The Egyptian Journal of Hospital Medicine (Jan. 2017) Vol. 66, Page 237-247

Psychosocial Impact and Quality of Life among Adult Egyptian Patients with Psoriatic Arthritis

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ABSTRACT

Background: psoriatic arthritis (PsA) is a chronic, inflammatory, progressive joint disease. It has much psychosocial impact and affects quality of life (QOL) of the patients. **Aim of the study**: to determine the psychosocial impact of PsA on the patients and to define QOL of them. **Patients and Methods**: the study was conducted on 50 PsA patients, 68 psoriasis (Ps) patients, and 100 controls. A case-control, clinic-based study design was used in this research. An interviewing form and Middle Sex Hospital Questionnaire were used to survey the characteristics of the patients and controls. Severity of PsA was determined clinically. Also, the medical outcomes study 36-item short form (SF-36) was used to assess impact of the disease on the patient's QOL. **Results**: most (92.0%) of PsA patients had psychiatric symptoms. The disease had interfered with most of patients' personal feelings and relationships, daily activities, school/work, and leisure/sport. Majority (88.0%) of the patients had stigma feeling. Also, 40.0% and 60.0% of PsA patients had severe and mild forms, respectively. The differences between two forms of PsA regarding interference with school/work and presence of suicidal ideation were significant. The difference regarding presence of familial psychological stress was significant. The highly affected SF-36 domain scores were general health and physical limitation. The eight mean domain scores were significantly lower among PsA patients than controls. The mean domain scores of physical functioning, physical limitation, social functioning, emotional limitation, and mental health were significantly lower among patients with severe PsA than those with mild PsA. The eight mean domain scores were significantly lower among PsA patients than those with only Ps. **Conclusions**: the physical and psychosocial aspects of PsA may interact and influence one another. So, PsA has a great effect on the patients' QOL; disrupting physical and psychosocial aspects, and interfering with daily activities, school/work, and leisure/sport. QOL scores were significantly lower among PsA than only Ps patients.

Keywords: Psoriatic arthritis, Adults, Impacts, Psychosocial, Familial, Medical care, QOL.

INTRODUCTION

Psoriatic arthritis (PsA) is a chronic, inflammatory, progressive joint disease (arthropathy), which is heterogeneous in presentation and clinical course, and mostly associated with psoriasis (Ps) [1,2]. The prevalence of PsA in patients with Ps ranges from 6.0% to 39.0% [3,4]. So, for most PsA patients, the disease encompasses not only joint burden but also skin burden [1]. The overall prevalence of PsA in the US ranges from 101-250/100,000 people; with an annual incidence of 6.6/100,000 people [3]. Estimates cleared that ~750,000 people in the US are living with PsA. It is believed that many cases remain mis-diagnosed or undiagnosed [1]. According to the NPF survey, 31.4% and 46.4% of the patients with moderate and severe Ps, respectively have PsA [5]. However, PsA may be more common than previously described [6].

Anxiety is more common in patients with chronic diseases than in those without [7]. Detecting and treating anxiety is an integral part of the management, leading to better quality of life (QOL) and less use of resources [8]. So, PsA patients are susceptible to distress from their condition [9]. Also, PsA imposes a considerable economic and QOL burden to patients and society. Although the burden of Ps has been described extensively, the burden of illness associated with PsA has not been as well quantified [10]. Average direct costs ranged from $4,008 in Hungary to $5,646 in the US. The primary driver of direct costs is hospitalizations, about 60.0% [11,12]. Total indirect costs associated with PsA and account for 52.0%-

Received: / /2016
Accepted: / /2016
DOI : 10.12816/0034659

72.0% of the total costs. As expected, both direct and indirect costs of PsA increase with worsening physical function and disease activity [12]. Clinical features of PsA, including comorbid conditions and disease activity, contribute to reduce physical and psychosocial health-related (HR) QOL. The clinical burden of PsA contributes to direct medical costs attributable to the utilization of health care resources. As a result of the physical functioning limitations imposed by PsA, indirect costs such as disability and lost productivity are substantial drivers of the total costs of care [1,13]. The burden of physical disability is substantial in patients with PsA. The disability might be mild, moderate, and severe [14]. Physical function generally worsens as the number of inflamed joints and disease activity increases [15].

