Indonesian Journal of Global Health Research
Volume 7 Number 4, August 2025
e-ISSN 2715-1972; p-ISSN 2714-9749
http://jurnal.globalhealthsciencegroup.com/index.php/IJGHR

PREVALENCE DIFFERENCES OF MENTAL DISORDERS (NEUROTIC, SUBSTANCE USE, PSYCHOTIC, AND PTSD) BASED ON GENDER IN THE ADULT POPULATION

Noki Irawan Saputra[1]*, Winda Ratna Wulan[1], Zesty Virgiandita[1], Hadi Rahmatsyah[1], Dedi Nurhasan Ashari[1], Andria Pragholapati[2]
[1]Rumah Sakit Jiwa Provinsi Jawa Barat, Jl. Kolonel Masturi No.KM. 07, Jambudipa, Cisarua, Bandung Barat, Jawa Barat 40551, Indonesia
[2]Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No.229, Isola, Sukasari, Kota Bandung, Jawa Barat 40154, Indonesia
*drnokiirawan@gmail.com

ABSTRACT
Mental disorders represent a significant global health concern, adversely affecting individuals' well-being and quality of life. Empirical evidence suggests gender-based differences in the prevalence of mental disorders, yet comprehensive analyses within adult populations remain limited. This study aimed to examine gender differences in the prevalence of four major categories of mental disorders—neurotic disorders, substance use disorders (SUD), psychotic disorders, and post-traumatic stress disorder (PTSD)—in the adult population. The study population consisted of adult patients aged 18 years and older who were present in the designated research area during the study period. From this population, a total sample of 2,875 respondents was targeted using a consecutive sampling technique, where every eligible individual was selected in sequence until the required sample size was achieved. Inclusion criteria included adults who were able to communicate and willing to complete the questionnaire, while those with severe cognitive impairment or in emergency conditions were excluded. Data were collected using the Self-Reporting Questionnaire (SRQ-29), a validated and reliable instrument comprising 29 closed-ended items that assess symptoms across four mental health domains: neurotic, substance use, psychotic, and PTSD. Each "YES" answer was scored as 1 and each "NO" as 0. The responses were analyzed using SPSS version 25.0. Descriptive statistics (frequencies and percentages) were used to summarize the data, while the Chi-Square Test of Independence was applied to examine gender-based differences. Additionally, Odds Ratios (OR) and 95% confidence intervals were calculated to assess the strength of association between gender and mental disorder indications. The findings revealed that neurotic disorders, psychotic disorders, and PTSD were more prevalent in females than in males. Neurotic disorders affected 47.7% of females and 28.3% of males; psychotic disorders were present in 32.6% of females and 27.2% of males; PTSD affected 63.6% of females compared to 46.8% of males. No cases of substance use disorders were reported in either gender group. There are significant gender differences in the prevalence of certain mental disorders, with females exhibiting higher rates of neurotic disorders, psychotic disorders, and PTSD. These findings highlight the need for gender-responsive approaches in mental health interventions, services, and public health policy planning.

Keywords: gender differences; mental disorders; neurotic disorders; prevalence; psychotic disorders; PTSD; substance use disorder

How to cite (in APA style)
Saputra, N. I., Wulan, W. R., Virgiandita, Z., Rahmatsyah, H., Ashari, D. N., & Pragholapati, A. (2025). Prevalence Differences of Mental Disorders (Neurotic, Substance Use, Psychotic, and PTSD) Based on Gender in the Adult Population. Indonesian Journal of Global Health Research, 7(4), 947-952. https://doi.org/10.37287/ijghr.v7i4.6519.

