

IMPACT OF POLYCYSTIC OVARY  
SYNDROME ON HEALTH-RELATED  
QUALITY OF LIFE, BODY IMAGE AND  
SELF-ESTEEM AMONG WOMEN WITH  
POLYCYSTIC OVARY SYNDROME



by

Aleen Zahra Mughal  
BSP191033

A Research Thesis submitted to the  
DEPARTMENT OF PSYCHOLOGY  
in partial fulfillment of the requirements for the degree of  
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences  
Capital University of Science & Technology,  
Islamabad  
February, 2023

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DEPARTMENT OF PSYCHOLOGY

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## CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled “Impact of Polycystic Ovary Syndrome on Health-related Quality of Life, Body Image and Self-esteem among women with Polycystic Ovary Syndrome” carried out by Aleen Zahra Mughal, Reg. No. BSP191033, under the supervision of Ms. Mehreen Aftab, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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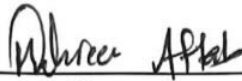
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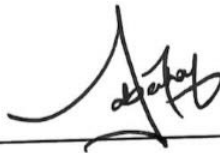
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## DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.



**Aleen Zahra Mughal**

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**January 2023**

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## **Abstract**

In women of reproductive age, polycystic ovary syndrome is by far the most prevalent endocrine disorder. A person's sense of self can be damaged by the effect of their symptoms, which can lead to feelings of dissatisfaction, sadness and a poor perception of their body and due to negative body image, it directly impacts their self-esteem. This correlational research design is used to assess the Impact of Polycystic Ovary Syndrome on Health-related Quality of Life, Body Image and Self-esteem among women with Polycystic Ovary Syndrome. For the current research the sample size was (N=200) women from age range 18-35 years, who were diagnosed with polycystic ovary syndrome. The sample was collected using BIS, RSES Urdu language scale, polycystic ovarian syndrome quality of life (PCOS QOL) scale which was translated into Urdu language for Pakistani population. Data was collected from Islamabad and Rawalpindi hospital's gynecology department and statistically analyzed using SPSS V.21. Informed consent was taken from the participant before the data collection to voluntarily participate in the study. The results from hypotheses shown significant differences ( $p < .01$ ,  $p < .05$ ) between PCOSQOL, BIS and RSES scale. Altogether, impact of PCOS plays major role in altering health life quality, Body image and Self-esteem. Psychologists should be provided or hired at every Gynecology department and general survey should be done in order to enhance the life quality of women with Polycystic ovary syndrome.

*Keywords:* Polycystic Ovary Syndrome (PCOS), Body Image scale (BIS), Rosenberg Self-esteem scale (RSES) and Polycystic ovary syndrome quality of life scale (PCOSQOL)



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## **LIST OF ABBREVIATIONS**

**PCOS** (*Polycystic Ovary Syndrome*)

**HRQOL** (*Health-related Quality of life*)

**UPCOSQOLS** (*Urdu Polycystic Ovary Syndrome Quality of Life Scale*)

**UBIS** (*Urdu Body Image Scale*)

**URSES** (*Urdu Rosenberg Self-esteem Scale*)

## CHAPTER 1

### Introduction

Polycystic ovaries are common endocrine disorder that can be difficult to identify, they have an influence on the health and wellness of between 8 to 13 percent of women of reproductive age (March et al, 2010). There are an estimated 3.4% women in the world who suffer with PCOS, as per World Health Organization (Bharathi et al., 2017). The cervix and a female's two ovaries both reside in the pelvic region (womb). Ovaries perform two primary functions: ovulation and hormone production. A person's ovaries, which retain their eggs, are which was before with thousands of eggs. In Polycystic ovaries, there are numerous immature follicles, each of which contain an egg and have begun to expand. Their diameter however does not change much staying between two and nine millimeters throughout their existence. At least twelve of such cysts of follicles are present in a polycystic ovary. Hormone-producing tissue in the ovaries is often larger, as are the ovaries is often larger, as are the ovaries themselves. An ultrasound scan, which can show the ovaries and the tiny cysts inside them, is the standard method for making the diagnosis. Ovarian cysts, however small, do not progress. As a result, new cysts form the old ones finally vanish. They aren't the dangerous kind of cyst that needs to be removed surgically, and they don't cause ovarian cancer (Avi, 2019).

In particular, the rate is substantially greater in Pakistani women than in white population (Abid, 2020). The symptoms include irregular menstruation, excess body and facial hair, weight gain, male patterned baldness and underneath can cause cysts in ovaries, enlarging them in the process and also cause insulin sensitivity. The diagnostic criteria according to Rotterdam criteria at least two of the three clinical manifestations, menstrual

irregularity, hyperandrogenism and/or polycystic ovaries, must be present to confirm diagnosis of PCOS.

### **Polycystic Ovary Syndrome and Health-related Quality of Life**

Cases with Polycystic Ovary Syndrome who have a down-and-out quality of life because of their condition have long been considered important in urban countries, but in developing nations like Pakistan, it's still a fairly new paragon (Sheeba, 2014). Research published in Karachi, Pakistan, found that 65% of women experienced PCOS symptoms, however only 10% were aware of the condition (Ansari, 2014). Similarly, a study conducted in Quetta indicated that around 72% of universities going young adults have shown PCOS symptoms (Haq et al, 2017). Elkington was the first medical professional to mention Quality of life, Medicine and Quality of life; he said new issues for clinicians have been created by chronic illnesses, notably, such as how a physician can guarantee the proper quality of life for a patient. Health and quality of life improvements can only be achieved by investing the most effective preventative and therapeutic medical programs (Elkington, 1966). In 1980's, Quality of Life began to be viewed as a means of guiding decisions about whether to limit treatments and pick patients both adults and children at the same time, as health care resources we distributed, Quality of Life issues became more important. Care outcomes based on wider criteria of wellbeing and quality of life was examined (Weinstein, 1981). Research on Quality of Life has been criticized for lacking conceptual clarity and a defined definition of Quality of life. Only 13% of the articles had definitions of the term Quality of Life. The Bratt and Moons survey found that 27% of congenital health conditions studies from 2005 to 2014 included a Quality-of-Life definitions; this is lower (Bratt, 2015).

Wilson and clearly model presents a popular model of Quality of Life. Psychological parameters, symptoms, health status functional, quality of life overall and health attitudes are all linked in this conceptual paradigm (Wilson, 1995). Their model connects biological and physiological variables to Health-related life quality or medical condition as an individual's own perception measures. This model provides explicit causal linkages between five basic health concepts and a classification of patient outcomes. Their underlying belief is that knowing the links between these notions would help to build the most effective treatment interventions. In the paradigm, there are five aspects of health: biological and psychological characteristics, symptoms status, functional, general health perceptions and overall quality of life (Ferrans, 2005). This connection was created to move Health-related Quality of Life research from traditional descriptive approaches to models, allowing for the investigation and clarification of causal relationships among the components. Knowing the proximal causes of Health-related wellbeing in a disease group would allow treatment studies to target rather than simply observe Health related quality of life improvement (Yikta, 2017).

Health-related life quality can be measured using both broad and narrow tools. In general, there are no inquiries about specific ailments and diseases in broad tools. As a result, for each condition studied particular techniques are normally preferable, and Polycystic Ovary Syndrome is no exception. However, both instrument types have been employed in the literature to assess standard of living (Kairy, 2013).

Existing theories attempt to explain the complex interplay between bio psychosocial factors and life quality, especially in the setting of a chronic illness. The following are the three most often referenced learning theories; a conceptual model of

patient health status, developed by Kimlin Tam Ashing (Giwa 2005), which focuses on the health status of patients, a model of health promotion, developed by Denis Raphael, Rebecca Renwick at the university of (Toronto,2002), which focuses on health promotion in general and a model of patient health status (Renwick, 2002).

Physical health, personal hygiene, diet and exercise as well as grooming and overall physical appearance, are all aspects of psychological being. Another domain is psychological being, which includes mental health and adjustment, cognition (such as sustained attention) and emotions (consciousness, self-image and dominance). As a divine presence, you are a combination of your morals, standards of conduct and your spirituality (WHOQOL, 1998).

