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RESEARCH ARTICLE
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DETERMINATION OF DERMATOLOGY LIFE QUALITY INDEX IN CHRONIC PLAQUE PSORIASIS IN RURAL HEALTH CENTRE

Dr. Pradeepa Ramamurthy[1]*, Dr P.K Kaviarasan[2]

[1*]Assistant professor, Department of Dermatology, Annaii Medical College and Hospital (Rajalakshmi Health City), Email: Tikkima123@gmail.com
[2]Professor And HOD RajahMuthiah Medical college Chidambaram.

INTRODUCTION:

Psoriasis is a multifactorial, genetically determined common papulosquamous disorder which affects skin, hair, nail and musculoskeletal system affecting 1 to 2 % of the population[1]. It has been recognized as a psycho dermatological disorder since various forms of stress and psychological conditions are associated with its exacerbation.

Dermatology life quality index The DLQI consists 10 questions with simple tick b++ox answers scored from 0-3. The mean answer time is two minute.Use of DLQI has allowed assessment of disability of patients with psoriasis. . The poorer DLQI score for adherence (compliance) with topical therapy, mean QOL is severely impaired psoriasis has significant negative impact on patients Health Related Quality of Life (HRQOL)[2]. Scoring of each question is as follows. Very much -3..A lot-2. A little-1 Not at all-0. Not relevant -0. **Meaning of DLQI** 0-1 no effect at all on patient life.2-5 small effect on patient life.6-10 moderate effect on patient life.11-20 very large effect on patient life.21-30 extremely large effect on patient life.

AIM: To assess the Dermatology Life Quality Index (DLQI) in all patients with psoriasis.

OBJECTIVES: To assess, analyse and compare the emotional, psychological morbidities in patients with psoriasis in 15-60 years of age by using DLQI questionnaire.

To compare DLQI based on severity of psoriasis by using PASI score.

To compare the role of co-morbid conditions influencing Dermatology Life quality Index. The chronic recurrent and relapsing nature of psoriasis also can have a high degree of impact on quality of life as well as economic status of the affected family.

CLINICAL VARIANTS OF PSORIASIS

1) Chronic stable plaque psoriasis.
2) Guttate psoriasis.
3) Generalised and localized forms of pustular psoriasis.
4) Pustular psoriasis.
5) Erythrodermic psoriasis.
6) Psoriatic Arthropathy.
7) Seborrheic psoriasis.
8) Palmoplantar psoriasis.
9) Psoriasis unguis.

Chronic Plaque Psoriasis

It is the commonest type of psoriasis, which accounts for 90% of patients. It manifests as coin shaped to large palm sized well defined erythematosquamous plaques distributed bilaterally symmetrical. The scalp, extensor surfaces of body, lumbosacral trunk, elbows and knees are involved.

Unstable Psoriasis

This term, which has no aetiological connotation, may be usefully employed to describe phases of diseases in which activity is marked and the course and immediate outcome is unpredictable for example, in stages when a previously stable and chronic forms is exacerbated by inappropriate management[3].

Guttate Psoriasis

This describes shower of small lesions appearing more or less generally over the body, particularly in children, and young adults and after acute streptococcal infection.

Erythrodermic Psoriasis

Two forms exist. In the first form chronic lesions may evolve gradually into an exfoliative phase, and can be regarded as extensive plaque psoriasis, involving all or almost all, the cutaneous surface.

Generalized Pustular Psoriasis

Generalized pustular psoriasis is an uncommon variant of psoriasis in which an acute, sub-acute, or occasionally chronic eruption are a central feature. The most important drug provocation is by withdrawal of corticosteroids.

Acute Generalized Pustular Psoriasis (Von Zumbusch)

Typically, eruption may be ushered in by sensation of burning. The skin becomes tender and dry preexisting lesions become fiery and develop pinpoint pustules.

Generalized Pustular Psoriasis of Pregnancy (Impetigo Herpetiformis)

A rare eruption, occur especially in pregnancy with features of generalized pustular psoriasis, but with a tendency to be symmetrical and grouped, often starting in flexures**.** Onset is usually in the first trimester of pregnancy and in first day of puerperium the features of GPP are usually flexural onset.

