

## Effect of Self Care Instructional Guidelines on Quality Of Life of Patients with Psoriasis

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**Abstract :** Psoriasis is one of the most common skin diseases which consider a chronic and recurrent course. Living with a chronic disease such as psoriasis poses problem for the individual concerned with functioning and daily living activities. It is linked with social stigmatization, pain, discomfort, physical disability and psychological stress. **The aim of this study** was to evaluate the effect of self-care instructional guideline on quality of life of patient with psoriasis **Subjects and methods:** A quasi experimental design was used to conduct this study, purposive subjects of 40 adult patients suffering from mild-moderate psoriasis with the following criteria, ages above 18 years, free from any other concomitant medical condition can interfere with their abilities in performing daily life activities. **Setting:** The study was carried out at phototherapy unit affiliated to the Dermatology outpatient clinic in El-Demerdash teaching hospital. **Tools:** 4 tools were used to collect data, (1) an intervening questionnaire include socio demographic characteristics of the study subjects, assessment of patients knowledge about the psoriasis and how to control it, and assessment of patient self care activities related to psoriasis (2) psoriasis area and severity index (PASI) (3) psoriasis disability index (PDI); (4) patients with Psoriasis self assessment quality of life instrument. **The results:** the study revealed an improvement of patient's level of knowledge, self care and subsequently improves on their quality of life. The study concluded that there is positive effect of self care instruction guideline on psoriasis patients' quality of life. The study recommended increase public awareness about concept of psoriasis and how to prevent and manage it. Teaching and counseling program to improve self care activities for those patients should be done.

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### Introduction

Psoriasis is a chronic, noncontiguous inflammatory skin disorder. It is one of the most common skin diseases. Its exact cause is unknown but there is genetic tendency and evidence of an immune response that involve T-cell activation by an antigen stimulating the inflammatory process. The disease is chronic and incurable with exacerbations and recurrent. Certain factors cause an exacerbation, including stress, anxiety, trauma, infection, smoking, high alcohol consumption and medication such as beta adrenergic blockers, seasonal and hormonal changes also are trigger factors (*Cheever and Hinkle, 2010*).

In this disease, the cells in the basal layer of the skin divide too quickly, and the newly formed cells move so rapidly to the skin surface that they become evident as perfuse scales or plaques of epidermal tissue which prevent formation of the normal protective layers of the skin (*Nagrath, 2011*).

There are many types of psoriasis but chronic plaque psoriasis is the most common. Psoriasis may range in severity from a cosmetic source of annoyance to a physically disabling and disfiguring disorder. Lesions appear as red, raised patches of skin covered with silvery scales. The scaly patches are formed by the buildup of living and dead skin (*Bhosle et al., 2006*).

If the scales are scraped away, the dark red base of the lesion is exposed, producing multiple bleeding points. The patches are not moist and may be pruritic. In approximately one fourth to one half of patients, the nails are also involved, with pitting, discoloration, crumbling beneath the free edges, and separation of the nail plate. The most affected sites are scalp, the extensor surface of the elbows and knees, the lower part of the back, and genitalia as well as the nails (*Cheever and Hinkle, 2010*).

Psoriasis affects approximately 5% of the population all over the world. It is thought that this chronic disease stems from a hereditary defect that cause overproduction of keratin. Onset may occur at any age, but psoriasis is most common in people between 15 and 35 years of age. Psoriasis has a tendency to improve and then recur periodically throughout the life (*Osborn et al., 2010*).

Individuals with psoriasis may experience significant physical discomfort and some disability as itching and pain that can interfere with basic functions, such as self care and caring for family members or home (*Smeltzer and Bare, 2010*).

Psoriasis requires systemic treatment, appropriate care and health education is an important aspect of psoriatic treatment, patients should be informed about

outbreaks and recurrent of the disease. Also should be aware of treatment choices; this will allow patients to fully participate in their treatment choices (*Nagrath, 2011*).

