goals and nature of the study to the participants they demonstrated their voluntary participation by giving oral consent. Throughout the study, strict measures were adhered to maintain participants' confidentiality. All of the collected personal data was kept and available only to the researcher. Ensuring participants' privacy and anonymity was of highest priority.

Pilot Study:
A pilot study involved (10%) 10 patients with SLE. This preliminary study aimed to evaluate the research instruments' clarity, applicability, and potential barriers to data collection by the research tools. The pilot findings demonstrated that the study instruments were accurate, understandable, and appropriate for the research population. Therefore, those patients included in the final sample of the study.

Data Collection:
The data collection took place over approximately six months, starting in October 2023 and ending in March 2024. Prior to filling out the study form on their own, the patient given a written informed consent. The researchers asked each eligible patient to fill out a prepared individual interview form in their presence in order to get any clarifications, and they conducted the interviews in a private, comfortable room in the department. The completed forms were collected on schedule and checked to ensure completeness, thereby preventing missing data. The

researchers collected data two days a week (Monday and Wednesday), during the morning period, from 9 AM to 12 PM. Each interview lasted approximately 20 to 30 minutes, with two to three patients interviewed each day.

Statistical Analysis of Data:

The data was analyzed using SPSS version 25. The levels of research variables and socio-demographic data were described using descriptive statistics, including percentages, frequencies, means, relative weights, and standard deviations. The Pearson correlation coefficients were used to evaluate the associations among the study variables. The main independent variables impacting the outcomes were identified using hierarchical regression analysis. $P < 0.01$ was considered highly significant, while $p \leq 0.05$ was considered significant.

Results:

Table (1): Frequency distribution of the studied patients according to their socio-demographic characteristics (n=100).

Socio-demographic characteristics	No.	%
Age (years).		
< 20	3	3.0
20 < 30	24	24.0
30 < 40	41	41.0
40 < 50	23	23.0
≥ 50	9	9.0
Mean ±SD **38.95± 6.24**		
Sex.		
Male	11	11.0
Female	89	89.0
Marital status.		
Single	26	26.0
Married	65	65.0
Divorced	4	4.0
Widowed	5	5.0
Education Level.		
Illiterate	2	2.0
Primary education	6	6.0
Secondary education	25	25.0
University education	59	59.0
Post graduate studies	8	8.0
Occupation.		
Employed	39	39.0
Unemployed	61	61.0
Residence.		
Urban	78	78.0
Rural	22	22.0

Table (2): Frequency distribution of the studied patients according to their clinical data (n=100)

Clinical data	No.	%
Duration of illness.		
≤ 3 years	49	49.0
> 3 years	51	51.0
Frequency for visiting doctor.		
Every month	39	39.0
Every 3 months	31	31.0
Every 6 months	5	5.0
Irregular visits	25	25.0
Which part of body can be affected by Systemic Lupus Erythematosus?		
Skin and joints	14	14.0
Internal organs	18	18.0
Muscles and bones	13	13.0
All of the above	55	55.0
Complications of disease.		
Increase in weight after cortisone treatment	87	87.0
Deformity	13	13.0
Are you hospitalized?		
Yes	55	55.0
No	45	45.0
Social support.		
Yes	26	26.0
No	74	74.0
Compliance to medication.		
Yes	49	49.0
No	51	51.0
Treatment cost covered by.		
At expenses of the state	8	8.0
Health insurance	13	13.0
At his own expense	79	79.0

Table (3): Frequency distribution of the studied patients according to their self-compassion (n=100)

Self-compassion subscales	High		Moderate		Low		Mean ± SD
	No.	%	No.	%	No.	%	
Positive subscales							
Self-kindness	35	35.0	51	51.0	14	14.0	16.70±4.30
Common Humanity	61	61.0	22	22.0	17	17.0	14.65±3.68
Mindfulness	27	27.0	52	52.0	21	21.0	12.07±2.78
Negative subscales							
Self-Judgment	22	22.0	45	45.0	33	33.0	15.65±4.34
Isolation	35	35.0	31	31.0	34	34.0	10.83±4.78
Over-identification	53	53.0	18	18.0	29	29.0	10.46±4.54
Total self-compassion score	**30**	**30.0**	**52**	**52.0**	**18**	**18.0**	**80.26±17.99**