Palmoplantar Pustulosis

A common condition in which erythematous and scaly plaques studded with sterile pustules persist on palm and soles. The disease is chronic, very resistant to treatment.

Acrodermatitis Continua of Hallopeau

A chronic sterile eruption affecting initially the tips of fingers or toes that tends to extend slowly and locally but in adults, may evolve into generalized pustular psoriasis. The initial lesion starts on a finger or thumb more often than toe. Bony changes can occur with osteolysis of the tuft of the distal phalanx.

PSYCHIATRIC CO-MORBIDITIES IN PSORIASIS

Psoriasis is associated with a variety of psychological problems, including poor self-esteem, sexual dysfunction, anxiety, depression, and suicidal ideation, reported as high as 67% studies have in one study. This is not surprising since psychological[4,5] co morbidities are more likely to occur in any chronic disease, especially the visible one and with attendant problems of smoking and alcohol abuse multiple concluded that psoriasis sufferers feel self-conscious, disturbed or inconvenienced by shedding of skin, live in constant fear of relapse, and avoid social interactions in one study, the disease affected their social functioning and led to decreased efficiency in work. Psoriasis is commonly associated with sexual dysfunction and suicidal tendencies, depression and anxiety. In a study done by Surrender et al, 2011, it was found that 68% of patients had with depression[6], 18% had moderate depression, 4% had severe depression and anxiety were the common psychiatric morbidities evident in psoriatic patients. Earlier studies by Picardi et al, Mattoo et al and Saleh et al reported psychiatric morbidity in 45%, 24.27% and 38% of the subjects.

PSYCHIATRIC CO-MORBIDITIES IN PSORIASIS

Psoriasis is associated with a variety of psychological problems, including poor self esteem, sexual dysfunction, anxiety, depression, and suicidal ideation, reported as high as 67% studies have in one study. Kimball et al found that patients with psoriasis were significantly more at risk of developing

psychiatric disorders versus control subjects (5.13% Vs 407), (especially depression (3.01% Vs 2.42) and anxiety (1.81% Vs1.35%).

Materials and Methods: To assess, analyse, and compare the emotional, psychological morbidities in patients with psoriasis in 15-60 years of age by using the DLQI questionnaire[7]. To compare DLQI based on the severity of psoriasis by using the PASI score. To compare the role of co-morbid conditions influencing the Dermatology Life Quality Index. The chronic, recurrent, and relapsing nature of psoriasis can also have a high degree of impact on the quality of life as well as the economic status of the affected family.

RESULTS

IMPACT OF PSORIASIS ON PATIENT QUALITY OF LIFE.

A study reported that at least 20% of psoriasis patients had contemplated suicide Gupta et al in their study of 127 psoriasis patients found that 9.7% of patients reported their wish to be dead, and 5.5% reported active suicidal ideation at the time of study Psoriasis has an immense impact on social life, with patients frequently complaining of social difficulties[8] and friction with family members. The quality of life can be measured by various indexes. They are Dermatology Life Quality Index (DLQI), the Dermatology Quality of Life Scales (DQoLS), Skin index, the Dermatology-specific Quality of Life. **The generic qol measures are** Short form 36(SF-36). Subjective wellbeing scale(SWLS). EuroQol 5d(EQ-5d).**and the mixed qol measures are** Salford psoriasis[9,10] index Koomentor psoriasis instrument (KMPI).

Age and years

Age (in years)	Sex				Total	
	Male		Female			
	N	%	N	%	N	%
Below 30	6	33.3	12	66.62	18	25.7
31-50	26	81.25	6	18.25	32	45.7
Above 51	16	33.3	4	18.1	20	28.57
Total	48	68.57	22	31.42	70	100

Type of psoriasis / Psychological disorder

Type of Psoriasis	Psychological disorders						Total	
	Nil		Depression		Anxiety			
	N	%	N	%	N	%	N	%
Psoriasis vulgaris	7	35	11	55	2	10	20	28.5
Localised psoriasis	6	33.3	10	55.5	2	11.11	18	25.71
Generalised pustular psoriasis	2	40	3	60	0	0	5	7.14
Guttate psoriasis	5	0	0	0	0	0	5	7.14
Psoriatic arthropathy	7		6	46.15	0	0	13	18.57
Localized pustular psoriasis	2	0	0	0	2	50	4	5.71
Erythroderma	4		1	20	0	0	5	7.14
Total	33	47.14	31	44.28	6	8.57	70	100

