

## ORIGINAL ARTICLE

**Emotional Regulation, Self-Compassion, Medication Adherence and Quality of Life in Dermatologic Patients**ANUM AMJAD<sup>1</sup>, IFFAT BATOOL<sup>2</sup>, NASREEN AKHTAR<sup>3</sup>, MUHAMMAD ZOHAIK KHAN<sup>4</sup>, SHAH RUKH TARIQ<sup>5</sup><sup>1</sup>M.Phil. Scholar, Department of Psychology, Government College University (GCU), Lahore, Pakistan.<sup>2</sup>Associate Professor, Director/Focal Person Forgiveness Unit, Government College University (GCU), Lahore, Pakistan.<sup>3</sup>Assistant Professor, Department of Psychology, Government College University (GCU), Lahore, Pakistan.<sup>4,5</sup>Ph.D. Scholar, Department of Psychology, Government College University (GCU), Lahore, Pakistan.

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**ABSTRACT****Aim:** To investigate the relationship between emotional regulation, self-compassion, medication adherence, and quality of life in dermatologic patients.**Method:** The sample consisted of 150 young adults (males=51 (34%) and females=99 (66%)). The quantitative data was gathered via self-reported questionnaires including Emotion Regulation Questionnaire<sup>1</sup>, Neff's Self-Compassion Scale (Short-Form)<sup>2</sup>, Medication Adherence Rating Scale<sup>3</sup>, Quality of Life Scale<sup>4</sup>, and a demographic information form.**Results:** Significant positive associations were explored among emotional regulation, self-compassion, and quality of life. In contrast, negative significant associations were found between self-compassion, medication adherence, and quality of life. The multiple regression analysis suggested a positive regression coefficient of self-compassion and a negative regression coefficient of medication adherence on the quality of life in dermatologic patients with a 41% variation. The results of the independent sample t-test specified non-significant gender differences in terms of emotional regulation, self-compassion, medication adherence, and quality of life in dermatologic patients. However, the significant difference was explored in the marital status (unmarried and married) in terms of i.e., self-compassion, medication adherence, and quality of life.**Conclusion and Implications:** The study's findings have contributed to the gap of literature in the domains of psychology, dermatology, and clinical studies in Pakistan. The result of the study would be helpful for psychologists and dermatologists to make plans for enhancing emotional regulation, self-compassion, medication adherence, and quality of life in dermatologic patients.**Keywords:** Emotional Regulation, Self-Compassion, Medication Adherence, Quality of Life, and Dermatologic Patients.**INTRODUCTION**

Emotions are appearing when something very important to us is at risk or stake<sup>5</sup>. Emotions are a special event of effect which is the leading superordinate class that contains all valence conditions<sup>6</sup>. Emotion regulation is defined as a fixed of the automatic and planned methods involved in the initiation, preservation, and modification of the occasion, strength, and period of the feeling circumstances<sup>7</sup>, further it as been conceptualized as the contrast of extrinsic and intrinsic procedures that are responsible for checking, assessing, and changing emotional reactions, most significantly their intensive and successive features, to complete one's goals<sup>8,9</sup>.

Individuals during the process of emotional regulation might be decreased, increase or maintain the negative and positive emotion. Emotional regulation also consists of changing emotional responses. These variations may arise in the types of emotions that the people have when these people have the emotions and also how these people practice and show the emotions<sup>10</sup>.

Changing emotions are the result of emotional regulation that can or may not bring individuals nearer to the emotional condition that they wanted. On the other hand, some type of emotional regulation brings very emotional conditions that individuals avoid<sup>11</sup>. Sometimes individuals show unwanted emotions that they try to avoid. When individuals try their best but cannot regulate their emotions this might completely disturb their psychological operations. Long-lasting deficits in the process of regulation of emotions add to all the major methods of psychopathology<sup>11</sup>.

