Relation between Psychological Distress, Body-Image and Quality of Life among Patients with Psoriasis

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Abstract

Background: Psoriasis is a chronic inflammatory skin condition that has a greater psychological distress such as depression, anxiety and stress and therefore, lower patient's body image and quality of life**. Aim of the study**: Determine the relation between psychological distress, body-image and quality of life among patients with psoriasis. **Research design:** A descriptive correlational design was used in this study. **Setting:** The study was conducted from both dermatology outpatient clinic and dermatology department in phototherapy unit at Benha university hospital, in Benha City, Qaluobia Governorate. **Subject:** A convenient sample of 100 patients with psoriasis was recruited from the previous study setting. **Tools:** Four tools were used for data collection: Tool (1) Structured Interview Questionnaire include socio-demographic data and clinical characteristics of the studied sample, tool (2) Kessler Psychological Distress Scale, tool (3) Body Image Scale, and tool (4) Dermatology Life Quality Index. **Results:** More than two thirds of the studied patients had high level of total psychological distress, more than half of the studied patients had high negative body image and more than three quarters of the studied patients had severe effect on quality of life. Also, there was highly statistically significant positive correlation between total psychological distress, total body image and total quality of life among the studied patients. **Conclusion:** This result confirming that patients with psoriasis having psychological distress are prone to have low body image that in turn lowers patient's quality of life. **Recommendations:** Implementing psycho-educational programs for patients with psoriasis to improve their body image and quality of life, as well as decrease their psychological distress.

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Key words: Body Image, Psoriasis, Psychological Distress, Quality of Life.

Introduction:

Psoriasis is a common chronic, systemic inflammatory disease, affecting approximately 2% of the population worldwide. It is a condition in which raised, erythematous plaques covered with silvery scales develop on the skin especially the extensor parts of arms and legs, face, scalp, lower backs, palms and sometimes nails. Psoriasis is associated with profound psychosocial comorbidity with a burden that extends well beyond the physical signs and symptoms. Psychosocial comorbidities strongly associated with psoriasis include anxiety and depression, suicidal ideation, and substance misuse *(**Blackstone et al., 2022**).*

Psychological distress is defined as a state of emotional suffering characterized by symptoms of depression (e.g., loss of interest, unhappiness & desperateness) and anxiety (e.g., restlessness & feeling tense). It is also characterized by other somatic symptoms like; insomnia, headaches, and lack of energy that are likely to vary across different areas. Psoriasis has an elevated risk of developing psychological distress that has been associated with excessive worrying which influences their personal lives as well as their environment, relationships, and professional lives as well as, it may increase risk of suicidality among patients with psoriasis *(**Wintermann et al., 2022**).*

Body image (BI) is a concept which implies an individual's subjective perception created by his or her lifelong changing thoughts about his or her own body. It is one of the most significant psychological elements influencing personality and behavior among psoriasis patients. Immediate recognition of an individual's difference from the norm is through their appearance. As psoriasis is a disease which can be noticed by other, it may result in subjective changes in an individual's body image. Also, patient with psoriasis felt a perpetual psychological burden and suffer from disturbance in the body image due to the unpredictability of the disease. In addition, the individuals around them and others avoid having contact with them and the measures needed to hide the disorder, either by makeup or clothing (*Salle et al.*, ٢٠٢٣).

The World Health Organization Quality of Life Group's proposed definition of the concept, which goes like this: "individual's perception of the position in life in the context of the culture and value systems in which individual live and in relation to goals, expectations, standards, and concerns," is one of the most frequently used definitions. The concept of quality of life is based on the World Health Organization's (WHO) definition of health, which includes good physical, psychological, and social wellness, the capacity to carry out societal tasks, and the ability to adapt to and cope with change (*Zambare et al.*, ٢٠٢٣). Psoriasis significantly lowers patients' quality of life, including changes to their everyday activities (*Nabieva & Vender*, ٢٠٢٣).

Moreover, Psoriasis has a chronic nature, unpredictable course of remissions and relapses, long term treatment, and no curable therapy, and it is often affects the patient's quality of life in different aspects of social activities, work, study and marriage. As well as it reduces the patients" beauty, cause psychosocial burden as stigmatization leading to disturbed body image, isolation them from the society which in turn result in stress, anxiety and depression (*Arora*, ٢٠٢٣).

Psychiatric mental health nurse has a major role when providing holistic care for psoriasis patients as should view the patients as one unit, as a biological, psychological, social and spiritual being. The nurse has a role in health education and dealing with education regarding health promotion, prevention, treatment and rehabilitation. Also, nursing staff working with psoriasis patients must be highly knowledgeable in management of such patients and teaching patients all aspects of the lifestyle modifications (physical activity, dietary modifications, health improvement, psychological adaptation and stress management, social support, and self-concept improvement (*Aldeen*, ٢٠٢٣).

Significance of the study:

Psoriasis is a chronic and recurrent skin disease, which affects ١٢٥ million people worldwide. It causes a significant stress and morbidity, and it's prevalence in Egypt is estimated to varies from ٠.١٩٪ to ٣٪ among the Egyptian population (*Abdallah et al.*, ٢٠٢٢). A recent study showed that patients with psoriasis are ١.٥ times more likely to show depressive symptoms and experience a higher prevalence of anxiety symptoms (٢٠– ٥٠٪) than individuals without psoriasis (*Hedemann et al.*, ٢٠٢٢). Also, other study has demonstrated a correlation between psoriasis and depression, as well as anxiety and suggest that psoriatic patients have a higher risk of developing depression and anxiety are a higher risk of committing suicide (*Alesci et al.*, ٢٠٢٢).

Aim of the study:

The aim was to determine the relation between psychological distress, body-image and quality of life among patients with psoriasis.

Research questions:

١. What are the levels of psychological distress, body-image and quality of life among patients with psoriasis?

٢. Is there a relation between psychological distress, body-image and quality of life among patients with psoriasis?

Subject and Methods:

I-Technical design:-

Technical design of this study included research design, research setting, research subject and tools of data collection.

Research design:

A descriptive correlational design was used to achieve the aim of the study. The goal of descriptive-correlational research is to describe the connection between variables rather than to infer cause and effect correlations. Correlation study is useful for explaining how one phenomenon is connected to another and indicating how one variable might predict another *(lappe, ٢٠٠٠)*

Research setting:

The present study was conducted from both dermatology outpatient clinic and the dermatology department in phototherapy unit at Benha university hospital, in Benha City, Qaluobia Governorate which both is affiliated to the Ministry of High Education and serves the city of Benha and its surrounding villages. The dermatology outpatient clinic is located at the ground floor of the outpatient building which include only one room divided into diagnostic and examination areas and waiting area where

the researcher interviewed the patient during follow up. This clinic provides services of dermatological care and follow up and it start work from ٩ am to ١٢pm every day except Friday.