Domains of Life Affected / Age

Domains of life affect	Age						Total	
	Below 30		31-50		Above 51			
	N	%	N	%	N	%	N	%
Emotional Domain	2	40	3	60	0	0	5	7.14
Social Domain	6	18.75	12	37.5	14	43.75	32	45.71
Work Domain	6	22.22	15	55.5	6	22.2	27	38.57
Leisure Domain	4	66.6	2	33.3	0	0	6	8.57
Total	18	25.71	32	45.71	20	28.57	70	100

In our study daily activities employment, personal relationships are affected in 32 patients (45.71%) of individuals. Work domain was affected in 27 cases (38.57%) leisure domain were affected in 6 cases (8.57%) individuals.

Table 20 Domains of Life / Sex

Domains of life affect	Sex				Total	
	Male		Female			
	N	%	N	%	N	%
Emotional Domain	3	6.25	2	9.09	5	71.42
Social Domain	25	52	7	31.8	32	45.71
Work Domain	20	41.6	7	31.8	27	38.57
Leisure Domain	0	0	6	27.2	6	8.57
Total	48	68.57	22	31.42	70	100

In our study work domain was affected in 27(38.57%) cases out of which 20 (41.6%) males, 7 (31.8%) females were affected. The next commonly affected domain was social domains were 32 (45.71%) cases in which 25 (52%) males in 7 (31.8%) females.

Table 21 Domains of Life / DLQI

Domains of life affect	DLQI Score						Total	
	<10		10-20		>20			
	N	%	N	%	N	%	N	%
Emotional Domain	2	40	0	0	3	60	5	7.14
Social Domain	11	3437	3	9.37	18	56.25	32	45.71
Work Domain	16	59.25	5	18.51	6	22.2	27	38.57
Leisure Domain	5	83.3	1	16.6	0	0	6	8.57
Total	19	27.14	9	12.85	42	60	70	100

In our study social domain was affected in 32 (45.7%) patients out of which 18 (56.25%) patients had DLQI >20.

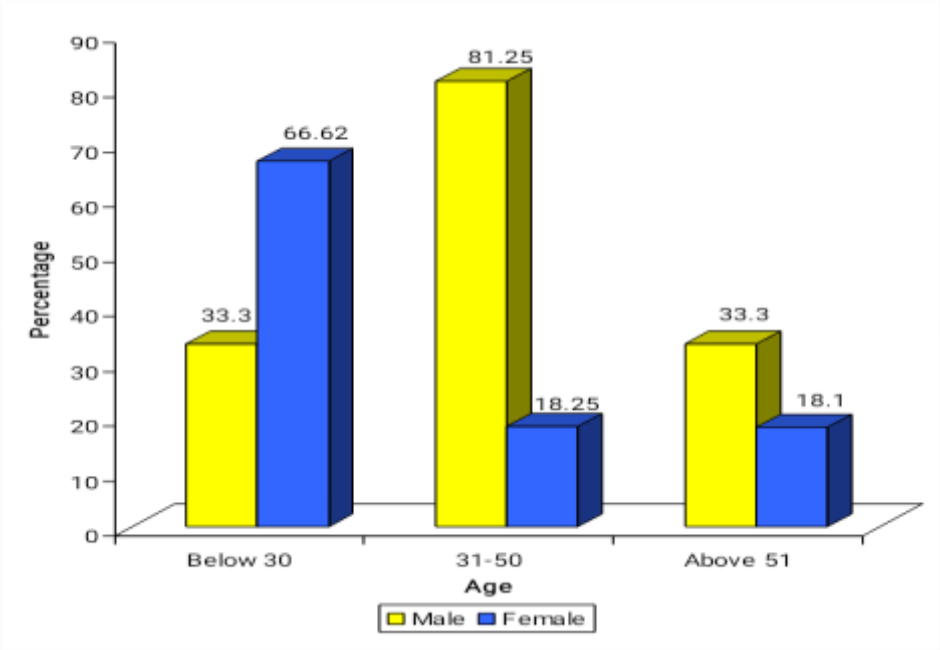
Domains of Life / PASI Score

Domains of life affect	PASI Score							
	<10		10-20		>20		Total	
	N	%	N	%	N	%	N	%
Emotional Domain	1	20	0	0	4	80	5	7.14
Social Domain	8	25.08	11	34.3	13	40.62	32	45.71
Work Domain	1	3.7	6	22.2	20	74.07	27	38.57
Leisure Domain	0	0	1	16.66	5	83.3	6	8.57
Total	10	14.2	18	25.71	42	60	70	100

In our study social domain was affected in 32 cases (45.71%) in which patients (40.62%) had PASI > 20.