People with the high emotional regulation method effectively deal with emotion-based expression and efficiently survive the circumstance. Most studies were conducted on the quality of life. The sample was consisting of 96 adolescents from western Turkey and 100 control participants. It was concluded that emotion regulation strategies of the patients who have acne vulgaris have higher psychopathological symptoms and lesser beliefs in the efficacy of treatment. Emotional regulation interventions increase the quality of life and medication obedience in individuals with

acne<sup>12</sup>. This study elaborated on the relationship of psoriasis with emotional regulation, and behavioral and psychological processes. In the method, we compare the emotional regulation abilities of psoriasis patients with healthy individuals. Individuals advantage more than the controls from load-dependent interfering effects when dealing with the emotional evidence and the therapeutic methods pointing at educating about how to practice cognitive approaches to down-regulate emotions that are appropriate for the patients<sup>13</sup>.

Emotional regulation might be illustrious from three types of affect regulation that is. Copingsurrounds non-emotional activities that achieve non-emotional goals (learning hard to outdo a final exam) on the other hand emotional regulation comprises sentiments in whatever background that may occur. Mood regulation exploration is typically the behaviors individuals slot in to shrink negative mood situations like sleeping well, outing and running. Psychological defense is the last type of affect regulation. The zones of psychological defense are interrelated with the areas of emotional regulations but defense condensed the negative effect and involvement of nervousness by working exterior to consciousness and mindfulness<sup>14</sup>.

Difference between the emotional regulation and other emotional processes is one of the longstanding issues. One straightforward method would be to perceive the changes between unregulated and regulated emotions. This association is most of the time difficult to make. Individuals can control their emotions very quickly<sup>15</sup>. It was evaluated that the individual's primary or crucial emotional response to any condition is qualitatively altered from the secondary emotional reaction. Individuals' major emotional response probably reflects their emotional sensitivity; on the other hand, their secondary emotional response reveals emotion regulation. This difference is based on the conceptualization of emotion regulation as a control method. On the other hand, the control process is involving of observing and regulating the inferior-level technique concerning any specified standard<sup>16</sup>. In the emotional regulation process, most of the undesirable emotional response arises before the emotional regulation process take place. An Individual's main emotional reaction is not measured, the basic purpose of the primary

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responses is to observe and control procedures of emotion regulation. Emotional sensitivity is different from emotion regulation and is comparatively direct when an individual is involved in the regulation of emotions of individuals. Selected systems of emotion regulation arise actively, for example, when individuals avoid the upcoming condition and it is estimated to produce an unwanted emotion<sup>17</sup>. Emotional sensitivity plays an important role in the expectancy of undesirable emotions. Emotion sensitivity has an essential path of development and it may be mostly independent of the environmental impacts and it modifies less as individuals grow old<sup>18</sup>. On the other hand, emotion regulation is very strongly impacted by the worth of the social interaction of children and the caregivers of children<sup>19</sup>.

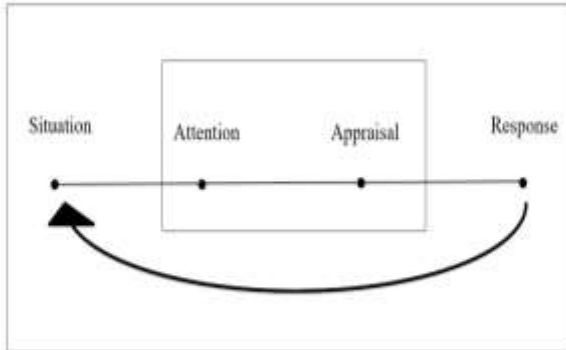


Figure 1: Modal Model of Emotions (Gross, 1998)

The Modal model of emotions illustrates the significant sequence (1) Situation: the procedure is beginning with the emotional state and occasion that may be actual or imaginary. (2) Attention: is then focused on the emotional circumstances. (3) Appraisal: in this occasion which emotional situation gets measured and analyzed (4) Response: is lastly generated, and monitored by hardly planned changes in numerous systems (behavioral, experiential, and physiological).