The department located in the seventh floor medical building. Dermatology department has two entrance, the first entrance is for resident patients and the second lead to room for lasic treatment and narrow band room. Each room includes four beds. The selected hospital specify ٤ days/week (Saturday & Tuesday) for female and (Sunday& Thursday) for male from ٩ Am to ١ Pm for the treatment of patients with psoriasis. Also, the hospital provides patients with ٢ sessions per week for male and female on Narrow Band UVB devices. This hospital was selected due to the high number of patients selecting help there.

Research subject:

Sample size:

The study was included ١٠٠ patients, medically diagnosed with psoriasis from Benha University Hospital.

Sample type:

A convenient sample of patients with psoriasis was recruited from Benha University Hospital from both dermatology department and dermatology outpatient clinic.

Tools of data collection:-

In order to achieve the aim of the study, the following tools were being used:-

Tool (١):- A Structured Interview Questionnaire Sheet:

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

Part I: Socio–demographic data: To elicit data about patients characteristics

such as (age, sex, marital status, educational level, occupation, monthly income and residence).

Part II: Clinical data: To elicit data about (duration of disease, type of psoriasis, affected site, the symptoms experiencing, number of hospitalizations and family history).

Tool (٢):- Kessler Psychological Distress Scale (K١٠):

The scale was developed by *Kessler et al., (٢٠٠٢),* to measure psychological distress. The scale consists of ١٠ questions about emotional states. Each question is rated on ٣ point likert scale ranging from (١ to ٣): (١) none of the time, (٢) some of the time and (٣) all of the time. The total score ranges from ١٠-٣٠, with higher score reflecting higher level of psychological distress.

  Scoring system:
  - ١٠-١٤ indicates low psychological distress.
  - ١٥-٢٢ indicates moderate psychological distress.
  - ٢٣-٣٠ indicates high psychological distress.

Tool (٣):- Body Image Scale:

This scale was developed by *Gamal, (٢٠١٦),* to measure body image among patients with skin disease. It includes ٣٠ items and each item rated on ٤ point likert scale ranging from (٠ to ٣): (٠) never, (١) seldom, (٢) sometimes and (٣) much. The total score ranges between ٠-٩٠, with higher score reflecting higher negative body image.

  Scoring system:
  - ٠-١٣ indicates positive body image.
  - ١٤-٤٣ indicates mild negative body image.
  - ٤٤-٧٣ indicates moderate negative body image.

  - ٧٤-٩٠ indicates highly negative body image.

Tool (٤):- Dermatology Life Quality Index (DLQI):

This scale was originally developed by *Finlay & Khan, (١٩٩٤)* to measure the health-related quality of life of adult patients suffering from a skin disease. The scale consists of ١٠ questions that subdivided into ٦ domains that relate to different aspects of a person's HRQoL as follows: symptoms and feelings (questions ١, ٢), daily activities (٣, ٤), leisure (٥, ٦), work/school (٧), personal relationships (٨, ٩) and treatment (١٠). Each item is scored on a ٤ point Likert scale: (٠) not at all/not relevant, (١) a little, (٢) a lot, and (٣) for very much. The total score ranges between ٠-٣٠, with higher score reflecting higher impairment of HRQoL.

  Scoring system:
  - ٠-١ indicates no effect at all.
  - ٢-٥ indicates mild effect.
  - ٦-١٠ indicates moderate effect.
  - ١١-٣٠ indicates sever effect.

  II-Operational design:

  The operational design for this study includes preparatory phase, content validity of tools, reliability of tools, pilot study and field work.

Preparatory phase:

This phase was the first of the thesis, it included reviewing of past, current, local and international relevant literature and different studies related to the topic of research. Books, articles, periodicals and internet were used to get clear picture of all aspects related to the research topic. This helped the researchers to be acquainted with magnitude and seriousness of the problem, and guided the researcher to prepare the required data collection tools. In this procedure, the

researcher also translated the instruments from English formats into Arabic language, rendered the same English formats into bilingual experts for more verification of translation of the Arabic formats, the resulting versions were translated back into the original language by other bilingual experts, and minor discrepancies in the content were found and necessary modification were done.

Content validity of tools:

Content validity of tools was done by jury of ٥ expertises (in Psychiatric Nursing Field from Benha, University) who checked the relevancy, comprehensiveness, clarity and applicability of the tools. According to their opinions, modifications were done and the final form was developed.

Modifications were done in one scale was used in the research study, kessler psychological distress scale was modified in scoring system to be ٣ point likert scale that is (١) none of the time, (٢) some of the time and (٣) all of the time. Instead of ٥ degrees that were none of the time (١), a little of the time (٢), some of the time (٣), most of the time (٤) and all of the time (٥). In addition to, modification in some words had made to give the right meaning of the phrase.

Reliability of the tools:

Reliability was applied by researcher for testing the internal consistency of the tools by administration of the same tools to the same subjects under similar conditions on one or more occasions. Answers from repeated testing were compared (test–retest reliability). Testing the reliability of the tools through Alpha Cronbach reliability analysis. Reliability for kesslar psychological distress scale was ٠.٨٧٨, body image scale was ٠.٩٥٥ and dermatology life quality

scale was ٠.٨٣٨. These scores support the reliability of these scales.

Pilot study:

Before starting the data collection, a pilot study was conducted on (١٠٪) ١٠ patients with psoriasis to ensure clarity and applicability of the study tools and identifying the time needed for each subject to fill each tool and to identify the problems and obstacles that may be encountered during conduction of the study. According to the result of pilot study, no modifications were done. Therefore, the pilot study sample was included in the total sample.

Field work:

The actual field work for the process of data collection conducted of a period of six months started from (the first of January ٢٠٢٣ to the end of June ٢٠٢٣), through the following steps:

- Before starting data collection, an official permission was obtained from the director of Benha University Hospital requesting their permission and cooperation to conduct the study.

- The researcher started data collection by greeting and introducing herself to the studied patients. Provided a clear explanation of the aim, significance and types of tools needed to fill in the study to gain cooperation of the studied patients, then an oral consent was obtained from each of studied patients before data collection.

- Each patient interviewed and assessed individually in the waiting area at dermatology outpatient clinic and dermatology department in phototherapy unit at Benha university hospital.