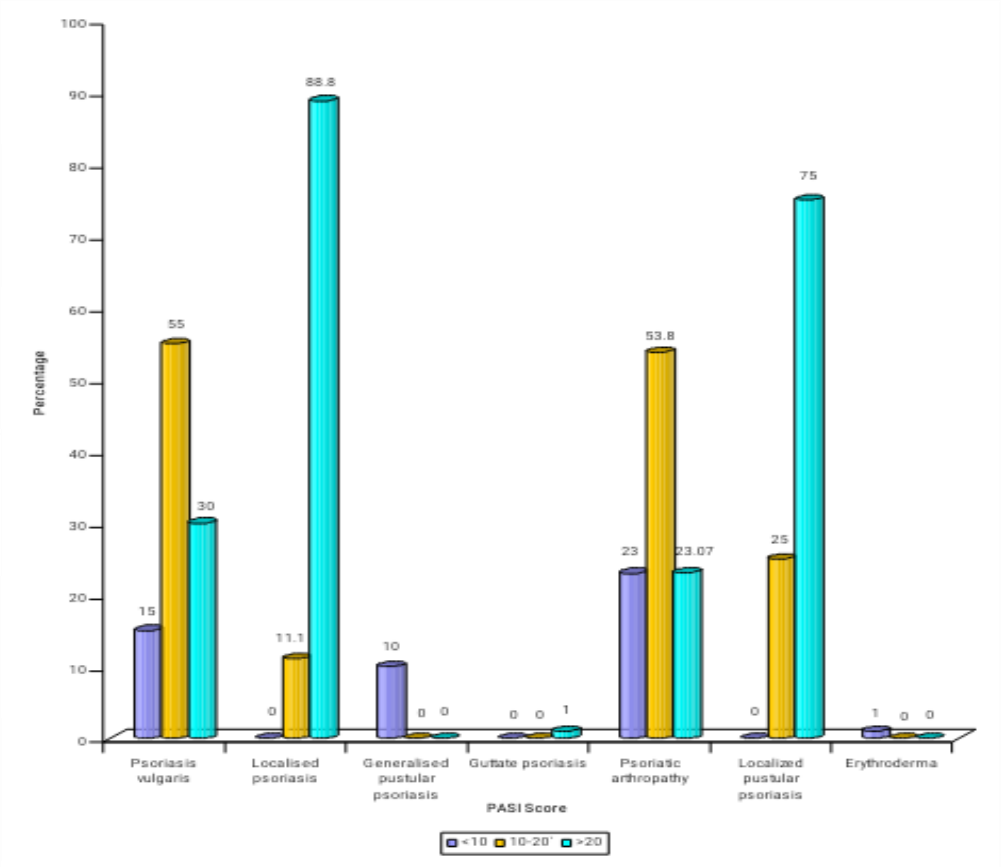
DISCUSSION **P**soriasis ravages the quality of life of afflicted individuals [11]. The psychosocial and occupational impact of psoriasis is as important as traditional parameters to assess the severity of psoriasis like PASI score, which does not have the place to asses the emotional psychological parameters [12]. In our study 48 patients were males (68.57%), and 22 patients were females (31.43%). The male : Female ratio was 2.18:1. Majority of study group belonged to 3rd - 4th decade of life (71%) of life followed by 20 cases (28.4%) which belonged to 5th decade and 18 cases (25.5%) belonged to 2nd decade of life. Youngest patients in our study was 20 years and oldest psoriasis patient was aged 72 years[13]. Mean age in females was 45.43 and mean age in males was 65.8. and In this study psoriasis vulgaris is the commonest constituting (28.95%) cases, followed by localized psoriasis [14](25.7%) all types of psoriasis were common in males except guttate psoriasis which was common in females. males with psoriasis in our locality.

