

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

Ankita Ojha<sup>1\*</sup>, Dhananjay Kumar<sup>2</sup>

### ABSTRACT

The present study investigated Introversion, Negative Affectivity and Psychological symptoms as the indicators of PCOS. It also investigated the relationship of these variables with PCOS. Sample consisted of 29 females age ranged between 15-35 years from Eastern Uttar Pradesh. Among them 14 were diagnosed with PCOS and its milder versions with a matched group of 15 subjects. Symptom-Checklist-90- Revised (SCL-90-R) used to measure various symptomatic complaints. Positive and Negative Affect Schedule (PANAS) utilized to measure affects. Introversion and Extroversion was measured by Maudsley Personality Inventory (MPI). Results revealed that subjects with symptoms of PCOS scored high on some dimensions of SCL-90-R however we didn't find any difference on Extraversion, Neuroticism and Affect dimensions. The notable finding of the present study is the emergence of Somatization as the predictor of PCOS group. The findings have been discussed utilizing the psychoanalytic and psychosomatic problems.

**Keywords:** *Personality, Affect, Psychosomatic complaints, PCOS.*

Polycystic Ovarian Syndrome (PCOS) is an endocrine disorder and considered a leading cause of female infertility worldwide (Goldenberg & Glueck, 2008). It is a heterogeneous syndrome characterized by features of anovulation (amenorrhea, oligomenorrhea, and irregular cycles) combined with symptoms of androgen excess, e.g., hirsutism, acne, alopecia (Zawadzki et al., 1992). The syndrome gets its name from multiple ovarian follicles, which look like cysts. In PCOS, many follicles will be developed (Soulez, Dewailly, & Rosenfield, 1996). A polycystic ovary defined as having 12 or more follicles (or cysts) within the 2-9 mm range under ultrasound (Balen, Homburg, & Franks, 2009). Stein & Leventhal (1935) were the first to distinguish the reproductive phenomenon that is known as PCOS. PCOS is a complex endocrine disorder involving more than one, and probably several genes (Stewart et al., 2006). Obesity serves as both a symptom and a contributory factor and is associated with the worsening of other symptoms. Complaints of depression, such as somatic concerns, work inhibition, dissatisfaction, and sadness, observed at a significantly higher rate in the group with pain (Lorenatto et al., 2006). Several studies reported 28% to 64% of patients with PCOS had depression (Waller et al., 1995; Scaruffi et

<sup>1</sup>Research Scholar, Dept. of Psychology, D.D.U Gorakhpur University, Gorakhpur, Uttar Pradesh, India.

<sup>2</sup>Professor, Dept. of Psychology, D.D.U Gorakhpur University, Gorakhpur, Uttar Pradesh, India.

\*Corresponding Author

Received: August 28, 2021; Revision Received: January 23, 2022; Accepted: February 28, 2022

## **Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women**

al.,2014). Depression is found to be associated with increased cortisol levels, increased sympathetic activity and decreased serotonin levels in the central nervous system (Hollinrake et al.,2007). Depression is common and more prevalent in diabetic people in comparison to healthy individuals. A study conducted by Roos et al. (2007) reported the relationship between insulin resistance and psychiatric distress in PCOS group.

Tan, Grigg & Kulkarni (2018) suggested that women with Borderline Personality Disorder (BPD) had higher than expected serum androgen levels and incidence of polycystic ovaries. Scaruffi et al. (2019) directed a study in which personality characteristic, body image, and alexithymia was assessed in women with PCOS and results revealed that PCOS group scored higher on alexithymia and enhanced body uneasiness. Low self-esteem was associated to a tendency toward introversion and withdrawal leading problems in social, professional, and intimate relationships. The personality traits of patients investigated with polycystic ovary syndrome, and patients manifested significantly higher, absolute and clinical elevation scores on depression, hysteria, psychasthenia and hypomania compared with the controls (Ozcan Dag et al.,2015). Relationship of hyper-androgenic syndrome with psychopathological personality investigated by a group and results revealed that patient group manifested schizoid, depressive, sadistic, negativistic, masochistic, avoiding, dependent, histrionic, narcissistic and obsessive–compulsive symptoms in various degrees (Scaruffi et al., 2014). They found delusional disorder and thought disorder. Rorschach test's results show reduced coping abilities and social skills, depression, perceptual distortion and cognitive slippage, constantly alert and worry, at risk for suicide, and finally, chronic stress.