The origin of the self-compassion concept is Buddhist and its basic purpose is the understanding of the self. Buddhist psychology is very beneficial for the researcher who wants to study the self-process.<sup>20</sup> According to the Buddhist concept compassion for self is an important component on the other hand according to the western concept compassion is confined to others. In general, compassion is defined as the pain of others and sensitivity to the suffering<sup>21</sup>. Compassion stands for the way we relate ourselves with the situation of defeat, general suffering, and pain and compassion is important for both ourselves and for others. According to the Buddhist concepts, compassion for us is important and compassion for others is not important. Self-compassion does not stand for self-centered, egocentrism, and self-indulgence whereas self-compassion is stood for compassion for others and us<sup>22</sup>. According to Neff, self-compassion is defined as self-state and self-empathy in another way that emphasizes one is kind and understanding when dealing with own feelings, despite disapproving of oneself and criticizing for deficiencies.<sup>22</sup> Self-compassion has a positive relationship with social connectedness, life satisfaction, and mental health<sup>22</sup>. In the other research it has been stated that self-compassion has a negative relationship with depression, self-criticism, and anxiety<sup>22</sup>. Self-compassion is more associated with emotional balance in comparison to self-esteem in face of adversity or negative criticism<sup>23</sup>. The researchers have explored the influence of self-compassion therapy on the quality of life and psychological distress of psoriasis patients. This is a semi-experimental design and the sample consists of 40 participants which include 20 in the control group and 20 in the experimental group. It was concluded that self-compassion therapy enhances quality of the life and reduces psychological suffering

among psoriasis individuals<sup>24</sup>. The effects of aversion propensity, self-ruminative hatred, disgust sensitivity, and self-compassion on individuals suffering from depression, who have skin disorders. It was a cross-sectional study and the sample was consisting of 147 participants. Results indicate that the disgust traits increase depression in skin problem patients. High level of self-compassion defends the impact of disgust tendency on individuals suffering from depression with skin disorders<sup>24</sup>.

Over the past three decades, the knowledge of the quality of life has been deliberated and clarified in a better way. Finally, it has been understood that quality of life is not only about happiness and being well-off financially but also an individual's ethics and objectives play a major part.<sup>25</sup> According to the "World Health Organization (WHO)", Quality of the Life point of view, quality of the life absorbed in public and cultural surroundings, and mentions a subjective assessment. Later the second world war numerous studies on diabetes and HIV infection initiated the idea of quality of the life. Mainly quality of the life is about life satisfaction. Quality of life means how contented a person is with their present life conditions in contrast to an ideal life. The cultural system, values, and norms are also very important in evaluating the quality of life of the people<sup>26</sup>. By the twenty century, it was confirmed that monetary value alone cannot explain an individual's subjective well-being<sup>27</sup>. Wyrwich stated that the subjective and objective quality of life is different from each other in a research setting<sup>28</sup>. Subjective quality of life means being contented and satisfied with the overall conditions of life. Objective quality of life means managing the demands of cultural and societal norms to gain material wealth, better social status, and physical well-being. Most of the time subjective and objective quality of life are different from each other but in some places, both are related to each other. It was evaluated that quality of life cannot be increased without taking into account both dimensions. Subjective and objective quality of life must be different but the scale measuring the quality of life must measure both dimensions<sup>29</sup>. Abolfotouh elaborated on the quality of life in patients with skin problems in central Saudi Arabia. Cross-sectional research was proposed. And the sample consisted of 283 adult patients with skin problems. The newly validated Skindex-16 instrument was used to determine the relationship between quality of life in people with skin problems. The result indicated that quality of life is more significant in this study than the others. This difference in finding may be due to the cultural difference and by use different scales<sup>30</sup>. Another study explained the relationship between long-lasting inflammatory skin situations and the emotional condition of the patient and quality of the life. This study consists of 175 patients with different skin problems following tools are used Emotional State Questionnaire for assessing the emotional state of the patients, a self-measure to assess the symptoms of depression and anxiety, Dermatology Life Quality Index. Results of this research indicate that patients with more chronic skin problems were associated with emotional distress, insomnia, and general anxiety<sup>31</sup>.

There are many factors and conditions affecting QOL; family, friends, job, social life, earning, crisis, social support, security, residency, moral standards, ecological factors, material well-being, stress and relationship with the surrounding environment, health conditions, aspects of health care, etc<sup>32</sup>. Increases satisfaction in one domain of life may also increase satisfaction in another domain of life. On the other hand, being unsatisfied with one domain of life cannot lower satisfaction overall<sup>33</sup>.

