

DEFENSE MECHANISMS IN WOMEN WITH POLYCYSTIC OVARY SYNDROME

Irum Hayat*¹, Dr. Alay Ahmed², Dr. Fayyaz Ahmed Anjum³

Original Article

¹Ph.D Scholar, Department of Psychology, Preston University Kohat Pakistan (Islamabad Campus) & Faculty of Islamabad Model College For Boys G-11/1 under the ambit of Federal Directorate of Education (FDE), Ministry of Federal Education and Professional Training (MOFEPT) Islamabad Pakistan. Email: irumhayat@yahoo.com

2. Dean and Chairman Department of Psychology, Preston University Kohat Main Campus Pakistan. Email: alay.ahmed@gmail.com

3. Head of Department (Psychology), Preston University Kohat, Islamabad Campus. Email: fayyaz_ahmed_66@yahoo.com

ABSTRACT

The objectives of the study were to explore the nature of polycystic ovarian syndrome (PCOS) in order to identify different defense mechanisms of the ego. Defense mechanisms of women with polycystic ovarian syndrome (PCOS) have not been explored previously in qualitative studies with particular reference to Pakistani culture. A mixed method approach was used to explore experiences in 21 women with diagnosed polycystic ovarian syndrome (PCOS). Qualitative research designs consisted of interpretive phenomenological analysis (IPA) with Thematic Apperception Test, Focus Groups, Modified Hand Test and quantitative research design included survey analysis through Defense Style Questionnaire (DSQ-40) for the sample of PCOS women. 18 defense mechanisms with themes and sub-themes were identified by women with PCOS which were again categorized in three domains: 1) immature and unhealthy defenses 2) mature and healthy defenses 3) neurotic and anxiety related defenses. These defense mechanisms included: regression, repression, suppression, projection, aggression, introjection and displacement, denial/avoidance, dissociation, somatization, sublimation, anticipation, rationalization, altruism, fantasy, pseudo-altruism, devaluation of self/diminished self-esteem, reaction formation and idealization. It is concluded that women with mid age range i.e. (26-35 years) are frequently using more immature and unhealthy defense mechanisms. Mature and healthy defenses are mostly used by women with third age range i.e. 36-45 years. Neurotic or anxiety related defenses are mostly used by women with both age ranges i.e. 26-35 years and 36-45 years. These defenses affect the physical as well as psychological health related quality of life of women with PCOS.

Keywords: Polycystic Ovary Syndrome, Defense Mechanisms, Mixed Methods Study, Infertility, Quality of Life, Psychological Needs, Interpretive Phenomenological Analysis (IPA).

1. INTRODUCTION

Infertility is defined as the inability to get pregnant after passing one year of unprotected intercourse. There can be many reasons for female infertility but most commonly it occurs due to ovulation problems, endometriosis, blocked fallopian tubes, hormonal imbalances and endocrine disorder i.e. polycystic ovary syndrome (Chohan, 2010). That is why infertile women wishing to get pregnant perceive higher levels of psychological and emotional disturbances in comparison with normal women. Infertile women suffer from social stigma and negative outcomes resulting

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from marital conflicts, sexual dissatisfaction and socio-emotional aspects associated with higher anxiety, depression levels, lower quality of life, decreased sexual functioning and self-worth, increased psychological problems and unresolved health complaints (Chaudhari, Mazumdar & Mehta, 2018). Women with PCOS face a lot of issues accepting and adjusting to body issues like emotional strains, disturbed and distorted self-image, obesity, hirsutism, menstrual irregularities and altered mood swings (WHO, 2012). Among infertile couples experiencing PCOS, passive coping styles or strategies and inability to get social support make them more vulnerable to the disease (de Miranda, Melovanessa & Sousa, 2010). Every woman experiences different symptoms and the way to deal with this illness is always different in woman with PCOS. Infertile couples with PCOS use different defense mechanisms and coping strategies to protect themselves from the upcoming anxieties in their lives. They help them to get prepared well before time to deal with the worst situations resulting from PCOS coming ahead. Research indicates that coping strategies in women with PCOS strongly influence their quality of life (Kline, 2015).

