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Research Paper



Perceived Stress and Coping Strategies among Women with and without Polycystic Ovarian Syndrome (PCOS)

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ABSTRACT

The Present study was a non-experimental research design. The present study aimed to assess Perceived stress and coping strategies among women with and without PCOS. The data of 120 women were selected for the present study and the data was collected using a convenient sampling technique. The tools used for the study are The Perceived stress scale was developed by Sheldon Cohen (1988), and The Brief-COPE Inventory was adopted by Carver (1997). After the data was collected it was analyzed through IBM SPSS software. Correlation and Independent Samples T-Test were used to analyze the data. The results show that there is no significant difference between Perceived stress among women with and without PCOS. There is no significant difference between women with and without PCOS in Coping strategies. There is no significant relationship found between perceived stress and coping strategies among women with and without PCOS hence a significant correlation.

Keywords: Perceived Stress, Coping Strategies, PCOS

he fact that PCOS is characterized by a vicious cycle of "metabolic stress" and "emotional distress" is obvious. Genetic, developmental, and environmental variables all contribute to metabolic stress, which results in major symptoms; these manifestations lead to continual escalating stress.

Perceived Stress Perceived stress refers to the degree to which events in a person's life are assessed as stressful, unpredictable, and uncontrollable (Cohen & Kamarck et al.,1983; Phillips, 2012). Stress is a mental condition in which a person feels overwhelmed by whatever situation they are in or must encounter. One feels incapable of dealing with such situations, which can influence both mental and physical health. Too much stress suppression harms oneself, resulting in major life consequences, and so learning to deal with such stressful events and settings is essential. Physical stress, psychological stress, psychological stress, and psycho-spiritual stress are the four sorts or categories of stress factors. The predictable reaction of tissues, organs, and systems to mechanical and physiological stimuli is referred to as physical stress. Psychological stress refers to the feelings that people have while they are under mental, bodily, or emotional duress. Psychosocial stress is caused by an imbalance between the negative events we encounter in

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our daily lives and our ability to cope with them. Psycho-spiritual stress is characterized by a crisis of values, meaning, and purpose; joyless striving (rather than productive, gratifying, meaningful, and rewarding employment); and a misalignment of one's underlying spiritual beliefs.

Coping strategies

Coping strategies, as defined by the American Psychological Association, are "an action, a series of actions, or a thought process used in dealing with a stressful or unpleasant situation or in changing one's reaction to such a situation." In contrast to defense mechanisms, coping strategies typically involve a conscious and direct approach to problems. Coping mechanisms are classified as appraisal-focused (adaptive cognitive), problem-focused (adaptive behavioral), emotion-focused, or avoidance coping. Appraisal-focused (adaptive cognitive) methods occur when a person alters their way of thinking, for as by using denial or removing oneself from the situation. Problem-focused coping encompasses all active efforts to handle stressful events and change a difficult person-environment interaction to modify or remove the stress caused by human behavior. One of the key coping mechanisms is emotion-focused coping, which acts to manage (tolerate, diminish, or eliminate) the physiological, emotional, cognitive, and behavioral reactions that follow the experience of a stressful encounter. Avoidant coping is associated with anxiety and depression and involves cognitive and behavioral attempts aimed at rejecting, minimizing, or otherwise avoiding dealing directly with unpleasant demands.

Polycystic ovarian syndrome, also referred to as PCOS is a frequent endocrine condition in women of reproductive age. Menstrual irregularity, biochemical and clinical hyperandrogenism, and the presence of polycystic ovaries causing small cysts on one or both ovaries are the most important clinical and diagnostic characteristics. PCOS can cause significant metabolic and reproductive symptoms in women. PCOS is frequently accompanied by increased body weight, which can aggravate the clinical appearance. PCOS is frequently accompanied by increased body weight, which might aggravate the clinical appearance when compared to women without PCOS. Clinical depression is more prevalent in women with PCOS. Excess weight, and clinical hyperandrogenism (hirsutism, acne, or androgenic alopecia) have all been explored as possible explanatory variables for discomfort.

Women with PCOS had a considerably higher physiological response to stress than controls. Polycystic ovarian syndrome (PCOS) affects 5-10% of women in their reproductive years, making it a prevalent endocrine condition during this time. Because of anovulation, it is the most common cause of infertility. PCOS is a multifaceted illness characterized by insulin resistance and androgen excess. There is growing evidence that inositol isoforms have a role in PCOS etiology. PCOS has a detrimental impact on women's life since it can lead to a multiple of health issues. PCOS presents symptoms such as hirsutism, obesity, acne, and irregular menstrual cycles, all of which degrade body image and undermine psychological well-being in women with PCOS by threatening their feminine features.