Dorthea Orem believed that people have natural ability for self care, and nursing should focus on affecting that ability. In order to maximize the health of patients, considerable lifestyle changes must be made. Healthcare professionals who provide direct care, nurses can assist with these changes by providing educational opportunities and strategies that increase self-care agency, thus making a positive impact on patient quality of life (*Rapids, 2009*)

Patients suffering from psoriasis should know how to care for them self to manage the symptoms. These steps of self care include avoidance of all factors which may possibly aggravate psoriasis, avoidance of picking at or scratching the affected area. Measures to prevent dry skin are encouraged because dry skin worsens psoriasis. Water should be warm, not hot, and the skin should be dried by patting with a towel rather than rubbing. A bath oil or emollient cleansing have a moisturizing effect, avoidance of soap or other irritating cleansing, wearing cotton clothes and avoidance of synthetic fabrics, too much of salty, sour or acidic foods (*Nagrath, 2011*).

#### **Significance of the study:**

According to Abdel *Salam (2009)*, psoriasis affects 2 million of the Egyptian citizens. *Lana et al. (2010)* ensured that psoriasis affects approximately 3-5% of the human population. Some authors reported that more than 5% of people suffer from psoriasis, because many may hide the disease and/or seek unconventional treatments (*Jankowiak et al., 2004*).

Psoriasis affects quality of life of the affected patients, because of its great psychological implications. It is a disfiguring disease that results in low self esteem, poor self perception, depression and anxiety; it can affect individual's business, social and sexual relationships. It may also cause problems with working due to time off work for treatment, resulting in job loss, (*Smeltzer and Bare, 2010*) so investigating patients with psoriasis needs and problems aiming to improve their ability to self care and quality of life to those patients is crucial.

#### **Aim of the Study:**

This study aims to evaluate the effect of self-care instructional guideline on quality of life of patient with psoriasis through:

1. Assessment of level of knowledge and self care activities among patients with psoriasis.
2. Determine the severity and level of disability which affect the quality of life among patients with psoriasis.
3. Develop an instructional guideline based on patients needs.

4. Evaluate the effect of the instructional guideline on patients with psoriasis quality of life.

Research questions;

- 1-Can the instructional guideline improves patients with psoriasis quality of life?
- 2-is there is a relation between severity of psoriasis area affected and patients age?

## **2. Subjects and Methods:**

### **Design:**

A quasi experimental design was used to conduct this study

**Setting:** The study was conducted in phototherapy unit affiliated to Dermatology outpatient clinic at El Demerdash teaching hospital.

### **Subjects:**

Purposive subject of 43adult patient suffering from mild to moderate psoriasis, their ages ranged between 18-70 years old (all subjects attend at phototherapy unit in outpatient clinic for follow up) with the following criteria, free from any other concomitant medical condition that can interfere with their abilities to perform daily living activity such as chronic cardiac or respiratory diseases as well as any other dermatology diseases.

**Tools for data collection:** four tools were used for data collection; the first tool was patient level of knowledge and self care activities interview questionnaire developed by the researches in Arabic languish based on related literature, it was divided into three parts, part1) demographic and health characteristics of study subjects include; patient's age, sex, educational level, marital status and onset of disease. Part2) assess patients level of knowledge about the psoriasis, as the nature of the disease, signs and symptoms, factors that aggravate and increase risk of psoriasis, measures of prevent ion and control of psoriasis, possible complications and its management).part3)assess the self care activities of patients with psoriasis

### **. Scoring system:**

- For knowledge and practice items, a correct response was scored (1) and incorrect one was scored (0) satisfactory level was considered from 70% and above.
- The second tool was the psoriasis area and severity index (PASI) it adopted from *Richard et al. (2006)*, it is an index indicating the severity of the psoriatic plaques and is weighted by the amount of coverage of these plaques in (4) body area (head 10%; trunk 30%, upper extremities 20% and lower extremities 40%) of person's skin. Patients were asked to mark and score each area, and then the four score were combined into the final psoriasis area and severity index. PASI scoring, the area of

skin involved was estimated and then transformed into a grade from 0 to 6 as the following:

Grade 0: 0%	Grade 1: < 10%
Grade 2: 10-29	Grade 3: 30-49%
Grade 4: 50-69%	Grade 5: 70-89%
Grade 6: 90-100%	

Grade 1, 2 considered mild, grade 3, 4 considered moderate, grade 5, 6 considered severe.

