

## Life Orientation in Stress and Coping Strategies of Skin Patients

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*Received: May 18, 2020; Revised June 26, 2020; Accepted June 28, 2020*

### ABSTRACT

Skin is a stimulus and response organ which reacts to stress externally or internally. Illness to this organ causes physical, psychological, social and economic burden. Many psychological factors are involved in coping with the skin diseases and not all psychological factors are studied. The present study intended to find the relationship between stress and coping strategies among optimistic and pessimistic skin patients. With Purposive random sampling technique 300 skin patients aged between 16-40 (150 pessimists and 150 optimists) were administered with LOT®, stress inventory and Brief COPE. Data were analyzed using appropriate statistical techniques. The results revealed the difference between optimists and pessimists in stress ( $t=4.204$ ) and in some coping strategies like substance use ( $t=2.295$ ), use of instrumental support ( $t=-2.462$ ), behavioral disengagement, planning ( $t=1.960$ ), humor ( $t=2.969$ ) and self-blame ( $t=2.069$ ). Except active coping, use of instrumental support, planning and religion, all other coping strategies showed a significant and positive relationship with stress.

**Conclusions:** There is significant difference in stress and coping strategies between pessimistic and optimistic skin patients and most of the coping strategies are significantly and positively related to stress scores. This study focuses on further investigations in the use of optimism in psychological interventions in skin diseases.

**Keywords:** Optimism, Pessimism, Skin patients, Stress and Coping strategies

### INTRODUCTION

Life orientation (optimism and pessimism) is a generalized expectancy behavior which play important role in setting goal, initiating actions and sustaining the motivation. The research from past 30 years on optimism and pessimism has provided extensive literature on its effects on various behaviors particularly, the studies made by Carver and his associates. Different researchers viewed it differently like 'dispositional trait' by Carver and Scheier which influences on past, present and future events of life, or an 'attributive style'/'explanatory style' by [1] which is expressed during challenges/goal seeking behaviors. Some consider it as cognitive bias or cognitive distortions [2]. Generally, they are positive and negative aspects which influence behavior. These cognitive appraisals make behavior vulnerable to both mental and physical health. The clinical review [3] shows optimism as protective behavior or better indicator of life and pessimism as health damaging [4]. The meta analytical review [5] shows optimism as health predictor and it is associated with taking proactive steps to protect one's health [6]. Stress is also another cognitive appraisal which acts as both stimulus and response in health behavior. Stress as cognitive appraisal assesses the degree of threat or harm and reaction to stressor. These appraisals may be primary appraisals (which

is influenced by 'Harm', 'Loss' and 'Challenge') or secondary appraisals (influenced by 'Demands', Constraints' and 'Opportunities') [7,8]. Optimism and pessimism influences on the strength and direction of stressor [4]. The investigations by Pacheco and [9-12] and many more prove the relationship between life orientation and stress. An optimist sees the stress situation as less threatening and feels mastery over the situation whereas the pessimist sees the situation more threatening. The difference in cognitive appraisals like optimism (being positive), pessimism (being negative), and stress as primary appraisal or as secondary appraisal leads to difference in coping strategies towards stress and psychological adjustment [13-16].

Coping strategies are cognitive, behavioral and emotional strategies which are to manage specific stressors [17]. Coping

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**Citation:** Vijayakumari TR. (2023) Life Orientation in Stress and Coping Strategies of Skin Patients. J Psychiatry Psychol Res, 6(1): 359-366.

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as a behavioral effort to deal with stress is linked to expectancy or attributive style. Optimists use effective coping strategies in dealing with the stress than pessimists. [18,10,19,20]. Many researches have been conducted on health and illness behaviors related to optimism, pessimism, stress and coping and the findings show that the relationship is found between these constructs. Skin disorders – one of the most common health problems in the world is causing psychological, social and economic burden under stressful event [21]. Stress influences biological pathways associated with skin [22-24]. Stress is one of the important factors in causing and maintaining skin pathology [25]. Skin disorders make coping difficult [26]. The mind and body relationship in skin disorders [22,27] show that the psychological factors cause, aggravate the illness and effect on treatment behavior. It also leads to many psychological effects (reviews of [28]. The effects of psychological factors differ for different skin disorders. The literature on skin disorders in general and with regard to specific skin disorders show that stress plays important role in coping with disease. Stress effects on coping strategies.