### **Polycystic Ovary Syndrome and its Impact**

PCOS have a negative impact that includes anxiety and depression among young women and more likely to report fears related body weight, infertility that impact their quality of life as compare to healthy women (Moran al. 2010, Chen el at. 2020). Moreover, the psychological stress varies substantially depending on the geographical location and societal attitudes. These patients may see Polycystic Ovary Syndrome symptoms as stressful, putting them at a higher risk for depression and anxiety disorders, which can lead to suicidal behaviors (Kumarapeli, 2011). PCOS has been reported to affect 5-10% of women in reproductive age in Pakistan, while depression affects 40% of women particularly in youth (Latif, 2018). Polycystic Ovary Syndrome appears to run in families, so if someone in the family has it, they are more likely to develop it as well (Avi, 2019). The phrase “health related life satisfaction” refers” to a dynamic, inter notion that encompasses aspects of physiological, mental and interpersonal wellbeing that are all

connected to a particular illness. Research has linked symptoms associated with typical PCOS phenotype, such as obesity, hirsutism and menstrual irregularities to lower health-related quality of life in young females with polycystic ovary syndrome (Ahmadi, 2015). Equivalence among married and unmarried women indicates that unmarried women had better emotions while hirsutism, body weight and infertility affected married women by reducing their life quality of health (Madeeha, 2020).

### **Polycystic Ovary Syndrome, Hirsutism & Obesity**

Numerous studies have revealed that youth have a greater risk of mental and emotional illness, which results in a poorer level of welfare (Dokras, 2017, Teede, 2018). When a woman has the disorder known as hirsutism, hair grows in a pattern more typical of males, including thick, black hair on her face, chest, and back. Increased hair growth, or hirsutism is often brought on by elevated levels of androgens (male hormones). Hirsutism is the leading cause of decreased quality of life in women under the age of 25, on the other hand infertility cause poor life quality in women over age 25 (pehlivanov,2006). Hirsutism was reported in 36.7 % of the women with PCOS in Pakistan (Zehra, 2015). Women who suffer from alopecia describe their hair growth as terrible, annoying and irritation, respectively. Electrolysis and laser treatment are the only two methods of hair removal that any of the young females have ever attempted (William, 2011). Poor health living standards has been linked to a variety of problems, but obesity and negative body image have emerged as the most significant (Yaron, 2016).

Females reported weight problems, such as inability to lose weight, weight fluctuation and weight increase without cause. Between 30 and 70 percent of women with Polycystic Ovary Syndrome are overweight or obese. Thus, over 30% of Polycystic Ovary



Syndrome cases occur in overweight women, compared to just 5% in the normal population, while obesity is seen in 20% of the overall of Polycystic Ovary Syndrome cases (Marreale et al., 2007). For one thing, gaining weight tends to make a person's health issues much more difficult to manage. Women with Polycystic ovary syndrome often struggle to maintain healthy weight. An increased for metabolic disorders such as non-alcoholic fatty liver disease, insulin resistance, and cardiovascular disease has been related to obesity, a condition characterized by the accumulation of extra fat in the body. Excessive or abnormal fat gain may pose health risks, and hence the terms "overweight and obesity" describe the condition (WHO). When it comes to health-related life quality, a weight problem is considered as having the most detrimental impact on psychosocial wellbeing (Adam, 2011). Partakers experienced significant mental discomfort as a result of irregular and absent periods, particularly owing to the possibility of infertility. Menstrual abnormality or absence may have affected certain women's sense of feminine and self-worth as female. Period pains and premenstrual symptoms were used to predict an incoming menstrual flow in some situations (Jennie, 2015).

The clinical and biological manifestations of polycystic ovary syndrome, as well as a misconception of androgen, have led to a shift in many young women's self-perceptions of their femininity and sense of self. As a result of having high libido and irregular periods, didn't feel like women. This is a man thing due to the lack of periods and the fact that you're growing older (Balen, 2011). Despite being single, all women were concerned about their infertility. The thought of infertility was described as upsetting, worrying and frightening by the teens. Some women believe that the potential of being unable to conceive had an impact on their lives (Georgina, 2011). The majority of women

reported mood swings or emotional disturbances. Unpredictability, back and forth gloomy, and one extreme or the other was some of the expressions used to characterize the mood. Many young females reported feeling imbalanced, elevated, unhappy, gloomy and apprehensive about their mental well-being. Psychological effects were linked to the PCOS as well as its associated clinical features (Wang, 2021).

### **Polycystic Ovary Syndrome, Emotions & Infertility**

With PCOS, emotions were better handled in women aged 36-50yrs, whereas body weight, body hair, and infertility were reported to be better in aged 15-25yrs, and in age 26-35yrs women had decreased health-related quality of life due to infertility, emotions and increased weight (Moghadam, 2018). When positive or negative emotions are the result of a torrent of neurophysiological changes that influence a person's way of thinking, feeling and behaving. There is not yet a universally accepted scientific definition. Feelings are connected with other aspects of a person, such as their disposition, personality or mood (Pankseep, 2005). Young adults reported feeling "unattractive" in comparison to female classmates and in sexual situations. The primary reason for this is connected with Polycystic Ovary Syndrome's clinical characteristics. That unattractiveness affects their capacity to form connections, socialize and feel good about themselves in general; I have always been bothered by the fact that I have more hair than the majority of others. It's something that always bothered me, so it's no surprise that it has an impact on how I feel about myself sexually in other ways (Hanny, 2011).

Some young adults said their doctors or reading about available fertility therapies "reassured" them about their likely infertility. Participant who knew someone with polycystic ovary syndrome, who've had a successful pregnancy report feeling more

optimistic about their own chances of being pregnant, a lot of teenagers, on the other hand were looking for comfort and relief from their physicians in the form of direct information (Fratantorio, 2008). Personal connections with family, friends and particularly potential relationships may suffer if one is unable to foresee and manage their mood and emotions (Snyder, 2012).

Women suffering with Polycystic Ovary Syndrome aim only at becoming pregnant (in the case of married women) and normalizing their monthly periods due to lack of awareness and (in the case of unmarried females) a drive to fulfil the socially anticipated role of a woman (Swati, 2018). Because of its varied nature, Polycystic Ovary Syndrome has no consistent treatment. Research comparing the quality of life of infertile Muslim women in Austria to that of infertile Austrian women with PCOS found that Muslim women primarily connected oligomenorrhea periods with infertility, and that this scenario impaired the quality of life of Muslim women (Schmid, 2005). However, lifestyle changes, hormonal contraception and other medicines such as inositol, clomiphene, eflornithine, flutamide and metformin have been shown to alleviate Polycystic Ovary Syndrome symptoms (Porter, 2016). Many elements of a young woman's health related standard of living (HRQOL) are negatively influenced by the syndrome's obvious clinical symptoms, most notably their socioemotional competence. While worries about potential infertility might impair physical health related quality of life, they can also lower one's emotional well-being (William, 2013).

### **Polycystic Ovary Syndrome, Body Image & Self-esteem**

The term "body image" is used to describe the mental representation of one's physical self that comes into being as a result of having a body. It influences an individual's

overall self-perception, including how they assess and evaluate their physical characteristics and the sentiments and emotions linked with those attributes (Muth, 1999). One's perception of their body is a very sensitive and personal matter, considered to have a significant impact on their actions. When a person has a favorable picture of themselves, they may feel more confident and driven to achieve their goals, but when they have a bad image of themselves, they may hide from social situations or feel less confident in themselves (Clay, 2010). Self-esteem is defined the positive or negative attitude towards the self (Mckelvie, 2006). As a result, self-esteem and body image are tightly connected. Research has shown that one's physical appearance is the strongest factor in self throughout the lifespan (Lally, 2007).

The way one feel about one's body has much more implications for how they think, feel and react in their day-to-day lives and in their relationships. High levels of these positive emotions (self-love, pride, beauty and contentment) are linked to a healthy body image. Low self-esteem is linked to fewer and poorer quality social ties, and damaging behaviors are sometimes undertaken in an effort to conform to an unrealistic standard of beauty (Tucan, 2019). Cognitive, emotional, social and cultural influences all play a role in how we interpret our bodies. The media has a substantial impact on the standard of beauty, which is bolstered by the cultural obsession with thinness. Even with age and gender appropriate nutrition, this can cause body image dissatisfaction. Individuals social functioning, sense of self-worth, and overall quality of life are all influenced by the way they perceive their own bodies. Females' perceptions of their bodies are crucial to their mental and physical wellbeing (Silva, 2019). Symptoms of polycystic ovary syndrome typically appear during a woman's reproductive years, when she is potential for enabling

life decisions including who to marry. This makes the psychological and emotional toll of a perceived decline in femininity and other outward signs of change even more significant. If you are constantly fixated on imagined or minor flaws in your appearance, you may be suffering from dysmorphic body disorder, mental illness associated with extreme body dissatisfaction (Rigo, 2017).

The term body image refers to an individual's way of thinking and feeling about their own physical selves as well as the thoughts and feelings that arise from and are connected to this way of thought and emotion (Grogan, 2016). Self-criticism and damaged self-esteem may result when people over-evaluate their body image because they fail to internalize ideal figure (Tylka, 2006).