There is a controversy about the definition of QOL and whether it can be meaningfully assessed [16]. HRQOL measurement is helpful because; research into psychological aspects of the patient behavior, clinical therapeutic and health service researches, informing clinical decisions, and political/ resource allocation [8]. Further, effect of arthritis on QOL is comparable to other major conditions [17,18]. However, there are no large studies taking arthritis into consideration when studying QOL in Ps [19]. Joint symptoms are strong indicator for impaired QOL [20]. Manifestations of PsA contribute to disease burden in terms of negative effects on patients' psychological and psycho-social functioning, dissatisfaction with the management of their disease, and a negative impact on daily living activities [21].

Although PsA can't be cured, at present, many effective treatments exist. Treatments will depend on the severity of the disease. The aim of treatment is to prevent damage occurring to the joints [2]. Unmet treatment needs for PsA patients is acknowledge largely concerning long term safety/tolerability and efficacy of available therapies. Evidence suggests under-detection of PsA [22].

In the present study we hypothesized that PsA have important impact on the patients' psychosocial and QOL aspects. However, the literature on these impacts is, worldwide, scanty. In Egypt, to the best of our knowledge, there is no literature on these impacts. So, we tried to address these points in the present study.

Aim of the Study

The aim of the present study is to determine the psychosocial impact of PsA on the patients and their families and to define QOL of these patients.

PATIENTS AND METHODS

- **Study design**: A case-control, clinic-based study design was chosen to perform this research.
- **Administrative design**: Required approvals to conduct the study in the hospital were obtained before starting the field work.
- **Study settings and patients**: Fifty patients with clinical diagnosis of PsA attending Rheumatology and Orthopedics Clinics, Al-Azhar University Hospitals in Cairo and Assiut were enrolled in this study. Two groups of controls were recruited in the study, 100 of normal adults (free from chronic diseases) and 68 patients with only Ps attending Dermatology Clinic (Al-Hussein University Hospital from our previous studies by **El-Moselhy *et al.*** [23,24].

Study tools

1- A specially designed comprehensive interviewing form contains data relevant to the topic of study was used.

2- Middle Sex Hospital Questionnaire was applied on the cases and controls. The questionnaire was divided into subscales covering psychiatric symptoms, which including anxiety and depression. Response to each item is scored 2, 1 or 0. A score of ≥9 in any subscale indicates the subject is suffering from psychiatric symptoms [25].

3- Diagnosis of PsA was determined according to **El-Moselhy *et al.*** [23]. Meanwhile, PsA severity was according to **Gottlieb *et al.*** [26], mild (non-destructive disease) and severe (erosive and deforming arthritis).

4- The medical outcomes study 36-item short form (SF-36) was used to study QOL of PsA patients and controls. SF-36 is one of the most widely accepted, used and psychometrically sound instrument designed to measure general health items [27]. The reliability and validity of the SF-36 have been documented [28]. The SF-36 is containing 36 questions; each patient is scored from 0 (worst) to 100 (best) on 8 separate domains of HRQOL. The questionnaire is scored according to published algorithms [29].

- Ethical consideration

The approval to conduct this study was given by Committee of Medical Ethics, Al-Azhar Faculty of Medicine. The purpose of the study and its procedures were explained to the patients and controls. Consents of both of them were given before starting the field work and confidentiality was guaranteed.

- **Statistical analysis**: The collected data were organized, tabulated and statistically analyzed using statistical package for social sciences (SPSS) version 20 (SPSS, Inc., Chicago, USA). For quantitative data of QOL, arithmetic mean ± standard deviation (SD) was calculated; while for qualitative data of patients' psychosocial impact, familial impact, and health care items; frequency and percent distribution were calculated. Statistical analysis was performed between two groups using the independent sample t-test for quantitative data between means, while Yates Chi square (χ^2) and Fisher exact (FE) when appropriate tests were used to find out the significance of difference for qualitative data. The significance level was adjusted at P-value <0.05.