Hence psychological factors play important role in coping with the skin diseases. Most of the researches related to psychological factors of skin disorders are focused on specific skin disorders like Acne, Psoriasis, and Vitiligo etc. Few studies have been done on relationship between stress and coping with regard to optimism and pessimism [29]. This investigation tries to integrate the aspects of optimism and pessimism along with stress and coping strategies. This helps to understand skin disorders, psychological factor associated with it and emphasis on psychological therapeutic methods for better treatment outcomes to improve quality of life. With this background this study hypothesized to study whether there is any significant difference between stress and coping strategies of optimistic and pessimistic skin patients and is there any relationship between stress and coping strategies.

## MATERIALS & METHODS

### Participants

Using purposive sampling, skin patients with different skin diseases aged 15-40 were selected from a private dermatological clinic in Bangalore city of Karnataka state in India. The total Sample was 300 patients. Of them 150 were optimists and 150 were pessimists. They were administered with the following questionnaires.

### Tools used

1. **Life Orientation Test:** Revised LOT(R) is a self-reporting measure [30] with 10 items of which 6 items are used to derive optimism and pessimism scores. In this 3 are positive items (optimistic items 1, 4 & 10) and three are negative items. (Pessimistic items 3, 7 & 9). Remaining 4 items are fillers (item no 2, 5, 6 and 8) which are used to make the content of the text less obvious). It is demonstrated with

reliability and validity. The item-scale correlations ranged from 0.43 to 0.63. The internal consistency (for 6 items) was 0.78 (Cronbach's alpha) [30]. Test-retest reliability reported is 0.68 (4 months), 0.60 (12 months), 0.56 (24 months), and 0.79 (28 months).

2. **Stress inventory (DASS):** A sub scale from DASS (the Depression, Anxiety and Stress scale) is developed by [31]. DASS as a self-reporting questionnaire has 3 subscales namely Depression, Anxiety and Stress with 14 items in each. The present study uses only the stress items of DASS. (Item no 1, 6, 8, 11, 12, 14, 18, 22, 27, 29, 32, 33, 35, and 39). The reliability score for stress scale is 0.90 (Cronbach's alpha).

3. **Brief COPE inventory:** Brief COPE inventory a self-report questionnaire developed by [32]. (A brief version of the COPE inventory developed by [33] assesses coping strategies with 14 subscales each having 2 items. Totally it has 28 items. The psychometric properties of the subscales range from 0.57 - 0.90 of which for 3 sub scales it falls below 0.60.

### Procedure

The patients who visited the clinic were informed about the relevance of research and the consent was obtained from both the physician and the patients. Then the patients were asked to fill the relevant demographic details first and then they were requested to read the instructions given on the questionnaire and indicate their responses in the respective column. The data was collected for LOT®, Stress inventory and Brief COPE. They were scored accordingly and they were analyzed using descriptive statistics and inferential statistics using independent sample 't' tests, and Pearson product movement. Wherever essential, the data were graphically represented.

## RESULTS & DISCUSSION

### RESULTS

The t value of 4.20 showed significant difference at 0.01 level revealing that pessimistic group had significantly higher stress than the optimistic group. The mean scores for pessimistic and optimistic group were 18.24 and 14.87 respectively (**Table 1**). These scores are graphically represented (**Figure 1**).