A comparative study was done by Azizi & Elyasi (2017) concluded that a number of disorders are associated with PCOS, including impaired body image and body dissatisfaction, eating disorder, sexual dysfunction, and reduced quality of life. Based on a tendency to use helplessness, self-blame, and accepting responsibility, which are unwillingly applied in their daily life that are mostly characterize as emotion focused coping. The ACTH and cortisol stress responses were significantly enhanced in PCOS. In addition, heart rate was significantly higher in PCOS subjects. PCOS patients were characterized by increased psychological distress. Further, these patients showed enhanced HPA-axis and heart rate reactivity in response to stress. The altered stress reactivity in PCOS patients may constitute a link between depressions, overweight, and the cardiovascular and diabetes risks associated with the diagnosis. Elsenbruch et al. (2003), investigated the impact PCOS of health-related quality of life and sexuality. Patients showed greater disturbances on the dimensions of obsessive–compulsive, interpersonal sensitivity, depression, anxiety, aggression, and psychoticism, along with a lower degree of life satisfaction scales of health, self, and sex. Health related quality of life revealed significantly decreased scores for physical role function, bodily pain, vitality, social function, emotional role function, and mental health in patients with PCOS.

Many psychological symptoms have been correlated with PCOS, however, it is still unclear that, whether these factors have only correlation or they have at least some causal role in PCOS. Most studies have shown only correlation of psychological factors with PCOS, but some studies have investigated the causal role also, although the number is little, but they are able to demonstrate that there are some evidences that suggested the causal role of psychogenic factors in the PCOS. Some studies are able to demonstrate that these psychological factors will have a mediating effect or a role to aggravate the symptoms of

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

PCOS. It was also evident that there is significant lack of studies that focus upon the psychological origin for PCOS. The present researcher has opinion that there may be variables of psychological origin for PCOS that have not been studied well until date.

The major purpose of the present study is to investigate Introversion, Negative Affectivity and Psychological Symptoms as the psychological indicators of PCOS (Polycystic Ovarian Syndrome) and to know the magnitude and directions of relationship of these psychological variables with PCOS.

### METHODOLOGY

**Ethical clearance:** The study was approved by departmental committee and clearance was given by the Department of Psychology at DDU Gorakhpur University. Furthermore, **informed consent** was obtained before collecting the data. The **confidentiality** was discussed with each participant and it is ensured by the present researcher that this will not be breached.

#### *Sample*

Sample consisted of 29 females; age ranged between 15 – 45 years, from Gorakhpur city, Uttar Pradesh. Patient group consisted of 14 subjects suffering from PCOS and its milder version. Among these, six were diagnosed with PCOS whereas eight were having mild symptoms of PCOS. Matched groups of 15 subjects were also sampled. All the participants in this study were not pregnant and not beginning menopause.

#### *Instruments*

- **Symptom Checklist 90-Revised (SCL-90-R) developed by Derogatis in 1973** (Derogatis, 1992). It is a 90 item self-report inventory that measure current psychological symptom status within a time reference of recent 7 days including today. SCL-90 R takes 12-15 minutes to administer, yielding nine scores among global distress indices. The primary symptom dimensions assessed are somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, and a category of additional items, which helps clinicians assess other aspect of the client's symptoms. Test-retest reliability coefficients range between .80 and .90. The validity studies of the SCL-90-R demonstrate levels of concurrent, convergent, discriminant and construct validity comparable to other self-report inventories.
- **Positive and Negative Affect Schedule, (PANAS)** was developed by David Watson, Lee Anna Clark, and Auke Tellegen in 1988. The list splitted into two segments or mood scales in which one scale measures a person's positive emotion and other scale measures the negative. Each segment has ten terms, which rated on scale of 1 to 5 to indicate the extent to which the respondent agrees that this applies to him. The segment of positive affect consists Interested, Excited, Strong, Scared, Enthusiastic, Irritable, Ashamed, Nervous, Attentive, and Active. The negative affect is Distressed, Upset, Guilty, Hostile, Proud, Alert, Inspired, Determined, Jittery, and Afraid. Internal consistency for the PANAS ranged between .86 - .90 for positive affect and .84 -.87 for negative affect. Test retest reliability for PANAS (after one week).<sup>[16]</sup> Scores range from 10-50 for both sets of items. For the domain of positive affect, higher score was indication of a positive affect while, for the domain of negative affect, lower score was indication of less of a negative affect.
- **Maudsley Personality Inventory (M.P.I)** originally developed by Eysenck, adapted in hindi by J. Jalota and S. D. Kapoor. It was designed to measure two important