The third tool was the psoriasis disability index (PDI) which adopted from *Wohlstud and Moum (2002)*. It is a disease specific questionnaire measuring disability induced by psoriasis and the burden of living with psoriasis. It included 15 questions underline heading concerned with daily activities, work or school, personal relationships, leisure and treatment. It was filled by the patients, or researchers in case of patient illiterate. Psoriasis disability index (PDI), the scoring of each question is answered on a series of 4 answers (not at all scored 0, a little scored 1, a lot scored 2 and very much scored 3). The PDI was calculated by summing the score of the total of questions resulting in a total score ranging from 0- 40 with the higher score indicating a greater impairment in a patient ability.

The fourth tool was patient with psoriasis self assessment quality of life instrument which adopted from *Koo-Menter (2003)*. It is a diagnostic algorithm and formal measure help in identifying the significant impact on quality of life of patient with psoriasis. It is a scale from 0 to 10, patients was asked to circle one number per question as they pertain to his psoriasis during the last month. Psoriasis self assessment quality of life instrument scoring was based on a scale of 0 to 10. The scale was scored by summing the items to make a total score, the higher score indicating a greater impairment in a patient quality of life.

. The grade was considered good when total score < 60%, satisfactory when total score 60 %-< 75% and poor if total score 75% and more.

#### **Field work**

**Tools validity and reliability:** Tools were evaluated for face and content validity by 5 experts in the field of the study. Tools wear tested for reliability by cronbach's Alpha reliability analysis it was 0.983

#### **Data collection:**

Subjects willing to participate in the study were individually interviewed by the researchers after approval of phototherapy unit authorities. The aim of study was explained for patient and data were collected over 6 month's period from January 2012 till June 2012.

The researcher interviewed the patients three days per week as they available in the unit some time researchers withhold the sessions of the guidelines to one patient or more according to their availability from

9 Am to 2 Pm, Sunday, Tuesday, Thursday for female and Saturday, Monday and Wednesday for males patients according to the unit schedule.

#### **Data collected through 3 phases:**

**Assessment phase:** to collect the base line data by assessing the patient's demographic data, level of knowledge, and self care activities, PASI, PDI and patient with psoriasis quality of life. The tools took about 30 minutes for each patient to fulfill.

**Implementation phase:** It was done during February, 2012 during this phase the researchers interviewed the study subjects explained the guideline and distributed hand outs in Arabic language to all of them, the intervention involved group discussion one to three patients according to their availability for at least one hour., to accomplish the instruction and answer patients questions.

**Evaluation phase:** it was achieved through post test by the same tools, one month post instruction implementation by reassessment of patient's knowledge, practices, PASI, PDI, and self assessment quality of life instrument. It was carried out in April, 2012.

#### **Ethical consideration:**

Prior to the pilot study, ethical approval was obtained, as well as consent from each participant. They were assured that anonymity and confidentiality would be guaranteed and that they have the right to withdraw from the study at any time without giving any reason.

#### **Instructional guidelines:**

It was designed by the researchers based on patients assessed needs and related literature to improve their level of knowledge and self care practices regarding psoriasis aiming to improve their quality of life. It was written in Arabic language. It covered the following items: Definition, causes, signs and symptoms, management, complications of the disease, self care activities and household hygiene practices. The guideline was revised by group of three expertises in medical surgical nursing and two expertises from medical staff at dermatology unit for content validity. Based on the opinion of expertise, some modifications were done, and then the final form was developed.

**Pilot study:** was conducted on 10% of study subject to evaluate the clarity, feasibility and applicability of the study tools. Those patients were included in the study.

**Limitation of the study:** Three patients were not able to complete the study, so they were dropped out of the study and the final sample consisted of forty patients.

#### **Data analysis:**

The data were coded and analyzed by the researchers. Non parametric test were used for comparison between, pre implementation and post

implementation of guideline for subjects. Chi-square, T test, and r test were used and p-value less than 0.05 were considered significant.

### 3. Results

Table (1) shows that, mean age of the subjects was  $41.3 \pm 13.8$ . 60% of the subjects were males and 25% were from rural area. According to educational level 30% of the studied subjects were highly educated. Married patients constituted (45%) of the study subjects, 30% were single and 25% were divorced. The mean duration of illness was  $10.1 \pm 5.1$ , nearly half of them (47.5%) were ill for 10 or more years. The same table also shows that, the majority of patients (80%) had negative family history of psoriasis.