Dermatology is dealing with skin, hair, nails, and some cosmetic problems. A dermatologist is a specialized doctor in the field of dermatology who deals with skin, hair, and nails related problems. Individuals with dermatologic issues are known as dermatologic patients.<sup>34</sup> Dermatology is the branch of medicine that contains dermatologic signs of total causal diseases and main cutaneous diseases. Dermatologist consultation is very important for the development and treatment of dermatologic patients. Specialists have a deficiency in basic techniques to identify dermatologic situations. Postgraduate programs with advanced

knowledge of dermatologic diseases are very essential to deal with the issues<sup>35</sup>. Skin problems are very important in our population 6% of visits to the physician consists of skin-related patients' 30% of all outpatient visits to a pediatrician and 30% of all visits to dermatologists<sup>36</sup>.

#### Objectives

1. To explore the relationship between emotional regulation, medication adherence, self-compassion, and quality of life.
2. To investigate the impact of self-compassion on the quality of life.
3. To determine health literacy and its relationship with the medication adherence and health-related quality of life in dermatologic patients.
4. To investigate the impact of medication adherence and emotional regulation on the quality of life.

#### HYPOTHESES:

**H<sub>1</sub>:** Significant and positive correlation is expected between emotional regulation, self-compassion, medication adherence, and quality of life in dermatologic patients.

**H<sub>2</sub>:** Emotional regulation, self-compassion, medication adherence would be a predictor of quality of life in dermatologic patients.

**H<sub>3</sub>:** There would be significant mean difference on emotional regulation, self-compassion, medication adherence, and quality of life among gender.

**H<sub>4</sub>:** There would be significant mean difference on emotional regulation, self-compassion, medication adherence, and quality of life among marital status.

**H<sub>5</sub>:** There would be significant mean difference among age group on quality of life scale.

**Rationale:** The research was undertaken to uncover the relationship between emotional regulation, self-compassion, medication adherence, and quality of life in the Pakistani context. The current study tends to examine how emotional regulation, self-compassion, medication adherence, and quality of life are correlated in dermatologic patients. There is no study so far investigating the impact of emotional regulation, self-compassion, and medication adherence on the quality of life in dermatologic patients. The previous literature indicates a strong relationship between quality of life and self-compassion. This phenomenon has been widely studied in western culture and there is a great need to explore this domain in the context of Pakistani culture. The study intends to avoid gender bias as much as possible. In addition, unlike other studies, this research included dermatologist patients from both types of health institutes in Pakistan (i.e., public and private). The indigenous results from this study will welcome further in-depth research in this area, in Pakistan and have significant implications for the benefit of the growing number of individuals.

## METHOD

**Study Design:** A quantitative correlational research design has been used to examine the relationship between Emotional regulation, Self-compassion, Medication adherence, and Quality of life in Dermatologic Patients.

**Sample:** A sample of 150 students was obtained, using the purposive Sampling technique. 34% of participants were male students and 66% of them were female students. The sample consisted of 75.3 % of un-married and 24.7% of married participants. The age span of the participants consisted of 20-39 years old. The sample was selected by using a purposive convenient sampling technique.

**Inclusion Criteria and Exclusion Criteria:** Dermatologic patients were included 20 to 39 years of age. Individuals without dermatological issues/problems and above or below the age range of 20 to 39 were excluded.

#### Instruments

**Demographic Sheet:** A self-developed demographic form was used to gather information about the student's age, gender, education, family type, marital status, and religion.

**Emotion Regulation Questionnaire (ERQ):** Emotional Regulation Questionnaire ten-item scale that was intended to measure the tendency of a respondent to control their emotions in two ways: (a) Cognitive Reappraisal; (b) Expressive Suppression. The Alpha value of total scores of ERQ and the sub-scales were acceptable ranging from 0.73 to 0.82, representing that the ERQ is a consistent measure. The participants answer each item on a 7-point Likert-type scale that ranges from 1 "strongly disagree" to 7 "strongly agree".<sup>1</sup>