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

personality dimensions namely Neuroticism and Extraversion. Both Split-Half and Kuder-Richardson reliability coefficients has been calculated. For the Neuroticism scale, these values nearly all lie between .85 and .90; for the Extraversion scale, they lie between .75 and .85 with the majority above .80.

### **Procedure**

Present researcher visited some hospitals of Gorakhpur city with appropriate permission from the departmental ethical committee. Subjects contacted individually and after establishing rapport informed consent from responded taken. Purpose and the procedures of the study introduced to them and instructions given. After securing that the instructions had well understood by the subjects, the measuring tools administered.

### **Inclusion criteria**

Patients diagnosed with PCOS and its mild version by a professional. Age ranged between 15-45 years (reproductive years).

### **Exclusion criteria**

Samples who were unwilling to participate and those with comorbid reproductive problems.

## **RESULTS**

Eleven tests of between-subject comparison (One Way Analysis of Variance) computed for group (patient and non-patient) on dimensions of symptomatic complaints. We found significant main effect for group on somatization, [ $F = (1, 27) 14.88 p < 0.01$ ], obsessive-compulsive disorder, [ $F = (1, 27) 10.73 p < 0.01$ ], interpersonal sensitivity, [ $F = (1, 27) 4.09 p < 0.05$ ], depression, [ $F = (1, 27) 5.86 p < 0.05$ ], anxiety, [ $F = (1, 27) 5.29 p < 0.05$ ], paranoid ideation [ $F = (1, 27) 4.64 p < 0.05$ ] and psychoticism, [ $F = (1, 27) 4.18 p < 0.05$ ]. The effect of group was not significant on hostility, phobic anxiety and additional items. Patients reported higher levels of somatization ( $M = 12.46$  vs. 4.00), OCD ( $M = 14.20$  vs. 8.28), interpersonal sensitivity ( $M = 8.40$  vs. 4.78), depression ( $M = 18.33$  vs. 10.78), anxiety ( $M = 10.26$  vs. 5.35), paranoid ideation ( $M = 7.13$  vs. 3.78), and psychoticism ( $M = 10.00$  vs. 5.57) than did the subject of non-patient group.

Four One Way Analysis of Variance (ANOVA), also computed to know the effect of group (patient and non-patient) on Affect and Personality. The main effect of group was not found significant for Extraversion, Neuroticism and, Positive and Negative Affectivity.

To examine how and to what extent various personality (viz., neuroticism and extroversion) and affect variables are related with dimensions of SCL-90-R, inter-correlations between personality and affect variables and dimensions of SCL-90-R calculated separately by group wise (patient and control group).

It is evident from table (1) that negative affectivity correlated significantly and positively with somatization ( $r = .64, p < .01$ ), OCD ( $r = .74, p < .01$ ), interpersonal sensitivity ( $r = .56, p < .05$ ), depression ( $r = .75, p < .01$ ), anxiety ( $r = .74, p < .01$ ), hostility ( $r = .61, p < .05$ ), paranoid ideation ( $r = .71, p < .01$ ), psychoticism, ( $r = .70, p < .01$ ), additional item ( $r = .80, p < .01$ ) and total ( $r = .78, p < .01$ ). However, it was not correlated with phobic anxiety in the patient group.

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

Similarly, neuroticism correlated significantly and positively with OCD ( $r = .54, p < .05$ ), depression ( $r = .77, p < .01$ ), anxiety ( $r = .64, p < .01$ ), hostility ( $r = .54, p < .05$ ), paranoid ideation ( $r = .68, p < .01$ ), psychoticism ( $r = .67, p < .01$ ), additional item ( $r = .68, p < .01$ ) and total ( $r = .66, p < .01$ ). However, it was not correlated with somatization, interpersonal sensitivity and phobic anxiety. Positive affectivity and extroversion were not correlated with the dimensions of SCL-90-R.