- Each patient was handled the questionnaire and answered it under observation of the researcher. Patients

who can't read well, the researcher help them to record their answers.

- The researcher was attended to the hospital to collect the data from both dermatology outpatient clinic and dermatology department two days per week (Thursday and Saturday) from ٩ A.M:١١ P.M during the period of data collection. The average number of interviewed patient was between ٢-٣ patient per day about ١٦:١٧ patient /Month.

- The average time needed to complete the study tools was around ٤٠ minutes, the socio-demographic and clinical data filled in about ١٠ minutes, kessler psychological distress scale filled in about ١٠ minutes and body image scale and dermatology life quality index filled in about ١٠ minutes. After filling the patient the study tools the researcher thanked the patients for their cooperation and revised to check their completeness to avoid any missing data.

III- Administrative design:
Administrative approval:

Before conduction of the study an official permission was obtained from the dean of faculty of nursing, Benha University, then from director Benha university hospital, Qalyubia Governorate to obtain the official approval for data collection. The aim and the nature of the study were explained to the administrative personnel. Oral consent of the subjects was taken to participate study and then it was possible to carry out the study without resistance.

Ethical considerations:

Before conduction of the study, the researcher clarified the purpose and significance of the study to the studied patients and assured them about confidentiality of the collected data. All the studied patients were informed that the participation in the study was voluntary and no name was to be included in the questionnaire sheet, informed them that the content of the tools was used for research purpose only and they informed that they had the right to be withdrawn from the study at any time of data collection without any consequences. Moreover, an informed oral consent for participation in the study was obtained from each patient before conduction of data collection.

Statistical analysis:

The collected data were organized, coded, computerized, tabulated, and analyzed by using Statistical Package for Social Science (SPSS) Program version ٢٥. Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative data. Qualitative variables were compared using chi square test (X) ^{2}, P-value, to test association between two variables and Pearson correlation test (r - test), to the correlation between the study variables.

Degrees of significance of results were identified at:

- Not significant when P-value > ٠.٠٥
- Significant when P-value ≤ ٠.٠٥
- Highly significant when P-value ≤ ٠.٠١

Limitations:

- The study sample collected and completed from the dermatology department beside the dermatology outpatient clinic at Benha University Hospital due to the limited cases in the dermatology outpatient clinic.

- There was no statistics on the number of psoriasis patients in the previous year at Benha university hospital, so no equation was created.

Results:

Table (١) shows that, half (٥٠.٠٪) of the studied patients their age ranged between ٥٥-<٦٥ years with Mean age (٤٩.٥٢ ± ٧.٣٩) years. As regard to sex and marital status,

less than two thirds and two-thirds (٦٢.٠٪ & ٦٦.٠٪) of them are male and married, respectively. In addition, less than half (٤٥.٠٪) have secondary education / diploma level, more than half (٦٠.٠٪) of the studied patients are unemployed and half (٥٠.٠٪) of them working free business. Result illustrate also, more than two thirds and more than half (٦٨.٠٪ & ٥٢.٠٪) of the studied patients have insufficient income and residing at rural areas, respectively.

Table (٢) reveals that, two-fifths (٤٠.٠٪) of the studied patients have psoriasis from less than ٥ years, with Mean age (٦.٥٦ ± ٣.٠٧) years, less than two thirds (٦٢.٠٪) have plaque psoriasis, and more than half (٥٦.٠٪) have psoriasis at the upper extremities. In addition, the majority (٨٤.٠٪ and ٨٨.٠٪) of the studied patients have a symptoms as scaly and itching, respectively. Also, result reveals that, the majority (٨٠.٠٪) of the studied patients don't have history of hospitalization, more than one quarter (٢٧.٠٪) have a family history of psoriasis and more than half (٥٥.٦٪) are the brother / the sister who have history of psoriasis.

Figure (١) reflects that, more than two thirds (٦٨.٠٪) of the studied patients have high level of total psychological distress. In addition, one fifth (٢٠.٠٪) have moderate level. While, the minority (١٢.٠٪) of them have low level of total psychological distress.

Figure (٢) shows that, more than half (٥٥.٠٪) of the studied patients have high negative body image. Also, one-third (٣٣.٠٪) of them have moderate negative body image. While, the minority (٨.٠٪) of them have mild negative body image. While, only (٤.٠٪) of the studied patients have positive body image.

Figure (٣) shows that, more than three quarters (٧٩.٠٪) of the studied patients have high effect on quality of life due to psoriasis. Also, less than one fifth (١٦.٠٪) of them have moderate effect. Moreover, the minority (٣.٠٪) of them have mild effect, and only (٢.٠٪) of the studied patients have no effect.

Table (٣) shows that, there is highly statistically significant positive correlation between total psychological distress, total body image and total quality of life among the studied patients at (P= < ٠.٠١).

Table (١): Frequency distribution of the studied patients according to their socio-demographic data **(n=١٠٠).**

Socio-demographic data	Studied patients (n = ١٠٠)	
	No.	%
Age		
١٥ < ٢٥ years	٨	٨.٠
٢٥ < ٣٥ years	٩	٩.٠
٣٥ < ٤٥ years	١٤	١٤.٠
٤٥ < ٥٥ years	١٩	١٩.٠
٥٥ - ٦٥ years	٥٠	٥٠.٠
Mean SD ٤٩.٥٢ ± ٧.٣٩		
Sex		
Male	٦٢	٦٢.٠
Female	٣٨	٣٨.٠
Marital status		
Single	١٩	١٩.٠
Married	٦٦	٦٦.٠
Widowed	١٢	١٢.٠
Divorced	٣	٣.٠
Education level		
Illiterate	٨	٨.٠
Read and writes	٨	٨.٠
Primary education	١٠	١٠.٠
Preparatory education	١٦	١٦.٠
Secondary education / diploma	٤٥	٤٥.٠
University education	١٣	١٣.٠
Occupation		
Employed	٤٠	٤٠.٠
Unemployed	٦٠	٦٠.٠
In the case of work, what kind of work? (n=٤٠)		
Private sector employee	١٠	٢٥.٠
Public sector employee	١٠	٢٥.٠
Free business	٢٠	٥٠.٠
Monthly income of the family		
Enough	٢٠	٢٠.٠
Enough and save	١٢	١٢.٠
Not enough	٦٨	٦٨.٠
Residence		
Urban	٤٨	٤٨.٠
Rural	٥٢	٥٢.٠

Table (٢): Frequency distribution of the studied patients according to their clinical data **(n=١٠٠).**