A core principle of the objectification of women theory is that western women are socialized to value themselves based on their physical attractiveness alone. This idea is strengthened by the fact that their bodies are constantly subjected to the observation and judgment of others. These women often internalize the objectification that results from these looks and judgments (Robert, 1999). According to social comparison concept, everyone has a natural instinct to evaluate their own qualities in relation to those of other people in their immediate social circle (Festinger, 1955). Downward comparisons are those made to someone who is seen as having less a desired or acceptable physique, while upward comparisons are made to someone who is seen as having a more desirable or acceptable body. These kinds of analogies can be drawn from real-world people, such as friends and relatives, or from fictional characters and media figures (Collins, 1996).

There has been an increase in the number of cases of polycystic ovary syndrome in India as a result of the country's currently undergoing. Because of difficulties with their

physical appearance (including hirsutism, acne and obesity), young women with Polycystic Ovary Syndrome (who tend to be more self-conscious about their bodies) have more difficult time maintaining a positive body image. As a result, girls with Polycystic Ovary Syndrome tend to be more self-conscious about their appearance and have lower self-esteem than other girls. Dissatisfaction with looks, a loss of femininity, feelings of diminished perceived desirability and self-consciousness about one's physical self are all common complaints among Polycystic Ovary Syndrome females about their body image. The relevance of this is still unclear, however, since there is a lack of research on the psychological consequences for females diagnosed with Polycystic Ovary Syndrome, particularly in underdeveloped countries like India (Joshi, 2022).

Self-esteem is often used to refer to momentary emotional states, especially those that result from an outcome's impact on a person's life. This is what individuals refer to when they talk about events that either helped or hurt their sense of self-worth. A person's self-esteem may soar after achieving a significant professional goal, such as promotion, while it may collapse following a traumatic experience, such as a breakup. Examples of self-worth include good emotions like pride and satisfaction with oneself, and negative emotions like embarrassment and shame with oneself. Rosenberg (1965) defines self-esteem as an individual's overall evaluation of their own perceptions and emotions in connection to themselves, regardless of whether that evaluation is favorable or negative. In psychology, self-esteem refers to an individual's evaluation of themselves in relation to their own moral standards (Alesi et al., 2013). For one to have healthy self-esteem, one must be in tune with his or her own set of values and subjective assessment of value (Schunk, 1998). Having a solid sense of one's own worth is an indication of successful

social integration (Martin et al., 2014). It's possible for people with high and low self-esteem to have similar reactions to good feedback, yet to react differently to criticism. Those who don't value themselves much are more likely to react negatively, whereas those who do value themselves quite a bit is less likely to be influenced, and are more likely to reject or limit the scope of negative feedback.

Self-esteem are related people who have high self-esteem believe they exhibit a much greater number of positive attributes than do persons who have low self-esteem; nevertheless, self-esteem and self-evaluations are not the same thing. People often use the term "self-esteem" to refer to fleeting emotional states, particularly those that result from an experience's outcome, whether positive or bad. One individual may declare that their self-esteem is at an all-time high after receiving a significant promotion, while another person may say that their self-esteem is at an all-time low after going through a divorce. In the tradition, we will refer to these sensations as either self-feelings or feelings of self-worth. Examples of what we mean when we talk about sentiments of self-worth include things like feeling happy or satisfied with ourselves (on the positive side), as well as feeling humiliated and ashamed of ourselves (on the negative side) (James, 1890).

Women with Polycystic Ovary Syndrome are more likely to suffer from depression anxiety and negative body image than women without Polycystic Ovary Syndrome and they also have higher rates of other forms of psychological morbidity, such as poor self-esteem and a diminished quality of life. The population's mental health suffers as a result of these clinical symptoms (Green, 2019). People who struggle with their weight are stereotyped as being emotionally unstable, lacking in willpower, careless with their appearance, and may be even flawed in some way. The implications of biases extend

beyond the area of the merely psychological to include over acts of discrimination and negative impacts on mood, self-esteem and body image. All combined the prejudice and scorn that people who are overweight face may have a devastating effect on their physical and mental health. The way one sees oneself is crucial to one's psychological health (Brownell, 2017).

Menstrual problems, infertility, hirsutism, acne, baldness and obesity are only few of many symptoms of with Polycystic Ovary Syndrome in women. All of these things hurt a girls' self-esteem because they alter how she looks. The social and psychological impact of obesity, the medical implications of mental health concerns and the psychological factors that contribute to the development of obesity may all better described and treated with an awareness of how patients see their own bodies (Sharma, 2018). Girls across India who saw themselves as underweight nevertheless wanted to lose weight, according to research; girls who were happy with their bodies, 32.8% were underweight and 38.5% were undersized. Additionally, 32.8% and 4.9% had overblown and distorted their weigh respectively (Dixit, 2011). Adolescents who are unhappy with their appearance often suffer from a variety of psychological and social health issues, including but not limited to; headaches, feelings of stress and depression, loss of appetite, restless nights accompanied by strange dreams, lack of confidence in social situations, low self-esteem and lowered quality of life (Franko, 2019).

Research on the emotional factors surroundings Polycystic Ovary Syndrome has consistently pointed to a link between the two conditions and depression. Some scientists think that biological reasons are the best explanation for the link between Polycystic Ovary Syndrome and psychological states, as a result of the endocrine disruption that



characterises Polycystic Ovary Syndrome. For instance, excessive testosterone levels have been associated with chronic depression, leading some to believe that the hormonal imbalance in depressive patients is due to stressors of the endocrine system (Heuser, 2000). Meanwhile two studies revealed no connection between androgen levels (endocrine system) and depression in Polycystic Ovary Syndrome patients. In a third, women with Polycystic Ovary Syndrome who had more natural testosterone reported less negative and more pleasant emotions, which stands in opposition to assumptions. Dissatisfaction with one's physical appearance may be a significant factor in the increased likelihood of depression experienced by women with Polycystic Ovary Syndrome compared to those without Polycystic Ovary Syndrome (Kolhe, 2021).

## **Theoretical Framework**

According to Becker's 1947 Health belief model, focuses on the individual, it recognizes and addresses the cultural context in which health behaviors take place. Where individuals notice the harmful health-related behaviors they are exposed to in their daily lives by stressing consequences, guiding them through acceptable actions, and establishing knowledge of health status concerns in them. Same goes to the patients with polycystic ovary syndrome; their quality of life is impacted due this illness that further leads to disturbed psychological health and its consequences had a negative impact on one's self-esteem and body image. Self-esteem or self-worth is one of the main aspects in an individual's life that helps in self-evaluation, self-motivation and acceptances of one's self. In this study body image and self-esteem are linked in a way that due to polycystic ovary syndrome women are likely to suffer with excessive facial/body hair growth, hair thinness, obesity, acne, mood swings, infertility that leads towards a negative self-evaluation of one's self and poor or disturbed body image. The negative impact on individual's life due to chronic illness and how the individual perceives the regarding the illness. It will direct impact on health that leads towards the reduction in life quality of women.

## **Rationale**

Polycystic Ovary Syndrome and women's health should be examined more thoroughly. Women's reproductive health is still one of the neglected areas in most of the developing countries including Pakistan (Latif, 2020). In Pakistani society, it is observed that women who suffer from polycystic ovary syndrome not only experiences criticism regarding poor quality of life but they also face judgement regarding their body image that can lead to low self-esteem. Women's infertility due to polycystic ovary syndrome is common in today's culture. Unfortunately, women in Pakistan seldom learn about the causes of their delayed menstrual cycle. While discussions on women's reproductive rights continue to be shrouded in silence, try to picture yourself waking up with agonizing uterine discomfort every day of your monthly cycle. Symptoms that lead to poor health related life quality, reduced assertiveness and emotional anguish also affect other social activities, and the limit young women to one item in comparison to adult women, are common among the world's female population. Therefore, this study will serve as foundation to address research gaps in research area.

## **Objectives**

- i. To evaluate the relationship between health-related quality of life, self-esteem and body image among women with PCOS.
- ii. To determine the relationship between impact of polycystic ovary syndrome on self-esteem and body image.
- iii. To determine the relationship between mood, body image and self-esteem.
- iv. To determine the relation between infertility, body image and self-esteem.

- v. To evaluate the relation between hirsutism, body image and self-esteem.

### **Hypotheses**

**H1:** There will be a positive relationship between health-related quality of life and self-esteem among women with Polycystic ovary syndrome

**H2:** There will be a negative relationship between health-related quality of life and body image among women with Polycystic ovary syndrome.

**H3:** Impact of Polycystic ovary syndrome will have a negative relation between self-esteem and body image.

**H4:** There will be a negative relationship between hirsutism, body image and self-esteem.

**H5:** Infertility will have a negative relation between body image and self-esteem.

**H6:** There will be a negative relationship between mood, body image and self-esteem.

**CHAPTER 2****Method****Study Design**

The current study is a correlational research design in which purposive sampling was used for data collection as it involved only diagnosed women with PCOS.