**Table:1 Correlation of different dimensions of SCL-90-R with affect and personality dimensions in patient group**

Dimensions of Affect and Personality	Dimensions of SCL-90-R										
	Somatization	OCD	Interpersonal Sensitivity	Depression	Anxiety	Hostility	Phobic Anxiety	Paranoid Ideation	Psychoticism	Add Item	Total
Positive Affectivity	.61	-.009	-.15	.04	.15	.23	-.24	.14	-.05	.21	.05
Negative Affectivity	.64**	.74**	.56*	.75**	.74**	.61*	.42	.71**	.70**	.80**	.78**
Neuroticism	.32	.54*	.36	.77**	.64**	.54*	.41	.68**	.67**	.68**	.66**
Extraversion	-.08	-.21	-.24	-.04	-.02	.04	-.33	-.18	.09	-.01	-.10

SCL-90-R= Symptom checklist- 90 item- revised, \* $p < 0.05$ , \*\* $p < 0.01$

**Table:2 Correlation of different dimensions of SCL-90-R with affect and personality dimensions in non-patient group**

Dimensions of Affect and Personality	Dimensions of SCL-90-R										
	Somatization	OCD	Interpersonal Sensitivity	Depression	Anxiety	Hostility	Phobic Anxiety	Paranoid Ideation	Psychoticism	Add Item	Total
Positive Affectivity	.18	.36	.07	.38	.25	.47	-.09	.29	.45	.37	.36
Negative Affectivity	.11	.61*	.32	.38	.26	.56	-.11	.40	.59*	.44	.48
Neuroticism	.41	.03	.35	.65*	.59*	.44	.30	.17	.57	.44	.53*
Extraversion	.08	-.01	-.17	.05	.12	.10	.03	.11	-.01	-.07	.02

\* $p < 0.05$ , \*\* $p < 0.01$

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

Thus, it is evident from both of the correlation table that negative affectivity and neuroticism were correlated with various dimensions of symptomatic complaints, particularly in the patient group.

After the observation of the correlation, a need felt to explore the predictors for the symptomatic complaints. Thus, to examine the relative significance of various personality and affect variables in predicting different types of symptomatic complaints as well as the overall mental health, a set of stepwise multiple regression analyses were conducted. Domains of positive and negative affect and two dimensions of personality namely extroversion and neuroticism entered as predictor and dimensions of SCL-90-R and its total as criterion.

It is evident from the table (3) that out of four predictors entered in the equation 'negative affectivity' emerged as the best predictor and predicted obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, paranoid ideation, psychoticism as well as additional items. Second best predictor was neuroticism and it predicted depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism and additional items. Another domain of affect variable was positive affectivity that predicted psychoticism.

**Table: 3 Results of multiple regression analysis using domains of personality and affect as predictor and various dimensions of SCL-90-R as criterion**

Predictors (In bold face)	R	R <sup>2</sup>	R <sup>2</sup> change	F change	Beta	t
Criterion Variable: Somatization	.53	.28	.28	2.36*	-	-
Criterion Variable: Obsessive Compulsive <b>Negative Affectivity</b>	.75	.56	.56	7.82**	.73	.05**
Criterion Variable: Interpersonal Sensitivity <b>Negative Affectivity</b>	.67	.44	.44	4.88**	3.01	1.69**
Criterion Variable: Depression <b>Neuroticism</b>	.83	.69	.69	13.39**	.60	5.03**
<b>Negative Affectivity</b>					.47	3.07**
Criterion Variable: Anxiety <b>Neuroticism</b>	.72	.51	.51	6.52**	.50	3.37**
<b>Negative Affectivity</b>					.42	2.19*
Criterion Variable: Hostility <b>Neuroticism</b>	.66	.44	.44	4.73**	.32	2.00*
<b>Negative Affectivity</b>					.47	2.27*
Criterion Variable: Phobic Anxiety <b>Neuroticism</b>	.51	.26	.26	2.15	.38	2.04
Criterion Variable: Paranoid Ideation <b>Neuroticism</b>	.71	.51	.51	6.37**	.42	2.78**
<b>Negative Affectivity</b>					.47	2.48**
Criterion Variable: Psychoticism <b>Neuroticism</b>	.81	.66	.66	11.96**	.48	3.84**
<b>Negative Affectivity</b>					.66	4.17**
<b>Positive Affectivity</b>					-.34	-2.10**
Criterion Variable: Additional Item <b>Neuroticism</b>	.76	.59	.59	8.69**	.46	3.34**
<b>Negative Affectivity</b>					.47	2.67**