RESULTS

In the present study **(table 1)**, we reported that 92.0% of PsA patients had psychiatric symptoms. In details; 48.0% and 44.0% of the patients had depression and anxiety, respectively. Also, 76.0%, 90.0%, 92.0%, 78.o%, and 86.0% of the patients had interference with personal feelings, personal relationships, daily activities, school/work, and leisure and/or sport, respectively. Further, 88.0% and 34.0% of the patients had stigma feeling and suicidal ideation, respectively. All previously mentioned figures were statistically significant different from controls. Regarding interference with other family members’ work, 32.0% of patients had interference. Also, 58.0% of the patients' families had psychiatric stress in their families. Further, family disturbances were found in 82.0% of the families of patients. In details, 38.0% of families of patients had social disturbances. Also, 44.0% of patients’ had economic disturbances. Again all previously mentioned figures were statistically significant different from controls. Respecting source of medical care, we showed that 68.0% of the patients had public medical care. As respect type of therapy, 8.0% of the patients used specific and psychiatric therapy. These mentioned figures were statistically insignificant different from controls. Regarding therapy adverse reaction, 34.0% of the patients had. Lastly, 78.0% of patients had no compliance with therapy. The mentioned figure was statistically significant different from controls.

In the current study **(table 2)**, we showed that 40.0% and 60.0% of the patients had severe and mild disease respectively. However, the differences between mild and severe disease form regarding presence of psychiatric symptoms and stigma feeling, and disease interference with personal feelings, personal relationships, daily activities, and leisure/sport were statistically insignificant. On the other hand, the differences between mild and severe disease form regarding disease interference with school/ work and presence of suicidal ideation were statistically significant (P=0.033 and 0.024, respectively). Regarding the differences between mild and severe disease form on the family impact, all differences (interfere with other family member’s work and presence of familial disturbances) were statistically insignificant except for presence of familial psychological stress (P=0.004). As respect the differences between mild and severe disease form on medical care items (source of medical care, type of therapy, therapy adverse reaction, and therapy compliance), all differences were statistically insignificant.

In this study **(table 3)**, we reported that the highly affected SF-36 domain scores were general health (46.25±9.84) and physical limitation (46.54±10.62). Also, we cleared that the eight mean domain scores (physical functioning, physical limitation, bodily pain, general health, vitality, social functioning, emotional limitation, and mental health) were significantly lower among patients than controls (P=0.000).

In the present study **(table 4)**, we elicited that the mean domain scores of physical functioning, physical limitation, social functioning, emotional limitation, and mental health were significantly lower among patients with severe disease than those with mild disease. On the other hand, the mean domain scores of bodily pain, general health, and vitality were insignificantly lower among patients with severe disease than those with mild disease.

In the current study **(table 5)**, we noticed that the eight mean domain scores (physical functioning, physical limitation, bodily pain, general health, vitality, social functioning, emotional limitation, and mental health) were significantly lower among PsA patients than only Ps patients.

DISCUSSION

The burden of PsA is demonstrated both in terms of progression of clinical and radiological damage, and in terms of QOL and functional status of the PsA patients. Moreover, these patients are at an increased risk of death, which is related to the severity of their disease [6].

We reported that 92.0% of PsA patients had psychiatric symptoms; 48.0% had depression and 44.0% had anxiety. The disease had interfered most of the patients' personal feelings and relationships, daily activities, school/work, and leisure/sport. Further, 88.0% of the patients had stigma feeling and 34.0% had suicidal ideation.

Our results respecting depression and anxiety were in concomitant with **House & Stark** [7], **Williamson *et al*.** [30] and **Cotterill & Finlay** [8]. In details, **House and Stark** [7] observed that anxiety is much common among patients with chronic medical illnesses, such as Ps and PsA, than those without. Also, **Williamson *et al*.** [30] viewed that PsA is accompanied with emotional distress, and higher depression and anxiety scores. Further, **Mease** [31] stated because of the visibility of skin involvement, PsA patients might experience poor psychosocial function, resulting in embarrassment, self-consciousness, and depression.

Short term disability claims also impart a substantial burden to employers whose workers have PsA. Almost one-third of patients with PsA claims either short-term or permanent disability [12,32,33,34]. Disability and lost productivity are substantial components of the economic burden of PsA. Reported employment rates of patients with PsA range from 54.0% to 63.0% [35,32,36]. Compared with the general population, patients with PsA have significantly lower employment rates, although the rate is higher in PsA patients than in rheumatoid arthritis (RA) patients but is similar to patients with ankylosing spondylitis (AS) [35]. Similar levels of work disability were observed for PsA patients 18-45 years of age, 23.0% were unable to work and were receiving a disability pension [37]. Emergent themes are developed among PsA patients, which include consequences (physical restrictions) of PsA that led to frustration and hopelessness. Patients feared their functioning would deteriorate progressively, jeopardizing their independence. Also, the influence of others, experiences of support varied and patients described that others (including health professionals) often don’t take their condition seriously. Meanwhile, patients actively hid their distress (put up and shut up) from those around them (including health professionals). Patients felt a deep sense of injustice (why me?), describing how PsA threatened their identity and often made negative comparisons with others [9].