**Population and Sample**

For this study sample size of the participants was N= 200 women with diagnosed polycystic ovary syndrome. Participants from age 18 – 35 years old were included in the study.

**Sampling Selection Criteria****Inclusion Criteria**

Participant age 18 – 35 year is included, because impact of Polycystic Ovary Syndrome has been mostly seen in this age range population (Azhar,2020).

Women with diagnosed Polycystic ovary syndrome was included in the study.

**Exclusion Criteria**

Any mental or physical disability that hinders participant's ability to participate will be excluded.

**Ethical Consideration**

Confidentiality of the data was ensured. The knowledgeable research team was aware of the potential for discomfort. Consent form was taken from participants to voluntarily participate in the study. All participants were allowed to withdraw before or during study with no restrictions.

## **Instruments**

### ***Polycystic Ovary Syndrome Quality of Life (PCOS QOL) Scale***

Polycystic ovarian syndrome life quality scale (PCOS QOL) was established for women with polycystic ovarian syndrome by (Sheffield, 2018). Women with polycystic ovarian disorder may benefit from the development of a PCOS life quality measure that better reflects the quality-of-life issues significant to them (Barry et al, 2017). The scale consists of Thirty-five items and four related subscales which are (impact of polycystic ovary syndrome, excessive hairiness, mood, infertility). As a whole, Alpha reliability of the scale is ( $= .95$ ). A seven-point Likert type scale will be used for responses, ranging from “does not really fit” (point 7) to “usually” (point 1). According to scoring, the interpretation of the scores were as; low score indicates the lower quality of life/ higher impact of polycystic ovary syndrome while higher score indicates high quality of life/ no impact of polycystic ovary syndrome. The health-related life quality is not captured by the polycystic ovarian syndrome life quality scale, but it does cover elements that are most relevant to women with polycystic ovarian syndrome in terms of standard of living (Williams, 2018).

#### ***Scale translation***

The permission has been granted by the author David Sheffield via email for the scale translation. For this WHO translation guidelines were used (WHO, 2022). This scale is translated by the researcher under supervision of research supervisor. For this purpose, the scale is translated by two independent bilinguistic people in to targeted language, Urdu. After translation were received, supervisor’s committee was set to examine the forward

translation and to make sure the appropriate items used in Urdu translation are understandable for the population. In the next step, after forward translation scale was forwarded for backward translation in order to validate the items of the scale. Translated scale items were finalized after backward translation.

***Body image scale (BIS)***

Body Image Scale (BIS) Body Image Scale was developed by (Hopwood,2001). It is comprised of affective items, behavioral items, and cognitive items. This is a 10-item questionnaire having four scoring categories ranging from "Not at all" (0) to "Very much" (3). The scores could range from 0-30. 0 score represent no distress or concern about body image and higher score represent higher distress. Higher score represents disturbed/ negative body image and lower scores indicates positive body image. The reliability of scale is very high Cronbach's  $\alpha = 0.93$ . This scale has been translated by (Yousaf and Amir,2017). The reliability of scale in translated Urdu language is Cronbach's  $\alpha = 0.76$ .

***Rosenberg self-esteem scale (RSES)***

The Rosenberg Self-Esteem Scale (RSES) is one of the most widely used self-esteem measures in social science research. It was developed by (Rosenberg 1965) and is widely used in psychology, mental health and psychiatry. The RSES is a short, easy to administer, Likert-scale type test, with ten items answered on a four-point scale with responses ranging from strongly disagree (0) to strongly agree (3). The reliability of scale is Cronbach's  $\alpha = 0.82$ . The lower score indicates lower self-esteem and higher score indicates high self-esteem. This scale has been translated in Urdu by (Rizwan,2017) thereby finding its internal consistency as measured by Cronbach's alpha to be 0.87.

## Procedure

Participants who can understand both Urdu and English was included. Data was collected from Gynecology and obstetrician department in Rawalpindi and Islamabad hospitals. Participants were provided by polycystic ovarian syndrome quality of life scale, Rosenberg self-esteem scale and body image scale in Urdu language. Also, a brief introduction of nature of the study was given to the participants along with the consent form. All data were statistically analyzed using correlation in IBMSPSS.21.

**Table 1**

*Descriptive statistics and Alpha reliability of Urdu Rosenberg self-esteem scale, Urdu Polycystic Ovary Syndrome Quality of Life scale and Urdu Body Image scale.*

Scales	No. of items	$\alpha$	M	Std. D	Skew.	Kurt.
UPCOSQOLS	35	.86	92.60	16.98	.27	.71
UBIS	10	.70	25.40	3.15	-1.09	1.02
URSES	10	.71	7.17	3.27	.093	-.87

**Note:** Urdu Polycystic Ovary Syndrome Quality of Life scale, Urdu Body Image scale and Urdu Rosenberg self-esteem scale. Where n= total number of items, M = mean, SD= standard deviation, skew= skewness and Kurt= kurtosis.

Table 1 show the reliability of all the three Urdu translated scales used in this study. Alpha reliabilities and descriptive statistics of the instruments used showed that these measures were reliable to use. Mean =92.60, SD =16.98 and the reliability of Polycystic Ovary Syndrome scale in translated Urdu language is Cronbach's  $\alpha$  =0.86 which shows



very good reliability of the scale used for PCOS patients. This scale was used for the first time on Pakistani population of Polycystic Ovary Syndrome's patients and turned out to be very reliable and valid for these patients. Secondly for Body Image scale, mean =25.40, SD =3.15 and the reliability is Cronbach's  $\alpha$  =0.70 which represents fairly good reliability of the scale used for Polycystic Ovary Syndrome's patients. Lastly, Urdu Rosenberg Self-esteem mean =7.17, SD =3.27 and scale reliability for this study is Cronbach's  $\alpha$  =0.71 which also shows the fairly good reliability of the scale that is used for women with Polycystic Ovary Syndrome.

## CHAPTER 3

## RESULTS

Table 2

*Frequency table of Demographic characteristics for sample (N= 200)*

variables	<i>f</i>	(%)
<b>Age</b>	200	100
18-25 (young adults)	121	60.5
26-35 (adults)	79	39.5
<b>Education level</b>	200	100
Primary	7	3.5
Secondary	38	19
Higher	155	77.5
<b>Occupation</b>	200	100
Employee	67	33.5
Unemployed	133	66.5
<b>Residence</b>	200	100
Rawalpindi	125	62.5
Islamabad	75	37.5
<b>Marital status</b>	200	100
Married	31	15.5
Unmarried	169	84.5
<b>Number of children</b>	200	100
None	193	96.5
One or more than one	7	3.5
<b>Financial status</b>	200	100
Upper class	19	9.5
Middle class	166	83.5
Lower class	15	7.5

<b>Duration of periods</b>	200	100
1 or less than 1 year	21	10.5
2 to 3 years	103	51.5
More than 3 years	76	38
<b>Medical condition</b>	200	100
Yes	4	2
No	196	98
<b>Irregular periods</b>	200	100
Yes	198	99
No	2	1

Note: *f* = frequency, % = percentage

**Table 3**

*Correlation between UPCOSQOL scale, IMPPCOS subscale, IPCOS subscale, HPCOS subscale, MPCOS subscale, BIS and RSES*

Scales	n	M	SD	1	2	3	4	5	6	7
PCOSQOL	200	92.60	16.98	-	.783**	.840**	.600**	.315**	-.191**	.030
IMPPCOS	200	37.73	7.26		-	.377**	.533**	.271**	-.150*	-.090
IPCOS	200	33.11	10.79			-	.268	.021	-.153**	.148
MPCOS	200	10.58	2.13				-	.390*	-.071	-.072
HPCOS	200	11.19	2.59					-	-.149*	-.119*
BIS	200	25.40	3.15						-	-.519**
RSES	200	3.54	1.77							-

**Note:** PCOSQOL scale= Polycystic Ovary Syndrome scale, IMPCOS= Impact of Polycystic Ovary Syndrome subscale, IPCOS= Infertility subscale, HPCOS= Hirsutism subscale, MPCOS= Mood subscale, BIS= Body Image scale, RSES= Rosenberg Self-esteem scale, N= total number of participants, M= mean and SD= standard deviation.