**Neff's Self-Compassion Scale (Short-Form):** Neff's Self-Compassion Scale is comprised of 12 items. The alpha reliability of the scale is .85. Respondents answer each item on a 5-point Likert-type scale ranging from 1 (never), 2 (rarely), 3 (sometimes), 4 (often), and 5 (always).<sup>2</sup>

**Medication Adherence Rating Scale (MARS):** The medication Adherence Rating Scale is a reliable and valid measure of adherence to psycho-active medications. The participant will respond to the items in the questionnaire that best defines their behavior or attitude about their medication from the last week. Respondents answer each item with "yes" or "no". The alpha reliability of the MARS was 0.75.<sup>3</sup>

**Quality of Life Scale (QOLS):** The quality of life scale is consisting of 16 items that describe the quality of life of an individual. Respondents answer each item with seven different answers delighted, mostly satisfied, pleased, mixed, unhappy, mostly dissatisfied, and terrible.<sup>4</sup>

**Procedure:** The research proposal for this study got approved by the Board of Studies, Department of Psychology, Government University Lahore. It was followed by seeking permission from the authors of the scales. Data was collected by the public and private hospitals of Sheikhpura. The form asked for participants' consent and mentioned that participation in the research was voluntary. The form had a demographic information sheet, the Scale of Parenting Style, and the Revised Self-disclosure Scale for the participants to fill out. The sample of our research was comprised of 150 dermatologic patients. Data were collected from 2 hospitals in Sheikhpura (DHQ Sheikhpura, and Sultan hospital Sheikhpura). The aims and objectives of the study were explained to the students and the researcher guaranteed the participants that their personal information remains in full confidentiality. Then they filled out the questionnaires and give responses related to the questionnaires. Scales were applied to them to get responses to check their emotional regulation, self-compassion, medication adherence, and quality of life.

**Ethical Considerations:** Following ethical principles were remains in mind throughout conducting the research. Scales were used after the approval of the concerned management through E-mail. An approval letter that describes the nature and motive of the study was also provided by the university management. Amis of the study was also described to subjects. The consent form can be written by the participants. They have the right to leave their study whenever they desire.

## RESULTS

Table 1 represents the general characteristics of the sample that lies between the age ranges of 20 to 39 years. It consists of male and female participants from public and private hospitals having further different demographic characteristics.

Table 2 shows no of items (k), mean, standard deviation, Cronbach's alpha value (reliability), and the score ranges. It is found that all scales have good alpha coefficient (internal consistency i.e.,  $\geq .70$ ).

In Table 3, the Pearson correlation has been computed. Findings suggest that there is a significant positive correlation among emotional regulation, self-compassion ( $r = .22, p < .01$ ), and quality of life ( $r = .22, p < .01$ ). In contrast, negative significant correlation investigated between self-compassion, medical adherence ( $r = -.39, p < .01$ ) and quality of life ( $r = -.51, p < .01$ ) in dermatological patients.

In Table 4, multiple regression analysis has been computed. Findings suggested the significant positive regression coefficient of self-compassion ( $B= 1.52, p<.01$ ), and a negative regression coefficient of medication adherence ( $B= -3.78, p< .01$ ) on quality of life. In addition, it was also found that the model  $F(3, 146) = 33.49, p<.001$  explained 41% variation in the dependent variable (quality of life).

In Table 5, a  $t$ -test independent sample has been computed to check the significant mean differences between male and female. Findings suggested that Levene's test assumptions are satisfactory, and no significant gender differences were observed in terms of study variables *i.e.*, emotional regulation ( $t=.58, p=ns$ ), self-compassion ( $t = -1.68, p = ns$ ), medication adherence ( $t=-1.49, p = ns$ ), and quality of life ( $t = -1.02, p=ns$ ).

Table 6 showed the significant mean differences between marital status (unmarried and married) concerning the study scales. The significant differences were explored on the marital status in terms of *i.e.* self-compassion ( $t = -2.9, p<.001$ ), medication adherence ( $t =2.2, p<.05$ ), and quality of life ( $t = -3.1, p<.001$ ), however, no significant differences were observed on emotional regulation ( $t = -1.4, p = ns$ ) in the dermatological patients.