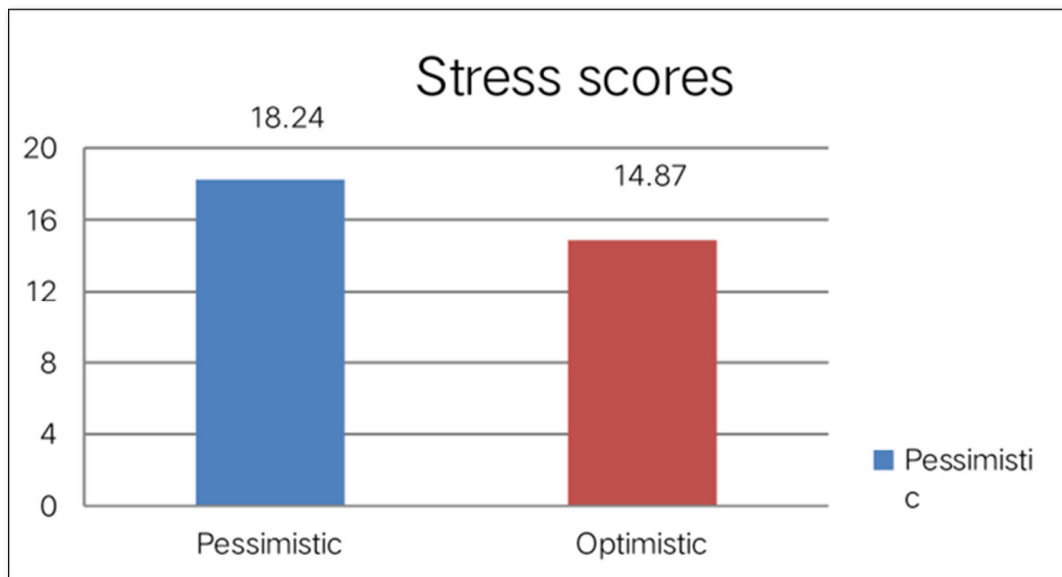
It was found that out of 14 coping strategies, 6 coping strategies showed significant differences between the pessimistic and optimistic groups. Substance use, use of instrumental support, Behavioral disengagement, Planning, Humor, and Self-blame, these coping strategies showed significant difference between pessimistic and optimistic skin patients. No significant differences were observed between pessimistic and optimistic group with coping strategies like Self distraction, Active Coping, Denial, Use of emotional support, Venting, Positive reframing, Acceptance and religion.

**Table 1.** Mean stress scores of respondents belonging to pessimistic and optimistic groups.

Groups	N	Mean	SD	SE M	T (df-298)	Sig. (2-tailed)	Mean Difference
<b>Pessimistic</b>	150	18.24	6.795	.555	4.204 ***	0.001	<b>3.367</b>
<b>Optimistic</b>	<b>150</b>	<b>14.87</b>	<b>7.072</b>	<b>0.577</b>			

\*Significant at 0.05 level

\*\*Significant at 0.01 level



**Figure 1.** Mean stress scores of respondents belonging to pessimistic and optimistic groups.

In coping strategies like substance use ( $t=2.295$ ;  $p =0.022$ , Mean pessimist: 3.17, optimist: 2.76), behavioral disengagement ( $t=1.960$ ;  $p =0.050$  Mean: pessimist: 4.05, optimist: 3.71), humor ( $t=2.969$ ;  $p =.0003$  mean pessimistic: 4.45 optimistic: 3.81) and self-blame strategy ( $t=2.069$ ;  $p =0.039$  Mean pessimist: 3.97 optimistic: 4.37) pessimist group showed higher scores than optimistic group.

However, with regard to strategies like use of instrumental support ( $t=2.462$ ;  $p=0.014$  Mean pessimistic: 4.68 optimistic: 5.15) and planning strategy ( $t=2.312$ ;  $p=0.021$ , Mean optimistic: 5.63 pessimistic: 5.20) the optimistic group showed higher scores than pessimistic group (**Table 2**). The mean scores of the coping strategies which were significant between the pessimistic group and the optimistic group were graphically represented (**Figure 2**).

Using Pearson’s product moment technique stress scores were correlated with coping strategies and it was found that stress was significantly and positively correlated to coping strategies like self-distraction ( $r=0.159$ ;  $p =0.006$ ), denial ( $r=0.260$ ;  $p =0.001$ ), substance use ( $r=0.116$ ;  $p =0.044$ ), use of emotional support ( $r=0.160$ ;  $p=0.005$ ), behavioral disengagement ( $r=0.288$ ;  $p =0.001$ ), venting ( $r=0.318$ ;  $p =0.001$ ), positive reframing ( $r=0.209$ ;  $p =0.001$ ), humor ( $r=0.153$ ;  $p =0.008$ ), acceptance ( $r=0.130$ ;  $p=0.024$ ) and self-blame ( $r=0.318$ ;  $p =0.001$ ) showing that the increase in stress scores increased the scores of above coping strategies linearly and significantly. However, stress scores did not correlate with coping strategies like active coping, use of instrumental support, planning and religion (**Table 3**).