Defense Mechanisms explain the unconscious processes of mind and help people to protect from social sanctions and anxiety securing the self and self-esteem. They provide people a shield from situation with they are unable to cope and adjust. They are mostly related to one's physical and psychological problems. Understanding these defense mechanisms in infertile women with PCOS can be helpful in diagnosing various problems (Lotfi, Shahram, Kazemi & Aghdam, 2014). Psychoanalytic theory describes the concept of defense mechanism (DM) as the main contributors towards the origin of neurotic symptoms and suggests how sick people use to defend themselves from pain and sufferings from unpleasant states and events. They serve as psychological resources that serve the Ego in order to get readjusted and attain intra-psychic balance in unconscious way.

Research suggests that infertile people face excessive somatic complaints i.e. headaches, pelvis pain and vomiting, and body dysmorphic disorders and become unable to get adjusted with their illnesses and disturbances. Such kind of poor incompatibility predisposes them towards extreme socio-psychological pressure and prevents them to think reasonably and rationally in any challenging situation using affective problem-focused measures. Infertility becomes their private concern which hides their true beliefs, ideas and emotions exposing them to poor relationships with partner as well as with friends, family members and significant others. Infertility may impair their self-esteem negatively. Research suggests that females react to their infertility problems with submission and docility, self-isolation and by internalizing their anger and sadness which lead them to helplessness and desperation. They project a very negative perception on themselves and their sexuality concerns (Daibes, Safadi, Athamneh & Anees, 2018). Body change during pregnancy or abortion, fear of losing some loved one in life or a child during delivery, or fear of failing to become a complete mother may generate stress which triggers many other clinical complications like psychological trauma, eating disorders, depression, anxiety, and sexual problems, somatization, drug addiction, obsessive compulsive disorder, social anxiety disorders and many personality disorders (Borghet Vander & Wyns, 2018). In a comparative study of fertile and infertile couples conducted by Justo, Melo & Ferreira (2010), defense mechanisms were investigated through defense mechanisms inventory (DMI). Infertile men and women were avoiding the aggressive impulses and showing the overuse of defense mechanisms enabling the rationalization and negating the frustrating circumstances.

According to a thematic study conducted by Naz et al (2019), adolescent women with PCOS use different coping strategies whilst dealing with this disorder. The main theme 'dealing

with PCOS” was based on the three themes and 12 sub-themes i.e. (1) Escaping problem consisted of sub-themes of adopting a forgetting mindset and minimization of the disorder. (2) Depressive mood consisted of sub-themes poor self-perception and low self-esteem, isolation, sleep apnea, passive aggressive behaviors, emotional turmoil, humiliation feelings and adolescents’ perceptions. (3) Coping with disease included sub-themes of health recovery, recovery hope and positive thinking patterns. The study showed a coping response related to problem solving to depressed mood and adjustment with the disease.

A study conducted by Poddar, Sanyal & Mukherjee (2014) indicated that the mature defense mechanisms are mostly used by infertile women in comparison with their fertile counterparts. The inadequacy feelings in infertile women come with the inability to have children. Therefore by employing the defensive strategy of sublimation they channelize the anxiety arising from incomplete motherhood or parenthood and by idealizing somebody who is not enjoying motherhood. Infertile women are more unhealthily narcissistic. This narcissism may be fueled by criticism and rejection causing them to take more interest in self. They may get affected by their attachments in relationships and with others feeling distress and self-preoccupations.

1.1 RATIONALE OF THE STUDY

Defense mechanisms of women with polycystic ovarian syndrome (PCOS) have not been explored previously in qualitative study with particular reference to Pakistan (PCOS). In this study both physical and psychological states have been identified through conducting thematic analysis, focus groups and modified hand test. The study also examined the types of defense mechanisms women with PCOS use in order to mitigate their psycho-social pressures of life. This study also served as a solid groundwork for the development of constructs of scale and subsequently for research questions and statements for the measurement of health related quality of life in women with polycystic ovarian syndrome (PCOS). Therefore researcher felt a dire need to conduct this study on women with polycystic ovarian syndrome (PCOS) to identify the defense mechanisms and to develop the constructs and generate the items of the scale. Purpose of the study was to provide research based data about nature of defense mechanisms deployment of infertile women with PCOS and provide theoretical data for the generation of various intervention strategies for medical and mental health practitioners.