As seen in table (2) majority of patient's level of knowledge score was unsatisfactory before self care instruction implementation. The worst knowledge score was related to causes and complications of psoriasis. Post instruction phase showed a statistically significant improvement in patient's level of knowledge in almost all areas of assessment ( $P < 0.001$ ).

As regards to self care activities among the study subjects, table (3) indicated highly statistically significant improvement in patient's self care activities especially applying moisture after bathing, using wet dressing to control itching and dry skin by patting and find ways to reduce stress and anxiety, care of finger nails and proper nutritional and environmental care ( $P < 0.001$ ).

In relation to psoriasis area severity index, table (4) illustrated a statistically significant decrease in psoriasis area severity since grade 4 psoriasis area was among the majority (82.5%) of the studied subjects before implementation of the instruction and reduced to 37.5% post instruction ( $P < 0.05$ ). Joint pain symptoms pre instruction wear affecting (75%) reduced to (42.5%) post instruction implementation with highly significant difference ( $P < 0.001$ ). While insomnia affect (80%) of the subjects' pre instruction and reduced to (20%) post instruction implementation with ( $P < 0.001$ ). (table (5))

Table(6) show that increase patient compliance to ultra violet A (87.8%) post compared to(75%) pre

Concerning the effect of instruction guideline on patient's level of disability, table (7) shows statistically significant improvement in patient's level of disability, daily activities, work, personal relationship, leisure and treatment abilities with ( $P < 0.05$ ) with totally highly significant improvement at ( $P < 0.001$ ) post instruction implementation. It is evident that mean (11.4) and (5.4) of the patient's daily activities and work showed severe disability in the pre instruction phase, it was declined to (5.9) and (2.5) respectively pre instruction phase. Regarding the quality of life score of the study subjects, table (8) shows a highly statistically significant

improvement in the different areas of quality of life score ( $P < 0.001$ ). That was evident in some especial items or areas, since (100%) of the study subject's quality of life score were poor, that included feeling of disability, embarrassment and psychological and emotional well being, which was reduced to 25%, 15% and 20% post self care instruction implementation.

As related to the relation between knowledge and self care abilities, table (9) indicated a highly statistically significant relation between pre instruction and post instruction ( $P < 0.001$ ) with evident improvement post instruction since the satisfactory score increased among the subjects from 23.5% before instruction to 85% post instruction implementation.

As regards the correlation between patient's knowledge and their quality of life, table (10) shows highly statistically significant relation between them in both phases of the study subject's work ( $P < 0.001$ ). While there was a statistically significant difference as regards the effect of marital status on subject's quality of life. It was worst among the married subjects (45%). Also there was a statistical significant difference between males and females quality of life ( $P < 0.05$ ). The quality of life was improved better among male patients. The poor quality of life reduced from (78%) pre instruction to less than (10%) post program among male subjects, while it was reduced among female subjects from (100%) pre program to (25%) post program implementation (Table 11).

Table (12) indicated that, there was no statistically significant relation between psoriasis area severity and subject's age ( $P > 0.05$ ). This means severity can occurs at any age.

### 4. Discussion

Psoriasis is a chronic skin disease associated with problems in body image and self esteem as well as feelings of stigma and sham. It affects work relationship and partner relationships causing psychological and emotional stress which can be worsening of existing lesions. Therefore, the recognitions and teaching self-care practice have become part of nursing intervention (*Arruda et al., 2011*).

Our study revealed that, more than half of the subjects were male patients, there mean age was  $41.3 \pm 13.8$  years. The mean duration of illness was  $10.1 \pm 5.1$  years. This finding reflecting that, psoriasis is a long term disability disorder affecting the young patients during their productive years and the onset occur at any age. This result is in agreement with the study by *Pakran et al., 2011* who found that, there was significant correlation between the rated severity of psoriasis and the extent of impact of psoriasis on physical disability. (*Pakran et al., 2011*) identified also that, a younger age at onset of disease suffer greater disability in most aspects of quality of life. Also one quarter of the study subjects

from rural area this might be due to, that the photo therapy unit is not available in their residence. Also one quarter of the study subjects were divorced this might be

due to problems with partner due to effect of the disease condition.