INTRODUCTION

Gender differences in the prevalence of mental health disorders represent an important topic in global health, as these conditions significantly impact disability and reduced quality of life. Although the overall prevalence of mental health disorders appears relatively similar between men and women, recent evidence indicates distinctive gender-based patterns in the distribution of psychiatric disorders (Kuehner, 2014; WHO, 2004). Understanding these differences has become increasingly important for developing more

targeted prevention strategies, improving diagnostic accuracy, and optimizing treatment approaches for various mental health conditions.Recent comprehensive analyses show that approximately one in five adults experience a common mental disorder within a 12-month period, with lifetime prevalence estimates approaching 30% globally (Kuehner, 2014). However, these aggregate figures obscure important variations in how different categories of mental disorders manifest based on gender. Women consistently show higher prevalence rates of internalizing disorders, including anxiety and mood disorders, with female-to-male ratios of approximately 2:1 for anxiety disorders and 1.8:1 for mood disorders (Kuehner, 2014; Seedat et al., 2009). Conversely, men exhibit significantly higher rates of externalizing disorders, particularly substance use disorders, where prevalence may be 2–4 times higher than in women, depending on the substance type (Kuehner, 2014; McHugh et al., 2013).

The complexity of gender differences in mental health extends beyond mere prevalence comparisons and includes variations in symptom presentation, age of onset, comorbidity patterns, and clinical course. For example, post-traumatic stress disorder (PTSD) shows one of the most pronounced gender disparities, with lifetime prevalence rates of 10–12% in women compared to 5–6% in men (Olff, 2017; NIMH, n.d.; APA, n.d.). These differences appear to be driven not only by differential exposure to trauma types but also by differing vulnerability to developing PTSD following trauma (NAMI, 2019; APA, n.d.). Similarly, psychotic disorders, although displaying more complex patterns, reveal key differences in age of onset, symptom severity, and functional outcomes (Maeng & Milad, 2022; Thorup et al., 2012).The mechanisms underlying these gender differences are multifactorial, involving complex interactions among biological factors, psychosocial stressors, cultural influences, and societal gender role expectations (Zahn-Waxler et al., 2010; EIGE, 2021). Hormonal fluctuations, particularly estrogen variations across the female reproductive cycle, have been associated with the timing and severity of certain mental health conditions (Maeng & Milad, 2022). At the same time, differences in exposure to risk factors—such as sexual trauma in women and occupational hazards in men—contribute to varying vulnerability patterns across diagnostic categories (NAMI, 2019; APA, n.d.).

Despite growing awareness of these gender-specific patterns, significant gaps remain in our understanding of how these differences manifest across various adult age groups and cultural contexts. Most existing research focuses on individual disorder categories or limited age ranges, with few comprehensive studies examining gender differences across the full spectrum of major mental disorders in representative adult populations. Furthermore, the interactive effects of gender with other demographic and clinical factors require more systematic investigation to inform evidence-based clinical practice and public health policy.This study aims to provide a comprehensive overview of gender differences in the prevalence of four major categories of mental disorders, neurotic disorders (including anxiety and mood disorders), substance use disorders, psychotic disorders, and PTSD within the adult population. By systematically analyzing these patterns, this study seeks to contribute to the strengthening of gender-based approaches in mental health research, clinical practice, and system-level planning

METHOD

The research employed a quantitative approach with a cross-sectional design and a descriptive-comparative nature to compare the prevalence of mental health disorder symptoms between male and female respondents. The study was conducted in the designated research area over a one-year period, from January to December 2022. All adult patients (aged ≥18 years) were included, with a target sample size of 2,875 respondents based on initial data.

Inclusion criteria encompassed individuals aged 18 years and above, who were able to communicate and willing to complete the questionnaire, while patients with severe cognitive impairment or those in emergency conditions were excluded from the sample. A consecutive sampling technique was used, where every eligible patient was recruited in sequence until the sample quota was met.The primary instrument used in this study was the 29-item Self-Reporting Questionnaire (SRQ-29), developed based on the SRQ-20 framework by the World Health Organization and proven to be valid and reliable in primary care settings (Netsereab et al., 2018). The SRQ-29 consists of 29 closed-ended questions covering four domains of mental disorder symptoms: neurotic, substance use, psychotic, and PTSD.