2. METHOD OF THE STUDY

2.1 SIGNIFICANCE OF THE STUDY

Few studies have been done so far measuring the psychological aspects and defense mechanisms of women having problems of infertility. Defense mechanisms will be explored on the basis of data gathered through modified hand test in Pakistan. This study will provide a deep understanding and overview about the client’s psychological conditions, illnesses, their severity and intensity, co-morbidities and other associated features related to PCOS by suggesting effective treatment interventions, individual and family counseling techniques for these women. The study will also provide the reasons of why women with PCOS make use of certain defense and coping mechanisms in order to deal with their stressors of illness.

In Pakistani culture this illness has not been studied in detail so far and psychological aspects are not highlighted in detail. This study will identify and explore mature, healthy and unhealthy defense mechanisms affecting the physical as well as psychological health related states and conditions that appear as a result of this illness in Pakistani women and will also be helpful in constructing measures to assess various features of polycystic ovarian syndrome in women. The study will also examine the nature of mature/healthy, immature/unhealthy and neurotic/anxiety related defense mechanisms used by women in different age ranges.

2.2 STUDY OBJECTIVES

1. To explore the nature of polycystic ovarian syndrome (PCOS) in order to identify different defense mechanisms of the ego.
2. To explore age wise defense mechanisms persistent in women with PCOS.

2.3 RESEARCH DESIGN

A mixed method approach was used to explore experiences in 21 women with diagnosed polycystic ovarian syndrome (PCOS). Qualitative and quantitative research designs were used i.e. Thematic Apperception Test, Focus Groups, Modified Hand Test, and Defense Style Questionnaire (DSQ-40) were given to the sample of PCOS women. Ten cards of TAT test were used to identify the needs and constructs for the development of health related quality of life scale for women with PCOS. Focus groups were also conducted with probing questions from the subjects. A modified hand test consisting of 14 cards was applied on the subjects to explore the experiences of women with PCOS (Anjum, 2021). These cards were selected relevant to sexual, interpersonal, intrapersonal conflicts and defense mechanisms. The same were assumed to be presenting the sample of the present study of women with Polycystic Ovary Syndrome (PCOS).

2.4 PARTICIPANTS

Written consent was taken from all 21 female participants. Interpretive Phenomenological Analysis was done through using thematic analysis, focus groups and modified hand test. Purposive sampling was done to recruit women with polycystic ovarian syndrome (PCOS) from public and private sector hospitals, gynecological clinics and fertility centers of different sectors of Islamabad after seeking permission from their head of departments (HODs). The diagnosis of PCOS was set using Rotterdam Criteria (Zawadski & Dunaif, 1992) prior to inclusion in the study. Exclusion criteria were followed by excluding diagnosed women with menopause, hyperthyroidism and congenital abnormalities. The exclusion criteria were peri or postmenopausal status. Three age groups of women with PCOS were recruited i.e. 16-25 years, 26-35 years, and 36-45 years to see any difference.

2.5 ETHICAL CONSIDERATIONS

Informed consent was taken from participants while administration of Thematic Apperception Test, Hand Test and Focus Groups. Their consent was taken for participation and they were allowed to withdraw anytime during the process. Care was taken not to impose any mental or physical harm. Information collected was put in front of ethical committee of the university before deriving results and conclusions. Pseudonyms were used in all written documents and recording the data.

3. FINDINGS OF THE STUDY

The findings of the study revealed following results.

Table 1: Characteristic Features of Participants (N=21).

Gender	Female
Age Ranges	16-45 years
Body Mass Index	18-43 kg/m ²
Reproductive Status	Pre-menopausal
Diagnosis	Diagnosed on Rotterdam criteria of PCOS

Table 2: Immature and Unhealthy Defense Mechanisms used by Women with Polycystic Ovary Syndrome (N=21).

Defense Mechanisms	Description	Age Range (16-25Y)	Age Range (26-35Y)	Age Range (36-45Y)	Frequencies (%)
<i>Immature and Unhealthy Defenses</i>					
1. Regression	Responding to stress or pressure in various immature ways, Regressing the desire for baby through behaving like a child i.e. Crying, weeping, sleeping, Breaking kitchen utensils	3 (43%)	4 (57%)	4 (57%)	11 (52%)
2. Repression	Unable to maintain interpersonal relationships with spouse, Unable to maintain relationships with authority, Unconscious desires related to anger, Unconscious desires related to sex, Emotional states	3 (43%)	5 (71%)	3 (43%)	11 (52%)
3. Projection	Distorted self-image, Distorted Body image, Harsh and strict parenting, Latent hostility towards parents, Authoritative style of parents projected on to other family members, Domineering nature of mother, Blame and avoidance towards authority for own failure, Parents' uncooperative attitude, Manifested mother-daughter conflicts, Identification with authority, Lack of compliance, Siblings' rivalry, Projection of getting	4 (57%)	5 (71%)	3 (43%)	11 (57%)

attached to other women.