**Table (1):** Distribution of the Study subjects according to their demographic and health related characteristics (No=40)

Item	n	%	Mean ±SD
<b>Age /year:</b>			
18 : < 30	11	27.5	41.3±13.8
30 : < 45	14	35	
45 : 70	15	37.5	
<b>Sex:</b>			
Male	24	60	
Female	16	40	
<b>Residence:</b>			
Rural	10	25	
Urban	30	75	
<b>Educational level</b>			
<b>Illiterate</b>	13	32.5	
<b>Moderate</b>	15	37.5	
<b>High Education</b>	12	30	
<b>Marital status:</b>			
Single	12	30	
Married	18	45	
Divorced	10	25	
<b>Duration of illness:</b>			
< 1 year	2	5	10.1±5.1
1: < 5 years	6	15	
5: < 10 years	13	32.5	
10 + more	19	47.5	
<b>Family history:</b>			
Positive	8	20	
Negative	32	80	

**Table (2):** Patients level of knowledge regarding psoriasis pre and post instruction guideline implementation (No =40)

	Pre test n = 40						Post test n = 40					
	Poor		Sat.		Good		Poor		Sat.		Good	
	N	%	n	%	n	%	n	%	n	%	n	%
Definition	33	82.5	6	15	1	2.5	8	20	12	30	20	50
Causes	40	100	0	0	0	0	12	30	12	30	16	40
Symptoms	34	85	2	5	4	10	10	25	8	20	22	55
Prevention of itching	38	95	2	5	0	0	0	0	30	75	10	25
Complications of disease	40	100	0	0	0	0	4	10	20	50	16	40
Total	37		2		1		7		16		17	
	Chi-square 31.2** $P < 0.001$											

**Table (3):** Self care activities score as stated by the patients.

	Pre test n = 40				Post test n = 40			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
	n	%	n	%	n	%	n	%
1. Avoid heat sweating and dry environment	8	20	32	80	22	55	18	45
2. Avoid using soaps, detergents that could irritate skin	12	30	28	70	36	90	4	10
3. Avoid wear clothing made of wool and synthetic fiber	6	15	34	85	32	80	8	20
4. Avoid exposure to cigarette smoking	12	30	28	70	36	90	4	10
5. Avoid dust exposure	4	10	36	90	38	95	2	5
6. Applying moisture after bathing	20	50	20	50	40	100	0	0
7. Daily short, non burning exposure to sun light	18	45	22	55	34	85	6	15
8. Avoid long greater than 15 minutes and hot bath	10	25	30	75	36	90	4	10
9. Cut finger nails avoid skin damage from scratching	8	20	32	80	28	70	12	30
10. Use wet dressing to control itching	6	15	34	85	40	100	0	0
11. Avoid too much salt and acidic foods	2	5	38	95	36	90	4	10
12. Use Lukewarm water regularly	0	0	40	100	32	80	8	20
13. Dry skin by patting not vigorously rubbing	4	40	36	90	40	100	0	0
14. Find ways to reduce stress and anxiety	18	45	22	55	40	100	0	0
	Chi-square 34.2				$P < 0.001$			

**Table (4):** The difference between psoriasis grades of severity found among the study subjects pre and post instructional guideline implementation (no. = 40)

Items	Pre		Post		Test
	N	%	N	%	
Grade 1: Whole body except head (scattered)	3	7.5	6	15	$X^2 = 17.6^*$ $P < 0.05$
Grade 2: Whole body except chest (scattered)	4	10	19	47.5	
Grade 4: Whole body (scattered)	33	82.5	15	37.5	

**Table (5): Patients complains** pre and post instructional guideline implementation (no. = 40)

	Pre		Post		$X^2$	P-value
	N	%	N	%		
<b>Joint pain and/or swelling</b>						
Present	30	75	17	42.5	22.2	$P < 0.001$
Not present	10	25	23	57.5		
<b>Insomnia</b>						
Present	32	80	8	20	11.8	$< 0.01$
Not present	8	20	32	80		

**Table (6): Patients compliance to ultra violet session** pre and post instructional guideline implementation (no. = 40)

	Pre		Post		$X^2$	P-value
	N	%	N	%		
<b>Regular 3 session /week</b>	30	75	35	87.5	98.3	$P < 0.001$
<b>Irregular &lt;3 session /week</b>	10	25	5	12.5		

**Table (7):** Disability level among the studied subjects suffering from psoriasis pre and post instructional guideline implementation (n. = 40)