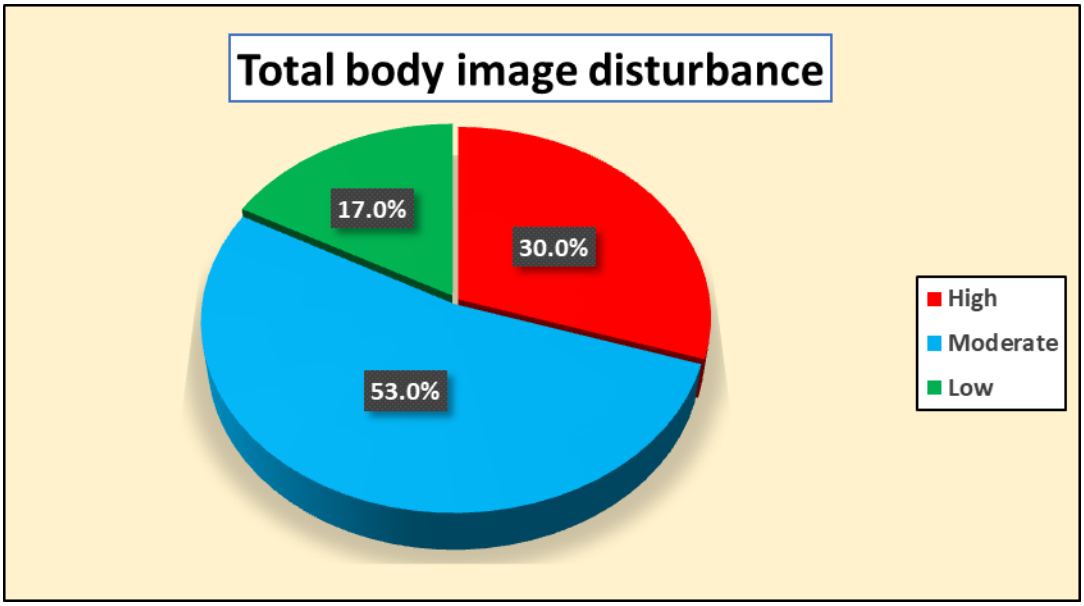

Figure (1): Percentage distribution of the studied patients according to total body image disturbance (n=100)

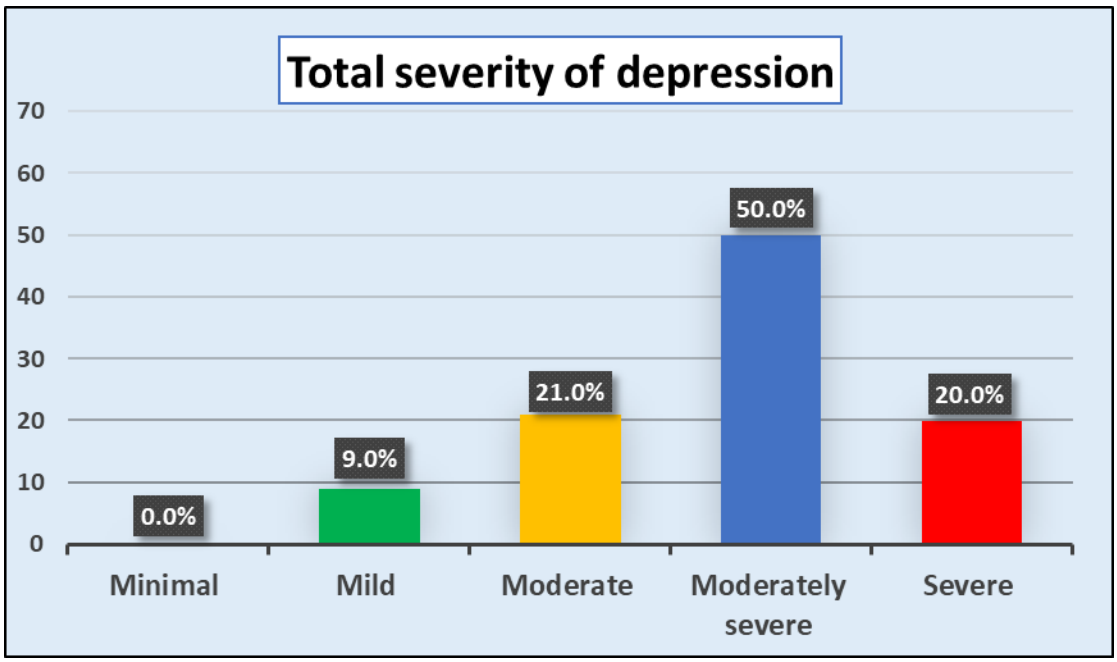

Figure (2): Percentage distribution of the studied patients according to total depressive symptoms (n=100)

Table (4): Correlation between total self-compassion score, total body image disturbance score and total depressive symptoms score among the studied patients (n=100)

Variables	Total self-compassion score		Total body image disturbance score	
	r	p-value	r	p-value
Total body image disturbance score	-0.599-	0.000**		
Total depressive symptoms score	-0.638-	0.000**	0.499	0.000**

p= Pearson correlation coefficient test.
***highly significant at p ‹ 0.001.*

Table (5): Best fitting multiple linear regression model for patients' self-compassion.

Items	Unstandardized Coefficients		standardized Coefficients	T	Sig
	B	Std. Error	B		
Constant	-22.416-	6.608		**-3.392-**	**0.001****
Age	5.362	0.705	0.290	**7.608**	**0.000****
Residence	5.493	1.522	0.127	**3.609**	**0.001****
Duration of illness	-0.196-	0.551	-0.333-	**-2.113-**	**0.007****
Frequency for visiting doctor	-3.474-	0.554	-0.231-	**-6.275-**	**0.000****
Affected part of body	11.818	0.794	0.747	**14.890**	**0.000****
Complication of disease	-9.764-	2.741	-0.183-	**-3.562-**	**0.001****
Hospitalization	15.856	1.557	0.441	**10.183**	**0.000****
Social support	31.767	1.639	0.778	**19.380**	**0.000****
Compliance to medication	8.257	2.984	0.090	**2.767**	**0.007****
Treatment cost	2.365	0.901	0.080	**2.626**	**0.010***
Total body image disturbance score	-1.459-	0.197	-0.599-	**-7.405-**	**0.000****
Total depressive symptoms score	-2.370-	0.289	-0.638-	**-8.202-**	**0.000****

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.979	0.958	0.952	3.93539

ANOVA

Model	Df.	F	P. value
Regression	12	165.221	0.000**

a. Dependent Variable: *Total self-compassion score.*
b. Predictors: (constant): *Age, Residence, Frequency for visiting doctor, Affected part of body, Complication of disease, Hospitalization, Social support, Compliance to medication, Treatment cost, Total body image disturbance score and total depressive symptoms score.*

Table (6): Best fitting multiple linear regression model for patients' body image disturbance.