According to studies, women with PCOS have a higher risk of cardiovascular disease and metabolic syndrome due to an increase in dyslipidemia, obesity, hypertension, and diabetes. It is uncertain if PCOS women are predisposed to a higher risk of mental problems. Anxiety, despair, obsessive-compulsive behaviors, eating problems, and decreased quality of life have all been linked to women with PCOS. Women with PCOS might expect to acquire pre-

diabetes or type II diabetes over their lifespan. Women with PCOS are more likely to develop heart disease or have a stroke. PCOS would have greater somatic complaints than healthy controls.

A study was conducted by Damone et al., (2018) on women with and without PCOS in a large community and investigate the role of stress in contributing to and mediating the relationship between PCOS, depression and anxiety. The results concluded that there was a high effect of stress between PCOS, depression and anxiety.

A study was conducted by Basirat et al., (2020) to identify differences in the level of anxiety, coping styles, personality traits and social adjustments in infertile women with and without PCOS. The results indicated that infertile PCOS women had higher levels of trait anxiety than those without PCOS. However, state anxiety did not differ between women with PCOS.

METHODOLOGY

Research Design

This is a quantitative study done to measure two variables: perceived stress and coping strategies. A comparative study among women with and without PCOS was carried out.

Objectives

- To find out if there is any significant relationship between Perceived stress and problem focused coping among women with and without PCOS.
- To find out if there is any significant relationship between Perceived stress and emotional focused coping among women with and without PCOS.
- To find out if there is any significant relationship in Perceived stress and avoidant coping among women with and without PCOS.
- To find out if there is any significant difference between Perceived stress among women with and without PCOS.
- To find out if there is any significant difference between problem focused coping strategies among women with and without PCOS.
- To find out if there is any significant difference between Perceived stress and emotion focused coping strategies among women with and without PCOS.
- To find out if there is any significant difference between Perceived stress and avoidant coping among women with and without PCOS.

Hypothesis

- H_{O1}: There is a significant relationship between Perceived stress and problem focused coping among women with and without PCOS.
- H_{O2}: There is a significant relationship between Perceived stress and emotion focused coping among women with and without PCOS.
- H_{O3}: There is a significant difference between Perceived stress and avoidant coping among women with and without PCOS.
- H_{O4}: There is a significant difference between Perceived stress among women with and without PCOS.
- H₀₅: There is a significant difference between problem focused coping among women with and without PCOS.

- H₀₆: There is a significant difference between emotion focused coping among women with and without PCOS
- H₀₇: There is a significant difference between avoidant coping among women with and without PCOS

Sample

The sample is women with and without PCOS from Karnataka state. The sample size chosen was 120 women among which 60 were diagnosed with PCOS and 60 were healthy controls. Non-probability sampling method (convenient sampling) was used in the study as the sampling technique.

Instruments

Demographic questionnaire included questions such as age, and question if diagnosed with PCOS or not.

- 1. Perceived stress scale: Perceived stress scale was developed by Cohen et.al (1983). The 10 item scale measures of the degree to which situations in one's life are appraised as stressful. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Respondents how strongly they agree and disagree to the statements using a 5-point scale (0= never, 1= Almost never, 2=Sometimes, 3= Fairly-often, 4= Very often). PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A short 4 item scale can be made from questions 2, 4, 5 and 10 of the PSS 10 item scale.
- 2. Brief Cope scale: The Brief-COPE is a 28 item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event and was developed by Carver 1997. "Coping" is defined broadly as an effort used to minimize distress associated with negative life experiences. There are 14 two-item subscales within the Brief COPE, and each is analyzed separately: (1) selfdistraction, (2) active coping, (3) denial, (4) substance use (5) use of emotional support, (6) use of instrumental support, (7) behavioral disengagement, (8) venting, (9) positive reframing, (10) planning, (11) humor, (12) acceptance, (13) religion, and (14) self-blame. The scale can determine someone's primary coping styles with scores on the following three subscale: Problem Focused coping, Emotion-Focused coping, avoidant coping. Scores are presented for three overarching coping styles as average scores indicating the degree to which the respondent has been engaging in that coping style indicating the degree to which the respondent has been engaging in that coping style 1= I haven't been doing this at all, 2= A little bit, 3= A medium amount of time, 4 = I've been doing this a lot.

