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A CROSS-SECTIONAL RESEARCH ON THE PSORIASIS (A SKIN DISORDER) PATIENTS IN THE PERSPECTIVE OF LIFE QUALITY IMPAIRMENT AND DISEASE SEVERITY

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Abstract:
Objective: Our research aimed at the correlation determination between Dermatology Life Quality Index (DLQI) and Psoriasis Area Severity Index (PASI) in the patients diagnosed with psoriasis.
Study Design: Cross sectional study.
Place and Duration of Study: We included indoor and outdoor cases presented to Allied Hospital, Faisalabad (Department of Dermatology) in the time of six months starting from October, 2016 to April, 2016.
Material and Methods: Our research sample was of 155 chronic plaque psoriasis cases which were clinically diagnosed with an age bracket of (20 – 80 years) of both the genders. We observed clinical outcomes and brief history of every patient for DLQI and PASI and subsequently documented it on the prescribed proforma. Data analysis was carried out on SPSS software. We calculated various qualitative and quantitate variables for the outcomes presentation in tabular and pictorial form which include age, gender, DLQI and PASI. Mean DLQI and PASI were also calculated for the Pearson's correlation coefficient (r) calculated as (+1 & -1) with a significant p-value of (< 0.05). We calculated stratification correlation and completed our stratification for gender and age.
Results: In the total research population male and females were respectively 110 males (70.97%) and 45 females (29.03%). The age bracket in the research about the research participants was from (20 – 80 years). The mean age factor of the participants was observed as (49.5 ± 15.6) years. Mean PASI & DLQI were respectively observed as (27.92 ± 5.83) and (11.46 ± 4.22). Pearson correlation coefficient (r) value was observed as (0.1324) representing a weaker relation between DLQI and PASI with a significant p-value of (0.100). In the age bracket of (51 – 80) years we found a weaker correlation (r = -0.3394); whereas, in the age bracket of (20 – 50) years correlation was very weak as (r = -0.0651). Males were also observed in terms of weak correlation of the DLQI and PASI having correlation values in males and females respectively as (r = 0.132) and (r = 0.461).
Conclusion: We conclude that DLQI and PASI has a weak correlation as observed in the outcomes of this particular research study.
Keywords: *Psoriasis, Association, Quality of life, PASI, DLQI, Weak Correlation and Mean values.*

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INTRODUCTION:

Psoriasis is among the skin disorders which is an immune-mediated, inflammatory and chronic skin disease, it is also reported that it affects almost two percent of the population of world [1]. This disease is no doubt poses no threat to life, neither contagious but it definitely affects the healthy life style and life quality in general which bring social implications and negative psychological issues [2]. It potentially disturbs the career opportunities, social activities, life aspects and relationship in a family [3]. Patient's emotional status is adversely affected with this disease.

Psoriasis severity is assessed in the clinical practice for involved area, thickness, erythema & scale. PASI is the most commonly measurement index in order to measure psoriasis severity. DLQI usually helps in the measurement of the quality of life validated through a reliable questionnaire consisting of ten items such as feelings and symptoms, leisure time activities, daily activities, school and work, treatment and personal relationships. Skin disorders are overall assessed through these six items for the ongoing wellbeing and overall life routine of the patients [4].

An exact relationship between PASI measured disease severity and patient's psychological burden is till now not clear and vague. Numerous research studies have already demonstrated positive association between DLQI and PASI [5]. Few other authors also forwarded weak link between life quality and disease severity with correlation value as (r = 0.24) [6, 7].

Health related improvement in the overall quality of one's life is considered as the objective of psoriasis therapy. The disease severity is quantified by the doctors in terms of severity of the symptoms and skin lesions area, routine living focus on the impaired activities or life quality. Therefore, for the assessment of the severity more comprehensive strategy is required for the psychological and medical measures. We need to develop a better relational DLQI and PASI understanding which is important for the patients of psoriasis. The interventional approach of the physician can be influenced with decisions and an optimized healthcare can also play its role.