Items	Unstandardized Coefficients		standardized Coefficients	T	Sig
	B	Std. Error	B		
Constant	-13.953-	4.885		**-2.856-**	**0.005****
Age	2.806	0.588	0.370	**4.770**	**0.000****
Residence	3.756	1.115	0.212	**3.368**	**0.001****
Duration of illness	0.550	0.615	0.237	**2.893**	**0.004****
Frequency for visiting doctor	-2.417-	0.410	-0.391-	**-5.900-**	**0.000****
Affected part of body	6.578	0.826	1.013	**7.961**	**0.000****
Complication of disease	1.571	2.125	0.172	**1.739**	**0.046***
Hospitalization	7.829	1.449	0.530	**5.401**	**0.000****
Social support	18.298	1.922	1.092	**9.521**	**0.000****
Compliance to medication	9.357	2.027	0.250	**4.616**	**0.000****
Treatment cost	2.347	0.631	0.193	**3.716**	**0.000****
Total self-compassion score	-0.246-	0.033	-0.599-	**-7.405-**	**0.000****
Total depressive symptoms score	0.760	0.134	0.499	**5.694**	**0.000****

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.932	0.868	0.850	2.85938

ANOVA

Model	Df.	F	P. value
Regression	12	47.795	0.000**

a. Dependent Variable: *Total body image disturbance score.*
b. Predictors: (constant): *Age, Residence, Frequency for visiting doctor, Affected part of body, Complication of disease, Hospitalization, Social support, Compliance to medication, Treatment cost, Total self-compassion score and total depressive symptoms score.*

Table (7): Best fitting multiple linear regression model for patients' depressive symptoms.

Items	Unstandardized Coefficients		standardized Coefficients	T	Sig
	B	Std. Error	B		
Constant	18.455	4.660		**3.961**	**0.000****
Age	1.644	0.651	0.129	**1.990**	**0.032***
Residence	2.838	1.135	0.244	**2.501**	**0.014***
Duration of illness	1.939	0.604	0.197	**1.555**	**0.024***
Frequency for visiting doctor	-1.076-	0.466	-0.265-	**-2.307-**	***.023***
Affected part of body	2.863	0.772	0.203	**2.805**	**0.042***
Complication of disease	1.869	0.510	0.261	**2.412**	**0.018***
Hospitalization	4.899	1.574	0.506	**3.112**	**0.003****
Social support	2.360	2.710	0.215	**3.871**	**0.038***
Compliance to medication	6.661	2.124	0.271	**3.135**	**0.002****
Treatment cost	2.504	0.671	0.263	**2.750**	**0.045***
Total self-compassion score	-0.172-	0.021	-0.638-	**-8.202-**	**0.000****
Total body image disturbance score	0.327	0.057	0.499	**5.694**	**0.000****

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.836	0.699	0.658	2.83336

ANOVA

Model	Df.	F	P. value
Regression	12	16.859	0.000**

a. Dependent Variable: Total depressive symptoms score**.**

b. Predictors: (constant): Age, Residence, Duration of illness, Frequency for visiting doctor, Affected part of body, Complication of disease, Hospitalization, Social support, Compliance to medication, Treatment cost, Total self-compassion score and total body image disturbance score.

Socio-demographic characteristics of the studied patients:

The study included 100 patients, both men and women, who were diagnosed with SLE. Less than half of studied patients (41.0%) were between the ages of 30 and less than 40 years old, with an average age of 38.95 years (SD=6.24), and most of them (89.0%) were female. Approximately two thirds (65.0%) were married, more than half (59.0%) had university education, less than two thirds (61.0%) were unemployed, and more than three quarters (78.0%) resided in an Urban area **(Table1).**

Clinical data of the studied patients:

Over half of the studied patients (51.0%) were diagnosed with SLE from more than 3 years, over one third (39.0%) visited doctor every month, and over half (55.0%) experienced consequences from SLE affecting their skin, joints, internal organs, muscles and bones. After receiving cortisone treatment, more than three quarters gained weight (87.0%), more than half were hospitalized (55.0%), about three quarters lacked social support (74.0%), more than half were noncompliant with medication (51.0%), and more than three quarters of them paid for their own treatment (79.0%) **(Table 2)**

Descriptive and correlations of study variables of the studied patients

Concerning distribution of the studied patients according to their self-compassion and its subscales, the present study shows that, nearly two thirds of them have high level of common humanity (61.0%), more than half have high level of over-identification (53.0%), while more than half of them have moderate level of total self-compassion (52.0%). The findings show also the highest mean score for self-kindness (16.70±4.30), while the lowest mean score for over-identification (10.46±4.54) **(Table 3).**

Concerning distribution of the studied patients according to their body image disturbance, the current study's findings reveal that, more than half of them have moderate level of body image disturbance (53.0%) and one third of them had high level of body image disturbance (30.0%) **(Figure1).**

Concerning distribution of the studied patients according to level of depressive symptoms, the present study results illustrate that, half of them have moderately severe depression (50.0%), while less

than one quarter have moderate and severe depression (21.0%, 20.0%) respectively **(Figure 2).**