**Table 2.** Mean coping scores of respondents belonging to pessimistic and optimistic groups.

Coping strategies	Group	Mean	S. D	S. E	T (df - 298)	Sig	Mean diff
<b>Self-distraction</b>	Pessimistic	4.61	1.609	0.131	0.277	0.782	<b>0.053</b>
	Optimistic	4.55	1.724	0.141			
<b>Active Coping</b>	Pessimistic	5.18	1.520	0.124	-1.030	0.304	<b>-0.180</b>
	Optimistic	5.36	1.507	0.123			
<b>Denial</b>	Pessimistic	4.21	1.440	0.118	0.377	0.707	<b>0.067</b>
	Optimistic	4.15	1.619	.132			
<b>Substance use</b>	Pessimistic	3.17	1.654	0.135	2.295*	0.022	<b>0.413</b>
	Optimistic	2.76	1.459	0.119			
<b>Use of emotional support</b>	Pessimistic	4.53	1.553	0.127	0.110	0.913	<b>0.020</b>
	Optimistic	4.51	1.600	0.131			
<b>Use of instrumental support</b>	Pessimistic	4.68	1.573	0.128	- 2.462*	0.014	<b>-0.473</b>
	Optimistic	5.15	1.752	0.143			
<b>Behavioral disengagement</b>	Pessimistic	4.05	1.451	0.118	1.960*	0.050	<b>0.340</b>
	Optimistic	3.71	1.552	0.127			
<b>Venting</b>	Pessimistic	4.17	1.617	0.132	0.975	0.330	<b>0.187</b>
	Optimistic	3.99	1.699	0.139			
<b>Positive reframing</b>	Pessimistic	5.10	1.721	0.141	0.361	0.718	<b>0.073</b>
	Optimistic	5.03	1.795	0.147			
<b>Planning</b>	Pessimistic	5.20	1.479	0.121	-2.312*	0.021	<b>-0.427</b>
	Optimistic	5.63	1.709	0.140			
<b>Humor</b>	Pessimistic	4.45	1.863	0.152	2.969**	0.003	<b>0.647</b>
	Optimistic	3.81	1.910	0.156			
<b>Acceptance</b>	Pessimistic	5.03	1.640	0.134	-0.706	0.481	<b>-0.133</b>
	Optimistic	5.17	1.632	0.133			
<b>Religion</b>	Pessimistic	4.61	1.540	0.126	-0.135	0.893	<b>-0.027</b>
	Optimistic	4.64	1.866	0.152			
<b>Self-blame</b>	Pessimistic	4.37	1.560	0.127	2.069*	0.039	<b>0.400</b>
	<b>Optimistic</b>	<b>3.97</b>	<b>1.781</b>	<b>0.145</b>			

\* Significant at 0.05 level

\*\*Significant at 0.01 level

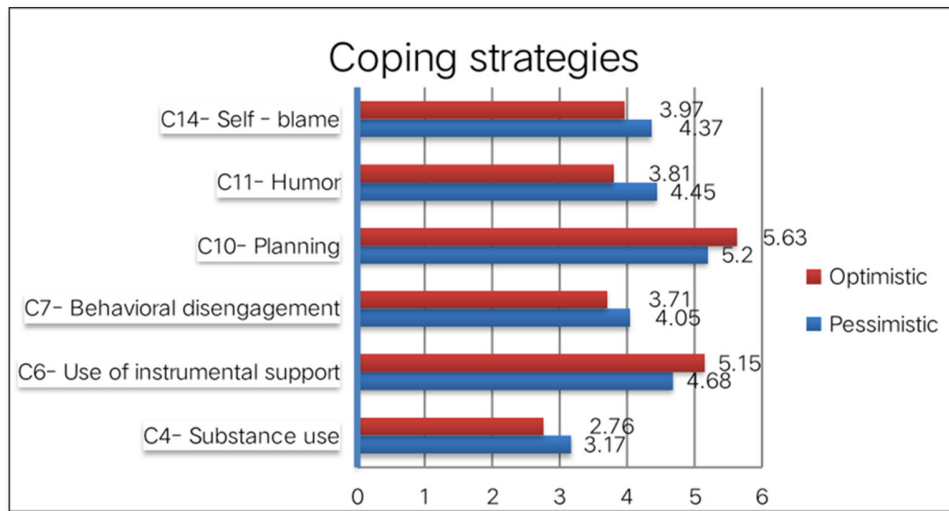


Figure 2. Mean coping scores of respondents belonging to pessimistic and optimistic groups.