The effects of the disease are comparable to that of other major conditions [17,18]. So, it has been shown that care of PsA is stressful [38]. Further, school absenteeism and delayed academic achievement and emotional problems may be a cause of family disturbances.

Many studies on chronic diseases suggested that the ER is an inappropriate place to treat most chronic non-life-threatening conditions [39]. Also, we observed that 78.0% of patients had no compliance with treatment. Patient with chronic disease may have been shown to exhibit poor treatment compliance and inadequate control of symptoms [38]. Further, depression is a well known risk factor for non-compliance with treatment, depressed patient is three times more likely to be non-compliant than non-depressed patient [40]. Furthermore, high levels of distress including suicidal ideation exist for PsA patients. Also, salient emotions e.g. fear are present among PsA patients [9]. Many PsA patients their main health care was pharmacy prescriptions, outpatient clinic, and emergency room [41].

PsA imposes a substantial economic burden to patients and society. The clinical burden of PsA contributes to direct medical costs. Indirect costs, including lost productivity and disability caused by limitations in functioning and activities of daily living also contribute to the total costs of PsA. At the same time, there is a paucity of data on the costs of lost productivity and absenteeism attributable to PsA in the US. Also, there were few to no studies that measured the financial burden and impact of HRQOL on caregivers for PsA patients in the US and rest of the world. Inclusion of these costs is likely to increase the burden of PsA to society [1].

The economic costs were highest for PsA, mainly due to work loss and treatment. Further, a small fraction of the costs were directly attributable to Ps/PsA problems, indicating an increased morbidity in these patients [13]. Given the clinical burden imposed by the disease, PsA patients are significant users of health care resources [1]. PsA patients made 20.3 visits to a general practitioner each year and 3.9 visits to a rheumatologist, and 12.7% were hospitalized in the previous year. These rates of health care resource utilization were similar to those for RA patients and were slightly higher than those for AS patients [32].

Knowledge of the burden of a disease also aids decision-makers in valuing aspects of the disease that might be mitigated with drug therapy. With PsA, consideration may be given not only to disease activity but also to physical functioning and disability, pain, and patient-reported HRQOL. Outcomes associated with these measures (including increased health care resource utilization by PsA patients and their caregivers, lost employment, and productivity) may have direct consequences to MCOs [1].

Despite its distinctive characteristics, PsA is widely under-recognized and undertreated [42], leaving patients at risk of cumulative co-morbidities and severe erosive joint damage, which can greatly impact QOL and reduce work-related productivity [1]. This under-diagnosis is due to failure to connect skin and joint symptoms [22]. The impact of PsA depends on the joints involved and severity of symptoms. Fatigue, anemia, and depression are common. Treating the arthritis and reducing the levels of inflammation helps with these problems [43].

We showed that 40.0% and 60.0% of the patients had severe and mild PsA respectively. But, the differences between the two forms of disease regarding presence of psychiatric symptoms and stigma feeling, and disease interference with personal feelings, personal relationships, daily activities, and leisure/sport were insignificant. However, the differences between the two forms of PsA regarding interference with school/work and presence of suicidal ideation were significant. Also, the differences between the two forms of PsA regarding to the family impact were in-significant except for presence of familial psychological stress. Further, the differences between the two forms of PsA regarding medical care items were insignificant.

These results are accepted as it is assuring that having severe disease leads to poor life quality, which in turn leads to a degree of depression and a sense of “giving up”. Also, this is logic as a patient with severe disease form may have greater psychiatric symptoms compared with a mild form. So, objective clinical severity is not always associated in a linear fashion with a patient’s subjective distress as might be expected. Also, the patient's participation in sports may be limited [8]. Also, patients with PsA were more used of private care sector and this might be attributed, as they thought, to that they had a great problem and need more time, attention and care. Moreover, emergency room is an inappropriate to treat most chronic diseases and the use of the emergency room for treatment of psoriasis is neither desirable nor optimal for the patient [39].