The study found a highly statistically significant negative correlation between total self-compassion, total body image disturbance, and total depressive symptoms among the studied patients (r= -0.599-, p < 0.001;r = -0.638-, p < 0.001), respectively. On the other hand, there was a highly statistically significant positive correlation between total body image disturbance and total depressive symptoms (r=0.499, p < 0.001) **(Table 4).**

Multiple linear regression analysis of the studied variables

The multiple linear regression analysis presented in the table reveals significant predictors of patients' self-compassion. The model shows that age, residence, affected part of the body, hospitalization, social support, compliance to medication, and treatment cost are positively associated with self-compassion, with social support showing the strongest positive effect (B = 31.767, p < 0.001). This means that as these factors improve or change in a positive direction, patients' self-compassion tends to increase. Conversely, duration of illness, frequency of visiting the doctor, complication of disease, body image disturbance, and depressive symptoms negatively impact self-compassion, with depressive symptoms having a substantial negative effect (B = -2.370, p < 0.001). Overall, this analysis underscores the complex interplay of demographic, medical, and psychological factors in shaping self-compassion among patients **(Table 5).**

The multiple linear regression analysis in this table identifies significant predictors of patients' body image disturbance. The model indicates that age, residence, duration of illness, affected part of the body, hospitalization, family history of disease, compliance to medication, treatment cost, and depressive symptoms are positively associated with body image disturbance. Among these factors, social support has the strongest positive impact (B = 18.298, p < 0.001). Conversely, frequency of visiting the doctor and self-compassion are negatively impact body image disturbance, with self-compassion showing a notable negative effect (B = -0.246, p < 0.001). Overall, this analysis underscores the complex interplay of demographic, medical, and psychological factors in shaping patients' body image disturbance **(Table 6).**

The multiple linear regression analysis in this table identifies significant predictors of patients' depressive symptoms. The model indicates that age, residence, affected part of body, complications of disease, hospitalization, social support, compliance to medication, treatment cost are positively associated with patients' severity of depression. Among these factors, social support has the strongest positive impact (B =2.360, p < 0.001). Conversely, frequency for visiting doctor and self-compassion are negatively associated with depressive symptoms, with self-compassion showing a notable negative effect (B =-0.172-, p < 0.001). Overall, this analysis underscores the complex interplay of demographic, medical, and psychological factors in shaping patients' depressive symptoms **(Table 7).**

Discussion

When erythema appears in SLE patients, it can negatively impact their self-image, physical and mental health, familial and social functioning **(Katz et al., 2020).** Patients with SLE are very concerned about changes in their appearance caused by the disease. These patients show avoidance behaviors, an unwillingness to interact with others, decreased mobility, fatigue, and elevated psychological stress as well as despair and burden as a result of alterations in their body image **(Chen et al., 2022).**

Many patients place direct blame on themselves for not being able to manage their illness effectively due to a lack of self-compassion. They often exhibit maladaptive behavior, such as over-identification versus mindfulness, self-judgment versus self-kindness, and denial and isolation versus humanity. A prior study demonstrated a significant correlation between increased self-compassion and improved participation-promoting behaviors in chronic disease. These behaviors included better stress management which is crucial in preventing flare-ups of SLE symptoms and maintaining overall health, medication adherence, lifestyle adjustments, and higher-quality sleep were some of these behaviors **Misurya et al., (2020).**

Early identification of the complex interplay of psychological factors may have a significant influence on the patient's quality of life and improved management of the disease. Therefore, this study aimed to assess the relation between self-compassion, body image and depressive symptoms among patients with Systemic Lupus Erythematosus.

Regarding to distribution of the studied patients according to their level of self-compassion, more than half of patients under study exhibited a moderate level of overall self-compassion. This outcome may be due to the patient's physical and psychological distress "the most of body parts affected by disease and had harsh judgments leaded to low self-compassion contributing to a decreased desire for engaging in behaviors that promote health or manage disease as well as feeling of inadequacy and failures". This could exacerbate psychological harm by causing individuals to direct blame for their inability to manage their condition. This finding was

in line with a study conducted by **Mousavi et al., (2021)** which discovered that a moderate degree of self-compassion is exhibited by over half of SLE patients.

Regarding to distribution of the patients in the study according to total body image disturbance, more than half of studied patients had moderate level of body image disturbance and one third of them had high level of body image disturbance. This could be as a result of the current study's findings, which revealed that most patients were female, two thirds of them were married, and more than half of them had a university education and individuals with those characteristics known to be concerned about their body image. Additionally, the majority of patients experienced weight gain during corticosteroid therapy, and more than half of them experienced body-wide effects, including alopecia "cutaneous change", weight changes and mental health issues, all of which highlighted the illness and may influence body image.

This result was in line with **Chen et al., (2022)** findings, which showed that more than half of the study sample had high level of body image disturbance and showed that comorbidities as anxiety, depression, fatigue and body-related quality of life were all related to body image disturbance in patients with SLE. Moreover, this result was consistent with **Jones & Kimble, (2022**) which showed that most subjects had body image disruption.