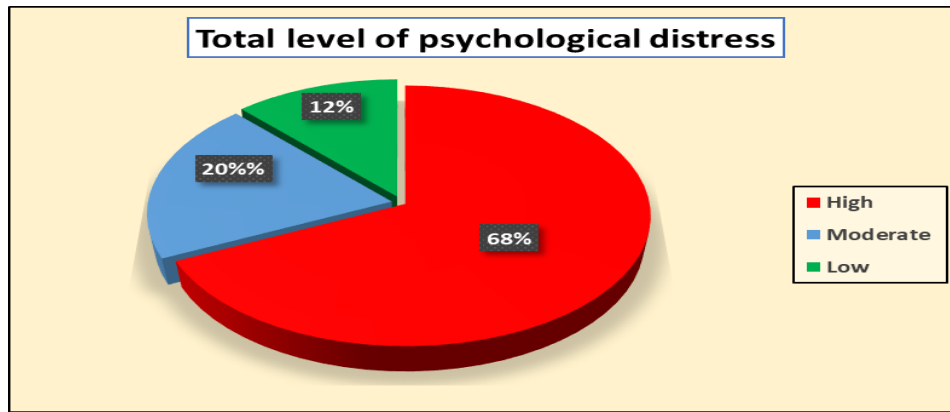| Clinical data of the studied patients	Studied patients (n = ١٠٠)	
	No.	%
Duration of disease		
< ٥ years	٤٠	٤٠.٠
٥ < ١٠ years	٣٢	٣٢.٠
١٠ < ١٥ years	١٦	١٦.٠
≥ ١٥ years	١٢	١٢.٠
Mean SD ٦.٥٦ ± ٣.٠٧		
Type of psoriasis		
Plaque psoriasis	٦٢	٦٢.٠
Guttate psoriasis	١٠	١٠.٠
Inverse psoriasis	٨	٨.٠
Pustular psoriasis	٢٠	٢٠.٠
Affected site*		
The head	٣٢	٣٢.٠
The trunk	٢٠	٢٠.٠
The upper extremities	٥٦	٥٦.٠
The lower extremities	٣٦	٣٦.٠
All parts of the body	٤٠	٤٠.٠
The symptoms that you are experiencing*		
Scaly	٨٤	٨٤.٠
Itching	٨٨	٨٨.٠
Pain in the skin	٦٤	٦٤.٠
Pain in the joints	٣٦	٣٦.٠
Cracked skin	٤٤	٤٤.٠
Burning of the skin	٢٤	٢٤.٠
Bain deformity	١٢	١٢.٠
Bleeding	٤	٤.٠
Number of hospitalizations		
Never	٨٠	٨٠.٠
Once	١٢	١٢.٠
Twice	٨	٨.٠
Three times or more	٠	٠.٠
Is there a family history of psoriasis?		
Yes	٢٧	٢٧.٠
No	٧٣	٧٣.٠
If the answer is yes, who is it? (n=٢٧)		
The father / the mother	٩	٣٣.٣
The brother / the sister	١٥	٥٥.٦
The uncle	٣	١١.١

(*) Responses not mutually exclusive

Figure (١): Percentage distribution of the studied patients according to their total level of psychological distress **(n=١٠٠).**
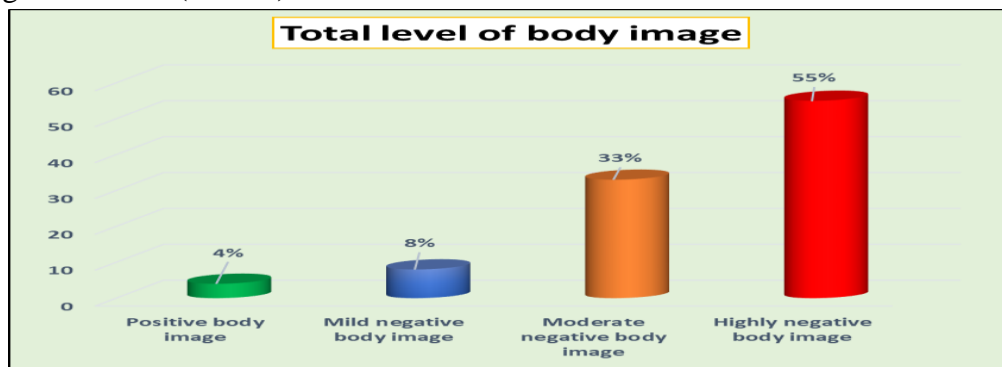

Figure (٢): Percentage distribution of the studied patients according to total level of body image **(n=١٠٠)**
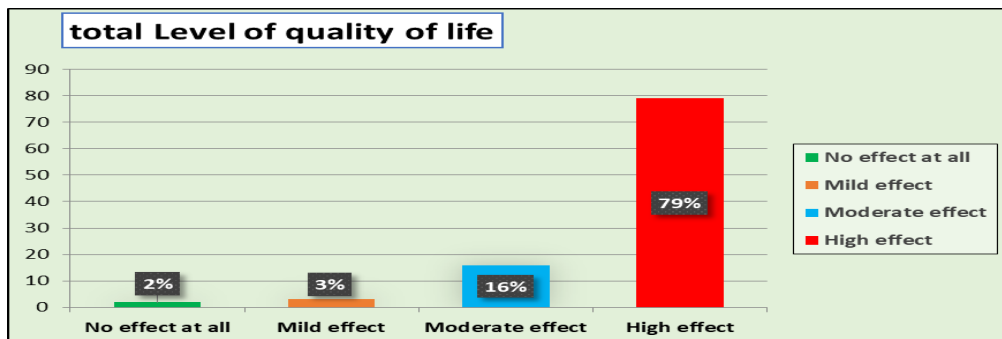

Figure (٣): Percentage distribution of the studied patients according to total level of quality of life

Table (٣): Correlation between total psychological distress, total body image and total quality of life among the studied patients **(n=١٠٠).**

Variables			Total psychological distress	Total body image
Total psychological distress		r		٠.٣٦٠
		p-value		٠.٠٠٠**
Total quality of life		r	٠.٣٤٦	٠.٧٢٤
		p-value	٠.٠٠٠**	٠.٠٠٠**

r= Pearson correlation coefficient test. *Correlation is significant at the ٠.٠٥ level (٢-tailed).

**highly correlation is significant at the ٠.٠١ level (٢-tailed).

Discussion:

Data emerging from the study showed that, Data emerging from the study showed that, regarding to socio demographic characteristics of the studied patients, half of the studied patients their age ranged between ٥٥-<٦٥ years with mean age was (٤٩.٥٢ ± ٧.٣٩) years. From researcher point of view, this result may be due to that, patients at this age become more vulnerable to psoriasis because aging skin is less able to fight psoriasis flare-ups.