We observed that highly affected SF-36 domain scores were general health and physical limitation. Also, we reported that the eight mean domain scores were significantly lower among PsA patients than controls.

PsA places a substantial burden on patients, diminishing their capacity to carry out daily activities and reducing their QOL. Measures of physical function and HRQOL are lower in patients with PsA than in healthy people and in patients with RA [1,44]. Also, although the mean Health Assessment Questionnaire (HAQ) scores are generally lower for patients with PsA than those with RA, pain scores are generally comparable [14]. This measured by the SF-36 on scores of bodily pain, general health perceptions, social functioning, and mental health [1]. Overall, SF-36 mental dimensions typically affected by PsA are mental health, limitations resulting from emotional health, and social functioning. Depression is also often present [17,45]. Also, patients who had PsA for longer than two years had rates of depression that were 2-5 times higher than those of age matched controls with no history of PsA or Ps [45]. Studies cleared that the emotional toll of the PsA can be higher than that of other arthritic conditions. Like to the other inflammatory rheumatic conditions, PsA is resulting in diminished functional capacity and poor QOL. Patients with PsA may also have an increased risk of co-morbid conditions, especially cardiovascular disease, compared with the general population [1]. Patients with PsA commonly complain of fatigue and sleep disturbances, which can contribute to poor HRQOL. Almost 50.0% of patients with Ps report some level of sleep disturbance; presence of PsA is a strong predictor of sleep disturbance (OR=3.27) [46]. Degree of fatigue observed in PsA patients is significantly worse than that of the general population; ~50.0% of patients complain of moderate to severe fatigue, and 29.0% complain of severe fatigue [47].

On an instrument measuring HRQOL, the top four domains affected by PsA were physical comfort (88.0%), emotional health (63.0%), sleep (60.0%), and work (57.0%). Most of the participants were willing to pay for a cure in these domains. More patients with higher incomes stated that PsA affected their work and self-care. Further, patients were willing to pay more for improvement in the work, sleep, concentration, and emotional domains [48].

PsA patients, on the other hand, have reduced QOL and functional capacity compared to healthy controls [19,49]. The impact of the disease in the patients appears to be similar to that of patients with RA [6]. Further, **Sokoll *et al.*** [17] demonstrated that the HAQ was similar in these two groups of patients. While, **Husted *et al.*** [50] demonstrated PsA patients have less vitality than RA patients.

We elicited that mean domain scores of physical functioning, physical limitation, social functioning, emotional limitation, and mental health were significantly lower among patients with severe PsA than those with mild PsA. While, mean domain scores of bodily pain, general health, and vitality were insignificantly lower among patients with severe PsA than those with mild PsA. Also, we reported that 40.0% of our PsA patients had a severe disease. **Gottlieb *et al.*** [26] cleared PsA have variable and unpredictable course, ranging from mild to erosive and deforming arthritis, seen in 40.0% to 60.0% of PsA patients. Uncontrolled PsA patients may have persistent inflammation, progressive joint damage, severe physical limitations, disability, and increased mortality. The severity of the disease has an impact on the functional status and QOL of patients with PsA. The SF-36 has shown significant differences between patients with PsA and the general population [51]. Also, **Borman *et al.*** [44] showed disease joint and skin activity is associated with worsened QOL. Psychological domains of HRQOL are related to disease activity and pain scores. Further, **Sokoll and Helliwell** [17] and **Salaffi *et al.*** [18] showed extent of disability and the impact on physical and mental HRQOL might relate to the fact that these patients have the dual burden of psoriatic skin lesions and peripheral and/or axial joint disease. **Sokoll and Helliwell** [17] stated "although a high disease activity score in 28 joints (DAS28) and chronic co-morbid conditions are associated with the SF-36 physical component in RA, PsA, and AS, disease activity and psoriatic skin lesions are associated strongly with poor mental health in patients with PsA".

We noticed that the eight mean domain scores were significantly lower among PsA patients than only Ps patients. PsA patients might be at more risk of mental functioning that was reported by patients with only Ps. Also, joint symptoms, pain, swelling, number of affected joints and restriction of joint mobility, are the strongest indicators for impaired QOL [19,20].