In table 3, Pearson correlation analysis were used to analyze the relationship between PCOSQOL, IMPPCOS, IPCOS, HPCOS, MPCOS, BIS and RSES. For this research, correlation between Polycystic ovary syndrome quality of life scale and its subscales with Body image and Rosenberg self-esteem was used. The results of hypotheses 1 showed a strong significant negative relationship between Polycystic Ovary Syndrome Quality of Life scale and Body Image scale ( $r = -.191^{**}$ ,  $p < .01$ ), whereas, non-significant positive relationship with Rosenberg Self-esteem scale and Polycystic Ovary Syndrome Quality of Life scale ( $r = .040$ ). However, the relation between Impact of PCOSQOL subscale significant moderately negative with Body Image scale ( $r = -.150^*$ ,  $p < .05$ ) and non-significant negative with Rosenberg Self-esteem scale ( $r = -.090$ ). The results also showed that Infertility PCOSQOL subscale has strong significant negative relationship with Body Image scale ( $r = -.153^*$ ,  $p < .05$ ) and significantly moderate positive relation with Urdu Rosenberg Self-esteem scale ( $r = .148^*$ ), hypotheses 4 was partially rejected. No negative impact of self-esteem was indicated in the results. The reason was sample, there were more unmarried women (169) as compare to married women (31) in this study. So, the result showed positive relation between infertility PCOSQOL subscale with self-esteem, as young women are more concern about their physical appearance as compare to future complications like infertility. Participants who are not married reported less level of burnout, whereas body hair, weight and infertility affected married women (Behboodi, 2018). Hirsutism PCOSQOL subscale has significant negative relation with Body Image scale ( $r = -.149^*$ ,  $p < .05$ ) and Rosenberg Self-esteem scale ( $r = -.119^*$ ,  $p < .05$ ), similarly relationship between Mood PCOSQOL subscale is slightly non-significant negative with Body Image scale ( $r = -.071$ ) and non-significant negative relation with Rosenberg Self-

esteem scale ( $r = -.083$ ). Whereas, hypotheses 6 was accepted as the result indicated the strongly significant negative relationship between Body Image scale and Rosenberg Self-esteem scale ( $-.519^{**}$ ,  $p < .01$ ) see table 3.

**Table 4**

*Independent sample t-test across age along with UPCOSQOLS, UBIS and URSES*

Scales	18-25 (young adults)		26-35 (adults)		T (198)	P	Cohen's D
	M	SD	M	SD			
UPCOSQOL	95.46	14.15	88.20	19.87	2.81	.003	0.42
UBIS	24.81	3.21	26.30	2.73	-3.48	.008	0.50
URSES	3.88	1.68	3.01	1.77	3.42	.648	0.51

**Note:** UPCOSQOLS= Urdu Polycystic Ovary Syndrome scale, UBIS= Urdu Body Image scale and URSES= Urdu Rosenberg Self-esteem scale, M= mean, SD= standard deviation, significance value (p) and Cohen's D

In table 4 Independent t-test was used in order to analyze mean difference across in UPQOOLS, UBIS and URSES. In this table indicates mean, standard deviation, p value and effect size across age i.e., 18-25 (Young adults), (N= 121) and 26-35 (Adults), (N= 79). Results indicates significant mean difference with  $p = .003$  and the Cohen's D is 0.42 which shows small effect size with Urdu Polycystic Ovary Syndrome Quality of Life scale. While, no significant mean differences were found in Urdu Body Image scale and Urdu Rosenberg Self-esteem scale across age groups.

## CHAPTER 4

### Discussion

The ovaries of women with PCOS releases an excess of androgens, which are male sex hormones that are normally present in modest levels in women. The ovaries develop multiple tiny cysts (fluid-filled sacs), thus the name polycystic ovarian syndrome. Symptoms of PCOS can lead to excessive growth of unwanted hairs, excessive hair loss, weight gain, acne, mood swings and infertility. Pakistani women have a greater PCOS frequency (52% than with 20-25% in UK) than women of western Caucasian descent. Many difficulties as well as psychological illnesses including depression, anxiety, poor body image, low self-esteem and social problems that impact a woman's identity and health-related quality of life are connected with PCOS (Tariq, 2019)

The aim of the current study was to predict the impact of PCOS on health-related quality of life, body image and self-esteem among women with PCOS. In table-2, frequency of demographic variables was mentioned. For this research the sample size was N= 200, in which 18-25 (young adults) = 121, 60.5%), 26-35 (adults)= 79, 39.5%. For educational level participant in primary level= 7, 3.5%, secondary level= 38, 19%, higher level= 155, 77.5%. Overall frequency of participants who were employee= 67, 33.5% and unemployed= 133,66.5%. In the sample there were married women= 31, 15.5% while unmarried women= 169, 84.5%. At financial level, upper class= 19, 9.5%, middle class= 166, 83.5 and lower class= 15, 7.5%. No specific medical condition was reported, see table 2.

For this study quantitative methodology and correlational research design were

selected. Pearson correlation analysis were used to determine the relationship between Health-related quality of life, Body image and Self-esteem among women with Polycystic Ovary Syndrome. Participants with diagnosed PCOS were included in the research. The age range for inclusion criteria was 18-35 yrs., 18-25 (young adult) and 26-35 (adult). Health-related quality of life was assessed by using Polycystic Ovary Syndrome Quality of Life scale (PCOSQOLs) which was translated into Urdu language by following the APA 7 guideline, Body Image scale and Self-esteem scale in Urdu translated language.

According to findings of Pearson correlation analysis, the results from hypotheses 1 was accepted, which showed significant positive relation with health-related quality of life and self-esteem, indicating that women with PCOS will have low self-esteem and lesser health quality of life, whereas results from hypotheses 2 was accepted indicated the significant moderate negative relationship between body image and health-related quality of life, states that women with lower quality of life will score higher in body image scale which mean disturbed body image. Similarly, hypotheses 3 was accepted, stated the higher impact of pcos directly towards the negative body image and low self-esteem in women. Those who suffer from polycystic ovary syndrome frequently have an unpleasant attitude on their bodies because of their dissatisfaction with how they look, see table 3. One's body image is heavily influenced by one's age. Younger women (under age 25) have a harder time loving their bodies as they are. Normal weight women suffer from low self-esteem because of the cultural obsession with thinness (Kunicki, 2017).

On the other hand, results from hypotheses 4 was accepted, indicated the negative relationship between hirsutism, body image and self-esteem. In a way that if participants score low in polycystic ovary syndrome quality of life scale will have a low health quality

of life/ higher impact and participants scores low on hirsutism indicating the higher impact of that leading to low self-esteem and disturbed body image. In the previous study it was stated that it is often associated with decreased quality of life and a sense of “not being a girl”, it is more than simply an aesthetic/ physical issue. Androgen excess is a hallmark of polycystic ovary syndrome and the root problem of hirsutism in eighty percent of cases (Hohl, 2014).

Furthermore, the results from hypotheses 5 was partially accepted and rejected according to results. The results of the study concluded that infertility had a significant negative relation with body image while it showed non-significant positive with self-esteem. This was due to sample, where unmarried women were more than married women. The impact of infertility can be more observed in married women, unmarried women are more concern about their physical appearance and other aspects of quality of life. As previous literature suggested that under twenty-five-year-old women who suffer from hirsutism are disproportionately affected by this disorder. However, for women above the age twenty-five, infertility is a major contributor to a lower quality of life (Sadeeqa, 2017).

Likewise, the results from hypotheses 6 indicated the negative relationship between mood, body image and self-esteem were accepted, represent the higher impact on mood will have low self-esteem and negative body image. Women’s perceptions of their own bodies appear to be a highly critical consideration, one that can have significant impacts on their emotional well-being. Showed that body confidence was linked to fulfillment across age brackets of adult women, and research has linked low self-esteem to sadness in both elderly and young women (Fredrick, 2015).

According to the results from independent t-test there was significant difference in



polycystic ovary syndrome quality of life scale, Body image and self-esteem scale across age, see table 4. It interprets that young adults have a high impact on quality of life as compare to adults on PCOSQOL, Body image and Self-esteem scale. The results found the negative impact of polycystic ovary syndrome on life quality, body image and self-esteem lead toward other chronic illnesses and suggest that the researchers should investigate more and detail examination on this disorder specially for those women who still unawareness of this disorder, and facing difficulties due to polycystic ovary syndrome, that sounds so simple/non-problematic but can cause severe chronic illnesses to oneself.

### **Conclusion**

The results showed an impact of polycystic ovary syndrome causing low health-related quality of life common among patients with PCOS, which is linked to issues including low self-esteem, disturbed body image, excessive growth of unwanted hair, infertility and depressive mood. Therefore, recommendation for treatment of polycystic ovary syndrome should consider the use of prescription medication. Integrated treatment strategies for PCOS patients should take into account the impact of the disease's related morbidity and life quality related to one's health.

### **Limitations**

The limitation of this study is that only diagnosed patients with polycystic ovary syndrome were recruited and data is collected through clinics/hospitals. The sample size for this study was N= 200, due to which the results cannot be generalize on overall population of Pakistani women with PCOS. Due to this study design, it does not allow for a comprehensive investigation of how different therapies develop over time and what side effects they may have. Financial constraints prevented study from measuring key

biochemical indicators such as adrenocorticotrophic hormone, testosterone, lipid, rising cholesterol, and insulin sensitivity. According to standard procedures at each practicing institution, all patients were classified as obese based upon their weight.