FIGURE 1 Age and years



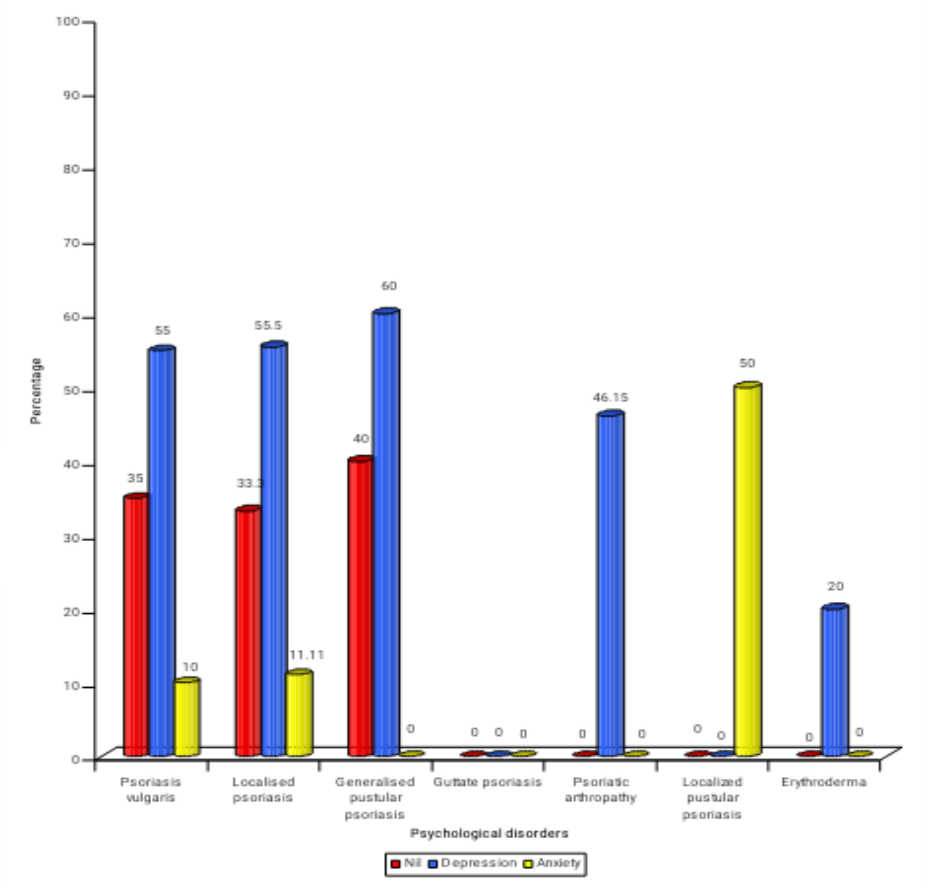
In this study psoriasis vulgaris is the commonest constituting (28.95%) cases[15], followed by localized psoriasis (25.7%) all types of psoriasis were common in males except guttate psoriasis.

Psychiatric comorbidities were assessed using Hamilton depression scale and anxiety scale. In our study 31 cases (44.3%) had depression and 6 cases (8.6%) had anxiety[16]. These results were similar to the study done by Picardi et al Saleh et al who reported psychiatric morbidity in 45% and 24.27% cases respectively. In our study 31 cases of depression (44.28%) seen in psoriasis vulgaris, anxiety was seen in 6 cases (10%) out of which psoriasis vulgaris constituted (10%) and localized psoriasis (11.1%).