Table – I: Mean PASI and DLQI

Mean Value	Mean	SD
PASI	39.78	11.64
DLQI	17.74	5.64
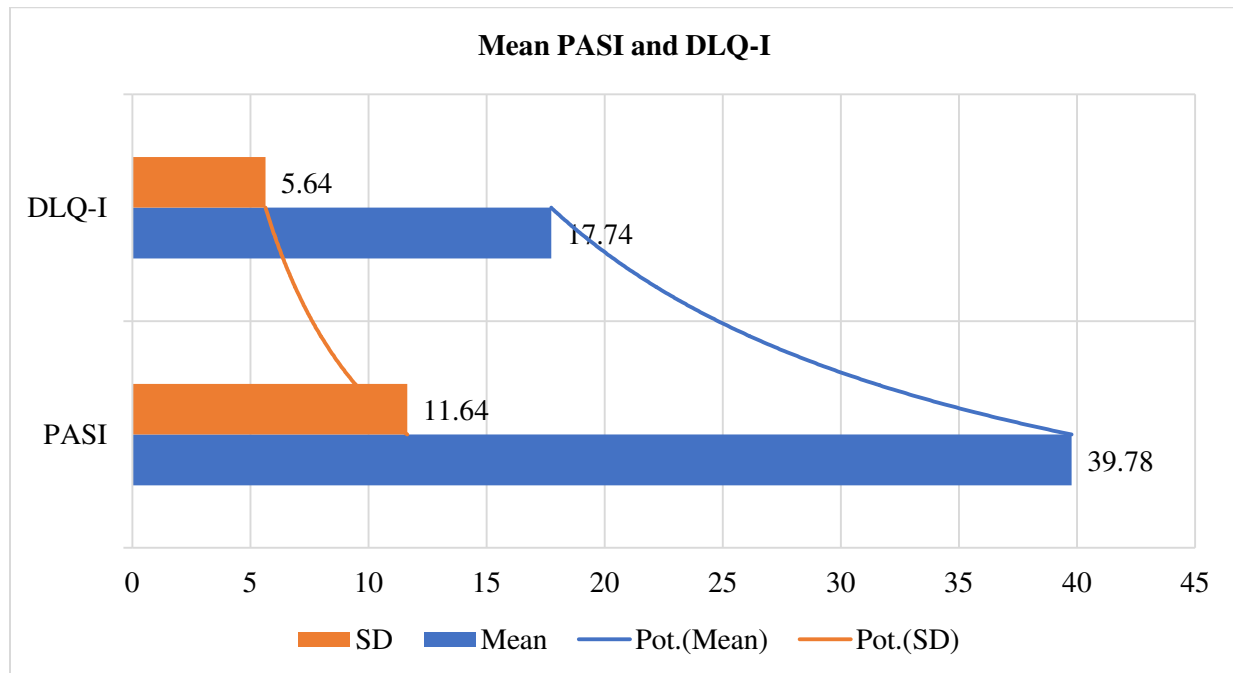
MATERIAL AND METHODS:
Our research aimed at the correlation determination between Dermatology Life Quality Index (DLQI) and Psoriasis Area Severity Index (PASI) in the patients diagnosed with psoriasis. We included indoor and outdoor cases in our descriptive and cross-sectional who were presented to Allied Hospital, Faisalabad (Department of Dermatology) in the time of six months starting from October, 2016 to April, 2016. Our sample was of 155 chronic plaque psoriasis cases which were clinically diagnosed with an age bracket of (20 – 80 years) of both the genders. We observed clinical outcomes and brief history of every patient for DLQI and PASI and subsequently documented it on the prescribed proforma. Data analysis was carried out on SPSS software. We calculated various qualitative and quantitate variables for the outcomes presentation in tabular and pictorial form which include age, gender, DLQI and PASI. Mean DLQI and PASI were also calculated for the Pearson's correlation coefficient (r) calculated as (+1 & -1) with a significant p-value of (< 0.05). We calculated stratification correlation and completed our stratification for gender and age.