\*p<0.05, \*\*p<0.01

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

To test the personality and affect variable as well as the symptomatic complaints as the predictors of PCOS, a Binary Logistic Regression was computed in which group (PCOS, Non-PCOS) was entered as criterion whereas, all other variables were entered as the predictors. First somatization, obsessive compulsive disorder, depression and anxiety, entered into the equation. The omnibus test of model coefficient was significant.

**Table: 4 Omnibus Test of Model Coefficient**

		Chi-square	df	Significance
Step1	Step	19.44	4	.001
	Block	19.44	4	.001
	Model	19.44	4	.001

**Table: 5 Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20.75	.489	.652

In the model summary, -2 Log Likelihood was **20.72** estimated at iteration number **7**. Cox and Snell R square was **.48**, whereas Nagelkerke R square was **.65**, thus, the entered variables were accounted for **48.9%** and **65.2%** variance of the group respectively. Further Hosmer Lemeshow Test was found non-significant that indicates the model fit of the equation. However, B suggested that only Somatization has predicted significantly the PCOS group. The B of depression and anxiety were not significant.

**Table: 6 Hosmer Lemeshow Test**

Step	Chi-square	df	Significance
1	2.48	8	.96

**Table:7 Coefficient and Significance**

	B	S. E.	Wald	df	Significance
Somatization	.45	.20	5.01	1	.02
Obsessive Compulsive Disorder	.24	.18	1.74	1	.18
Depression	.11	.12	.87	1	.35
Anxiety	-.27	.24	1.24	1	.26
Constant	-5.53	2.40	5.31	1	.02

Remaining variables of symptomatic complaints were also entered the equation where the model summary was not found significant. Similarly, the personality and affect variables were also entered into equation but again the model summary was not found significant. **Thus, only Somatization was appeared as the predictor of PCOS group.**

### **DISCUSSION**

The present study examined Introversion, negative affectivity and symptomatic complaints as the psychological indicators of PCOS (Polycystic Ovarian Syndrome) and the magnitude and directions of relationship of these psychological variables with PCOS. Subjects with

## **Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women**

symptoms of PCOS have scored high on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Paranoid Ideation and Psychoticism. It is also evident that patient group has not shown any difference on extraversion, neuroticism and, positive and negative affectivity. However, the correlation of negative affectivity found to be significant for various dimensions of SCL-90-R. Similarly, neuroticism also correlated with many dimensions of SCL-90-R in the patient group. In non- patient group the relationship among the variables have not emerged like those of patient group. Further, Negative Affectivity and Neuroticism emerged as the best predictor for symptomatic complaints. Nevertheless, they have not predicted Somatization and Phobic Anxiety. The major finding of this study is the emergence of somatization as the predictor of PCOS group. It is interesting to see that the personality and affect variables have not predicted somatization but somatization have emerged as a major variable to characterize the PCOS group.

As we know that Somatization is related with the complexes developed in the psychosexual developmental phases in the psychoanalytic tradition where it is said that repressed conflicting materials of the unconscious turned into a physical problem or in other words, when unable to actualize in conscious mind, they manifest themselves in symptoms and sometimes as a physical problem.

Before this study, few studies have been planned to know the causal relationship between functional problem and PCOS. In this regard, this study explored the possible causal link between psychogenic variables and PCOS.

In psychodynamic theory, somatization is seen as a psychological defense to distress and thoughts or fantasies are repressed and transferred inwards and expressed in physical symptoms.