Table 7 shows means, standard deviation, and  $F$  value for the quality of life among the age groups. Results indicate no significant mean differences among age group on quality-of-life  $F(2,147) =2.0, p = ns$ . Additionally, the value of  $\eta^2 0.02 (=0.02)$  indicates a small effect size.

Table 1: Demographic characteristics of the sample (n=150)

Characteristics	f	%
<b>Age</b>		
20-26	121	80.7
27-32	18	12
33-39	11	7.3
<b>Education</b>		
Matric	41	27.3
FA/FSC	35	23.3
BA/BS	52	34.7
MA/MSC	19	12.7
MPhil	3	2
<b>Gender</b>		
Male	51	34
Female	99	66
<b>Occupation</b>		
Student	84	56
Job	30	20
Business	9	6
House wife	26	17
<b>Family status</b>		
Nuclear	65	43.3
Joint	85	56.7
<b>Religion</b>		
Islam	149	99.3
Non-Islam	1	.7
<b>Marital status</b>		
Un-married	113	75.3
Married	37	24.7

Table 2: Psychometric properties of the study scales(N=150)

Variable	k	M	SD	$\alpha$	Potential	Actual
Emotional Regulation	10	48.24	13.39	.88	10-70	10-70
Self-Compassion	12	50.46	6.22	.70	12-60	29-60
Medication Adherence	10	11.99	2.05	.70	10-20	10-20
Quality of Life	16	75.76	22.77	.93	16-112	16-112

Note. k = number of items,  $\alpha$  = Cronbach's Alpha, N = 150,

Table 3: Correlation among Emotional Regulation, Self-compassion, Medication Adherence, and Quality of Life(n=150)

Variable	1	2	3	4
Emotional Regulation	-	.22**	-.05	.13
Self-Compassion		-	-.39**	.55**
Medication Adherence			-	-.51**
Quality of Life				-

Note.\*\* $p<.001$  (two-tailed).

Table 4: Regression Coefficients of Emotional Regulation, Self-compassion and Medication Adherence on Quality of Life(n=150)

Variable	B	SE	$\beta$
Constant	42.35**	18.61	
Emotional Regulation	.03	.11	.02
Self-Compassion	1.52**	.25	.42
Medication Adherence	-3.78**	.76	-.34
F		33.49**	
R <sup>2</sup>		.41	

Note.\*\* $p<.001$ , SE = standard error, B = regression coefficient

Table 5: Independent Sample t-test Showing Gender Differences on the Study Scales(N=150)

Variables	Male		Female		t(148)	p	Cohen's d
	M	SD	M	SD			
Emotional Regulation	49.14	12.35	47.78	13.93	.58	.558	.09
Self-Compassion	49.27	6.93	51.07	5.77	-1.68	.094	.27
Medication Adherence	12.33	2.32	11.81	1.88	1.49	.138	.24
Quality of Life	73.10	21.20	77.13	23.52	-1.02	.306	.16

Table 6: Independent Sample t-test Showing marital status Differences on the Study Scales(N=150)

Variables	Unmarried		Married		t(148)	p	Cohen's d
	M	SD	M	SD			
Emotional Regulation	47.31	13.5	51.08	12.5	-1.4	.65	.02
Self-Compassion	49.63	6.5	53.0	4.0	-2.9	.003	.6
Medication Adherence	12.20	2.1	11.3	1.5	2.2	.048	.4
Quality of Life	72.47	23.9	85.8	15.0	-3.1	.000	.6

Note.d = effect size. N = 150, unmarried = 133, married = 37.

Table 7: Means, standard deviations, and one-way analysis of variance on quality of life across age groups. (N=150)

Measure	20-26		27-32		33-39		F(2, 147)	$\eta^2$
	M	SD	M	SD	M	SD		
Quality of life	73.9	23.5	84.2	19.4	82.0	13.8	2.0	.02

Note. \*\*\*p<.001, \*\*p<.01, \*p<.05

## DISCUSSION

This study adds to the growing knowledge about emotional regulation, self-compassion, medication adherence, and quality of the life in patients with dermatological problems, which has been the focus of much recent research. Previous research on medication adherence has focused mostly on diabetes and cancer patients, with little consideration paid to patients with dermatological problems. The focus of the current study was on the effect of emotional regulation, self-compassion, and medication adherence on the quality of life in dermatologic patients. The first hypothesis stated that there would be a significant positive correlation between emotional regulation, self-compassion, medication adherence, and quality of the life in dermatologic patients.