RESULTS:
In the total research population of 155 patient's male and females were respectively 110 males (70.97%) and 45 females (29.03%) with a proportion of (2.4:1). The age bracket in the research about the research participants was from (20 – 80 years). The mean age factor of the participants was observed as (49.5 ± 15.6) years. Mean PASI & DLQI were respectively observed as (27.92 ± 5.83) and (11.46 ± 4.22). Pearson correlation coefficient (r) value was observed as (0.1324) representing a weaker relation between DLQI and PASI with a significant p-value of (0.100). In the age bracket of (51 – 80) years we found a weaker correlation (r = -0.3394); whereas, in the age bracket of (20 – 50) years correlation was very weak as (r = -0.0651). Males were also observed in terms of weak correlation of the DLQI and PASI having correlation values in males and females respectively as (r = 0.132) and (r = 0.461).

DISCUSSION:
There is a great role of psoriasis disease in the life quality of the patients, in addition to that the observable disease manifestation are itching, stigmatization, hopelessness feeling and isolation. This disease is no doubt poses no threat to life, neither contagious but it definitely affects the healthy life style and life quality in general which bring social implications and negative psychological issues [2]. It potentially disturbs the career opportunities, social activities, life aspects and relationship in a

family [3]. Patient's emotional status is adversely affected with this disease.

Various research studies have demonstrated positive association of DLQI and PASI [5, 8, 9]. According to Gelfand reduction in the life quality and excessive involvement of the skin was also observed [10]. Schafer studies ninety-three patients with an increased PASI association with the DLQI and life quality, six patients showed a weak association as (r = 0.24). A research evaluated DLQI and PASI which was based on the adapted life quality questionnaire in the setting of Brazil diagnosed with plaque psoriasis and it was also observed as no concordance [11].

Similar outcomes were observed in our research study. According the outcomes of this particular research the score of PASI and DLQI was observed as (27.92 ± 5.83) and (11.46 ± 4.22). Pearson's correlation coefficient (r) value was (0.1324) with a weak correlation between DLQI and PASI with a significant p-value of (0.100). We can compare it with the mean scores of the DLQI (10.6 to 18.83) as reported in the patients diagnosed with psoriatic in the past international research studies held all over the world.

There are multiple factors involved in the non-concordance between DLQI and PASI. Many questions are not related to the original DLQI patient's life which are in the low social status. The instrument validity may vary because of the social and cultural profile of the patients. Secondly, as we know that psoriasis is one of the chronic disorder which has a lengthy management which requires better disease management and follow-up by the patients. In the absence of the lesions on visible body parts such as face, nails and hands the life quality impact in increased. Social, economic status, education, occupation and other miscellaneous factors are associated with the life quality.

In the total research population of 155 patient's male and females were respectively 110 males (70.97%) and 45 females (29.03%) with a proportion of (2.4:1). Dominance of the males has been established in the previous research studies as well. DLQI and PASI relatively present a weaker association in male and female with respective values (r = 0.4701) and (r = 0.4605) as observed in this particular research. In a research held in Taiwan same outcomes have been observed by Lin [12]. Previous research studies have also shown a predominance of the women over men with an impaired life quality [13]. Greater psychological severity has been reported in females than the males; whereas, higher PASI was found in

males than the females [14]. There was weaker association of the gender in the DLQI factor as observed in this particular research study.

DLQI and PASI are two independent parameters for the assessment of the disease severity. The response can be measured in the perspective of psychological assessment and disease management decisions taken by the patients.

CONCLUSION:

We conclude that DLQI and PASI has a weak correlation as observed in the outcomes of this particular research study. DLQI and are separate parameters for the severity assessment of the disease a significant role is of the optimized disease management.

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