4. Passive Aggression	Passive aggressive patterns towards husband, Fear of being mutilated/violent while passive, Husband being revengeful against wife, Latent hostility, Anxiety and impulsivity.	4 (57%)	5 (71%)	4 (57%)	11 (62%)
5. Introjection and Displacement	Desire to regain approval by behaving in sophisticated ways, Like getting silent to reduce or control tensions, ignorance against their husbands' verbal abuse, depression and anger. Transferring aggression to weaker target like family member, siblings or other children in family or peer group, pets, partner, Misplaced anger, Sexual urges, Anger due to husband's behavior is projected on to younger siblings or children in family, Inappropriate emotional displays onto partner, Repressing anger by eating much, Blaming doctors for not being able to treat the illness.	3 (43%)	4 (57%)	3 (43%)	10 (48%)
6. Denial/ Rejection/ Avoidance	Blaming an innocent group or person for her own negative experiences, Blaming partner for her own problems, Blaming parents and siblings for her own mistakes and negative consequences, Avoidance of sexual activity, social situations	4 (43%)	4 (43%)	4 (43%)	11 (57%)

	and places, escaping from social stigma for not being able to reproduce baby/child. Feelings of sadness, regret, criticism, less social support, no acceptance from husband, in-laws, parents, siblings and other family members, inability of getting approval in home or in interpersonal relationships.				
7. Dissociation	Memory problems due to childlessness Forgetting Feelings of loneliness Pressure.	1 (14%)	3 (43%)	2 (29%)	6 (29%)
8. Somatization	Getting immature by repressing rejections feelings in relationships and throwing up the anxiety by showing unconscious complaints like physical problems, pain in abdomen, stomach problems, pelvis pain or pain in lower abdomen, vomiting, vertigoes, migraine headaches, chest pain, nausea or fatigue. Many women were showing acts of Dramatization and Conversion Hysteria	3 (43%)	4 (57%)	4 (57%)	11 (52%)

Table 3: Mature and Healthy Defense Mechanisms used by Women with Polycystic Ovary Syndrome (N=21).

Defense Mechanisms	Description	Age Range (16-25Y)	Age Range (26-35Y)	Age Range (36-45Y)	Frequencies (%)
Mature and Healthy Defenses					
1. Sublimation/ Compensation/Undoing	Channelizing the distress arising from ungratified need of motherhood/parenthood to nourishing babies of other family members or siblings, Getting attached to other children of family, Conversion of emotional states into exercising, Channelizing the feelings of incomplete mother into helping others through charity work, Displacing repressed desires by redirecting feelings into creative works or art work like painting, stitching, cooking, stitching, knitting etc.	4 (57%)	4 (57%)	6 (86%)	11 (71%)
2. Anticipation	Realistic anticipation for future discomfort through careful planning like adopting medical treatments before time and taking medications for fertility.	3 (43%)	4 (57%)	3 (43%)	10 (48%)
3. Suppression	Conscious way of paying attention to impulse or conflicts in order to minimize level of discomfort or tension.	1 (14%)	3 (43%)	3 (43%)	7 (33%)
4. Rationalization	The inability to reproduce children is seen as a personal failure or incompetency of mother towards having babies. This inability was leading	3 (43%)	4 (57%)	6 (86%)	13 (62%)

	them to feelings of guilt and frustrations.				
5. Altruism	Real feelings of helping/supporting others partially satisfied by gaining approval from others.	2 (29%)	5 (71%)	3 (43%)	10 (48%)

Table 4: Neurotic and Anxiety Related Defense Mechanisms used by Women with Polycystic Ovary Syndrome (N=21).