The results of the current study showed a significant and positive correlation between emotional regulation and self-compassion and between self-compassion and quality of life. The findings are supported by the existing literature. A study investigated the roles of self-compassion and resilience on the health-related quality of life for patients with multiple Sclerosis and also predict that there was a significant positive correlation between self-compassion and health-related quality of life. Patient with multiple sclerosis engaging in self-compassion might be able to with the severity of the disorder and increases their quality of life of an individual<sup>37</sup>. A study conducted on caretakers of the patient with neurological disorders show similar results. Results show that caregivers might be developed the symptoms of depression, low levels of mental health, and quality of the life. On the other hand, self-compassion might be protecting against them. Self-compassion and quality of life also have significant positive correlated is present<sup>38</sup>. A study was conducted on nursing students to discover the impact of perceived stress, emotional regulation, and quality of the life. The results indicated a significant negative relationship between perceived stress and quality of life. On the other hand, self-compassion is significantly positively correlated with quality of life<sup>39</sup>.

The study was evaluating how hope, self-compassion, and quality of life in the individual with a bleeding disorder are related. Results show that self-compassion, hope, and quality of the life is a significantly positive relationships.<sup>40</sup> Research was proposed to investigate whether self-compassion is a predictor of parental outcomes of stress and quality of the life. Results showed that quality of life and self-compassion are positively and significantly correlated. On the opposite side, there is a significant negative correlation between stress and self-compassion<sup>41</sup>.

A study was intended to investigate if self-compassion and mindfulness are correlated with quality of the life in individuals who are suffering from anti-neoplastic chemotherapy. The sample consisted of 183 patients who were experiencing chemotherapy and was conducted at a Brazilian hospital. Results revealed a significant and positive correlation between the quality of life, self-compassion, and mindfulness. Greater levels of self-compassion and mindfulness were related to a better quality of the life<sup>42</sup>.

The second hypothesis is stated that emotional regulation, self-compassion, and medication adherence would be a predictor of quality of life in patients with the dermatological disorder. Findings suggest that there is a significant and positive regression coefficient of self-compassion and a negative regression coefficient of medication adherence on quality of life. The available literature shows varying findings. These findings suggested that self-compassion is the predictor of symptom severity and quality of life in anxiety and depression<sup>43</sup>.

It is argued that self-compassion in parents of Children with Autism Spectrum Disorder is a predictor of stress and quality of the

life. The sample consisted of 139 parents. The result revealed that self-compassion is the predictor of quality of life in the parents of autism spectrum disorder children<sup>44</sup>. Findings suggest that there is a significant and positive regression coefficient of self-compassion and quality of life. A study was conducted with 105 patients with various types of cancer.<sup>44</sup> Previous research has discovered similar links between self-compassion and quality of the life<sup>45</sup>.

Previous literature suggests that there is a significant and negative regression coefficient of medication adherence on quality of life. Research that elaborates on the connection between self-efficacy, medication adherence, and quality of the life among people living with AIDS in China also has a significant and negative regression coefficient of medication adherence on quality of life<sup>46</sup>.

The third hypothesis stated that there would be significant mean differences in emotional regulation, self-compassion, medication adherence, and quality of life between males and females. However, the findings of this study reject the hypothesis. The results of the study showed non-significant gender on emotional regulation, self-compassion, medication adherence, and quality of life. Gender difference is not clear in the literature on emotional regulation because it is a culturally diverse phenomenon. While research's purpose that self-compassion tends to be slightly lesser in females than males and this difference also occurs across ages. Middle and older age women are more compassionate as compared to younger age women. The reason might be that younger females are more involved in negative talks and more judgmental. Studies stated that gender differences are also reduced with the age might be due to maturity. A meta-analysis of potential sexual orientation contrast in self-compassion stated that males are more self-compassionate than females.<sup>47</sup> Significant gender differences in quality of life are also found in the literature. However, the findings of the current study do not support this trend. Research explains that women with cardiac disease show a significantly low quality of life whereas men show a high level of quality of life than the women<sup>47</sup>.

