ORIGINAL ARTICLE
MENTAL HEALTH AND RESILIENCE AMONG PAKISTANI WOMEN SUFFERING FROM POLYCYSTIC OVARY SYNDROME

Wardah Ishfaq, Rabia Mushtaq*

Department of Psychology, International Islamic University, and Shifa Tameer-e-Millat University, Islamabad,
***Department of Psychology, International Islamic University Islamabad, Pakistan**

Background: Polycystic Ovary Syndrome (PCOS) is associated with multiple mental health issues, however resilience can work as a buffer against mental illnesses. The objective of the present study was to investigate the relationship between mental health and resilience and to compare mental health and resilience between working and non-working women suffering from PCOS. **Method:** This cross-sectional comparative study was conducted in the gynaecological wards of government and private hospitals and clinics from January to June 2023. Two hundred women suffering from PCOS were selected through non-probability sampling. The data was collected through two reliable measures: the Mental Health Inventory 38-Urdu (MHI-38) and the Connor Davidson Resilience Scale-Urdu. Data was analyzed on SPSS-26 by means of Cronbach alpha reliability, Pearson correlation, Mean±SD, and *t*-tests. **Results:** Psychometric properties showed high reliability of the study scale for MHI 38-U (α=0.87) and for CDRS-U (α=0.82, $p<0.001$). There was a significantly positive correlation between mental health and resilience (r=0.85, $p<0.001$). Non-working women experience lower mental health (Mean±SD 85.37±9.91) than working women (Mean±SD 136.50±12.94), ($p<0.001$). Working women experience higher resilience (Mean±SD 65.06±8.71) than non-working women with PCOS (Mean±SD 47.55±12.17), ($p<0.001$). **Conclusion:** There was a significant positive relationship between mental health and resilience. Non-working women reported compromised mental health and low resilience compared to working women suffering from PCOS.
Keywords: Mental health, resilience, working, non-working, PCOS

INTRODUCTION

Polycystic ovarian syndrome (PCOS) is a prevailing endocrine disorder in women. In Pakistan the prevalence of PCOS is much higher (52%) as compared to other South Asian and Western countries (26%).[1] PCOS has significant and varied clinical effects, including those on the reproductive system (infertility, hyperandrogenism, hirsutism), the metabolic system (insulin resistance, impaired glucose tolerance, type 2 diabetes mellitus, adverse cardiovascular risk profiles), and the psychological system (increased anxiety, depression, and worsened quality of life).[2] Adults with PCOS are more likely to experience hirsutism, menstrual irregularity, and infertility[3], whereas adolescents and young women with PCOS are more likely to experience weight issues[4,5]. PCOS is associated with obesity, which may raise the incidence of eating problems in women. The presence of obesity, particularly central obesity, is a prevalent characteristic of PCOS that exacerbates the phenotypic.[6] There is a high prevalence of depression among individuals diagnosed with PCOS.[7] Most obese persons have mood disorders such as depression.[8]

In a study conducted by Adali *et al*, it was observed that individuals diagnosed with PCOS had considerably higher values of body mass index (BMI) and waist-to-hip ratio (WHR) compared to the control group. Their results indicated that patients with PCOS experienced significantly elevated levels of emotional distress and depression.[9] Resilience is an essential resource for the soul energy to prevent and alleviate mental health problems such as depression, anxiety, and stress. Resilience is the capacity to recover and thrive.[10] Individuals exhibiting high levels of resilience have low levels of emotional and behavioural distress such as sadness, anxiety, and stress. Resilience is linked to reduced psychological problems and helps the individual to cope better with adverse situations.

It has been indicated that working women are frequently exposed to a range of distressing human experiences and hardships, which have the potential to adversely impact the psychological well-being of these individuals. To effectively manage the various internal and external challenges they face, individuals must actively mobilize and utilize their psychological resources such as resilience.[11] Foumani *et al*, examined how personal traits affect resilience and happiness in working and non-working women residing in Tehran. The findings of their study indicate that personality factors play a significant role in influencing specific aspects of happiness and resilience among females. Women with balanced personalities are therefore more likely to be content and resilient.[12]

People who have strong professional networks also tend to have supportive connections with one another. In an ideal scenario, it is expected that all collegial relationships would possess a certain level of

nurturing. The provision of nurturing and having cooperative connections are essential for individual's well-being. A supportive atmosphere can facilitate the establishment of mutually beneficial and nurturing connections among workers.[13] McGee believes that guidance and support from colleagues and the growth of resilience can reduce psychological distress in working women.[14] Previous research studied resilience and mental health issues like psychological distress among working and non-working women in the absence of medical problems.

The objectives of this study were to examine the correlation between mental health and resilience in women diagnosed with PCOS, and to evaluate levels of mental health and resilience between employed and unemployed women affected by PCOS.