Defense Mechanisms	Description	Age Range (16-25Y)	Age Range (26-35Y)	Age Range (36-45Y)	Frequencies (%)
Neurotic and Anxiety Related Defenses					
1. Fantasy	Excessive day dreaming as a replacement for human relationships, effective strategies and problem solving measures as a means of conflict management.	2 (29%)	2 (29%)	3 (43%)	7 (33%)
2. Devaluation of self/splitting self/diminished self-esteem	Attributing negative qualities to self and others in exaggerated ways.	4 (57%)	4 (57%)	2 (29%)	10 (48%)
3. Pseudo-altruism	Unreal feelings of helping/supporting others partially satisfied by gaining approval from others.	2 (29%)	2 (29%)	3 (43%)	7 (33%)
4. Reaction Formation	Women were describing their psychosomatic complaints and illness of PCOS in exaggerated ways.	4 (57%)	5 (71%)	2 (29%)	11(52%)
5. Idealization	Idealizing somebody who is also not enjoying biological motherhood, being happy and content with life, and overcoming fear of getting distorted body figure by idealizing other women who are not mothers.	2 (29%)	3 (43%)	4 (57%)	9 (43%)

Result indicated 18 types of defense mechanisms used by women with PCOS which were again categorized in three domains i.e. a) immature or unhealthy defense mechanisms, b) mature, healthy or adaptive defense mechanisms and 3) neurotic or anxiety related defense mechanisms.

Table 2 depicted that among *immature and unhealthy defenses*, *regression* was used by 52% women from which 57% women with age range (26-35 years) and with (36-45 years) were using regression. *Repression* was used by 52% women and was more common in mid age range (26-35 years) as 71% women were using repression. *Projection* was used by 57% women with PCOS and 71% women with mid age range were using this defense mechanism. *Passive aggression* was used by 62% women with PCOS and was most common in mid age range women (26-35 years). *Introjection and displacement* were found interlinked with each other and 45% women were using them. They were most common in mid age range women. *Denial and rejection* were used by 57% women and commonly seen in both age ranges i.e. 26-35 and 36-45 years. 43% women with mid age range were using *dissociation*. 52% women were using *somatization* and body complaints were found in both age ranges i.e. from 25 to 45 years.

In Table 3, among *mature and healthy defenses*, *sublimation* was used by 71% women and most common in last age range i.e. 36-45 years. *Anticipation* was used by 48% women mostly used by 57% of women with mid age range. *Rationalization* was used by 62% women with PCOS; 86% women with last age range (36-45 years) were using it. *Altruism* was used by 48% women and mostly used by women with mid age range (26-35 years).

In Table 4, among *neurotic and anxiety related defenses*, 33% women were using *fantasy* and it was mostly used by women with last age range 36-45 years. 48% women were using *devaluation of self/splitting self* mostly used by women with first and second age ranges. *Pseudo-altruism* was used by 33%% women out of which 29% women of first and second age ranges i.e. 16 to 35 years. 52% women used *reaction formation* as defense mechanism mostly found in women with mid age range (26-35 years). *Idealization* was used by 43% women and was mostly used by women with third age range i.e. 36-45 years.

4. DISCUSSIONS

The present study revealed that women with PCOS use different kinds of defense mechanisms. Women in mid ranges (26-35 years) *regressed* and *repressed* their inner dissatisfactions through behaviors like crying on petty issues, weeping all the time whenever thoughts of being incomplete mother strike their heads, taking excessive sleep causing sleep disturbance in their sleep cycles and affecting their domestic routines that in turn was affecting their relationship with partners and family members, breaking kitchen utensils in order to project their inner anxiety, repressing their anger and were getting bulimic and obese. The results were aligned with a study conducted by Katiraei et al (2010) in which significant differences were obtained in the group of subsets including repression, introjections, projection, reaction formation, regression, denial, fancy and conversion between two groups of fertile and infertile women. Unconscious desires were mostly relating to anger and sex. Sigmund Freud said that sex and aggression are the nuclei of human conflict (Giacolini & Sabatello, 2018). Quality of the relationship and communication with partner seemed to impact on the emotional state of infertile women. Present findings were aligned with the study conducted by Jaan U et al. (2017) which suggested that women of three groups namely fertile, females with primary infertility and females

with secondary infertility show certain defense mechanisms on the dimensions of DSQ-60 that included repression, aggression, suppression and displacement.