Concerning to distribution of the studied patients according to depressive symptoms. The findings showed that half of the studied patients had moderately severe level of depression, while less than one quarter of them had moderate and severe level of depression. This outcome could be the result of the disease's extremely obvious changes in symptoms. The daily lives of the patients may become more problematic as a result of these changes. Patients with SLE may endure negative interpersonal communication experiences due to changes in their appearance, which may cause them to engage in avoidance behaviors and limit their social connections. These encounters may put strain on SLE patients, lowered their sense of self, elicited unpleasant feelings, and raised the risk of anxiety and depression. Together with the following: the majority of participants were female, their mean age was 38.95±6.24, they were married, had a university education, were unemployed, have been sick for more than three years, visited the doctor frequently each month, the majority of their body parts were affected, and their body weight increased during cortisone therapy. These results were all associated with the increase in depression symptoms.

This result was similar to result of a study by **Dadwal et al., (2023)** proved that more than half of patients had moderate depression. Concurring with the findings of the studies conducted by **Harch et al., 2022; Duca et al., 2023; Duca et al., (2024)** which showed that over half of SLE patients experience depression. Similarly, Zhang et al. examined the incidence of depression in adults with SLE in a recent systematic review and meta-analysis of 59 researches; they found that estimates of the prevalence of depression varied between 2% and 91.7% in the various studies **(Zhang et al., 2017).** 35% was the pooled literature estimate of the prevalence of depression in a meta-analysis of 23,386 SLE patients **(Moustafa et al., 2020).**

This finding contradicts a study by **Putri & Halim, (2018)** which revealed that fewer than half of the participants experienced either no depression or very little depression. According to **Hasan et al. (2024)**, almost 50% of patients do not experience depression. On the other hand, this finding was in the same line of the study carried out by, **Nikoloudaki et al., (2023)** which revealed that mild degree of depression was detected in patient cohort. These observed differences could be explained by the difference in the time periods during which these studies were performed, the characteristics of the disease during each study, measures of depressive symptoms, as well as the social and cultural background of the participants.

The result of the present study represented that there was a highly statistically significant negative correlation between total self-compassion, total body image disturbance and total depressive symptoms among patients with SLE ($r= -0.599-$, $p < 0.001$;$r = -0.638-$, $p < 0.001$), respectively. This means when the total self-compassion decrease, the total body image disturbance increase, and consequently the total severity of depression increase and vice versa. This finding may be due to that SLE significantly impacted psychological aspects of self-compassion and body image, which were inversely connected with depression symptoms. Furthermore, the majority of patients in this study were female, two thirds were married, and more than half had a university degree; these factors may have an impact on the relationship between the three variables.

This finding was in line with a study by **Gholizadeh et al. (2019)**, which showed that SLE had shown to negatively impact body image outcomes. Moreover, earlier studies found a link between higher disease activity and worse body image outcomes, which were linked to higher levels of depressive symptoms. Significant discomfort, self-denial, a lack of self-compassion, and negative body image results were additional factors that may impair wellbeing and exacerbate depression symptoms in SLE patients.

Moreover, this was in line with the study conducted with **Körner et al., (2015)** which reported that self-compassion had shown to be a protective factor against depression and had significant implications on psychological well-being in chronic diseases given the contribution of psychological parameters in the exacerbation of diseases.

Regarding to correlation between total body image disturbance and total depressive symptoms among patients with SLE, there was a highly statistically significant positive correlation between total body image disturbance and total depressive symptoms ($r=0.499$, $p <0.001$). Patients with SLE who experienced more body image disturbance also experienced higher levels of depression. Patient with SLE who cared more about their appearance due to long-term use of corticosteroids, which may lead to significant side effects such as bruising, weight gain, and redistribution of adipose tissue, showed a higher incidence of depression.

This finding was in line with a study by **Jones & Kimble, (2022)** which showed that among SLE patients, higher levels of body image disruption were substantially linked to higher levels of depression symptoms. Another previous study showed that, patients with SLE who also experienced significant pain, poor body image results might further compromise wellbeing and increased depressive symptoms **(Gholizadeh et al., 2019).**

The results of this study demonstrated that age, residence, affected part of the body, hospitalization, social support, compliance to medication, and treatment cost were positively associated with self-compassion, with social support showing the strongest positive effect ($B = 31.767$, $p < 0.001$). This indicated that as these factors improved or changed in a positive direction, patients' self-compassion tended to increase. From the researchers' point of view, this mean that self-compassion was generally positively affected by a number of factors, including being in average age, living in urban areas, previous hospitalization, the extent to which body parts affected by the disease, receiving adequate social support, more compliance with medication, and ability of patients to cover their treatment costs. Among these factors, social support had the most substantial impact on boosting self-compassion.

Conversely, results showed that duration of illness, frequency of visiting the doctor, complication of disease, body image disturbance, and depressive symptoms negatively impact self-compassion, with depressive symptoms having a substantial negative effect ($B = -2.370$-, $p < 0.001$). This indicates that factors negatively affected the studied patients' self-compassion included duration of illness > 3 years, burden of visiting the doctor every month, complications of disease as increased weight after cortisone treatment, increased body image disturbance, and higher level of depressive symptoms. In summary, this analysis underscored the complex interplay of demographic, medical, and psychological factors in shaping self-compassion among patients with SLE.

The results of the present study showed that, age, residence, duration of illness, affected part of the body, complication of disease hospitalization, social support, compliance to medication, treatment cost, and depressive +symptoms were positively associated with body image disturbance ($B = 18.298$, $p < 0.001$). This mean that a number of factors, including average age of patients, their residence in urban area, length of their illness more than 3 years, the extent of the affected body, the complications of disease such as weight gain following cortisone treatment), prior hospitalization, a lack of social support, noncompliance to medication, treatment cost covered by the patient and higher level of depression may be associated with body image disturbance.