Patients abilities	Pre	Post	T-Test and P value	
	Mean $\pm$ SD	Mean $\pm$ SD		
Daily activities	11.4 $\pm$ 3.51	5.9 $\pm$ 4.34	6.1	$< 0.05$
Work or studying	5.7 $\pm$ 2.02	2.55 $\pm$ 2.13	6.2	$< 0.05$
Personal relationship	3.55 $\pm$ 2.57	2.05 $\pm$ 1.48	3.2	$< 0.05$
Linked with Leisure	5.2 $\pm$ 3.47	2.8 $\pm$ 3.58	3.0	$< 0.05$
Commit to Treatment	1.6 $\pm$ 0.92	0.65 $\pm$ 0.48	4.8	$< 0.05$
Total(0-40)	27.45 $\pm$ 12.12	14.05 $\pm$ 11.57	15.0	$< 0.001$

**Table (8):** quality of life among the study subjects pre and post instructional guideline implementation (n = 40)

Item	Pre n = 40						Post n = 40					
	Poor		Satisfactory		Good		Poor		Satisfactory		Good	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Proper disease knowledge	38	95	2	5	0	0	8	20	20	50	12	30
Feeling of disability	40	100	0	0	0	0	10	25	22	55	8	20
Shameful feelings	40	100	0	0	0	0	6	15	28	70	6	15
Feeling of frustration	36	90	2	5	2	5	4	10	26	65	10	25
General appearance	32	80	8	20	0	0	6	15	22	55	12	30
Body disfiguring from psoriasis	30	75	10	25	0	0	2	5	20	50	18	45
Emotional well being	40	100	0	0	0	0	8	20	22	55	10	25
Life enjoyment	38	95	2	5	0	0	4	10	28	70	8	20
Itching	31	77.5	5	12.5	4	10	6	15	18	45	16	40
Physical irritation	36	90	4	10	0	0	10	25	20	50	10	25
Physical pain or soreness	38	95	2	5	0	0	10	25	22	55	8	20
Choice of clothing to cancel psoriasis	28	70	10	25	2	5	4	10	20	50	16	40
$X^2$	29.9											
P-value	$< 0.001$											

**Table (9):** Relation between knowledge and self care

Knowledge	Poor (n=37)	Sat (n=2)	Good (n = 1)	Total		r test
				No.	%	
<b>Self care pre</b>						
Satisfactory	7	1	1	9	23.5	0.93
Unsatisfactory	30	1	0	31	76.5	<0.001
<b>Self care post</b>						
Satisfactory	7	13	15	35	85	0.97
Unsatisfactory	0	3	2	5	15	<0.001

**Table (10):** Relation between knowledge and quality of life

Knowledge	Poor (n=36)	Satisfactory (n=3)	Good (n=1)	Total	r test
<b>QOL pre</b>					
Poor	34	1	0	35(88.0%)	0.87 <0.001
Satisfactory	2	2	0	4 (10.0%)	
Good	0	0	1	1 (2%)	
<b>QOL post</b>					
Poor	5	1	0	6(15.0%)	0.85 <0.001
Satisfactory	2	11	10	23 (58.0%)	
Good	0	4	7	11 (87%)	

**Table (11):** Relation between quality of life, marital status and sex pre implementation of self care instruction

	Poor n=35	Satisfactory n=4	Good n=1	Total no.	X <sup>2</sup> and p-value
<b>Marital status</b>					
Single	7	4	1	12 (30%)	0.87 P < 0.05
Married	18	0	0	18 (45%)	
divorced	10	0	0	10 (25%)	
<b>Sex</b>					
Male	19	4	1	24 (60%)	0.86 P < 0.05
Female	16	0	0	16 (40%)	

**Table (12):** Relation between psoriasis area severity and age

	Whole body exc. Head n=3	W. body except chest n =4	Whole body n=33	Total no.	X <sup>2</sup> and p-value
<b>Age/years</b>					
18 : < 30	0	1	10	11 (27.5%)	0.47 P > 0.05
30: < 45	1	1	12	14 (35%)	
45 : 70	2	2	11	15 (37.5%)	

Also this study shows that, subjects' level of knowledge about psoriasis was deficient before implementing the self care instruction guide line in spite of their different level of education. This finding is contradicting with *Ryan (2009)*, who ensured that psoriasis can be a debilitating disease; mentally, socially and physically, so an awareness about the disease, process and its nature is essential for effective coping.