Projective identification or 'splitting of self' was exhibited due to the distorted self-image and distorted body image of infertile women that might interfere with their self-esteem. Present study also discovered it in women with PCOS. They present high level of social stigma and diminished self-respect. Women with mid age range (26 to 35 years) were projecting their inner conflicts on to their spouse, children and family members through showing harsh and strict parenting styles, showing latent hostility towards parents and other family members. Blame and avoidance were seen towards authority for their own failures in life. They were projecting their parents' uncooperative attitude on to their life partners and in-laws. Their husbands were in turn projecting aggressive behaviors on to them and were getting attached to other women. The present finding was aligned with the study conducted by Jaan et al. (2017) in which defense mechanisms of humor, fantasy; projection, rejection, and devaluation were common in fertile females, females with primary and secondary infertility.

Women in the range of 36 to 45 years of age were channelizing their distress and ungratified need of motherhood to nourishing babies of other family members or children of their siblings. They seemed to get attached to the children of siblings and were taking care of their kids just like one's own kids in every aspect. Women belonging to mid age range seemed to channelize their feelings of incomplete mother into some charity work organizations, creative art work, painting, etc. Some women were using *sublimation* in terms of overcoming her internal psychic conflicts and anxieties through doing yoga exercise. Therefore just like Freud's defense mechanism-sublimation where one turns their unacceptable impulses into socially acceptable behavior. Such as if a person is really violent they could do jihad in the name of Allah. Similarly if some woman is not having babies she nourishes babies of siblings of other family members, uplifts expenses of rearing a child in welfare organizations and work for charity organization. Positive psychology calls it a strongest altruistic behavior.

Aggression is projected by these women in higher frequencies in the form of verbal and physical abuse and sometimes they try to harm objects and people at home. Present study revealed that women project elevated level of anger and stronger aggression due to having disturbed emotional patterns for their inabilities, emotional turmoil, and hostility towards authority, frustration, anxiety, guilt and worthlessness in life. Their anger was turning to the self or to outside. They were becoming a victim of a complex trauma which was always being experienced as a major stressful life event in women with PCOS. When these women were exposed to tremendous social pressure (by family, spouse, in-laws), they were trying to hide the problem due to extreme privacy of the matter from their near and dear ones. Unfulfilled maternal and paternal instincts make them aggressive and emotional. Past literature that infertile women and men use the defense mechanism of aggression enabling rationalization and negating intra-psychic conflict. These trends direct a psychological reality among couples living together with frustrations, depression, difficult coping and trusting medical professionals for reproductive hopes (Justo, Melo & Ferreira., 2010).

Infertile women with PCOS were also using the defense mechanism of *projective introjections* which means they have desire to regain approval by behaving in sophisticated ways like getting silent, avoidant or using the defense mechanism of displacement by transferring the aggressive impulses to the weaker targets in family i.e. children of other family members living in family, pets, partner or younger siblings. PCOS women were having the desire to regain approval

by behaving in variety of ways like getting silent to reduce or control tensions, ignorance against their husbands' verbal abuse and depression. PCOS women of middle age range were transferring their aggressive tendencies, misplaced anger, conflicting sexual impulses and inappropriate emotional displays to weaker targets like their spouses, siblings, family or peer group members and other people outside their families. Results are congruent with a study conducted by Katirael et al (2010), which demonstrated that significant difference was found in the group of fertile and infertile women including repression, introjections, projection, reaction formation, regression, denial, fantasy and conversion and considered psychological consequences of infertility including depression, anxiety, grief, tension, guilt and frustration (Callaway, 2006).

Defense mechanisms of *denial and avoidance* were also common in women with PCOS. They have also been reported in other studies on infertile couples as well (Basira et al., 2020). They seemed to blame innocent people of their home for their own negative experiences. They were blaming their parents for their own illnesses and blaming their spouses for their own illnesses and mistakes. They were also avoiding sexual activities, social situations and places by escaping themselves from social stigma for not being able to become a mother. Sense of personal failure, guilt and shock were also hindering the process of successful pregnancy. Present study is aligned with the result that women show difficulty in maintaining stable and satisfying marital relationships (Nagwa, Nawal & Mervat, 2018; Duthie et al., 2017 & Ullah, & Naz, 2021). A study conducted in Sweden revealed that women with secondary infertility for being avoidant in the discussions of fertility related issues in their social encounters but to a less extent with their spouses (Sormunen et al., 2018).