### **Future Implications**

There is a need to study the impact of medicines and psychological assessment on women both young adult/ adult and married/unmarried with PCOS in Pakistan specially in one specific rural area of Pakistan. There is a need of healthcare providers taking a comprehensive approach that includes psychological needs as well as physical management and intervention plans for women should be made. Also, there should be further researches on psychological discomfort in women with this condition and its impact on their healthy life quality and other aspects that creates hindrance in life satisfaction due to this disorder.

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## **APPENDIX**

## Appendix A

**Information Sheet (معلوماتی کاغذ)**

السلام علیکم! میرا نام علین زہرہ مغل ہے۔ میں کیپیٹل یونیورسٹی آف سائنس اینڈ ٹیکنالوجی کی طالب علم ہوں۔ میں پولی سسٹک اووری سنڈروم (PCOS) کے ظاہری حالت، خود اعتمادی اور خواتین میں صحت سے متعلق معیار زندگی پر اثرات پر تحقیق کر رہی ہوں۔ اس مقصد کے لیے مجھے آپ کا وقت اور مدد درکار ہوگی۔ میں آپ کو کچھ سوالنامے دوں گی جنہیں آپ کو بھرنا ہوگا۔ ان سوالناموں کو بھرنے میں 15 منٹ لگیں گے۔ میں آپ کو یقین دلاتی ہوں کہ آپ جو بھی معلومات دیں گے، وہ ہمارے درمیان ہی رہے گی۔ اور آپ کا ڈیٹا ایک محفوظ کمپیوٹر میں رکھا جائے گا۔ تحقیق مکمل ہونے کے کچھ عرصے بعد اس ڈیٹا کو ڈیلیٹ کر دیا جائے گا۔ آپ کا نام یا دیگر شناختی معلومات کہیں بھی استعمال نہیں کی جائیں گی اور تحقیق کے نتائج میں تمام لوگوں کے جوابات کو ملا کر دیکھا جائے گا۔

آپ کسی بھی یا تمام سوالات کا جواب دینے سے انکار کر سکتے ہیں اور اگر آپ چاہیں تو کسی بھی وقت شرکت سے معزرت کر سکتے ہیں۔ میں سمجھتی ہوں کہ مجھے اس تحقیق میں براہ راست حصہ لینے سے کوئی فائدہ نہیں ہوگا۔ رضامندی کے فارم پر دستخط کرنے کے بعد بھی، آپ کسی بھی وقت اور وجہ بتائے بغیر دستبردار ہونے کے لیے آزاد ہیں۔ اگر آپ کے پاس اس تحقیق کے بارے میں مزید کوئی سوالات ہیں، تو آپ ابھی مجھ سے پوچھ سکتے ہیں۔ اگر بعد میں بھی آپ کو کوئی سوالات ہوں، تو آپ نیچے دیے گئے ای میل پر مجھ سے رابطہ کر سکتے ہیں۔

علین زہرہ مغل

کیپیٹل یونیورسٹی آف سائنس اینڈ ٹیکنالوجی

کہوٹہ روڈ راولپنڈی

شعبہ نفسیات

[mughalaleen1@gmail.com](mailto:mughalaleen1@gmail.com)

### رضامندی فارم

میں نے اوپر دی گئی معلومات کو اچھی طرح پڑھ لیا ہے (یا مجھے پڑھ کر سنا دیا گیا ہے)، اور سمجھ لیا ہے۔ میں رضاکارانہ طور پر اس تحقیقی مطالعہ میں حصہ لینے پر رضامند ہوں۔ میں ہدایت کے مطابق مطالعہ کے طریقہ کار پر عمل کرنے سے اتفاق کرتی ہوں۔ میں سمجھتی ہوں کہ مجھے اس تحقیق میں براہ راست حصہ لینے سے کوئی فائدہ یا نقصان نہیں ہوگا۔ میں سمجھتی ہوں کہ دستخط شدہ رضامندی کے فارم اور ڈیٹا کو رازداری میں رکھا جائے گا۔

شرکت کنندہ کے دستخط

\_\_\_\_\_

تاریخ

\_\_\_\_\_

محقق کے دستخط

\_\_\_\_\_

تاریخ

\_\_\_\_\_

## Appendix B

## (ذاتی معلومات کا فارم) Demographic Sheet

	عمر
	تعلیم
	پیشہ
غیر شادی شدہ	ازدواجی حیثیت
شادی شدہ	
	بچوں کی تعداد
	مالی حیثیت
	PCOS کتنے عرصے سے ہے
ہاں	کوئی بھی طبی مسئلہ PCOS کے علاوہ (اگر ہاں، تو وضاحت کریں)
نہیں	
راولپنڈی	رہائشی علاقہ
اسلام آباد	
ہاں	ماہواری میں بے قاعدگی
نہیں	

## Appendix C

Scale: *PCOS QOL Scale*

## ہدایات

یہ سوالنامہ آپ کے صحت اور صحت کے متعلق مسائل سے ہے۔ براہ کرم ہر بیان کو پڑھیں اور اس جواب کو منتخب کریں جو اس بات کی عکاسی کرتا ہے کہ آپ کیسا محسوس کرتے ہیں۔ کوئی صحیح یا غلط جواب نہیں ہے، صرف اس جواب کا انتخاب کریں جو ظاہر کرے کہ آپ کیسا محسوس کرتے ہیں۔ اگر آپ کو لگتا ہے کہ کوئی سوال آپ پر لاگو نہیں ہوتا ہے، تو براہ کرم 'لاگو نہیں ہوتا' (7) محسوس ہوتا ہے، تو "کثرت سے" کو منتخب کریں اور اگر آپ کو کوئی سوال براہ کرم 'کثرت سے' (1) کے اختیار کو نشان زد کریں۔

گزشتہ چار ہفتوں سے آپ نے کتنی دفعہ

بیان نمبر	سوالات	کثرت سے	اکثر	کبھی کبھار	شاید ہی کبھی	بہت کم	بلکل بھی نہیں	لاگو نہیں ہوتا
1	بچہ پیدا کرنے کا دباؤ محسوس کیا۔	1	2	3	4	5	6	7
2	کسی دوست یا خاندان کے فرد کی طرف زیادہ جارحانہ ہونے پر قصور وار محسوس کیا۔							
3	PCOS کی وجہ سے روزمرہ کے واقعات پر زیادہ ردعمل دکھایا۔							
4	PCOS ایسا لگا جیسے آپ							

						کسی وجہ سے حقیقی عورت نہیں ہے۔	
						PCOS اور ڈپریشن کی وجہ سے شکست خوردہ محسوس کیا۔	5
						PCOS نے آپ کی زندگی کو کس طرح متاثر کیا اس کے بارے میں افسردہ محسوس کیا۔	6
						اس سے پریشان ہوئی کہ دوسرے آپ کے چہرے کے بالوں کو دیکھ رہے ہیں۔	7
						حاملہ ہونے کے بارے میں بے چینی محسوس کی۔	8
						حمل کی پیچیدگیوں کے بارے میں افسردہ محسوس کیا۔	9
						PCOS کی وجہ سے نسوانیت میں کمی محسوس کی۔	10
						اپنے قریبی دوستوں اور رشتہ داروں پر غصیلہ پن دکھایا۔	11
						بغیر کسی وجہ کے رونا محسوس کیا۔	12
						PCOS کی وجہ سے جو کرنا چاہا وہ نہیں کر پائے۔	13
						افسردہ محسوس کیا۔	14
						PCOS کی وجہ سے غیر معمولی محسوس کیا۔	15
						ایسا لگا جیسے آپ نہیں جانتے کہ اپنی مدد کے لیے کیا کیا جائے۔	16
						ایسا لگا کہ آپ نہیں جانتے کہ	17

						PCOS کو کنٹرول کرنے کے لیے کیا کیا جائے۔	
						آپ کو خود سے نفرت محسوس ہوئی۔	18
						محسوس کیا کہ آپ کی زندگی PCOS کے اختیار میں ہے۔	19
						جیسے آپ دکھتے ہیں اس پر شرمندگی محسوس کی۔	20
						زیادہ بالوں کی وجہ مزاج میں تبدیلی سے محسوس کی۔	21
						چہرے اور جسم پر بالوں کی وجہ سے افسردہ محسوس کیا۔	22
						بانجھ پن کی وجہ سے افسردہ محسوس کیا۔	23
						اضافی بالوں کو ہٹانے بہت وقت اور توانائی صرف زیادہ کی۔	24
						حاملہ ہونے کے لئے اپنی جدوجہد پر افسردہ محسوس کیا۔	25
						چہرے کے بالوں کی وجہ سے افسردہ محسوس کیا۔	26
						اس پر غصہ محسوس کیا کہ آپ کو PCOS ہے۔	27