This finding supported by **Mohamed et al., (٢٠٢١)** who conducted a study entitled "Knowledge and self-care practices among psoriatic patients in Benha City" and found that about half of studied patients their age was more than ٥٠ years old. This result is contradicted with a study done by **El-Komy et al., (٢٠٢٠)** who conducted a study entitled "Clinical and epidemiologic features of psoriasis patients in an egyptian medical center" and stated that the mean age of the study group was ٣٩.٣ ± ١٧.٩years.

Regarding to sex, the result of current study showed that less than two thirds of the studied patients were male. From researcher point of view, this result may be due to that, male may be under the stress of living than female, as well as cigarette smoking and alcohol consumption are common in male and participate in the occurrence of psoriasis. This finding supported by **Alajmi et al., (٢٠٢١)** who conducted a study entitled "Patterns of comorbidities in psoriasis patients: A cross-sectional study" and reported that less than two thirds of the studied patients were male.

This finding inconsistent with **Salle et al., (٢٠٢٣)** who conducted a study entitled " Psoriasis and sexuality: Patients express their feelings" and reported that less than two thirds of the studied patients were female. This differences may be related to that studied sample is different with different genetic predisposition and exposure to different risk factors.

Regarding to marital status, the present study indicated that, two-thirds of them were married. From researcher point of view, this result may be due to that, the majority of the studied patients are old as their age ranged between ٥٥-<٦٥ years. This result consistent with **Yavuz Daglioglu et al., (٢٠٢٠)** who conducted a study entitled "Effects of disease severity on quality of life in patients with psoriasis" and found that about two thirds of the patients were married.

Regarding to level of education, the present study indicated that, less than half have secondary education or diploma level. From researcher point of view, this result may be due to that the culture of most people in egypt is that they are stop at intermediate education. This result agreed with **Taliercio et al., (٢٠٢١)** who conducted a study entitled " The disruptiveness of itchiness from psoriasis: a qualitative study of the impact of a single symptom on quality of life" and found that about less than half of the patients have secondary education or diploma level.

This finding in consisted with **Homayoon, et al., (٢٠٢٠)** who conducted a study entitled " Relationship between skin shame, psychological distress and quality of life in patients with psoriasis: A pilot study. " and reported that about three quarters of subjects had a high level of education.

Regarding to occupation, the present study indicated that, more than half of the studied patients was unemployed. From researcher point of view, this result may be due to that most of the studied patients age ranged between ٥٥-<٦٥ years and were reaching the retirement age. This result agreed with **Zhong et al., (٢٠٢١)** who conducted a study entitled "Impact of moderate-to-severe psoriasis on quality of life in China: a qualitative study" and

found that more than half of the studied patients were unemployed. This finding disagreed with a study done by *Kumsa et al., (٢٠٢١)* who conducted a study entitled "Management practice, quality of life and associated factors in psoriasis patients attending a dermatological center in Ethiopia." and found that, the majority of the studied patients were employees.

Regarding to monthly income, the present study indicated that, more than two thirds of the studied patients had insufficient income. From the researcher point of view, this result might be because more than half of the studied patients are unemployed. This finding disagreed with *Mohamed et al., (٢٠٢١)* who conducted a study entitled "Knowledge and self-care practices among psoriatic patients in Benha city" and found that about three quarters of studied patients had a family monthly income enough.

Regarding to residence, the present study indicated that, more than half were living in rural areas. This result may be explained by the fact that, the proportion of the population living in urban areas has continued to decline as people move to rural areas due to higher prices and increase in the cost of the living. This finding agreed with the result of *Aladl et al., (٢٠٢٠)* who conducted a study entitled "Quality of life of psoriatic patients and their acceptance of the disease." and found that more than half of the studied patients were living in rural areas. This finding disagreed with the result of *Constantin et al., (٢٠٢١)* who conducted a study entitled "The impact of smoking on psoriasis patients with biological therapies in a bucharest hospital" and found that more than two thirds of patients were living in urban areas.

According to the clinical data of the studied patients, the present study indicated that, two-fifths of the studied patients had psoriasis from less than ٥ years with mean age (٦.٥٦ ± ٣.٠٧) years. From researchers' point of view, this result may be due to that, the studied patients had psoriasis for long duration as psoriasis is a chronic disease. This finding agreed with the result of *Park & Kim, (٢٠٢١)* who conducted a study entitled "What factors influence on dermatology-related life quality of psoriasis patients in South Korea?" and found that the duration that studied patients have psoriasis was typically less than ٥ years. This finding disagreed with the result of *Salle et al., (٢٠٢٣)* who conducted a study entitled " psoriasis and sexuality: patients express their feelings " and found that the mean disease duration of psoriasis was ٢٣.٢ years (± standard deviation ١٥).

Regarding to type of psoriasis, the present study indicated that, less than two thirds of the studied patients had plaque psoriasis. This result may be explained by the fact that psoriasis vulgaris (also known as chronic psoriasis or plaque-like psoriasis) is the most common form of psoriasis. In addition doctors aren't sure why people get plaque psoriasis. This result agreed with *Tanaka et al., (٢٠٢٢)* who conducted a study entitled "apremilast prolongs the time to first biologic therapy in japanese patients with psoriasis" and stated that the majority of patients had plaque psoriasis.

Regarding to affected site, more than half of the studied patients had psoriasis at the upper extremities. This result may be explained by the fact that psoriasis increases in places where it occurs in friction and too much sun exposure so found that the most vulnerable place for psoriasis is the upper extremities. This finding disagreed with the result of *Mohamed Moselhy & Attia Abdallah, (٢٠٢٢)* who conducted a study entitled " The effectiveness of an educational program on the severity and disability of people with psoriasis " and found that the most affected body sites were the lower extremities followed by the scalp area.

Regarding to symptoms experiencing, the majority of the studied patients had a

symptoms as scaly and itching. From researcher point of view, this result may be due to that, people with psoriasis have cells that reproduce much more rapidly than they should so the outer layer of the skin becomes especially thick and forming scale as well as heat, skin dryness, scale, hot water, sweating, and emotional stress can increase inflammation and make itching even worse. This finding is in line with **Liyanage et al., (٢٠٢٢)** who conducted a study entitled "Validation of psoriasis disability index (PDI) questionnaire Sinhala version." and found that the majority of the studied patients had a symptom of itching. In other side, **Alajlan et al., (٢٠٢٢)** who conducted a study entitled "Erythrodermic psoriasis managed with risankizumab." noted that three quarters of the studied patients had erythema, edema, and pruritis with possible palmoplantar involvement and psoriatic nail changes.