CONCLUSIONS AND RECOMMENDATIONS

PsA is an important joint and skin disease. The physical and psychosocial aspects of PsA interact and influence one another in reciprocal ways to create an overall clinical picture. PsA causes disability comparable to that seen in other major systemic diseases and has important implications for how it should be viewed and treated. So, it has a great effect on the patients' QOL; disrupting physical and psychosocial aspects and interfering with daily activities, school/work and leisure/sport. QOL mean domain scores were significantly lower among PsA patients than only Ps patients. It could be recommended that in managing PsA we must give more attention to psychosocial aspect of the patients. Also, more studies should be carried out to understand the disease and its associated impact in Egypt on large sample.

ACKNOWLEDGMENT

The researchers want to thanks Dr. Hassan M. Hassan, Associate Professor of Dermatology, Al-Hussein, Al-Azhar University Hospital for his great assistant and support for performing and finishing this work successfully.

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Table (1): Distribution of psoriatic arthritis (PsA) patients and controls according to the patient and familial impact and medical care

Patient and familial impact and medical care	PsA patients (n=50)		Controls (n=100)		Yates χ^2	P-value
	No.	%	No.	%		
Psychosocial impact on the patients						
Presence of psychiatric symptoms:						
Yes:	46	92.0	12	12.0	86.61	0.001
Depressive symptoms	24	48.0	6	6.0	34.17	0.001
Anxiety symptoms	22	44.0	6	6.0	29.25	0.001
Interference with personal feelings:						
Yes	38	76.0	9	9.0	66.47	0.001
Interference with personal relationships:						
Yes	45	90.0	13	13.0	80.12	0.001
Interference with daily activities:						
Yes	46	92.0	17	17.0	73.92	0.001
Interference with school/work:						
Yes	39	78.0	11	11.0	64.35	0.001
Interference with leisure/sport:						
Yes	43	86.0	11	11.0	78.16	0.001
Presence of stigma feeling:						
Yes	44	88.0	6	6.0	97.02	0.001
Suicidal ideation:						
Yes	17	34.0	2	2.0	28.03	0.001
Familial impact						
Interfere with other family member's work:						
Yes	16	32.0	4	4.0	20.26	0.001
Psychiatric stress:						
Yes	29	58.0	8	8.0	42.2	0.001
Family disturbances:						
Yes:	41	82.0	23	23.0	45.05	0.001
Social	19	38.0	12	12.0	12.2	0.001
Economic	22	44.0	11	11.0	19.27	0.001
Medical care						
Source of medical care:						
Private	16	32.0	23	23.0		
Public:	34	68.0	77	77.0	0.97	0.323
Outpatient clinic	19	38.0	54	54.0	2.81	0.93
Emergency room	15	30.0	23	23.0	0.53	0.465
Type of the therapy for PsA:						
Specific for PsA	46	92.0	0	0.0		
Specific for PsA and for psychiatric disorder	4	8.0	0	0.0	---*	---*
Therapy adverse reaction:						
Yes	17	34.0	6	6.0	18.03	0.001
Compliance with therapy:						
No	39	78.0	48	48.0	11.11	0.00

*= No statistical analysis can be done

Table (2): Distribution of psoriatic arthritis (PsA) patients' severity by the patient and familial impacts and medical care