There was a strong evidence of existence of physical and psychological health related problems in the form of *somatization and dissociation* in women with PCOS. Some psychological health related problems were also identified which included somatoform disorders i.e. (pain disorder, somatization disorder, hypochondriasis, conversion disorder and body dysmorphic disorder), phobias specifically (hematophobia, situational phobias going to some stranger, passing through tunnels, and small spaces and escalators) were there in these women, post-traumatic stress disorder (PTSD), gender identity disorders e.g. (gender role confusion due to having masculine appearance), and narcissist personality disorders were also common in women with PCOS. Many patients with the symptoms of PCOS show mood disorders along with other neurotic complaints including depression and mania, anxiety, obsessive compulsive disorder, somatization, panic disorder and social anxiety disorders (Brutocao et al as cited by Kamathenu et al, 2021). The present findings are aligned with a study which reflects high prevalence of somatic symptoms, anxiety, insomnia, depression and social dysfunction in infertile women. Such symptoms are due to the women's internalized sense of losing feminine which is imposed by the social pressures of society because infertility itself is a shame rather than an actual illness (Nagwa, Nawal & Mervat, 2018). They consider this deprivation as injustice and this injustice predispose them towards acting defensively (Whitehead, 2016).

The present finding is aligned with the findings of the study conducted by Poddar, Sanyal & Mukherjee (2014); women with secondary infertility use the defense mechanisms of *anticipation and pseudo altruism*. High needs of approval and inability to accept rejection in relations may lead them to higher need for approval from others and relationships by employing immature defense mechanisms. Immature defense mechanisms function specifically as adaptations to distress that arise in their interpersonal contexts.

The defense mechanism of *rationalization* was obvious in women with age range 36 to 45 years. 17% women with PCOS were using this defense mechanism. A study determined that not only aggression was being executed by women but projection of aggression was also seen with other defense mechanisms being overused. These defense mechanisms were allowing rationalization or the denial of frustrating situations. Guilt feelings come with the inability to reproduce babies in mothers which is perceived as personal failure or incompetence. Rationalization reduces this guilt by inducing as more positive picture of the situation and denial leads to reversal of the frustrating events (Justo, 2014).

Present study depicted the use of *reaction formation* with in the category of neurotic or anxiety related defense mechanisms. According to a study conducted by Jaan & Sultan (2017), among the 30 defense mechanisms measured on DSQ-60, only 12 were significantly differing across fertile females, females with primary and secondary infertility. They included splitting self, humor, and projection, reaction formation, self-observation, and projective identification, and self-assertion, devaluation of self/self-fantasy, splitting others, help rejecting complaining and affiliation. In the present study 48% women with PCOS were using it as defense mechanism under the domain of neurotic and anxiety related defenses. 57% women with first and second age ranges were commonly using it. On DSQ-60 questionnaire 12 defense mechanisms were found in fertile and infertile women. They were humor, reaction formation, self-observation, projective identification, self-assertion, devaluation, fantasy, splitting self, rejecting, complaining and affiliation (Jaan & Sultan, 2017).

5. LIMITATIONS

The age ranges of selected women with Polycystic Ovarian Syndrome (PCOS) were limited to between 16 to 45 years. These age ranges were taken in order to keep in mind the complexity in diagnosing PCOS because only women with those ages were taken who were meeting the criteria of being reproductive and they were not in the phase of peri or postmenopausal states.

6. CONCLUSIONS

It is concluded that women with mid age range i.e. (26-35 years) are using more immature/unhealthy defense mechanisms. Mature defenses are mostly used by women with third age range i.e. 36-45 years. Neurotic or anxiety related defenses are mostly used by women with both age ranges i.e. 26-35 years and 36-45 years. Immature defense mechanisms are more frequently used by women with mid age ranges i.e. 26-35 years.

Interpretive phenomenological analysis (IPA) consisting of thematic analysis, focus groups and modified hand test also provide a comprehensive analysis of women with PCOS. These qualitative procedures of analysis mixed with quantitative procedures reveal that there are certain physical, psychological, social and sexual problems which women with PCOS face.

7. RECOMMENDATIONS

Following are the recommendations of the study.

1. More qualitative studies should be conducted with the sample of women with PCOS in future researches.
2. Acceptance issues of the illness and consequences related to PCOS may be explored in further researches.
3. Women with PCOS may be shifted to the use of mature defense mechanisms in the process of counseling.
4. Psychological counseling is more effective with medical treatments.

5. Future researches may be focused on the development and validation of health related quality of life scale in women with PCOS.

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