It has been found that the quality of life in women with heart failure is low than the men whereas both males and females reported significantly enhanced and comparable quality of the life and no significant difference was found<sup>48</sup>. Women do more work and have a good quality of life than men, but their quality of life has less dependency on work engagement as compared to men. Women want family life to attain a better quality of life, although men want better work to have more satisfaction in their lives<sup>49</sup>. Females suffer from the diabetic disorder and diabetic symptoms and lower levels of medication adherence. Higher levels of disorder and diabetic symptoms were both associated with lower medication adherence. No evidence regarding gender moderates the relationship between disorder and diabetic symptoms and medication adherence. Instead, disorder and diabetic symptoms mediated the relationship between gender and medication adherence<sup>50</sup>.

According to the fourth hypothesis, there would be significant mean differences in emotional regulation, self-compassion, medication adherence, and quality of life among marital status. Results show that there is a significant marital status difference on the scales of self-compassion, Medication adherence, and Quality of life and there is no significant marital status difference observed on the scale of emotional regulation. However, the findings of this study accept the hypothesis. A study was conducted to explain the mediating relationship of medication adherence between marital status and heart failure patients. Results indicated that unmarried patients are more non-adherent than married.<sup>51</sup> Research was conducted to discover the connection between quality of life and

marital status. Finding suggests that there is a significant difference in marital status. In the present study, married people had higher quality of life scores than unmarried, married people under 30 did not have a better quality of life than their non-married peers. A study was conducted to explain the relationship between, Social Support, Exacerbation of Diffuse Plaque Psoriasis, Emotional Regulation, and stress. Finding suggests that there is no marital difference in emotional regulation<sup>52</sup>.

According to the fifth hypothesis, there is a significant mean difference in emotional regulation, self-compassion, medication adherence, and quality of life among the age groups. Finding suggests that there are no significant differences across the age group. However, the findings of this study reject the hypothesis. The results are in contrast to the already existing research. Previous literature shows significant age differences in the quality of life of children and adolescents in Europe<sup>53</sup>. The results of the previous study showed that gender differences are differing at every level of age. Younger adolescents indicate more adherence to the medication than the other. On the other hand, young women show more adherence to the medication than the young men<sup>54</sup>.

**Limitations and Recommendations:** Because the information on dermatologic patients in the current study comes only from young adults, there may be some bias in the results, contributing to a stronger correlation between factors. Therefore, it is advisable to supplement the information collected from young adults with additional information given by family members. To investigate the variables, the current study used purposive sampling. An alternative sampling technique could be used in future studies. The current study's sample is restricted between the ages of 20 and 39. Future research should use a more varied sample with a wider age range. The current study sample was, from the city of Sheikhpura. Future researchers should collect data from varied cities in Pakistan. The topic of the study was based on quantitative. It can be conducted qualitatively for further studies. This research was time bound and had to be completed within that time limit. In the future, this type of study should be conducted in the form of longitudinal research to get more authentic results.

## CONCLUSION AND IMPLICATIONS

It can be concluded that there is a significant positive relationship among significant and positive correlation between emotional regulation and self-compassion, and between self-compassion and quality of life. In contrast, it is found a negative and significant correlation between self-compassion and medication adherence and between medication adherence and quality of life. It was also concluded that self-compassion is a predictor of quality of life. It was also concluded that there are no gender differences on the scales i.e. emotional regulation, self-compassion, medication adherence, and quality of life. In terms of marital status, there is significant marital status observed on the scale of self-compassion, medication adherence, and quality of life. There are no significant mean differences among age groups on the quality-of-life scale. The researchers can get help in the fields of psychology, dermatology, and clinical through this research. The study's findings have contributed to the gap of literature in the domains of psychology, dermatology, and clinical in Pakistan. The result of the study would be helpful for psychologists and dermatologists to make plans for enhancing emotional regulation, self-compassion, medication adherence, and quality of life in dermatologic patients. Lastly, the study has numerous implications in the domains of health, clinical, and dermatology.

**Conflict of interest:** Nothing to declare

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