Regarding to the number of hospitalizations, the present study indicated that, the majority of the studied patients didn't have history of hospitalization. From researcher point of view, this result may be due to that, the studied patients have psoriasis from less than ٥ years and patients' symptoms can be controlled with treatment at home. This finding agreed with **Poór et al., (٢٠١٨)** who conducted a study entitled " Is the DLQI appropriate for medical decision-making in psoriasis patients?." and reported that majority of the studied patients don't have history of hospitalization. Also, this finding disagreed with **Bulat et al., (٢٠٢٠)** who conducted a study entitled " The impact of psoriasis on quality of life: psychological, social and financial implications" and reported that the minority of the studied patients ١٠٪ didn't have history of hospitalization.

Regarding to family history of psoriasis, the result of current study showed that, more than one quarter had a family history of psoriasis. From researcher s' point of view, this result may be due to that psoriasis disease has a

genetic predisposition and psoriasis expression is a concequence of genetic susceptibility combined with immunological factors and environmental triggers. This finding agreed with a study done by **Solmaz et al., (٢٠٢٠)** who conducted a study entitled "Impact of having family history of psoriasis or psoriatic arthritis on psoriatic disease" and noted that, more than one quarter had a family history of psoriasis.

Regarding to psychological distress among the studied patients, the present study indicated that, more than two thirds of the studied patients had high level of total psychological distress. From the researchers' point of view this might be due to some patients complain that society doesn't accept patients' disease because the appearance and experienced anxiety, depression, stress and embarrassment when meeting strangers and may felt that they were the victims of rude remarks and had deep effects on the private and social life, cause social malfunction and shame in social interaction as well as, the disfiguring skin lesion and chronic nature of the psoriasis cause excessive worry to patients that has a greater psychological distress.

This finding agreed with a study done by **Hepat et al., (٢٠٢٣)** who conducted a study entitled " Psychological well-being of adult psoriasis patients: A narrative review" and found that, most of the studied patients had significantly higher level of total psychological distress, leading to higher rates of depression, anxiety and stress.This finding is disagreed with **Read & Armstrong, (٢٠٢٠)** who conducted a study entitled "Association between the mental health of patients with psoriasis and their satisfaction with physicians " and found that, about two thirds of the studied patients had no or mild symptoms.

Regarding level of body image among the studied patients, the current study results indicated that more than half of the studied patients with psoriasis had high negative body

image. From the researcher's point of view this may be justified by psoriasis is a chronic skin disorder that reduces the patients` beauty as psoriasis affects skin appearance that determines patients` body image. Also, psoriasis lesions over the face and exposed sites of the hands and feet may be particularly embarrassing and cause anger, disillusionment and body image disturbances. This finding agreed with a study done by *Gündüz et al., (٢٠٢٠)* who conducted a study entitled "Significant effects of body image on sexual functions and satisfaction in psoriasis patients" and found that, Psoriasis patients showed significantly higher levels of disturbance body image.

Regarding to total level of quality of life among the studied patients, the current study result indicated that more than three quarters of the studied patients had high impairment on quality of life due to psoriasis. From the researchers' point of view this might be due to that psoriasis is chronic skin disorder that may have a negative impact on the patients and quality of life domains as the disease reduce patients' beauty as affect skin appearance that determines patients' body image and any pathologic change in the skin, psoriasis can decrease self-esteem, isolate patients from the society and had a poor effects on the private social life and quality of life. As well as long term and time-consuming or cost-effective treatment have a great impact on decreased quality of life of patients with psoriasis. Patients with psoriasis are also, more often absent from work and are less efficient employees, which obviously exacerbate their stress and therefore the disease.

This finding in line with finding of *Silva et al., (٢٠٢٢)* who conducted a study entitled " Psychological (co) morbidity in patients with psoriasis: the impact of pruritus and anogenital involvement on symptoms of depression and anxiety and on body dysmorphic concerns–a cross-sectional study. " and found that, patients with psoriasis experiencing significant quality of life impairments. This finding disagreed with a study done by *Bakar et al., (٢٠٢١)* who conducted a study entitled " Depression and anxiety among patients with psoriasis: A correlation with quality of life and associated factors" and found that the majority of the studied patients had moderate effect on the quality of life.

Regarding to correlation between total psychological distress, total body image and total quality of life among the studied patients, the current study results indicated that, there was highly statistically significant positive correlation between total psychological distress, total body image and total quality of life among the studied patients. From the researchers' point of view this might be due to that when negative body image increased, severe psychological distress and severe effect on quality of life increased and vice versa.

This finding agreed with a study done by *Nowowiejska et al., (٢٠٢٢)* who conducted a study entitled "Assessment of life quality, stress and physical activity among patients with psoriasis." and found that there is positive correlation between total psychological distresses, total body image and total quality of life among the studied patients. This findings disagreed with a study done by *Rousset& Halioua, (٢٠١٨)* who conducted a study entitled "Stress and psoriasis." and found that there was negative correlation between psychological distresses, body image and quality of life among the studied patients.

Regarding to correlation between total psychological distress and total body image, the current study results indicated that, there was highly statistically significant positive correlation between total psychological distress and total body image among the studied patients. This mean that when negative

body image increased, severe psychological distress increased and vice versa. This mainly caused due to that, disfiguring skin causes disturbance in body image that lead to significant psychological distress. As well as, psychological distress may develop because others avoid having contact with patients and this behavior leads to fear and lower body image. This finding agreed with a study done by *Chag et al., (٢٠٢٢)* who conducted a study entitled "Psychiatric co-morbidy and quality of life in patients with psoriasis in a tertiary care hospital" and reported that there was highly statistically significant positive correlation between total psychological distress and total body image among the studied patients.

Regarding to correlation between total body image and total quality of life, the current study results indicated that, there was highly statistically significant positive correlation between total body image and total quality of life among the studied patients. This mean that when negative body image increased, severe effect on quality of life increased and vice versa. From the researchers' point of view this might be due to that, psoriasis is connected with various symptoms resulting from negative image as social isolation, guilt and embarrassment of a patient and this cause impairment in social relations, social activities and occupational functioning, as well as decreased the quality of life. This finding agreed with a study done by *Hepat et al., (٢٠٢٣)* who conducted a study entitled " Psychological well-being of adult psoriasis patients: A narrative review" and found that, there was positive correlation between total body image and total quality of life among the studied patients.