Patient and familial impacts and medical care	**PsA severity (n=50)**				**Yates χ^2 FE***	**P-value**
	Mild (n=30=60.0%		**Severe (n=20=40.0%**			
	No.	**%**	**No.**	**%**		
Psychosocial impacts on the patients						
Presence of psychiatric symptoms:						
Yes:	26	86.6	20	100.0	FE*	0.14
Depressive symptoms	16	53.3	8	40.0	0.4	0.525
Anxiety symptoms	10	33.3	12	60.0	2.47	0.116
Interference with personal feelings:						
Yes	21	70.0	17	85.0	FE*	0.316
Interference with personal relationships:						
Yes	25	83.3	20	100.0	FE*	0.074
Interference with daily activities:						
Yes	26	86.7	20	100.0	FE*	0.14
Interference with school/work:						
Yes	20	66.7	19	95.0	FE*	0.033
Interference with leisure/sport:						
Yes	25	83.3	18	90.0	FE*	0.687
Presence of stigma feeling:						
Yes	25	83.3	19	95.0	FE*	0.381
Suicidal ideation:						
Yes	6	20.0	11	55.0	5.08	0.024
Familial impacts						
Interfere with other family member's work:						
Yes	7	23.3	9	45.0	1.69	0.193
Psychiatric stress:						
Yes	12	40.0	17	85.0	8.21	0.004
Family disturbances:						
Yes:	23	76.7	18	90.0	FE*	0.284
Social	13	43.3	6	30.0	0.43	0.512
Economic	10	33.3	12	60.0	2.47	0.116
Medical care						
Source of medical care:						
Private	12	40.0	4	20.0		
Public:	18	60.0	16	80.0	2.21	0.137
Outpatient clinic	11	36.7	8	40.0	0.0	0.952
Emergency room	7	23.3	8	40.0	0.89	0.344
Type of the therapy for PsA:						
Specific for PsA only	28	93.3	0	0.0		
Specific for PsA and for psychiatric disorder	2	6.7	0	0.0	---**	---**
Therapy adverse reaction:						
Yes	8	26.7	9	45.0	1.07	0.3
Compliance with therapy:						
No	26	86.7	13	65.0	FE*	0.09

*= No statistical analysis can be done

Table (3): Mean ± standard deviation (SD) of the psoriatic arthritis (PsA) patients and controls according to short form-36 QOL domain scores

SF-36 domain score	PsA patients (n=5 mean ± SD	Controls (n=100) mean ± SD	t-value	P-value
Physical functioning	56.54 ± 13.78	81.18 ± 11.35	-10.926	0.001
Physical limitation	46.54 ± 10.62	82.63 ± 12.11	-18.706	0.001
Bodily pain	52.23 ± 11.01	76.94 ± 13.58	-11.96	0.001
General health	46.25 ± 9.84	73.82 ± 15.91	-13.043	0.001
Vitality	51.14 ± 11.02	70.17 ± 15.62	-8.625	0.001
Social functioning	61.39 ± 13.85	85.24 ± 11.16	-10.58	0.001
Emotional limitation	59.40 ± 14.82	84.28 ± 13.43	-9.995	0.001
Mental health	61.53 ± 14.06	75.39 ± 15.96	-5.436	0.001

Table (4): Mean ± standard deviation (SD) of the psoriatic arthritis (PsA) patient's severity according to short form-36 QOL domain scores

SF-36 domain score	PsA patients (n=50)		t-value	P-value
	Mild (n=30=60.0% Mean ± SD	Severe (n=20=40.0% Mean ± SD		
Physical functioning	59.41 ± 11.87	51.72 ± 12.08	-2.221	0.016
Physical limitation	56.19 ± 11.50	49.95 ± 11.21	-1.098	0.03
Bodily pain	54.38 ± 12.15	50.68 ± 12.17	-1.54	0.148
General health	53.51 ± 13.01	49.23 ± 11.80	-1.206	0.116
Vitality	52.76 ± 12.80	48.89 ± 10.94	-1.144	0.129
Social functioning	63.15 ± 14.06	56.08 ± 13.75	-1.765	0.04
Emotional limitation	62.27 ± 13.84	55.11 ± 13.68	-1.805	0.037
Mental health	66.17 ± 14.63	59.32 ± 12.84	-1.747	0.04

Table (5): Mean ± standard deviation (SD) of the psoriatic arthritis (PsA) and only psoriasis (Ps) patients according to short form-36 QOL domain scores

SF-36 domain score	Patients (n=118)		t-value	P-value
	PsA (n=50) Mean ± SD	Ps (n=68) Mean ± SD		
Physical functioning	56.54 ± 13.78	62.27 ± 15.32	-2.128	0.017
Physical limitation	46.54 ± 10.62	50.12 ± 12.45	-1.681	0.047
Bodily pain	52.23 ± 11.01	57.76 ± 12.92	-2.504	0.006
General health	46.25 ± 9.84	49.91 ± 12.28	-1.796	0.037
Vitality	51.14 ± 11.02	56.39 ± 12.24	-2.439	0.007
Social functioning	59.68 ± 12.85	63.96 ± 13.02	-1.778	0.039
Emotional limitation	59.40 ± 14.82	64.13 ± 13.18	-1.795	0.038
Mental health	61.53 ± 14.06	66.13 ± 14.17	-1.75	0.04