METHODOLOGY

A sample of 200 (108 working, 92 non-working) women suffering from PCOS was taken through purposive sampling from different government and private hospitals and clinics in Rawalpindi and Islamabad. The age range of the sample was 18–45 years. The study was approved by the Ethical Review Board of International Islamic University, Islamabad. Permission was taken from respective clinics and hospitals, and the participants were briefed about the purpose and objectives of the study. All the participants extended written informed consent. A demographic sheet and two scales, Mental Health Inventory-38-Urdu (MHI-38)[15], having two sub-scales, the psychological distress scale and psychological well-being scale, and Conner Davidson Resilience Scale-Urdu[16] were given to participants. Computing scores of Mental Health Inventory were used for analysis. The score of the sub-scales can be used independently. Higher scores indicate better mental health and resilience.

Data were analysed on SPSS-26. Mean and Standard Deviations were calculated. Pearson correlation and Student's t-test were applied.

RESULTS

Out of 200 women suffering from PCOS 106 (55%) were working and 94 (45%) were non-working. Pearson correlation showed that mental health and resilience were significantly and positively correlated with each other (r=0.82, p<0.001) (Table-1).

Mean, Standard Deviation and t-values for women with PCOS with respect to occupational status are shown in Table-2. Non-working women had lower mental health (Mean±SD 85.37±9.91) than working women (Mean±SD 136.50±12.94), (p<0.001). Working women experience higher resilience (Mean±SD 65.06±8.71) than non-working women with PCOS (Mean±SD 47.55±12.17), (p<0.001).

Table-1: Correlation matrix between mental health and resilience among women with PCOS (n=200)

Variables	α	1	2
Mental Health Inventory-38	0.87	-	0.85*
Resilience	0.82	-	-

*p<0.001

Table-2: Comparison of mental health and resilience among working and non-working women with PCOS

Variables	Working (n=108)	Non-working (n=92)	p	Cohen's d
Mental health	136.50±12.94	85.37±9.91	0.000	0.98
Resilience	65.06±8.71	47.55±12.17	0.000	1.48

DISCUSSION

The results affirm that mental health and resilience have a positive correlation which means that mental health level affects positively the resilience capacity among women suffering from PCOS. Previous studies also corroborate this result as students with high levels of resilience experience less psychological distress than those with low levels of resilience.[17] Recent studies in the time of COVID-19 also show a similar positive correlation between mental health and resilience.[18] Verdolini *et al* also discovered a noteworthy negative correlation between resilience and psychological problems during the COVID-19.[19] Moreover, survey studies have demonstrated a negative correlation between resilience and psychological distress among physicians[20] as well as depressive symptoms in the general population[21]. Individual interaction, personality traits, experience, family, age, educational level, and human resources, all contribute to resilience.[22] Findings also indicate that working women have higher mental health and high resilience. Women who are employed are typically content, mature to handle interpersonal relationships, passionate, temperately practical, consistent, sheltered, naive, forgiving, joyous, and optimistic. In general, non-working women have a lower sense of well-being than working women.[23]

The prevalence of PCOS continues to rise, and the associated risk factors are severe and long-lasting. Women with PCOS may have lower self-esteem, a more negative self-image, and higher levels of depression and psychological distress due to hyperandrogenism, physical appearance characteristics such as obesity, hirsutism, cystic acne, seborrhoea, and hair loss, which may affect feminine identity.[24] In Pakistani society, due to the stigma of anovulation and infertility, most women do not seek a diagnosis, and the condition worsens over time.[25] There should be a national awareness program about PCOS, its symptoms, consequences, and management. Women with PCOS should maintain regular contact with their healthcare provider to maintain control over their condition or, if necessary, to change treatment options.

Purposive sampling was used to generate the sample of respondents, which limits the present study's

ability to generalize its findings to the whole population. The data was collected in just two cities (Islamabad and Rawalpindi), thereby limiting its external validity. It is suggested that the study be extended to other areas to increase its reliability and generalizability.

CONCLUSION

The result shows a significant positive correlation between mental health and resilience. Findings also elucidate significant differences on mental health and resilience between working and non-working women suffering from PCOS. On the community and national level, prevention awareness programs and seminars should be organized.