Procedure

The data of the research study was collected using google forms. The google forms were created and circulated among women. Both women with PCOS and without PCOS filled the forms. The form contained the basic demographic details along with two questionnaires-Perceived stress scale and Brief – Cope scale. This form took around 10 to 15 minutes to be filled. IBM SPSS software was used to analyze the data gathered.

RESULTS AND DISCUSSION

The data was analyzed using Pearson correlation, and Independent sample t-test.

Table 4.1 Pearson correlation for Perceived stress and Problem focused Coping strategies among women with PCOS.

Variables	N	M	SD	r	р	
PS	60	22.85	4.991	0.50	0.706	
PFCS		18.27	4.672			

^{** (}Problem focused coping strategies) **p<0.01

Table 4.1 shows that, the r value is 0.50 with the corresponding p value of 0.706. The p value is greater than 0.05 significance level, which indicates there is no significant correlation. Hence, we accept the null hypothesis.

Table 4.2 Pearson correlation for Perceived stress and Problem focused Coping strategies among women without PCOS.

Variables	N	\mathbf{M}	SD	r	p
PS	60	19.67	5.115	0.235	0.71
PFCS		19.13	4.663		

^{** (}Problem focused coping strategies) **p<0.01

Table 4.2 shows that, the r value is 0.235 with the corresponding p value of 0.71. The p value is greater than 0.05 significance level, which indicates there is no significant correlation. Hence, we accept the null hypothesis.

Table 4.3 Pearson correlation for Perceived stress and Emotional focused Coping strategies among women with PCOS.

Variables	N	M	SD	r	р	
PS	60	22.85	4.991	0.196	0.134	
EFCS		15.75	5.118			

^{** (}Emotion focused coping strategies) **p<0.01

Table 4.3 shows that, the r value is 0.196 with the corresponding p value of 0.134. The p value is greater than 0.05 significance level, which indicates there is no significant correlation. Hence, we accept the null hypothesis.

Table 4.4 Pearson correlation for Perceived stress and Emotional focused Coping strategies among women without PCOS

Variables	N	M	SD	r	р	
PS	60	19.67	5.115	0.260*	0.45	<u>.</u>
EFCS		15.95	4.196			

^{** (}Emotion focused coping strategies) **p<0.01

Table 4.4 shows that, the r value is 0.260* with the corresponding p value of 0.45. The p value is smaller than 0.05 significance level, which indicates there is a significant correlation. Hence, we reject the null hypothesis.

Table 4.5 Pearson correlation for Perceived stress and Avoidant Coping strategies among women with PCOS.

Variables	N	M	SD	r	р	
PS	60	22.85	4.991	0.120	0.360	
ACS		16.73	4.646			

^{**}p<0.01 ** (Avoidant coping strategies)

Table 4.5 shows that, the r value is 0.120 with the corresponding p value of 0.360. The p value is greater than 0.05 significance level, which indicates there is no significant correlation. Hence, we accept the null hypothesis.

Table 4.6 Pearson correlation for Perceived stress and Avoidant Coping strategies among women without PCOS

Variables	N	\mathbf{M}	SD	r	p	
PS	60	22.85	4.991	0.188	0.151	
ACS	16.95	4.168				
0.01	ded A	•	. \			

^{**}p<0.01 ** (Avoidant coping strategies)

Table 4.6 shows that, the r value is 0.188 with the corresponding p value of 0.151. The p value is greater than 0.05 significance level, which indicates there is no significant correlation. Hence, we accept the null hypothesis.

Table 4.7 Difference between women with and without PCOS on Perceived stress using independent sample t-test.

Variables With PCOS			Without PCOS				p	
	$\overline{\mathbf{N}}$	M	SD	N	M	SD		
Perceived stress	60	22.85	4.991	60	19.67	5.115	3.451	0.001

^{**}p< 0.05

Table 4.7 shows the difference between women with and without PCOS on Perceived stress. The mean value for Perceived stress is 22.85 for women with PCOS and 19.67 for women without PCOS with corresponding standard deviation of 4.991 and 5.115 respectively. To determine whether the observed difference in means is statistically significant for the population, a t-test was conducted. The calculated "t" value for Perceived stress between two groups is 3.451 with corresponding "p" value of 0.001, since this value is statistically significant at the .05 level. We reject the null hypothesis, indicating that there is a significant difference between women with and without PCOS on Perceived stress.