Regarding to correlation between total psychological distress and total quality of life, the current study results indicated that, there was highly statistically significant positive correlation between total psychological

distress and total quality of life among the studied patients. This mean that when psychological distress increased, severe effect on quality of life increased and vice versa. From the researchers' point of view this might be due to that, patients with psoriasis having symptoms of psychological distress including: feeling of guilt, shame and embarrassment were suffering from low quality of life as these emotional effect of psoriasis were found to have negative impact on patients daily activities, sleeping and work activities. So patients with psoriasis have negative impact on patients' quality of life. This finding agreed with a study done by *Arora, (٢٠٢٣)* who conducted a study entitled "Assessment of psychiatric comorbidities, self-esteem, coping skills, and quality of life in patients with Psoriasis affecting physical appearance in a tertiary care teaching hospital." and found that there was positive correlation between total psychological distress and total quality of life among the studied patients.

Conclusion

Findings confirmed that, psychological distress, body image and quality of life seem to be related with each other and inability of patients with psoriasis to deal with psychological distress are prone to have low level of body image that in turn lower their level of quality of life. The present study revealed that, more than two thirds of the studied patients had high level of total psychological distress. Also, more than half of the studied patients had high negative body image and more than three quarters of the studied patients had high effect on quality of life due to psoriasis. Also, there was a highly statistically significant positive correlation between total psychological distress, total body image and total quality of life, which means that, patients who had psychological distress are more likely to have low body image and low quality of life and this

answered the research question about the relation between psychological distress, body image and quality of life among patients with psoriasis.

Recommendations

Recommendations were suggested:

- Stress management program should be given to patients with psoriasis to relieve their psychological problems and enhance their quality of life.
- Educating nurses towards the importance of providing social support and genuine concern for the patient to enhance patient's emotional well-being and body image.
- Psychiatric support must be provided continuously as a part of routine nursing care for all patients with psoriasis.
- Designing and implementing psycho-educational programs for patients with psoriasis to improve their body image and quality of life domains.
- Psycho educational programs should be conducted to improve people's knowledge about psoriasis, causes, early detection, and management to improve patient's mental health. Further studies are needed on large sample of patients with psoriasis in different geographical areas to generalize the results.

References:

Abdallah, H., Tawfik, N., Soliman, N., & Eldeen, L. (٢٠٢٢): The lncRNA PRINS-miRNA-mRNA axis gene expression profile as a circulating biomarker panel in psoriasis. Molecular Diagnosis & Therapy. ٢٦, (٤), pp ٤٥١–٤٦٥.

Aladl, S., El-Gilany, A. H., Ghanem, B., & Fayed, H. (٢٠٢٠): Quality of life of psoriatic patients and their acceptance of the disease. Iranian Journal of Dermatology. ٢٣(٣), pp ٩١-٩٧.

Alajlan, A., Madani, A., Qadoumi, T. A., Aljaloud, A., & Alessa, M. (٢٠٢٢): Erythrodermic psoriasis managed with risankizumab. Case Reports in Dermatology. ١٤(٢), ٢١٩-٢٢٤.

Alajmi, R. S., Alamoudi, S. M., Alabbasi, A. A., Alwagdani, A., Alraddadi, A. A., & Alamri, A. (٢٠٢١): Patterns of comorbidities in psoriasis patients: A cross-sectional study. Cureus, ١٣(٥).

Aldeen, T. H. (٢٠٢٣): Have patients with chronic skin diseases needs been met? A thesis on psoriasis and eczema patient care in dermatology service (Doctoral dissertation, University of Cumbria/University of Lancaster).

Alesci, A., Lauriano, E., Fumia, A., Irrera, N., Mastrantonio, E., Vaccaro, M., & Pergolizzi, S. (٢٠٢٢): Relationship between immune cells, depression, stress, and psoriasis: Could the use of natural products be helpful? Molecules. ٢٧, (٦), pp ١٩٥٣-١٩٧٤.

Arora, S. (٢٠٢٣): Assessment of psychiatric comorbidities, self-esteem, coping skills, and quality of life in patients with Psoriasis affecting physical appearance in a tertiary care teaching hospital. International Journal of Life Sciences, Biotechnology and Pharma Research. ١٢, (٢), ١٨٧٣-١٨٧٧.

Bakar, R. S., Jaapar, S. Z., Azmi, A. F., & Aun, Y. C. (٢٠٢١): Depression and anxiety among patients with psoriasis: A correlation with quality of life and associated factors. Journal of Taibah University Medical Sciences. ١٦(٤), pp٤٩١-٤٩٦.

Blackstone, B., Patel, R., & Bewley, A. (٢٠٢٢): Assessing and improving psychological well-being in psoriasis: Considerations for the clinician. Psoriasis: Targets and Therapy. ١٢, p ٢٥–٣٣.

Bulat, V., Šitum, M., Delaš Aždajić, M., Lovrić, I., & Dediol, I. (٢٠٢٠): Study on the impact of psoriasis on quality of life: psychological, social and financial implications. Psychiatria Danubina. ٣٢(suppl. ٤), ٥٥٣-٥٦١.

Chag, J., Javadekar, A., Mukherjee, S. S., Chaudhury, S., & Saldanha, D. (٢٠٢٢): Psychiatric Co-Morbidy and Quality of Life in Patients with Psoriasis in a Tertiary Care Hospital. J Int Med Sci Acad. ٣٥(٤).

Constantin, M. M., Bucur, S., Mutu, C. C., Poenaru, E., Olteanu, R., Ionescu, R. A. & Constantin, T. (٢٠٢١): The impact of smoking on psoriasis patients with biological therapies in a bucharest hospital. Journal of Personalized Medicine. ١١(٨), ٧٥٢.

Da Silva, N., Augustin, M., Hilbring, C., Braren-von Stülpnagel, C. C., & Sommer, R. (٢٠٢٢): Psychological (co) morbidity in patients with psoriasis: the impact of pruritus and anogenital involvement on symptoms of depression and anxiety and on body dysmorphic concerns–a cross-sectional study. BMJ open. ١٢(٩), e٠٥٥٤٧٧.

El-Komy, M., Mashaly, H., Sayed, K., Hafez, V., El-Mesidy, M., Said, E. & Rasheed, H. (٢٠٢٠): Clinical and epidemiologic features of psoriasis patients in an Egyptian medical center. JAAD International. ١(٢), ٨١-٩٠.