REFERENCES

1. Azhar A, Abid F, Rehman R. Polycystic Ovary Syndrome, subfertility and vitamin D deficiency. J Coll Physician Surg Pakistan 2020;30(5):545–6.
2. Teede H, Deeks A, Moran L. Polycystic ovary syndrome: a complex condition with psychological, reproductive and metabolic manifestations that impacts on health across the lifespan. BMC Med 2010;8(1):41.
3. Johnston-Robledo I, Chrisler JC. The menstrual mark: menstruation as social stigma. Sex Roles 2013;68(1–2):9–18.
4. Lanzo E, Monge M, Trent M. Diagnosis and management of polycystic ovary syndrome in adolescent girls. Pediatr Ann 2015;44(9):e223–30.
5. Trent ME, Rich M, Austin SB, Gordon CM. Fertility concerns and sexual behavior in adolescent girls with polycystic ovary syndrome. J Pediatric Adolesc Gynecol 2003;16(1):33–7.
6. Daniels SR, Jacobson MS, McCrindle BW, Eckel RH, Sanner BM. American heart association childhood obesity research summit. Circulation 2009;119(15):2114–23.
7. Wilson NA, Peña AS. Quality of life in adolescent girls with polycystic ovary syndrome. J Paediatr Child Health 2020;56(9)1351–7.
8. Dixon JB, Dixon ME, O'Brien PE. Depression in association with severe obesity. Arch Intern Med 2003;163(17):2058–65.
9. Adali E, Yildizhan R, Kurdoglu M, Kolusari A, Edirne T, Sahin HG, et al. The relationship between clinico-biochemical characteristics and psychiatric distress in young women with polycystic ovary syndrome. J Int Med Res 2008;36(6):1188–96.
10. Tan S, Hahn S, Benson S, Janssen OE, Dietz T, Kimmig R, et al. Psychological implications of infertility in women with polycystic ovary syndrome. Hum Reprod 2008;23(9):2064–71.
11. Sirmans SM, Pate KA. Epidemiology, diagnosis, and management of polycystic ovary syndrome. Clin Epidemiol 2013;6:1–13.
12. Foumani GE, Salehi J, Babakhani M. The relationship between resilience and personality traits in women. J Educ Manage Stud 2015;5(2):116–20.
13. Bhattacharya SM, Jha A. Prevalence and risk of depressive disorders in women with polycystic ovary syndrome (PCOS). Fertil Steril 2010;94(1):357–9.
14. McGee EO. Devalued Black and Latino Racial identities: A by-product of STEM college culture? Am Educ Res J 2016;53(6):1626–62.
15. Khan MJ, Hanif R, Tariq N. Translation and validation of Mental Health Inventory. Pak J Psychol Res 2018;30(1):65–79.
16. Sarwar N, Khan MJ, Sarwar A, Abid S. Translation and validation of Conner Davidson Resilience (25) scale among diverse population: Pakistan. Psychol Educ J 2021;58(3):4451–9.
17. Pidgeon AM, Rowe NF, Stapleton P, Magyar HB, Lo BCY. Examining characteristics of resilience among university students: An international study. Open J Soc Sci 2014;2(11):14–22.
18. Anghel RE. Psychological and educational resilience in high vs. low-risk Romanian adolescents. Procedia - Soc Behav Sci 2015;203(1):153–7.
19. Verdolini N, Amoretti S, Montejo L, García-Rizo C, Hogg B, Mezquida G, et al. Resilience and mental health during the COVID-19 pandemic. J Affect Disord 2021 Mar;283(1):156–64.
20. Bahar A, Koçak HS, Samancıoğlu Bağlama S, Çuhadar D. Can psychological resilience protect the mental health of healthcare professionals during the covid-19 pandemic period? Dubai Med J 2020;2(1):1–7.
21. Mosheva M, Hertz-Palmor N, Dorman Ilan S, Matalon N, Pessach IM, Afek A, et al. Anxiety, pandemic-related stress and resilience among physicians during the COVID-19 pandemic. Depress Anxiety 2020;37(10):965–71.
22. Barzilay R, Moore TM, Greenberg DM, DiDomenico GE, Brown LA, White LK, et al. Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers. Transl Psychiatry 2020;10(1):291.
23. Quek YH, Tam WWS, Zhang MWB, Ho RCM. Exploring the association between childhood and adolescent obesity and depression: a meta-analysis. Obes Rev 2017;18(7):742–54.
24. Weiner CL Primeau M, Ehrmann DA. Androgens and mood dysfunction in women: comparison of women with polycystic ovarian syndrome to healthy controls. Psychosom Med 2004;66(3):356–62.
25. Barry JA, Hardiman PJ, Saxby BK, Kuczmierczyk A. Testosterone and mood dysfunction in women with polycystic ovarian syndrome compared to subfertile controls. J Psychosom Obstet Gynecol 2011;32(2):104–11.

Address for Correspondence:
Warda Ishfaq, Lecturer, Department of Clinical Psychology, Shifa Tameer-e-Millat University, Islamabad, Pakistan.
Cell: +92-313-5553685
Email: wardah.dcp@stmu.edu.pk

Contribution of Authors:
WI: Primary author, concept and design of the work, acquisition, analysis, and interpretation of data
RM: Critical review, intellectual content, final approval