Subjects' level of knowledge showed significant improvement after implementation of the instruction guideline, that is in agreement with *Forture et al. (2005)* who emphasized that, counseling the patients with psoriasis may improve their mental and psychological conditions, they also added that; such intervention encouraging active coping strategies, restructuring

negative thought about the disease and encouraging patients to express their emotions and to seek social support. Also this result on the same line with *Smaltzare and Bare (2010)* who mentioned that health education is an important aspect of psoriatic treatment as a result of education; patients should be aware of management choices. This will allow patients to fully participate in their treatment choices and self care. Increasing patient's knowledge of the disease would be very beneficial, according to World Health Organization, health education influence people's opinions, attitudes and behavior.

According to self care activities there wear a highly statistically significant improvement post instructional guidelines implementation compared to pre, this might be

due to that patients become exhausted from signs and symptoms of the disease especially itching and have the interested desire to overcome this problem. *Ersser et al. (2011)* stated that psoriasis has a significant impact on patient's quality of life and a high self management demand. People with long term skin conditions frequently do not adhere to topical treatment regimens.

Individuals with psoriasis may experience significant physical discomfort and some disability. Itching and pain can interfere with individual basic function, such as self care, walking and sleep.

Regarding subject's self care activities related to skin protection and care as well as prevention of further complications they show an improvement post instruction guideline implementation. That have been proven in the study by *Jankowiak et al. (2004)*, who found that; patients with psoriasis showed the need to improve their knowledge on the disease and self care methods, the greatest deficit of their education refers to the factors activating the process of the disease and the methods of prophylactics in psoriasis. *Weiss and Ramkrishna (2006)* added; that lack of education affects psoriasis patient's behavioral health and medication compliance. Moreover, *Polat et al. (2012)* emphasized that increasing level of knowledge of patients with psoriasis could have a positive effect on their social relation within the environment.

Psoriatic arthritis is a type of inflammatory arthritis that according to the national psoriasis foundation develops in up to 30% of people affected with a chronic condition of psoriasis (*Amherd-Hoekstra et al., 2010*). Our present study indicated that, joint pain is affecting about three fourth of our study subjects, these symptoms has been improved significantly post instruction implementation. That is may be due to reduction of psoriasis severity post instructional guide line implementation, and patients compliance to ultra violet A(UVA) sessions this is in accordance with *Dewing et al. (2012)*, who indicted that psoriasis arthritis is a clinically heterogeneous disease that can lead to severe joint deformity, functional impairment and poor quality of life, they added; that multidisciplinary care can address the common psychosocial and quality of life issues associated with psoriatic arthritis. Added also exposure to UVA two or three times each week until the psoriasis clears is another treatment option to decrease cellular proliferation. As regards psoriasis disability index, our current study shows that, the major area of disabilities among our subjects was their daily activities. Similar results are seen in the study done by *Horn and Cather (2006)*, who found that 38% of their patients considered the disease's disability, is moderate while (44%) considered that, it is causing large problems in everyday life. Other areas of disability such as work, leisure and relationship constituted big problems for the subjects before self care instruction implementation which

improved significantly post instruction implementation. That is may be due to subject's compliance to proper self care intervention and prevention of complication which resulted in improving the disability. Our present study showed a positive effect of subject's knowledge and their self care abilities which was highly improved post instruction implementation. This result is in accordance with the result of a study by *Polat et al. (2012)* who concluded that; psoriasis patients need information tends to reduce patients ignorance and isolation, as well as patients can learn how to handle social situations in which they are confronted about their skin conditions and how not to become ignited by other's ignorance.