						عورتیں جن کو PCOS نہیں ہے ان سے حسد محسوس کیا۔	28
						PCOS ہونے پر شرمندگی محسوس کی۔	29
						چہرے کے بالوں کی وجہ سے شرمندگی محسوس کی۔	30
						حاملی ہونے میں مشکل کی وجہ سے ناکام محسوس کیا۔	31
						محسوس کیا کی یہ غیر منصفانہ ہے کہ آپ کو PCOS ہے۔	32
						اپنے PCOS اور باقی حالات/حالت کے ساتھ مقابلہ کرنے میں دشواری پیش آئی/ ہوئی۔	33
						شاید آپ کے بچے نہ ہوں اس کا ڈر محسوس کیا۔	34
						کسی سماجی سرگرمی میں حصہ لینا چاہا مگر اپنے PCOS کی وجہ سے نہیں لے سکے۔	35

Scale: *Body Image Scale (BIS)*

### ہدایات

سوالنامے میں آپ سے پوچھا جائے گا کہ آپ اپنی ظاہری حالت/ ظاہری وجود کے بارے میں کیا محسوس کرتے ہیں اور ان تبدیلیوں کے متعلق بھی جو آپکی بیماری یا علاج کا نتیجہ ہیں۔ مہربانی فرما کر ہر فقرے کو احتیاط سے پڑھیں اور پچھلے ہفتے اپنے بارے میں احساسات میں سے قریب ترین کو سامنے رکھتے ہوئے دی گئی جگہوں میں سے ایک پر درست کا نشان لگائیں۔

نمبر شمار	بیانات	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
1	کیا آپ اپنی ظاہری حالت/ ظاہری وجود کے بارے میں خود کو محتاط محسوس کرتی رہی ہیں؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
2	کیا آپ اپنی بیماری یا علاج کے نتیجے میں خود کو جسمانی طور پر کم پُر کشش محسوس کرتی رہیں ہیں؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
3	کیا تیار ہونے کے بعد آپ اپنے آپ کو اپنی ظاہری حالت / ظاہری وجود کی جانب سے غیر مطمئن سمجھتی رہی ہیں؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
4	کیا آپ اپنی بیماری کی وجہ سے خود کو کم زنانہ یا مردانہ محسوس کرتی رہیں ہیں؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
5	کیا آپ کو اپنے آپ کو برہنہ دیکھنا مشکل لگا؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ
6	کیا آپ اپنی بیماری یا علاج کے نتیجے میں خود کو جنسی طور پر کم کشش محسوس کرتی رہیں ہیں؟	بالکل بھی نہیں	تھورا سا	کسی حد تک	بہت زیادہ

بہت زیادہ	کسی حد تک	تھورا سا	بالکل بھی نہیں	کیا آپ اپنی ظاہری حالت/ ظاہری وجود کے بارے میں محسوسات کی وجہ سے لوگوں سے ملنے سے گریز کرتی رہیں ہیں؟	7
بہت زیادہ	کسی حد تک	تھورا سا	بالکل بھی نہیں	کیا آپ کو احساس ہوتا ہے کہ علاج نے آپ کے جسم کو نا مکمل کر دیا؟	8
بہت زیادہ	کسی حد تک	تھورا سا	بالکل بھی نہیں	کیا آپ نے اپنے جسم سے غیر مطمئن محسوس کیا؟	9
بہت زیادہ	کسی حد تک	تھورا سا	بالکل بھی نہیں	کیا آپ اپنے زخم کے نشان کے دکھنے کی وجہ سے غیر مطمئن ہیں؟	10

Scale: **Rosenberg self-esteem scale (RSES)**

RSES scale is separately attached below due to formatting issue

نام-----جنس-----عمر-----

ہدایات:- نیچے دیئے گئے بیانات آپ کے اپنی ذات کے متعلق عمومی احساسات کی ترجمانی کرتے ہیں۔ برائے مہربانی ان بیانات کی درجہ بندی کیجئے تاکہ واضح ہو سکے کہ کون سا درجہ آپ کے احساسات کو بہتر انداز میں ظاہر کرتا ہے۔

مکمل اتفاق	اتفاق	اختلاف	مکمل اختلاف

مثال کے طور پر:

اگر آپ محسوس کریں کہ درج ذیل بیان آپ کے احساسات کی مکمل ترجمانی کرتا ہے تو آپ مکمل اتفاق کے خانے میں درست (✓) کا نشان لگادیں۔

اگر آپ محسوس کریں کہ درج ذیل بیان آپ کے احساسات کی بالکل ترجمانی نہیں کرتا ہے تو آپ مکمل اختلاف کے خانے میں درست (✓) کا نشان لگادیں۔

بیان نمبر	بیانات	مکمل اتفاق	اتفاق	اختلاف	مکمل اختلاف
۱-	مجموعی طور پر میں اپنے آپ سے مطمئن ہوں۔				
۲-	کبھی میں سوچتا سوچتی ہوں کہ میں بالکل اچھا اچھی نہیں ہوں۔				
۳-	میں محسوس کرتا کرتی ہوں کہ مجھ میں کئی خوبیاں ہیں۔				
۴-	میں کاموں کو اتنی ہی اچھی طرح کر سکتا رہتی ہوں جیسا کہ زیادہ تر لوگ۔				
۵-	میں محسوس کرتا ہوں کہ میرے پاس اتنا کچھ نہیں ہے، جس پر میں فخر کروں۔				
۶-	کبھی میں اپنے آپ کو یقینی طور پر ناکارہ سمجھتا سمجھتی ہوں۔				
۷-	میں محسوس کرتا کرتی ہوں کہ میں ایک قابل قدر انسان ہوں، کم از کم دوسروں کے برابر۔				
۸-	کاش میں اپنے آپ کو اور زیادہ قابل احترام سمجھتا سمجھتی۔				
۹-	میں مجموعی طور پر یہ محسوس کرنے پر مائل ہوں کہ میں ایک ناکام شخص ہوں۔				
۱۰-	میں اپنے متعلق مثبت رویہ رکھتا رکھتی ہوں۔				


## Appendix D

### Scale Permission

#### 1. Body Image scale

Permission from the author for the use of the scale “Body Image” is attached below


Body image scale- Urdu Language Inbox x ✕ 🖨 🔗


 **mughal aleen** <mughalaleen1@gmail.com> Sat, Oct 22, 2022, 6:14 PM ☆ ↶ ⋮  
to aasma.cpsy ▼

Aoa mam! I hope you're doing well. I have read your article in which you used body image scale in Urdu language. I am doing my thesis and for that purpose i need body image scale in Urdu Language. It would be really nice if you provide me with the translated scale along with scoring sheet, asap.  
Thank-you

Kind regards

---

 **Aasma Yousaf** <aasma.cpsy@pu.edu.pk> Thu, Oct 27, 2022, 11:08 AM ★ ↶ ⋮  
to me ▼

 English ▼ > Urdu ▼ [Translate message](#) Turn off for: English x

W.A  
Here is the scale. Sorry for the delay and inconvenience.

Best Wishes for your research.

Aasma Yousaf  
Assistant Professor &  
Consultant Clinical Psychologist  
Centre for Clinical Psychology.

#### 2. Rosenberg Self-esteem scale

Permission for the use of translated Urdu version of the scale “Rosenberg Self-esteem scale” is attached below

Scale availability- Urdu rosenberg self-esteem scale Inbox x



**mughal aleen** <mughalaleen1@gmail.com>  
to muhammad29psy

Oct 12, 2022, 12:14 AM ☆ ↶ ⋮

Aoa sirl I hope you're doing well. I am a student from Capital university of science and technology, Islamabad. I have read your article on MedCrave "Urdu Rosenberg self-esteem scale: an analysis of reliability and validity in Pakistan". I am doing my thesis on " health related quality of life, body image and self-esteem among women with Polycystic Ovary syndrome" for that purpose i need a translated Urdu version of Rosenberg self-esteem scale. It would be really nice of you if you provide me with the translated scale and scoring ( manual) and grant me the permission to use it in my study, as soon as possible.

Kind regards



**muhammad rizwan** <muhammad29psy@yahoo.com>  
to me

Oct 12, 2022, 3:57 PM ☆ ↶ ⋮

English > Urdu [Translate message](#)

[Turn off for: English x](#)

Aoa,

Thank you for approaching me. You have my permission to use the scales URSES in your research. The scale is attached along with its scoring, please don't forget to use proper citation whenever you publish your work.