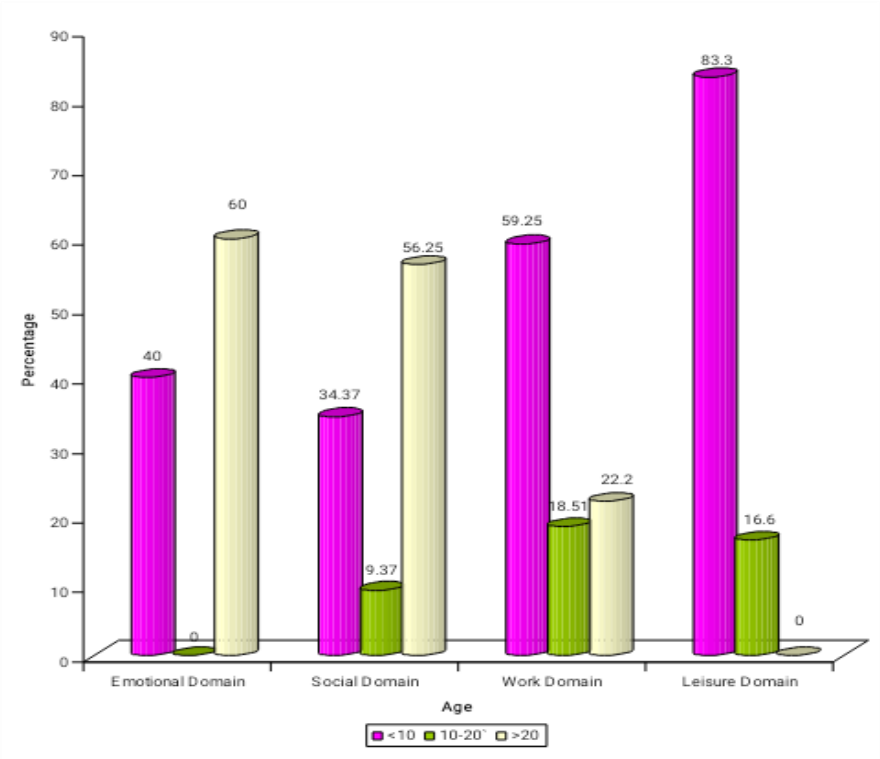
Type of psoriasis and PASI Score

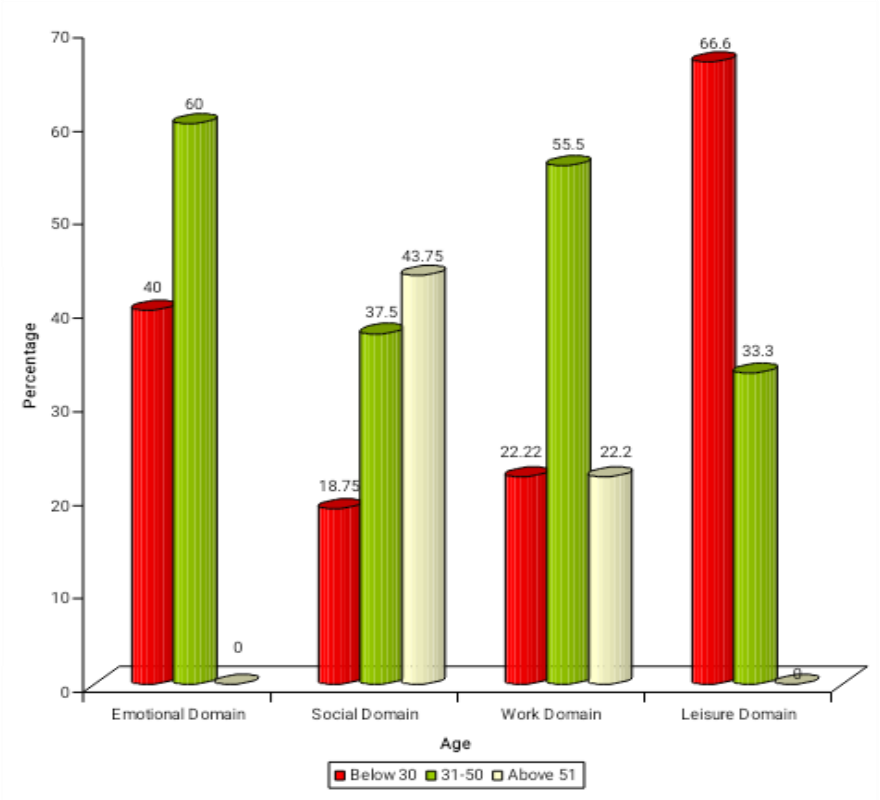
Type of psoriasis / Psychological disorder



In our study social domain was commonly affected because most of our patients belonged to middle class and are agricultural labourers. 32 cases (45.71%) of individuals were affected whose PASI score was greater than 20. Social domain affected individuals have demonstrated higher PASI greater than 20 in 25% of cases[17]. In a study done by Ines et al it was found that a higher PASI was associated with impaired quality of life.

