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Research Paper

Emotion Regulation and Distress in Women with PCOS

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ABSTRACT

Polycystic ovary syndrome (PCOS) is a condition that affects a woman's hormone levels. Fluctuations in hormone levels and the concomitant physical changes can lead to depression, anxiety and also their level of emotional regulation. The current study aims to find out the difference in the levels of depression, anxiety, stress and emotion regulation among women with PCOS from Kerala. The study also compared the sample with another group without PCOS. The study collected data using the emotion regulation questionnaire and the DASS or depression, anxiety and stress scale from 86 women, 43 with PCOS and 43 without PCOS. Results showed that women with PCOS were significantly higher in their levels of depression and anxiety than those without PCOS. In their level of emotional regulation, those with PCOS were significantly lower than those without PCOS. The results also reflected the higher levels of anxiety in this young women sample, possibly due to the pandemic uncertainties.

Keywords: *Polycystic Ovarian Syndrome, Emotional Regulation, Depression, Stress Anxiety*

Polycystic Ovary Disease is a hormonal disorder that affects women within the age group 12–45 years, and having 15%–20% prevalence among infertile women (Lobo et al, 2017). It refers to a condition when a woman has a number of small cysts in the ovaries (Guptha, 2018). Irregular periods are the commonest symptom of PCOS. Female sex hormones and a small amount of masculine sex hormones are normally produced by the ovaries (androgens). PCOS causes the ovary to produce slightly more androgens than normal healthy ovaries. Skin problems, weight gain or loss, excessive hair growth, obesity, irregular periods, fertility problems, and diabetics are all common PCOS symptoms (Azzis et al, 2006). Along with these physiological problems, depression and anxiety are common in ladies with PCOS (Kerchner et al, 2009, Sadeeqa, Mustafa & Latif, 2018) and thereby it severely affects not only the metabolic but psychological wellbeing of those affected (Rasgon, 2003).

Distress is defined as uncomfortable thoughts or emotions that have an effect on one's ability to function, believed as a maladaptive response to a disagreeable state. External events or stressors place demands on us that we are unable to change, resulting in psychological distress which is a subjective experience (Sheila. R, 2004). The symptoms of mental distress

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include a wide variety of physical to mental conditions. Physical symptoms include sleep disturbance, loss of menstruation, headaches, chronic pain and fatigue. Mental symptoms include difficulty in anger management, compulsive behavior and mood swings. It is a state of emotional suffering related to stressors and demands that are troublesome to deal with in existence. It is generally characterized by the symptoms of anxiety and depression. Depression might vary from gentle to severe and symptoms include feeling sad, sleep disturbance, loss of energy or raised fatigue, feeling chaffy or guilty, difficulty thinking, concentrating, or creating decisions, weight loss or gain, and suicidal tendencies (DSM V). Depression can affect anyone—even an individual who seems to live in comparatively ideal circumstances. (Kessler, R. C et al, 2005).

Anxiety is characterized by increased arousal and widespread feelings of fear or apprehension. It is a vague or speculative fear that something bad could happen right now. If such feelings become intense and persist for long periods of time, they can constitute another necessary form of psychological disorder. (Gorman, J., 1989).

Stress is our response to events that disrupt or threaten to disrupt our physical or psychological functioning. Stress may be a common part of life; in excess it appears to bring negative effects on both physical health and mental well-being. Symptoms of stress include: becoming easily disturbed, frustrated, and moody, feeling overwhelmed (Pierson, 2002).

Several factors have been suggested as cause of psychological distress in ladies with PCOS, including possible sterility, high body mass index, and metabolic disorder often resulting in low self-esteem, stress, depression, and anxiety (Franks, et al, 2017).

Emotional regulation refers to the process by which individuals influence which emotions they have, when they have them, and how they experience and express their feelings. (Gross, 1998). Emotion regulation can be conscious or unconscious, automatic or controlled. Emotion dysregulation has been linked to symptoms of depression, anxiety, gastrointestinal pathology, and abuse (Lexi. H., 1999). Higher levels of emotion regulation are linked to high social skills and, as a result, the expression of ethically appropriate emotions (Hurley, S., 2006).

Many features of PCOS include irregular or absent menstrual periods, infertility, and the associated hormonal levels can have an emotional impact and affect emotional regulation. The distress experienced is also dependent on the emotional regulation capacity of a person which influences the displayed and experienced psychological symptoms (Pearte C, 2009).
The study aimed to find if there was a difference in the level of depression, anxiety, stress and emotional regulation among those with PCOS and a similar group of women without PCOS.