Table 3. Results of Pearson’s product moment correlations between coping strategies and stress scores

Variable 1	Variable 2	Correlation Coefficient	P value
C1- Self distraction	Stress	0.159	0.006
C2- Active Coping	Stress	0.106	0.067
Denial	Stress	0.260	0.001
Substance use	Stress	0.116	0.044
Use of emotional support	Stress	0.160	0.005
Use of instrumental support	Stress	0.035	0.550
Behavioral disengagement	Stress	0.288	0.001
Venting	Stress	0.318	0.001
Positive reframing	Stress	0.209	0.001
Planning	Stress	0.082	0.157
Humor	Stress	0.153	0.008
Acceptance	Stress	.130	.024
Religion	Stress	0.100	0.083
Self – blame	Stress	0.318	0.001

**DISCUSSION**

The current study examined the difference between stress and coping strategies of optimistic and pessimistic skin patients

with an aim of finding whether there is significant difference or not. It also aimed to find the relationship between stress and coping strategies. A null hypothesis was framed. The major findings of the study were:

1. Pessimistic group had higher stress than the optimistic group.
2. Out of 14 coping strategies in 6 strategies significant differences were found between pessimistic group and optimistic group and in 8 strategies no significant differences were found.
3. The stress was positively correlated to coping strategies like self-distraction, substance use, the use of emotional support, behavioral disengagement, venting, and positive reframing. No correlation was found with strategies like active coping, use of instrument support, planning and religion.

The previous literature on stress especially [33] stress theory provides evidence on stress process on physical and mental health. So, stress plays important role in dermatological patients also [22,25]. The stress is more among them [34] and it differs with different dermatological conditions [35]. The abundance literature on stress related to various behavioral patterns and on few specific types of skin disorders show that skin is vulnerable to stress and stress exacerbates the skin diseases. Attributive style effects on appraisal of stress. Optimism acts as resource in coping with stress and pessimism exacerbate stress [36,10,12]. Hence optimists show less stress than pessimists [20]. The findings of the study are consistent with the earlier literature. Hence skin patients with optimism experience significantly lesser stress than the skin patients with pessimism.

Since there is no coping without stress, various factors like stressor, stressor controllability [36], personality [33], cognitive appraisals [3] influence on choice of coping. General expectancy behavior (optimism and pessimism) predict reactions to stress and influence on selection of coping strategies. The findings [18] show that optimists use coping strategies like engagement, problem focused, adaptive coping and active coping strategies whereas pessimists adopt maladaptive coping. Hence there is difference between pessimists and optimists in use of coping strategies. The findings of the present study show that the significant difference exists for specific coping strategies like substance use, use of instrumental support, behavioral disengagement, planning, humor and self-blame. The analysis reveals that pessimist group scored high for substance use, behavioral disengagement, humor and self-blame and optimist group scored high for instrumental support and planning. The attributive style of the skin patient influences on the selection of coping strategies and in turn disease process. Use of instrumental support and planning are adoptive strategies which help in adjusting to stressful events or disease in a better way whereas substance use, behavioral disengagement, humor and self-blame are emotional and disengagement strategies which increase stress and make adjustment difficult. Hence the obtained results though not entirely consistent with earlier findings but to some extent it agrees.

The findings also showed that except for coping strategies like active coping, use of instrumental support, planning and

religion, the stress correlated positively with coping strategies like self-distraction, substance use, use of emotional support, behavioral disengagement, venting and positive reframing. The increase in stress increased these coping strategies because these strategies are emotional and disengagement strategies which make adjustment difficult.

Very few studies are done on the role of general expectancies on skin patients in relation to stress and coping strategies on specific skin disorders and skin disorders in general. The present study shows the difference in stress and use of coping strategies between the skin patients in pessimist group and optimistic group and there is positive relationship between stress and coping. The pessimist group with the negative appraisal of skin disorder show high stress and maladaptive coping and optimistic group with positive appraisal make adopt adaptive and active strategies and lead to better adjustment. Further investigations in this area may focus on the comparison of the variables with normal persons, or along with psychological symptoms, severity of symptoms or quality of life. Regarding the implications of the study, it helps in providing insight on psychological aspects of skin disease and the use of cognitive techniques to improve positivity among the skin patients and lower the stress and adopt better coping strategy and improve quality of life. Since this research includes different pathological conditions, the sample may be less for each condition, the severity of the skin conditions is not taken into consideration. The patients who come to clinic will usually be in chronic conditions so results cannot be generalized to all stages of illness. These are the limitations of the study.

## CONCLUSIONS

In summary the results show that cognitive appraisals influence on stress and coping strategies of skin patients. This study forms a basis for emphasizing psychological intervention tool which includes positivity/optimism for better adjustment and to improve quality of life. It opens door for further investigation on role of general expectancy in adapting to illness and improve quality of life.

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