The term psychosomatic refers to real physical symptoms that arise from or are influenced by the mind and emotions rather than a specific organic cause in the body. Persons who experience stressful events like trauma, abuse, frequent illness, fear, depression, anger, guilt, insecurity, and other difficult situations. The individuals affected are either unable to discharge their emotions adequately by verbal and other everyday means or to erect psychological defenses for the alleviation of emotional tension as by rationalizing the stress situation or becoming desensitize to it. Therefore, they depend on repression, that washed out their emotional contents from conscious awareness and lead to the damage at some physical level.

Projective defenses, predispose to psychological regression under stress, whereas, repressing and denying defenses, serving to maintain an effective external adaptation, resulted in internal somatic discharge and regression. In dysmenorrhea (painful menstruation), the most common emotional factor is ambivalence about the feminine role. This finding is further strengthened with a study that tested subjects with dysmenorrhea showed anxiety about bodily functions in their psychogalvanic responses. Their attitudes toward sex were characterized by anxiety. Oligomenorrhea, or scanty menstruation at long intervals, sometimes is a secondary result of psychic regression. In these syndromes the women respond to the female sexual function, not with masculine identification, but with depression and regression to the oral phase of development. Amenorrhea (absence of menstruation) may result from emotional conflict situations where suppression of menstruation in young



## **Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women**

women is a defense against sexuality and where a rich heterosexual fantasy life substitutes for all the unacceptable, painful, and disagreeable parts of femininity.

Relationships of obstetric complications, total labor times, and birth weights to maternal anxiety studied, in which an abnormal group identified which obtained significantly higher composite anxiety scores than a normal group (McDonald, Gynther, & Christakos, 1963). The abnormal group was found to have less ego- strength and less self- sentiment development and more ergic tension and guilt proneness. The abnormal group on the regression- sensitization scale indicated that they responded to threatening situations, such as pregnancy with intellectual and obsession defenses.

Pregnancy fantasies are the cause of many psychosomatic symptoms in women. Studies have reported that the difficulties in these women on superficial examinations seem to be in their relation with men (Bressler, Nyhus & Magnussen, 1958).

### ***Limitations***

The sample of the present study was not large, because it consists of specific group of population which was not easily accessible, this restricts the generalizability of present study. Further data is collected from a specific area of eastern Uttar Pradesh that also restricts its generalizability. Our study consists of a specific group of population. For future studies, the age range of the sample should be enlarged. Moreover, there are very few studies that support our line of reasoning so, there is a need to do more replications of the present study to reach on a convincing conclusion.

### ***Implications***

The present study explores the relationship of symptomatic complaints. The characteristics findings of this study is the emergence of somatization as the predictor of PCOS group. Although the sample is small, however it is among the few studies that reasoned that PCOS is an outcome of the psychogenic conflicts and somatization is one of the major sources which will trigger or mediate PCOS among the biologically and genetically vulnerable subjects. This study contributes in the idea that PCOS is not only the source of distress rather, it will be an outcome of psychogenic factors. This body of knowledge has implications for the future researches to be planned and replicated in this line of reasoning it has also implications in counselling to deal with women with PCOS by the counselors, physician and other helping professionals.

## **REFERENCES**

- Azizi, M., & Elyasi, F. (2017). Psychosomatic aspects of polycystic ovarian syndrome: a review. *Iranian Journal of Psychiatry and Behavioral Sciences, 11*(2).
- Balen, A., Homburg, R., & Franks, S. (2009). Defining polycystic ovary syndrome.
- Bressler, B., Nyhus, P., & Magnussen, F. (1958). Pregnancy fantasies in psychosomatic illness and symptom formation: A clinical study. *Psychosomatic medicine, 20*(3), 187-202.
- Derogatis, L. R. (1992). SCL-90-R: Administration, scoring & procedures manual-II for the (revised) version and other instruments of the psychopathology rating scale series. *Clinical Psychometric Research.*, 1-16.
- Elsenbruch, S., Hahn, S., Kowalsky, D., Öffner, A. H., Schedlowski, M., Mann, K., & Janssen, O. E. (2003). Quality of life, psychosocial well-being, and sexual