The purpose of this study was to investigate the perceived stress and coping strategies among women with and without PCOS and it was conducted with a sample size of 120 participants. The findings showed there is no significant correlation between perceived stress and problem-focused coping strategies among women with and without PCOS hence we accept the null hypothesis. There is no significant correlation between perceived stress and emotional-focused coping strategies among women with PCOS hence we accept the null hypothesis but there is a significant correlation among women without PCOS on emotional-focused coping strategies hence we reject the null hypothesis. There is no significant correlation between perceived stress and avoidant coping strategies among women with and

without PCOS hence we accept the null hypothesis. There is a significant difference between women with and without PCOS on Perceived stress hence we reject the null hypothesis. There is a significant difference between women with and without PCOS on Problem-focused coping strategies hence we reject the null hypothesis. There is no significant difference between women with and without PCOS on Emotional-focused coping strategies hence we accept the null hypothesis. There is no significant difference between women with and without PCOS on Avoidant coping strategies hence we reject the null hypothesis. It has been found that the study accepts the hypothesis for problem- focused coping strategy and avoidant coping strategy and there was no significant correlation between perceived stress and problem and avoidant coping strategies while accepting the hypothesis for emotional-focused coping strategy and there was a correlation between perceived stress and emotional focused coping strategy among women without PCOS but not among women with PCOS.

CONCLUSION

Findings of the study portrays there is a significant difference among women with and without PCOS.

- 1. The study reveals that there is a significant difference between women with and without PCOS on Perceived stress.
- 2. 2. When it comes to coping strategy on Problem focused coping strategies it was observed there is a significant difference between women with and without PCOS.
- 3. When it comes to coping strategy on Emotional focused coping strategies it was observed there is no significant difference between women with and without PCOS
- 4. When it comes to coping strategy on Avoidant coping strategies it was observed there is a significant difference between women with and without PCOS
- 5. The observation of the study concluded that there was a positive correlation between stress and emotional focused coping where as there is no correlation between problem focused and avoidant coping strategies.

Implications

The main aim of the study was to look into the relationship between variables perceived stress and coping strategies among women with and without PCOS. The study results show ambivalent. There is no relationship between Perceived stress and (problem focused and avoidant coping) among women with and without PCOS and there is relationship in emotional focused coping among women without PCOS but there is no relationship in women with PCOS. Further it has been found there is difference between women with and with PCOS on problem focused coping and emotional focused coping but no difference was found on avoidant coping strategy. The present study might help frame awareness programmes about stress management techniques and coping among women that improve an individual's well-being and addresses the concerns. We can focus more on the emotional focused coping strategies in women with PCOS also it might be helpful in gynecological studies.

Limitations and Suggestions

- There are certain limitations in the present study
- The current study had a limited sample size of just 120 people, however it might be expanded to produce more reliable results.
- The research solely included individuals from cities.

- The research only included individuals from the state of Karnataka.
- The same study may be carried out on women from other states and areas.
- Different factors can be added to a comparable study to broaden the area of research.

REFERENCES

- Archives of Gynecology and Obstetrics, 301(2), 619-626. https://doi.org/10.1007/s00404-019-05391
- Assistant Professor, Department of Biochemistry, Government Villupuram Medical College, Villupuram, Tamil Nadu, India., & Anithasri, A. (2022). Perceived stress among medical students during covid-19 pandemic and its impact on sleep and studies—A crosssectional study in south india. Journal of Communicable Diseases, 143–149.
- Awoke, M., Mamo, G., Abdu, S., & Terefe, B. (2021). Perceived stress and coping strategies among undergraduate health science students of jimma university amid the covid-19 outbreak: Online cross-sectional survey. Frontiers in Psychology, 12,63995 5. https://doi.org/10.3389/fpsyg.2021.639955
- Basirat, Z., Faramarzi, M., Chehrazi, M., Amiri, M., Ghofrani, F., & Tajalli, Z. (2020).
- Benson, S., Hahn, S., Tan, S., Janssen, O. E., Schedlowski, M., & Elsenbruch, S. (2010).
- Carron, R., Kooienga, S., Boyle, D. K., & Alvero, R. (2017). Coping in women with polycystic ovary syndrome: Implications for practitioners. The Journal for Nurse Practitioners, 13(10), 700–707. https://doi.org/10.1016/j.nurpra.2017.08.004
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress.
- Damone, A. L., Joham, A. E., Loxton, D., Earnest, A., Teede, H. J., & Moran, L. J. (2019). Depression, anxiety and perceived stress in women with and without PCOS: A community-based study. Psychological Medicine, 49(09), 1510–1520. https://doi.org /10.1017/S0033291718002076
- Differences between infertile women with and without PCOS in terms of anxiety, coping styles, personality traits, and social adjustment: A case-control study.
- Dumesic, D. A., Oberfield, S. E., Stener-Victorin, E., Marshall, J. C., Laven, J. S., & Legro, R. S. (2015). Scientific statement on the diagnostic criteria, epidemiology, pathophysiology, and molecular genetics of polycystic ovary syndrome.
- Endocrine Reviews, 36(5), 487–525. https://doi.org/10.1210/er.2015-1018
- Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., & Apter, C. (2021). Gender differences in perceived stress and coping among college students. PLOS ONE, 16(8), e0255634. https://doi.org/10.1371/journal.pone.0255634
- Hassan, S., Shah, M., Malik, M. O., Ehtesham, E., Habib, S. H., & Rauf, B. (2023). Treatment with combined resveratrol and myoinositol ameliorates endocrine, metabolic alterations and perceived stress response in women with PCOS: A doubleblind randomized clinical trial. Endocrine, 79(1), 208–220. https://doi.org/10.1007/s1 2020-022-03198-2
- Joshi, B., Mukherjee, S., Patil, A., Purandare, A., Chauhan, S., & Vaidya, R. (2014). A crosssectional study of polycystic ovarian syndrome among adolescent and young girls in Mumbai, India. Indian Journal of Endocrinology and Metabolism, 18(3), 317. https://doi.org/10.4103/2230-8210.131162
 - Journal of Health and Social Behavior, 24(4), 385.https://doi.org/10.2307/2136404
- Khafagy, G., El Sayed, I., Abbas, S., & Soliman, S. (2020a). Perceived stress scale among adolescents with polycystic ovary syndrome. International Journal of Women's Health, Volume 12, 1253–1258. https://doi.org/10.2147/IJWH.S279245