Domains of Life / DLQI





Domains of Life Affected / Age

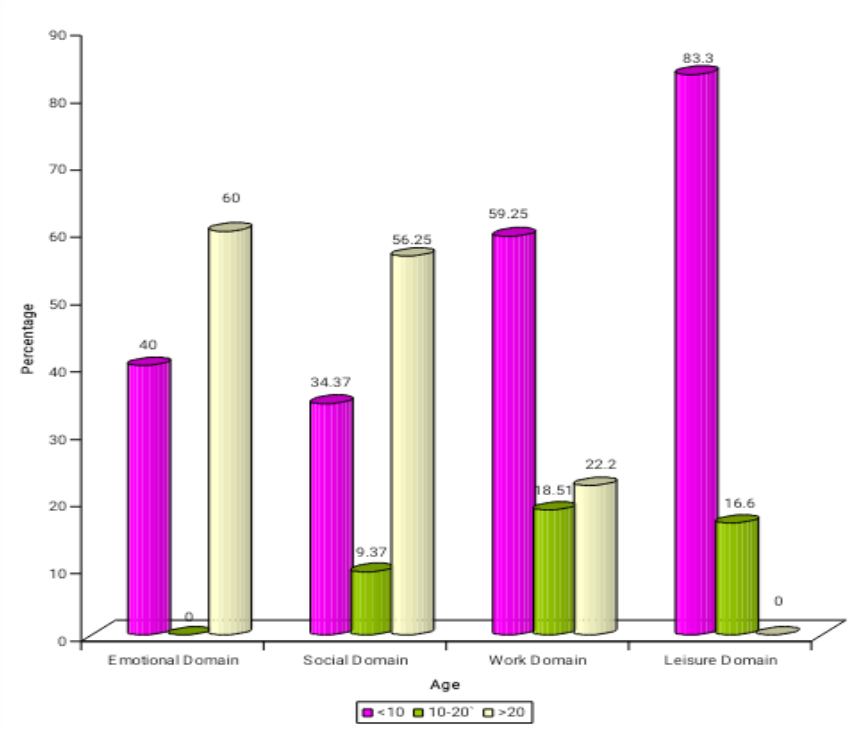
The second commonest domain affected in our study group was work domain (38.57%) because most of the study group comprises of agricultural labourers of them majority were males (74.07%)[18]. In a study done by Joanna et al personal resources were found to be very crucial components in coping with stressful life events on everyday basis[19]. The least affected domain was emotional and leisure domain 7.1% and 8.6% respectively.

In our study 32 cases [20](47.14%) had PASI >20 and 16 cases had PASI<10 cases .because most of patients belonged to middle and lower class. Cigarette smoking, alcohol, infection, trauma are precipitating factors for psoriasis. In our study 33 Cases (47.14%) were smokers, 13 cases were alcoholic (18.57%). Kremers et al noted that patients with psoriasis have higher prevalence of alcohol and smoking consumption. The amount of alcohol consumption may be related to higher incidence and severity of psoriasis. In our study the age at onset belonged to 3rd and 4th decade of life 43 cases (61.4%) belonged to this group[21].

In our study using DLQI Questionnare we have found that 5 cases (25%) of psoriasis vulgaris had extremely large effect on patient QOL[22]. 3 cases(16.6%) had very large effect on life. 9 cases of psoriatic arthritis had mild effect (69.2%)[23].

In our study 61 cases belonged to middle class out of which 38 patients had their DLQI greater than 20. Because of our study population belonged to middle class predominantly comprising of agricultural labourers

Domains of Life / DLQI



Conclusion

Although Qol measures have been used widely in the research settings over a decade , at present clinicians do not know how to interpret the scores for clinical use[24].

In our study we have found that psoriasis patients with increased PASI score >20 did not have impaired QOL as our patients socio economic conditions were good and less of financial burden because of increased supportive measures from government .

Although our study group comprised predominantly of agricultural labourers they have received subsidies from government for their illness , thus reducing their financial burden and improving their quality of life[25].

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