Rizwan, M., Malik, S., Malik, J. N., & Siddiqui, S. R. (2017). Urdu Rosenberg Self-Esteem Scale: An Analysis of Reliability and Validity in Pakistan. *Sociol Int J*. 1(2):00010. DOI: 10.15406/sij.2017.01.00010

### 3. Polycystic Ovary Syndrome Quality of Life scale

Permission for use and translation of the scale "polycystic ovary syndrome quality of life scale" from both author and co-author is attached below

scale availability Inbox x



**mughal aleen** <mughalaleen1@gmail.com>  
to d.sheffield

Thu, Jun 23, 2022, 9:30 PM ☆ ↶ ⋮

Hi I hope you're doing well. I am a student at Capital university of science and technology, Islamabad Pakistan. I am an undergraduate student of Bs-psychology (7th semester) and doing my thesis. I have read the article "[The Polycystic Ovary Syndrome Quality of Life scale \(PCOS QOL\): development and preliminary validation](#)". The purpose of my email is to ask you about the availability of the scale that i have to use in my research study. My research topic: PCOS and health related quality of life; comparison among age groups. I need an English version of this PCOS QOL scale, for my data collection. Kindly let me know if it is possible and available to you and if it is available kindly grant me access to use it in my study. It would be really nice of you if you could provide me with this scale.  
Thankyou



**David Sheffield** <D.Sheffield@derby.ac.uk>  
to me

Thu, Jun 23, 2022, 10:17 PM ☆ ↶ ⋮

English > Urdu [Translate message](#)

[Turn off for: English x](#)

Hi,

You can use it. I don't have a clean copy but you can create it from the items in Table 2 using a 7-point Likert-type scale ranging from 'Does Not Apply' (p. 7) to 'Usually' (p. 1). I hope that helps.

mughal aleen <mughalaleen1@gmail.com>

Jun 24, 2022, 10:01 PM ★ ↶ ⋮

to David ▾

Thank you for the response. I appreciate that. I have a query regarding this, anyone had translated this scale in Urdu language or any other language? Because i have to apply this scale on Pakistani population and need translated Urdu version for that along with scoring sheet in detail. I will be thankful for that if you provide me with scoring sheet and translation permission.



Sophie Williams <S.Williams3@derby.ac.uk>  
to me ▾

Thu, Jul 7, 2022, 10:10 PM ★ ↶ ⋮

English ▾ > Urdu ▾ Translate message

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Dear Mughal,

Please find the scale attached. It has not been translated to Urdu that I know of although I have received other queries about this so there's clearly a need for it which I will follow up.

Best Wishes

Sophie



**Dr Sophie Williams**  
Academic Lead in Psychology  
Pronouns: She/Her  
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Students please book a meeting [here](#).

## The PCOSQOL Scale

For enquiries please contact: Dr Sophie Williams (s.williams3@derby.ac.uk)

### Please cite as:

Williams, S., Sheffield, D., & Knibb, R. (2018). The Polycystic Ovary Syndrome Quality of Life scale (PCOSQOL): Development and preliminary validation. *Health Psychology Open*, 5(2). doi: 10.1177/2055102918788195

**Scale Instructions:** This scale has been specifically designed to measure quality of life for women with Polycystic Ovary Syndrome (PCOS). The questions in this scale are concerned with your PCOS, your health and health related issues. Please read and respond to every statement by selecting the option that reflects how you feel the most. There are no right or wrong answers, just choose the answer that shows how you feel best. If you feel a question does not apply to you, please select 'Does not apply'.

### During the last four weeks how often have you:

Item #	Item	Usually	Often	Sometimes	Occasionally	Rarely	Not At All	Does Not Apply
1	Felt under pressure to have a child	1	2	3	4	5	6	7
2	Felt guilty for being overly aggressive towards a friend or family member	1	2	3	4	5	6	7
3	Over reacted to a day to day occurrence because of PCOS	1	2	3	4	5	6	7
4	Felt like you weren't a real woman because of your PCOS	1	2	3	4	5	6	7
5	Felt overwhelmed by your PCOS and depression	1	2	3	4	5	6	7
6	Felt depressed about how PCOS has impacted your life	1	2	3	4	5	6	7
7	Been worried about other people seeing your facial hair	1	2	3	4	5	6	7



8	Felt anxious about conceiving a child	1	2	3	4	5	6	7
9	Felt depressed over difficulties conceiving a child	1	2	3	4	5	6	7
10	Felt like less of a woman because of having PCOS	1	2	3	4	5	6	7
11	Had a short temper with your close friends and/or family	1	2	3	4	5	6	7
12	Felt like crying for no reason	1	2	3	4	5	6	7
13	Wanted to do something but haven't because of your PCOS	1	2	3	4	5	6	7
14	Felt depressed	1	2	3	4	5	6	7
15	Felt abnormal because of your PCOS	1	2	3	4	5	6	7
16	Felt like you don't know what to do to help yourself	1	2	3	4	5	6	7
17	Felt like you don't know what to do to control your PCOS	1	2	3	4	5	6	7
18	Felt like you hated yourself	1	2	3	4	5	6	7
19	Felt like your PCOS is in control of your life	1	2	3	4	5	6	7
20	Felt embarrassed about the way you look	1	2	3	4	5	6	7
21	Felt moody because of your excess hair	1	2	3	4	5	6	7

22	Felt depressed because of your hirsutism	1	2	3	4	5	6	7
23	Felt depressed because of your infertility	1	2	3	4	5	6	7
24	Spent a lot of time and energy removing excess hair	1	2	3	4	5	6	7
25	Felt depressed over your struggle to have children	1	2	3	4	5	6	7
26	Felt depressed because of your facial hair	1	2	3	4	5	6	7
27	Felt angry that you have PCOS	1	2	3	4	5	6	7
28	Been envious of women without PCOS	1	2	3	4	5	6	7
29	Felt embarrassed about having PCOS	1	2	3	4	5	6	7
30	Felt embarrassed by your facial hair	1	2	3	4	5	6	7
31	Felt like a failure because of your trouble concieving	1	2	3	4	5	6	7
32	Felt that it is unfair that you have PCOS	1	2	3	4	5	6	7
33	Struggled to cope with your PCOS and your other condition(s)	1	2	3	4	5	6	7
34	Been scared that you may not have children	1	2	3	4	5	6	7
35	Wanted to take part in a social activity but haven't because of your PCOS	1	2	3	4	5	6	7

**Scoring:** Summate each item to give a total score. A low score represents that a lower quality of life, a higher score represents a lesser to no impact on quality of life.

Subscale scores (Impact of PCOS, Infertility, Hirsutism, Mood) should be summated to give a total score for the subscale.

Impact of PCOS Items: 4, 6, 10, 13, 15, 16, 17, 18, 19, 20, 27, 28, 29, 32, 33, 35

Infertility Items: 1, 8, 9, 23, 25, 31, 34

Hirsutism Items: 7, 21, 22, 24, 26, 30

Mood Items: 2, 3, 5, 11, 12, 14,

**Scale: Body image scale**

Instructions: The body image scale (Hopwood et al., 2001) is a 10-item measure developed to briefly and comprehensively assess affective (e.g., feeling self-conscious), behavioral (e.g., difficulty at looking at the naked body) and cognitive (e.g., satisfaction with appearance). It uses a 4-point response scale (0 not at all to 3 very much) and the final score is the sum of the 10 items, ranging from 0 to 30, with zero scores representing no symptom or distress and higher scores corresponding to increasing symptoms and distress or more body image concerns.

Items	Not at all	A little	Quite a bit	Very much
Have you been feeling self-conscious about your appearance?				
Have you felt less physically attractive as a result of your disease or treatment?				
Have you been dissatisfied with your appearance when dressed?				
Have you been feeling less feminine/masculine as a result of your disease or treatment?				
Have you been feeling less sexually attractive as a result of your disease or treatment?				
Did you avoid people because of the way you felt about your appearance?				
Have you been feeling the treatment has left your body less whole?				
Have you felt dissatisfied with your body?				
Have you been dissatisfied with the appearance of your scar?				

**Scale: Rosenberg Self-esteem Scale**

Instructions: Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement. Items 2, 5, 6, 8, 9 are reverse scored. Give “Strongly Disagree” 1 point, “Disagree” 2 points, “Agree” 3 points, and “Strongly Agree” 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

Items	Strongly agree	Agree	Disagree	Strongly disagree
On the whole, I am satisfied with myself				
At times I think I am no good at all.				
I feel that I have a number of good qualities.				
I am able to do things as well as most other people.				
I feel I do not have much to be proud of.				
I certainly feel useless at times.				
I feel that I'm a person of worth, at least on an equal plane with others.				

I wish I could have more respect for myself.				
All in all, I am inclined to feel that I am a failure.				

## report

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