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

- satisfaction in women with polycystic ovary syndrome. *The Journal of Clinical Endocrinology & Metabolism*, 88(12), 5801-5807.
- Goldenberg, N., & Glueck, C. (2008). Medical therapy in women with polycystic ovarian syndrome before and during pregnancy and lactation. *Minerva ginecologica*, 60(1), 63-75.
- Hollinrake, E., Abreu, A., Maifeld, M., Van Voorhis, B. J., & Dokras, A. (2007). Increased risk of depressive disorders in women with polycystic ovary syndrome. *Fertility and sterility*, 87(6), 1369-1376.
- Lorencatto, C., Alberto Petta, C., José Navarro, M., Bahamondes, L., & Matos, A. (2006). Depression in women with endometriosis with and without chronic pelvic pain. *Acta obstetricia et gynecologica Scandinavica*, 85(1), 88-92.
- McDonald, R. L., Gynther, M. D., & Christakos, A. C. (1963). Relations between maternal anxiety and obstetric complications. *Psychosomatic Medicine*, 25(4), 357-363.
- Ozcan Dag, Z., Oguzturk, O., Isik, Y., Turkel, Y., & Bulcun, E. (2015). Personality profile in patients with polycystic ovary syndrome. *Gynecological Endocrinology*, 31(7), 540-542.
- Roos, C., Lidfeldt, J., Agardh, C. D., Nyberg, P., Nerbrand, C., Samsioe, G., & Westrin, A. (2007). Insulin resistance and self-rated symptoms of depression in Swedish women with risk factors for diabetes: the Women's Health in the Lund Area study. *Metabolism*, 56(6), 825-829.
- Scaruffi, E., Franzoi, I. G., Civilotti, C., Guglielmucci, F., La Marca, L., Tomelini, M., ... & Granieri, A. (2019). Body image, personality profiles and alexithymia in patients with polycystic ovary syndrome (PCOS). *Journal of Psychosomatic Obstetrics & Gynecology*, 40(4), 294-303.
- Scaruffi, E., Gambineri, A., Cattaneo, S., Turra, J., Vettor, R., & Mioni, R. (2014). Personality and psychiatric disorders in women affected by polycystic ovary syndrome. *Frontiers in endocrinology*, 5, 185.
- Soulez, B., Dewailly, D., & Rosenfield, R. L. (1996). Polycystic ovary syndrome: a multidisciplinary challenge. *The Endocrinologist*, 6(1), 19-29.
- Stewart, D. R., Dombroski, B. A., Urbanek, M., Ankener, W., Ewens, K. G., Wood, J. R., ... & Spielman, R. S. (2006). Fine mapping of genetic susceptibility to polycystic ovary syndrome on chromosome 19p13. 2 and tests for regulatory activity. *The Journal of Clinical Endocrinology & Metabolism*, 91(10), 4112-4117.
- Tan, R. Y., Grigg, J., & Kulkarni, J. (2018). Borderline personality disorder and polycystic ovary syndrome: A review of the literature. *Australian & New Zealand Journal of Psychiatry*, 52(2), 117-128.
- Waller, K. G., & Shaw, R. W. (1995). Endometriosis, pelvic pain, and psychological functioning. *Fertility and sterility*, 63(4), 796-800.
- Watson, D., Clark, L.A., Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6):1063-1070.
- Zawadzki, J., Dunaif, A., Givens, J. R., Haseltine, F. P., & Merriam, G. R. (1992). Current issues in endocrinology and metabolism: Polycystic ovary syndrome.

### Acknowledgement

I would like to express my deep and sincere gratitude to my research supervisor, Prof. Dhananjay Kumar, DDU Gorakhpur University Gorakhpur, U.P. for his invaluable guidance, advice, time and support throughout this research. I am incredibly thankful to all my subjects

## Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women

who show their concern and participated in this study and, last but not the least my parents, friends, and colleagues for all love, encouragement and support.

### ***Conflict of Interest***

The author(s) declared no conflict of interest.

***How to cite this article:*** Ojha A. & Kumar D. (2022). Role of Personality, Affect and Psychosomatic Complaints in Polycystic Ovarian Syndrome (PCOS) among Women. *International Journal of Indian Psychology*, 10(1), 204-214. DIP:18.01.019.20221001, DOI:10.25215/1001.019