This study extends previous researches on the impact of psoriasis on subject's quality of life. Our study showed poor quality of life among the majority of the subjects in all dimensions before instructional guideline implementation, but after that, their quality of life showed significant improvement. That is might be due to that learning the proper self care is an essential part of those patients' daily activities. It helps them taking the responsibilities of promoting their own health and well being which in turn has a positive effect on their quality of life. This result is in agreement with a result of study conducted by *Zordi et al. (2005)* which confirmed the beneficial effects of teaching self care activities program on the health related quality of life. So they emphasized that counseling patient with psoriasis may improve their mental, physical and psychological conditions, such as intervention should be aimed at increasing personal control, encouraging active coping strategies restructuring negative thoughts about the disease and encouraging patients to express emotions. In the same concern *Orenstein (2011)* mentioned that psoriasis itching symptom can cause skin to become red, swollen, and warm and to leak fluid, it can lead to serious consequences, such as fissures and infections, and result in a reduced quality of life and social isolation also greater risk for depression, anxiety and even suicidal trial.

Improve of the study subjects might be due to patients, follow the guideline instructions, as avoiding perfumed or scented products households products such as cleanses, detergents and fabric software's that are strongly scented can worsen itchy skin and can use clearly marked. Fragrance free or "hypo allergic" and pat skin instead of vigorous rubbing that lead to itch more, apply moisturize, take short bath in tepid water and cut finger nail, use mild body washes, take a medicated bath and this improve itching percent as 15% post guideline compared to 77.5% pre it. Also it improve insomnia as it decreased to 20% post the implementation compared to 80% pre instruction as stated by some of the study subjects whom mentioned that, they were crying because they cannot sleep at night as a result of itching. This finding is consistent with *Mohamed et al. (2011)* whose found in their study about allergic rhinitis approximately

half of the study subjects were suffering from disturbed sleep pre implementation of their program. This also agree with *Mann (2011)* who mentioned that sleep is an important as what we eat, as lack of sleep can lead to tiredness and lethargy, poor memory, morning headache, anxiety and depression subsequently affect person quality of life.

As regard the improvement notice concerning quality of life post self care instruction implementation, this also might be due to that patients try to search about measures that could help them to overcome their symptoms, to as find ways to reduce stress and anxiety and improve their household hygienic practices as stated by some of them as they are fear from ant bite, that irritate their skin and aggravate itching. This consistent with *Zachariae et al. (1996)* whom reported a beneficial effect of psychotherapy on symptoms of psoriasis as using anti stress and relaxation technique, achieved significant decrease of the psoriatic symptoms compared with their control group. Also congruent with *WHO (2009)* report which includes that, approximately 25% to 30% of the global burden of disease is due to environmental exposure. The report also added that household hygienic practices that are low cost activities can be quite effective in keeping persons healthy.

This research results indicated positive relation between patient's level of knowledge and their quality of life, there was a highly significant relation between the two of them. This result is in agreement with the study of *Jonkowiak (2005)* who stated that; knowledge about psoriasis as a disease can influence patient's quality of life. He recommended that, those patients should be involved in proper educational program for psoriasis care.

As regards the relation between quality of life of patients with psoriasis and their marital status, our study findings showed that, there was a statistically significant difference between males and females quality of life. It was better among males. That is may be because females are more sensitive and bothering about their body image and social relationships. While there was no significant difference or relation between psoriasis severity area and patient's age and this answer research quition2. This result is in accordance with a study of *Busquets-Perez et al. (2012)*, whom found that, no statistical association was observed between severe psoriasis and the age of the patient. This result gives attention to take the problem seriously and ask about proper management from its beginning and avoid embarrassed for seeking care.

Following the measures to avoid heat, sweating and dry environment by the patient, showed 55% satisfactory level post guideline implementation instead to 20% pre it. This may be due to work demand, regarding cut finger nails 70% of the patients, post guideline implementation in comparison to 20% only pre. This could be explained as the young girls like to have a long nails. According to exposure to sun light it was improved post instructional

guideline compared to pre, this finding consistent with *Meltzer and Bare (2010)* whom mentioned that. Daily, short, non burning exposure to sun light improves psoriasis in many people. Therefore exposing affected skin to sun light is one of initial treatment for such disease process.

### Conclusion

There was a positive effect of the self care instructional guideline in improving psoriasis patients symptoms and subsequently improve their quality of life.

### Recommendations

- Increase health awareness about importance of avoiding stress.
- National program to be launched through mass media for public awareness about concept of psoriasis and how to prevent and manage it.
- Further studies are needed to determine the clinical impact of instructional guideline in the management of psoriasis.
- Elaborate and implement a program of health education for every patient with psoriasis in order to equip them with the knowledge essential to enable them to undertake self care and achieve long lasting remission of the disease.

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