Conversely, burden from visiting the doctor every month and self-compassion were negatively impact body image disturbance of the patients, with self-compassion showing a notable negative effect ($B = -0.246$-, $p < 0.001$). Overall, our analysis underscored the complex interplay of demographic, medical, and psychological factors in shaping patients' body image disturbance. This result consistent with a study by **Jones et al., (2022)** who identified that socio and medical factors were to be important predictors of disturbed body image in patients with SLE.

The current study's findings identify important variables that were predictive of depressed symptoms. Age, residence, duration of illness, affected part of body, complication of disease, hospitalization, social support, compliance to medication, treatment cost, and body image disturbance were positively associated with depressive symptoms. Among these, social support had the strongest positive impact ($B =2.360$, $p < 0.001$). The study's conclusions indicated that the following factors were positively associated with depressive symptoms: average patient age, residence in an urban area, length of illness > 3 years, increase in the affected body part, increase in weight following cortisone treatment, previous hospitalization, low social support, noncompliance with medication, patient-paid treatment costs and disturbance of body image.

Conversely, burden of visiting doctor every month and self-compassion were negatively associated with severity of depression, with self-compassion showing a notable negative effect ($B =-0.172$-, $p < 0.001$). Overall, this analysis underscores the complex interplay of demographic, medical, and psychological

factors in shaping patients' severity of depression. This finding suggested that among SLE patients, self-compassion was a predictor of depressive symptoms. This was consistent with recent researches that found that socioeconomic factors specifically, average age, financial pressure, bodily areas affected, lack of social support, or medication non-adherence, and body image disturbance were important predictors of depression in SLE patients **(Tay et al., 2015 ; Narupan et al., 2018; Parperis et al., 2021; Eldeiry et al., 2020; Narupan et al., 2022; Nikoloudaki et al., 2022, Hasan et al., 2024).** Finally, In light of this, early detection of depression was crucial because SLE patients were more likely to experience mental health issues, which could have an impact on their quality of life and prognosis for the condition. It's also critical to pinpoint the psychological factors that leaded to the increased occurrence, such as self-compassion and body image.

Limitations of the study: there were no limitations of this study, whereas there was a difficulty during data collection period, because the total number of the sample required a long time to be collected, as the available patients in the study setting was limited.

Conclusion:

The findings corroborated previous studies. In the present study, the researchers found that body image disturbance and lack of self-compassion were significantly associated with greater level of depressive symptoms in the area of role disruption related to physical health among patients with SLE. Both patients and doctors should be encouraged to have conversations about changes in body image and the possible effects on patients with SLE. This requires a major shift in the way we assess and provide medical care for these patients. The notion held by patients that "doctors care for your body but do not care how you feel about your body" should cause us to reevaluate how we treat them. This requires interdisciplinary health care research, clinical collaboration and above all, shifting from a biomedical model to a bio psychosocial model.

Recommendations:

1- Psycho-educational intervention programs targeting beliefs, self-compassion and perception of body image among patients with SLE can reduce depressive symptoms.
2- Compassion-focused therapy and acceptance and commitment therapy on increasing distress tolerance and improve compassion and BI among patients with SLE.
3- An awareness program to identify the signs or symptoms of depression, and teach patients With SLE how to control their negative feeling and thoughts so they may use this skill to handle a variety of situations in their daily lives.
4- Better understanding of the physiological and psychological aspects will help rheumatologists and nurse practitioners begin managing this group of SLE patients appropriately from beginning.
5- Patient education program for the patient to increase medication compliance.
6- A family education program that emphasizes the importance of social support is essential for forecasting illness activity, mental health, and quality of life.
7- Frequent patient screening could help identify mental health issues in people with SLE.
8- To improve the generalizability of the conclusion, more longitudinal research should be carried out to validate the study's findings in bigger and more diverse groups.

References

- **AbdElzaher, G., Kamel, S., & Abd ELrahman, A. (2023):** Biopsychosocial needs among patients with Systemic Lupus Erythematosus, Egyptian Journal of Health Care, 14(2). P.220.
- **Adie, T., Steindl, S., Kirby, J., Kane, R. & Mazzucchelli, T. (2021):** The relationship between self-compassion and depressive symptoms: Avoidance and activation as mediators. Mindfulness, Vol. (12), No. (7), Pp. 1748–1756.
- **Al-Refae, M., Al-Refae, A., Munroe, M., Sardella, N., & Ferrari, M. (2021):** A self-compassion and mindfulness-based cognitive mobile intervention (Serene) for Depression, Anxiety, and Stress: Promoting adaptive emotional regulation and Wisdom. Front Psychol. 22;12:648087. available at: https://doi.org/10.3389/fpsyg.2021.648087
- **Bates, G., Elphinstone, B. & Whitehead, R. (2021):** Self-compassion and emotional regulation as predictors of social anxiety. Psychology and Psychotherapy journal, Vol. (94) No. (3), Pp. 426–442.
- **Biddle, Z., O'Callaghan, F.V., Finlay-Jones, A. & Reid, N. (2020):** Caregivers of children with fetal alcohol spectrum disorder: Psychosocial factors and evidence for self-compassion as a potential intervention target. Mindfulness journal, Vol. (11), No. (9), Pp. 2189–2198.
- **Bui, T., Nguyen, T., Pham, H., Tran, C.T. & Ha, T. (2021):** The mediating role of self-compassion between proactive coping and perceived stress among students. Science Progress journal, Vol. (104), No. (2), 368504211011872.
- **Cash, T., Melnyk, S.E. & Hrabosky, J. (2004):** The assessment of body image investment: An extensive revision of the Appearance Schemas

Inventory. International Journal of Eating Disorders, Vol. (35) No. (3), Pp. 305-316.