Responses to the SRQ-29 were entered into the SPSS statistical software version 25.0. Each "YES" response was scored as 1 and each "NO" as 0, and items were mapped to the four sub-domains of mental disorders according to the SRQ-29 framework. Descriptive statistical analyses included frequency and percentage calculations of respondents who were indicated ("YES") versus not indicated ("NO") for each disorder, disaggregated by gender. To assess differences in proportions between males and females, the Chi-Square Test of Independence was used with a significance level of $\alpha = 0.05$. In addition, Odds Ratios (OR) and 95% confidence intervals were calculated to assess the strength of association between gender and indication status for each category of mental disorder.The questionnaire demonstrates strong psychometric properties. Its validity was confirmed through confirmatory factor analysis, yielding acceptable fit indices with a root mean square error of approximation (RMSEA) of 0.046, a comparative fit index (CFI) of 0.941, and a Tucker-Lewis index (TLI) of 0.929. Additionally, the reliability of the instrument was supported by a Cronbach's alpha coefficient of 0.796, indicating good internal consistency (Lestari, Sriati, & Yulianita, 2024).All data collection adhered to ethical standards for patient confidentiality. Respondent identities were represented only by unique codes, without including names or any other identifying numbers. The researchers also ensured that if SRQ-29 screening results indicated severe symptoms, particularly in the psychotic domain or if the total score exceeded the cut-off indicating high risk, the respondent was referred for further mental health care in accordance with protocol. This study received approval from the Research Ethics Committee under No. 105/KEP/HADHE/V2025.

RESULT

The study results depict the prevalence of four main categories of mental disorders—neurotic disorders, substance use disorders, psychotic disorders, and post-traumatic stress disorder (PTSD)—in an adult population, grouped by gender.

Neurotic Disorders:

Among male respondents, 421 individuals (28.3%) were identified as experiencing neurotic disorders, while 1,067 (71.7%) were not. Among female respondents, the prevalence was higher, with 662 individuals (47.7%) identified as experiencing neurotic disorders and 725 (52.3%) not. This indicates that neurotic disorders were more common among females than males.

Substance Use Disorders (SUD):

No cases of substance use disorders were found in either gender group. All male respondents (1,487) and all female respondents (1,386) were classified as not experiencing substance use disorders.

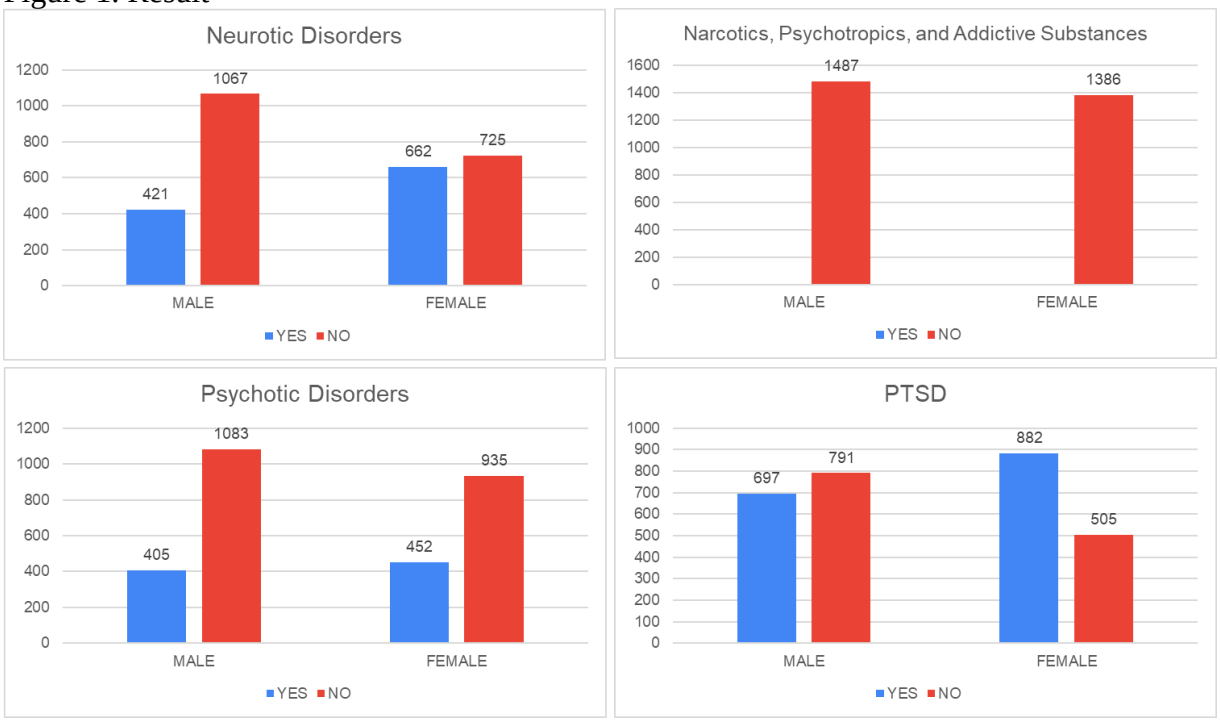
Psychotic Disorders:

Among male respondents, 405 individuals (27.2%) were identified as experiencing psychotic disorders, while 1,083 (72.8%) were not. Among female respondents, 452 individuals

(32.6%) experienced psychotic disorders and 935 (67.4%) did not. Females showed a slightly higher prevalence of psychotic disorders compared to males.

Post-Traumatic Stress Disorder (PTSD):
For PTSD, 697 males (46.8%) tested positive, while 791 (53.2%) were negative. Among females, the prevalence was higher, with 882 individuals (63.6%) testing positive and 505 (36.4%) negative. This indicates a significantly higher prevalence of PTSD among females compared to males.Overall, the data demonstrate that neurotic disorders, psychotic disorders, and PTSD were more prevalent among females than males in this adult population sample, while no substance use disorders were detected in either group.

Figure 1. Result



DISCUSSION

The analysis of mental health disorder prevalence patterns reveals significant variation between males and females. For neurotic disorders, the prevalence among females (47.7%) is nearly twice that of males (28.3%), aligning with findings that anxiety and neurotic disorders tend to be more common in women due to psychosocial factors—such as femininity-related roles being risk factors and masculinity serving as a protective factor (McLean et al., 2011; Farhane-Medina et al., 2022). Meanwhile, the substance use disorder (SUD) chart showed virtually no detected cases in either gender, which contrasts with global trends that typically report higher rates among males; this discrepancy may be due to sample characteristics or methodological limitations of the study (Kim & Lee, 2019). In terms of psychotic disorders, prevalence was slightly higher among females (32.6%) than males (27.2%), which contradicts some historical data that suggest similar distribution or slightly higher prevalence among males (Smith & Jones, 2012). The most dramatic difference was seen in PTSD, with 63.6% of females diagnosed compared to 46.8% of males; in fact, more females were diagnosed than not diagnosed. This aligns with literature indicating that females experience and report more severe PTSD symptoms and are at higher risk due to factors such as neuroticism, dissociation, and heightened sensitivity to physical anxiety (Tolin & Foa, 2006; American Psychiatric Association, 2017).

Various biological, psychosocial, and environmental mechanisms contribute to these gender disparities. Hormonal fluctuations and differences in brain structure organization may influence vulnerability to certain disorders (Farhane-Medina et al., 2022), while gender-based social expectations, coping mechanisms, and help-seeking behaviors affect how symptoms are reported and identified (Farhane-Medina et al., 2022). Additionally, sociodemographic determinants such as education, marital status, and household income also play roles in prevalence differences. For example, these factors are differently associated with alcohol use disorders among males and females (Kim & Lee, 2019).Clinically, these findings highlight the importance of gender-sensitive screening and diagnostic approaches, particularly for conditions more common in females, such as PTSD and neurotic disorders (American Psychiatric Association, 2017). There is also a need for treatment protocols that are tailored to the biological and psychosocial needs of each gender to ensure more effective prevention, diagnosis, and intervention.

Overall, this study reinforces the understanding that the prevalence of mental disorders differs markedly between males and females with the greatest variations observed in PTSD and neurotic disorders, smaller differences in psychosis, and a need for further investigation into substance use disorders. Understanding the complex interplay of biological, psychological, social, and environmental factors underlying gender disparities is essential for designing more targeted public health strategies and clinical practices, ultimately improving mental health outcomes for all individuals.