Finlay, A., Khan, G. (١٩٩٤): Dermatology Life Quality Index (DLQI)--a simple practical measure for routine clinical use. Clinical Expertise in Dermatology. ١٩, (٣), pp ٢١٠-٢١٦.

Gamal, A. (٢٠١٦): Relation between self- esteem and body image among adolescent patients with anorexia nervosa, this is in Ain Shams University.

Gündüz, A., Topçuoğlu, V., Usta Gündüz, E. B., Ergun, T., Gencosmanoglu, D. S., & Sungur, M. Z. (٢٠٢٠): Significant effects of body image on sexual functions and satisfaction in psoriasis patients. Journal of Sex & Marital Therapy. ٤٦(٢), ١٦٠-١٦٩.

Hedemann, T., Liu, X., Kang, C., & Husain, M. (٢٠٢٢): Associations between psoriasis and mental illness: An update for clinicians. General Hospital Psychiatry.٧٥, pp ٣٠-٣٧.

Hepat, A., Chakole, S., & Rannaware, A. (٢٠٢٣): Psychological Well-Being of Adult Psoriasis Patients: A Narrative Review. Cureus, ١٥(٤).

Homayoon, D., Hiebler-Ragger, M., Zenker, M., Weger, W., Unterrainer, H., & Aberer, E. (٢٠٢٠): Relationship between skin shame, psychological distress and quality of life in patients with psoriasis: A pilot study. Acta Dermato-venereologica. ١٠٠(١٤).

Kessler, R., Andrews, G., Colpe, L., Hiripi, E., Mroczek, D., Normand, S., & Zaslavsky, A. (٢٠٠٢): Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological Medicine. ٣٢, (٦), pp ٩٥٩-٩٧٦.

Kumsa, S. M., Tadesse, T. A., & Woldu, M. A. (٢٠٢١): Management practice, quality of life and associated factors in psoriasis patients attending a dermatological center in Ethiopia. Plos One. ١٦(١١), e٠٢٦٠٢٤٣.

Liyanage, A., Liyanage, G., De Silva, V., Akarawita, J., Gunasekera, C., Imafuku, S., & Lekamwasam, S. (٢٠٢٢): Validation of psoriasis disability index (PDI) questionnaire Sinhala version. Archives of Dermatological Research, ١-٩.

Mohamed Moselhy, M., & Attia Abdallah, Z. (٢٠٢٢): The effectiveness of an educational erogram on the severity and disability of people with psoriasis. Egyptian Journal of Health Care. ١٣(٣), pp ١٣٨-١٥٨.

Nabawy Mohamed, E., Mohamed Abd Al-Aal, E., & Abdallah Abdel-Mordy, M. (٢٠٢١): Knowledge and self-care practices among Psoriatic patients in Benha City. Journal of Nursing Science Benha University. ٢(٢), ٢٦١-٢٧٢.

Nabieva, K., & Vender, R. (٢٠٢٣): Quality of life and body region affected by psoriasis: A

systematic review. Actas Dermo-Sifiliograficas. ١١٤(١), ٣٣-٣٨.

Nowowiejska, J., Baran, A., Grabowska, P., Lewoc, M., Kaminski, T. W., & Flisiak, I. (٢٠٢٢): Assessment of life quality, stress and physical activity among patients with psoriasis. Dermatology and Therapy. ١٢(٢), pp ٣٩٥-٤٠٦.

Park, S. Y., & Kim, K. H. (٢٠٢١): What factors influence on dermatology-related life quality of psoriasis patients in South Korea?. International Journal of Environmental Research and Public Health. ١٨(٧), ٣٦٢٤.

Poór, A. K., Brodszky, V., Péntek, M., Gulácsi, L., Ruzsa, G., Hidvégi, B.& Rencz, F. (٢٠١٨): Is the DLQI appropriate for medical decision-making in psoriasis patients?. Archives of Dermatological Research. ٣١٠, ٤٧-٥٥

Read, C., & Armstrong, A. W. (٢٠٢٠): Association between the mental health of patients with psoriasis and their satisfaction with physicians. JAMA Dermatology. ١٥٦(٧), ٧٥٤-٧٦٢.

Rousset, L., & Halioua, B. (٢٠١٨): Stress and psoriasis. International Journal of Dermatology. ٥٧(١٠), PP ١١٦٥-١١٧٢.

Salle, R., Halioua, B., Le Fur, G., Aubert, R., Shourick, J., & Taieb, C. (٢٠٢٣): Psoriasis and sexuality: Patients express their feelings. Skin Health and Disease. ٣ (٣), e١٩٩.

Solmaz, D., Bakirci, S., Kimyon, G., Gunal, E. K., Dogru, A., Bayindir, O. & Aydin, S. Z. (٢٠٢٠): Impact of having family history of psoriasis or psoriatic arthritis on psoriatic disease. Arthritis Care & Research. ٧٢(١), pp ٦٣-٦٨.

Taliercio, V., Snyder, A., Webber, L., Langner, A., Rich, B., Beshay, A. & Secrest, A. M. (٢٠٢١): The disruptiveness of itchiness from psoriasis: a qualitative study of the impact of a single symptom on quality of life. The Journal of Clinical and Aesthetic Dermatology. ١٤(٦), ٤٢.

Tanaka, M., Ozeki, Y., Matsuyama, F., Murata, T., Imafuku, S., & Nakamura, T. (٢٠٢٢): Apremilast prolongs the time to first biologic therapy in Japanese patients with psoriasis. Dermatology and Therapy. ١٢(٢), pp ٤٥١-٤٦٦.

Wintermann, G. B., Bierling, A. L., Peters, E. M., Abraham, S., Beissert, S., & Weidner, K. (٢٠٢٢): Childhood trauma and psychosocial stress affect treatment outcome in patients with psoriasis starting a new treatment episode. Frontiers in Psychiatry. ١٣, ٨٤٨٧٠٨.

Yavuz Daglioglu, E. B., Cadirci, D., & Aksoy, M. (٢٠٢٠): Effects of disease severity on quality of life in patients with psoriasis. Dermatologic Therapy. ٣٣(٦), e١٤٤٢٢.

Zambare, W., Tocci, E., and Lee, M. (٢٠٢٢): The pediatric dermatology psychosocial screen: Promoting psychosocial coping and early identification of mental illness in pediatric dermatology patients. Pediatric Dermatology. ٠٠, ١–٥.

Zhong, H., Yang, H., Mao, Z., Chai, X., & Li, S. (٢٠٢١): Impact of moderate-to-severe psoriasis on quality of life in China: a qualitative study. Health and Quality of Life Outcomes. ١٩, (١), pp ١-٩.