- **Chen, H., Shi, S. & Cui, H. (2022):** What are the predictive factors of body image disturbance in patients with systemic lupus erythematosus? A cross-sectional study in China. BMJ Open journal, Vol. (12) No. (11): e060049.
- **Dadwal, R., Pathak, P., Subbiah, A. & Dahiya, U. (2023):** Impact of anxiety and depression on disease activity and quality of life in patients with lupus nephritis. Indian J Psychiatry journal, Vol. (65) No. (4), Pp. 460-464.
- **Dixon, J., Cardwell, F. S., Clarke, A. E. & Elliott, S. J. (2022):** Choices are inevitable: A Qualitative exploration of the life costs of Systemic Lupus Erythematosus. Chronic Illness journal, Vol, (18) No. (1), Pp. 125-139.
- **Du, X., Chen, H., Zhuang, Y., Zhao, Q. & Shen, B. (2020):** Medication adherence in Chinese patients with Systemic Lupus Erythematosus. JClin Rheumatol journal, Vol. (26) No. (3), Pp. 94–98.
- **Duca, L., Roman, N., Teodorescu, A. & Ifteni, P. (2023):** Association between inflammation and thrombotic pathway link with pathogenesis of depression and anxiety in SLE patients. Biomolecules journal, Vol. (13), No. (567).
- **Duca, L., Roman, N.A., Ifteni, P. & Teodorescu, A. (2024):** One-Year Outcomes for Depression and Anxiety in SLE Patients. Biomedicines journal, Vol.12, No. 484.
- **Eldeiry D., Zandy M., Tayer-Shifman O.E., Kwan A., Marzouk S., Su J., Bingham K. & Touma Z. (2020):** Association between depression and anxiety with skin and musculoskeletal clinical phenotypes in systemic lupus erythematosus. Rheumatology journal. Vol. 59: Pp. 3211–3220.
- **Ferreira, C., Pinto-Gouveia, J. & Duarte, C. (2013):** Self-compassion in the face of shame and body image dissatisfaction: Implications for eating disorders. Eat. Behav. 14:207–210. doi: 10.1016/j.eatbeh.2013.01.005.
- **Gholizadeh, S., Azizoddin, DR., & Mills, SD., (2019):** Body image mediates the impact of pain on depressive symptoms in patients with systemic lupus erythematosus. Lupus. Aug; 28(9):1148-1153.
- **Harch, I., Benmaamar, S., Oubelkacem, N., Jennane, R., Diagne, B.J., Maiouak, M., Chakri, I., Omari, M., Otmani, N., Berraho, M.A., El Fakir, S., Berrady, R., & Tachfouti, N. (2022):** Prevalence and associated factors with anxiety and depression in patients with Systemic Lupus Erythematosus in a Moroccan region. Open Access Library Journal, Vol. (9), Pp. (1-14).
- **Hasan, M.A., Almogaliq, W.S., Alhanabi, F.H., Aldrazi, H.A., Alkhouzaie, M.T., Albukhari, R., Alqatari, S., Al-Abdulwahab, A.A., AlZuhair, H.M. & Al-Hariri, M.T. (2024):** Anxiety and depression and associated risk factors among outpatients with Systemic Lupus Erythematosus: Eastern Province, Saudi Arabia. Clin. Pract journal, Vol.14, Pp. 486-497.
- **Homan, K. & Tylka, T. (2015):** Self-compassion moderates body comparison and appearance self-worth's inverse relationships with body appreciation. Body Image. Vol. 15: Pp. 1–7.
- **Hu, Y., & Zhan G. (2022):** Anxiety and depression prevalence and their risk factors in lupus nephritis patients: A case-control study. Immun Inflamm Dis journal, Vol. (10) No. (9): e689.
- **Hyde, A. (2023):** Impact of SLE and LN on patients' QoL and body image. Available at: https://lupushub.com/medical-information/editorial-theme-impact-of-sle-and-ln-on-patients-qol-and-body-image.accessed **on 26-6-2024.**
- **Jones, MM., & Kimble, LP. (2022):** Body image, depression symptoms, and health-related quality of life in black women with Systemic Lupus Erythematosus. Nurs Womens Health journal, Vol. (26) No. (5), Pp. 363-370.
- **Katz, P., Wan, GJ. & Daly, P. (2020):** Patient-Reported flare frequency is associated with diminished quality of life and family role functioning in systemic lupus erythematosus. Qual Life Res journal, Vol. (29), Pp. 3251–61. 10.1007/s11136-020-02572-9
- **Körner, A., Coroiu, A., Copeland, L., Gomez-Garibello, C., Albani, C., Zenger, M., & Brähler, E. (2015):** The role of self-compassion in buffering symptoms of depression in the general population. PLoS One. 10:e0136598. 10.1371/journal.pone.0136598.
- **Liao, J., Kang, J., Li, F., Li, Q., Wang, J., Tang, Q., Mao, N., Li, S. & Xie, X. (2022):** A cross-sectional study on the association of anxiety and depression with the disease activity of systemic lupus erythematous BMC Psychiatry Journal, (1-2).
- **Misurya, I., Misurya, P., & Dutta, A. (2020):** The effect of self-compassion on psychosocial and clinical outcomes in patients with medical conditions: A Systematic Review. Cureus. 12(10): e10998.
- **Mizukami, A., Trinh, M., Hoang, T., Shibanuma, A., Cherng Ong, K. & Jimba, M. (2023) :** Determinants of health-related quality of life among patients with systemic lupus erythematosus in Hanoi, Vietnam, journal of BMC Rheumatology,.7, 16.
- **Mostafa, D., Amin, S., Hosseny, A., Sharaf, D., Bakry, H., & Kotb, L. (2023):** Determinants of dysmorphic body image in Systemic Lupus Erythematosus patients and its influence oon