- Khafagy, G., El Sayed, I., Abbas, S., & Soliman, S. (2020b). Perceived stress scale among adolescents with polycystic ovary syndrome. International Journal of Women's Health, Volume 12, 1253–1258. https://doi.org/10.2147/IJWH.S279245
- Kite, C., Atkinson, L., McGregor, G., Clark, C. C. T., Brown, J. E., Kyrou, I., & Randeva, H. S. (2021). Sleep disruption and depression, stress and anxiety levels in women with polycystic ovary syndrome (Pcos) during the lockdown measures for covid-19 in the uk. Frontiers in GlobalWomen's Health, 2. https://www.frontiersin.org/articles/10.33 89/fgwh.2021.649104
- Kolahi, L., Asemi, N., Mirzaei, M., Adibi, N., Beiraghdar, M., & Mehr, A. M. (2015).
- Maladaptive coping with illness in women with polycystic ovary syndrome. Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN, 39(1), 37–45. https://doi.org /10.1111/j.1552-6909.2009.01086.x
- Mumusoglu, S., & Yildiz, B. O. (2020b). Polycystic ovary syndrome phenotypes and prevalence: Differential impact of diagnostic criteria and clinical versus unselected population. Current Opinion in Endocrine and Metabolic Research, 12, 66-71. https:/ /doi.org/10.1016/j.coemr.2020.03.004
- Paudel, U., Parajuli, A., Shrestha, R., Kumari, S., Adhikari Yadav, S., & Marahatta, K. (2022). Perceived stress, sources of stress and coping strategies among undergraduate medical students of Nepal: A cross-sectional study. F1000 Research, 11, 167. https://doi.org/10.12688/f1000research.75879.1
- Recommendations from the international evidence-based guideline for the assessment and management of polycystic ovary syndrome. Human Reproduction, 34(2), 388-388. https://doi.org/10.1093/humrep/dev363
- Sharma, M., Khapre, M., Saxena, V., & Kaushal, P. (2021). Polycystic ovary syndrome among Indian adolescent girls - A systematic review and metanalysis. Nepal Journal of Epidemiology, 11(3), 1063–1075. https://doi.org/10.3126/nje.v11i3.38460
- Teede, H. J., Misso, M. L., Costello, M. F., Dokras, A., Laven, J., Moran, L., Piltonen, T., Norman, R. J., & International PCOS Network. (2019). Erratum.
- The relationship between quality of life and coping strategies in polycystic ovary syndrome patients. Advanced Biomedical Research, 4, 168. https://doi.org/10.4103/2277-9175.162545
- Villarroel, C., Merino, P. M., Lopez, P., Eyzaguirre, F. C., Van Velzen, A., Iniguez, G., & Codner, E. (2011). Polycystic ovarian morphology in adolescents with regular menstrual cycles is associated with elevated anti-Mullerian hormone. Human Reproduction, 26(10), 2861–2868. https://doi.org/10.1093/humrep/der223

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Conflict of Interest

The author declared no conflict of interest.

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