METHODOLOGY

A comparative study of women with PCOS with those without PCOS was conducted on a purposive sample of 86 women within the age range of 18-30, 43 with PCOS and 43 without PCOS. The majority (89%) of the participants were college students within the age of 18-25 and most of them belonged to financially well-off families. The Depression Anxiety Stress Scale or DASS-42, (Lovibond & Lovibond, 1995) a 42 item self-report scale, rated on a 4-point scale ranging from Never, Sometimes, Often, Always, was used to measure the negative emotional states of depression, anxiety and stress, with 14 items each for the subscales. Emotional Regulation Questionnaire, ERQ (Gross, J.J., & John, O.P, 2003), a 10-

item self-report measure rated on 7-point Likert agreement scale was used to assess emotional regulation capacity. Both the above scales have high validity and reliability, and for this study, the reliability (Cronbach Alpha) of the scales and its subcomponents ranged from 0.71 to 0.92. A socio demographic sheet was also used to collect demographic information. Google Forms was used to collect data from the participants and the data was later analysed using SPSS, version 22.0.

RESULT

The results of the data analysis that was used to describe the sample and address the research questions and associated hypotheses are presented below. Since the data collected was normally distributed as tested with the Shapiro Wilks test, parametric tests were used for the analysis.

The DASS-42 questionnaire output gives separate scores for anxiety, depression and stress. The mean scores of these 3 components were analysed using t-test to find out if the two groups were different. The results are given below.

Table 1- t-test comparing depression among women with and without PCOS.

Variable	Group	Mean	t value	Sig.
Depression	With PCOS Without PCOS	16.14 10.72	3.038	.003

Table 2- t-test comparing anxiety among women with and without PCOS.

Variable	Group	Mean	t value	Sig.
Anxiety	With PCOS	14.35	2.256	.027
	Without PCOS	10.77		

Table 3- t-test comparing stress among women with and without PCOS.

Variable	Group	Mean	t value	Sig.
Stress	With PCOS	17.26	1.602	.113
	Without PCOS	14.51		

Table 4- t-test comparing emotional regulation among women with and without PCOS.

Variable	Group	Mean	t value	Sig.
Emotion regulation	With PCOS Without PCOS	43.72 47.84	-2.560	.012

From the tables 1-4 it can be seen that the two groups are significantly different from each other in the levels of depression, anxiety, and emotional regulation. Only when comparing for stress, it was found that the t-value was not significant.

Pearson's correlation between the components of distress and emotional regulation for the two groups separately yielded the results as shown in table 5 below.

Table 5-Pearson's correlation between emotion regulation and DASS subcomponents.

Variables	Emotion regulation with PCOS	Emotion regulation Without PCOS
Depression	.265	-.055
Anxiety	.146	-.019
Stress	.263	-.104

None of the subcomponents of the DASS scale had a significant correlation with emotional regulation but it is interesting to note the direction of correlation for the two groups.

DISCUSSION

The aim of the study was to compare the level of psychological distress and emotional regulation between women with and without PCOS. The study collected data from 86 women, 43 with PCOS and 43 without PCOS within the age range of 18 to 30, where 50 % were up to the age of 21 and 39% were from 21-25yrs selected through a purposive sampling technique.

Depression- According to the score interpretation in the scale's manual (Lovibond & Lovibond, 1995), the mean score of the women with PCOS fell in the moderate depression range (14-20), while that of the women without PCOS was in the start end of the mild depression range (10-13). In the background of Covid restrictions, the mild levels of depression were understandable. The t-test indicated that the depression level of those with PCOS was significantly higher. Among the 3 subcomponents of the DASS scale, this component of depression showed the most difference between the two groups, with a difference of 5.42 points between the mean scores.

Anxiety- The two groups were also significantly different in their anxiety levels. While the mean anxiety level of those with PCOS was higher and almost at the severe level (above 14), that of the other group was also relatively high in the moderate level (10-14). This high levels of anxiety in both the groups can again be explained based on the heightened anxiety seen in youth, during these pandemic times (Fenn et al, 2021). The difference between the mean scores of the two groups was 3.58.

Stress- While the mean score of the stress level was the highest, as per the scale's interpretation, the score of those with PCOS was in the mild level (15-18), and score of those without PCOS was bordering on the starting of mild stress. The difference between the two groups was lowest in this component, and this difference was not statistically significant.

Emotional regulation- Women with PCOS was significantly lower in their emotional regulation scores compared to those without PCOS. Having to manage the fluctuating hormone levels and higher levels of depression, anxiety and stress that they experience on a daily basis they could possibly become less adept at emotional regulation. Though not statistically significant in value, emotional regulation showed a negative relationship to the subscales of DASS for those without PCOS but it showed a positive (though not significant) correlation with depression, anxiety and stress for those with PCOS, indicating that as distress increases the emotional regulation capacity reduces and fluctuates along with the distress and vice versa.

CONCLUSION

Women with PCOS were significantly higher in depression and anxiety than those without PCOS, and in their level of emotional regulation, they were significantly lower than those without PCOS.

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Conflict of Interest

The author(s) declared no conflict of interest.

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