qquality of life. Zagazig University Medical Journal, 29, (5):1394 -1401.

- **Mousavi, S., Khoshli, A., Asadi, J., & Abdollahzadeh, H., (2021):** Comparison of the effectiveness of compassion-focused therapy and acceptance and commitment therapy on distress tolerance in women with systemic lupus erythematosus. Journal of Psychological Science, 20(99): 453-460.
- **Moustafa, AT., Moazzami, M., & Engel, L, (2020):** Prevalence and metric of depression and anxiety in systemic lupus erythematosus: a systematic review and meta-analysis. Semin Arthritis Rheum. 50(1):84–94.
- **Murfield, J., Moyle, W., O'Donovan, A., & Ware, R. (2020):** The role of self-compassion, dispositional mindfulness, and emotion regulation in the psychological health of family carers of older adults. Clinical Gerontologist. Available at :https://doi.org/10.1080/07317115.2020.1846650;
- **Narupan, N., Seeherunwong, A., & Pumpuang, W. (2022):** Prevalence and biopsychosocial factors associated with depressive symptoms among patients living with systemic lupus erythematosus in clinical settings in urban Thailand. BMC Psychiatry. 22:103.
- **Neff, K.D. (2003):** The development and validation of a scale to measure self-compassion. Self and Identity 2(3):223–250.
- **Neff, K.D. (2021):** Fierce self-compassion: How women can harness kindness to speak up, Claim their power, and thrive. New York: Harper Wave. Available at: https://www.amazon.com/Fierce-Self-Compassion-Harness-Kindness-Thrive/dp/006299106X
- **Neff, K.D. (2023):** Self-compassion: Theory, method, research, and intervention. Vol. 74:193-218.
- **Nikoloudaki, M., Repa, A., Pitsigavdaki, S., Molla Ismail Sali A, Sidiropoulos, P., Lionis, C., & Bertsias, G. (2022):** Persistence of depression and anxiety despite short-term disease activityi in patients with Systemic Lupus Erythematosus: A single-centre, prospective study. J Clin Med. 11(15):4316.
- **Parperis K., Psarelis S., Chatzittofis A., Michaelides M., Nikiforou D., Antoniade E., & Bhattarai B. (2021):** Association of clinical characteristics, disease activity and health-related quality of life in SLE patients with major depressive disorder. Rheumatology. 60:5369–5378.
- **Putri, FM., &. Halim, MS. (2018):** Depression and quality of life in people with Systemic Lupus Erythematosus. Anima Indonesian Psychological Journal. Vol. 33, No. 3, 161-168.
- **Ratanasiripong, N., Warawitsaranggoon, R., Junda, T., Sangchan, H., Goo, PA., & Siripaitoon, B, (2020):** Mental health status and health-related quality of life among Systemic Lupus Erythematosus (SLE) patients in Thailand: A Multi-Site Study. J Med Assoc Thai.103:1185-93.
- **Robert, L. & Spitzer Janet B.W. (1999):** Patient Health Questionnaire (PHQ-9). Available at: https://med.stanford.edu/fastlab/research/imapp/msrs/_jcr_content/main/accordion/accordion_content3/download_256324296/file.res/PHQ9%20id%20date%2008.03.pdf.
- **Rodrigues, L., Sim-Sim, M., Sousa, L., Faria-Schützer, D., & Surita, F. (2021):** Self- concept and body image of people living with lupus : A systematic review, Wiley international journal of rheumatic diseases 00:1–15.
- **Shaaba, A., Tayel, M., Hassan, E., Salah, M., Ibrahim, M., & Said, W. (2022)** Evaulation of deoression and general health assement among systemic lupus erythematosus patients in relation to disease activity and damage. Egyptian Rheumatology and Rehabilitaion.; 45:19.
- **Siegel, CH., & Sammaritano, LR. (2024):** Systemic Lupus Erythematosus: A Review. JAMA.331 (17):1480–1491.
- **Tay, S., Cheung, P., & Mak, A. (2015):** Active disease is independently associated with more severe anxiety rather than sepressive symptoms in patients with Systemic Lupus Erythematosus. Lupus 24, 1392–1399.
- **Vaillant, A., Goyal, A., & Varacallo, M. (2024):** Systemic Lupus Erythematosus . StatPearls Publishing, Treasure Island. Available at: https://pubmed.ncbi.nlm.nih.gov/30571026/.
- **Zhang, L., Fu, T., Yin, R., Zhang, Q., & Shen, B. (2017):** Prevalence of depression and anxiety in Systemic Lupus Erythematosus: A systematic review and meta- analysis. BMC Psychiatry, 17, Article No. 70.