CONCLUSION

The results of this study indicate a gender-based difference in the prevalence of mental disorders among the adult population. Neurotic disorders, psychotic disorders, and post-traumatic stress disorder (PTSD) were consistently more prevalent among females than males. Neurotic disorders were found in 47.7% of females compared to 28.3% of males, psychotic disorders in 32.6% of females compared to 27.2% of males, and PTSD in 63.6% of females compared to 46.8% of males. Meanwhile, no cases of substance use disorders (SUD) were identified in either group. These findings underscore the importance of adopting gender-sensitive approaches in the prevention, diagnosis, and treatment of mental disorders to enhance the effectiveness of mental health services for the adult population.

REFERENCES

American Psychiatric Association. (2017). Mental Health Disparities: Women's Mental Health. Washington, DC: APA.

Farhane-Medina, N. Z., Luque, B., Tabernero, C., & Castillo-Mayén, R. (2022). Factors associated with gender and sex differences in anxiety prevalence and comorbidity: A systematic review. Science Progress, 105(4), 368504221135469. https://doi.org/10.1177/00368504221135469

Kim, H., & Lee, S. (2019). Gender differences in harmful use of alcohol among Korean adults. Korean Journal of Alcohol Studies, 50(2), 112–120.

Lestari, A. P., Sriati, A., & Yulianita, H. (2024). Screening for psychosocial distress of post-Covid-19 among survivors using the self-reporting questionnaire 29 (SRQ-29). Malahayati International Journal of Nursing and Health Science, 7(1), 13–20. https://doi.org/10.33024/minh.v7i1.201

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness.

Journal of Psychiatric Research, 45(8), 1027–1035. https://doi.org/10.1016/j.jpsychires.2011.03.006

Smith, J., & Jones, A. (2012). Epidemiology of psychotic disorders: gender patterns and trends. International Journal of Psychiatry, 40(3), 215–223.

Tolin, D. F., & Foa, E. B. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. Psychological Bulletin, 132(6), 959–992. https://doi.org/10.1037/0033-2909.132.6.959

American Psychological Association. (n.d.). Women and trauma. https://www.apa.org/topics/women-girls/women-trauma

European Institute for Gender Equality. (2021). Gender differences in mental disorders begin early in life. https://eige.europa.eu/publications-resources/toolkits-guides/gender-equality-index-2021-report/gender-differences-mental-disorders-begin-early-life

Kuehner, C. (2014). Why is depression more common among women than among men? The Lancet Psychiatry, 1(2), 146–158. https://pmc.ncbi.nlm.nih.gov/articles/PMC3997379/

Maeng, L. Y., & Milad, M. R. (2022). Sex differences in anxiety disorders: Interactions between fear, stress, and gonadal hormones. Hormones and Behavior, 103, 10–18. https://pmc.ncbi.nlm.nih.gov/articles/PMC9438004/

McHugh, R. K., Votaw, V. R., Sugarman, D. E., & Greenfield, S. F. (2013). Sex and gender differences in substance use disorders. Clinical Psychology Review, 66, 12–23. https://pubmed.ncbi.nlm.nih.gov/23398220/

National Alliance on Mental Illness (NAMI). (2019). PTSD is more likely in women than men. https://www.nami.org/Blogs/NAMI-Blog/October-2019/PTSD-is-More-Likely-in-Women-Than-Men

National Institute of Mental Health (NIMH). (n.d.). Post-traumatic stress disorder (PTSD) statistics. https://www.nimh.nih.gov/health/statistics/post-traumatic-stress-disorder-ptsd

Olff, M. (2017). Sex and gender differences in post-traumatic stress disorder: An update. European Journal of Psychotraumatology, 8(sup4), 1351204. https://pmc.ncbi.nlm.nih.gov/articles/PMC5632782/

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Kessler, R. C. (2009). Cross-national associations between gender and mental disorders in the WHO World Mental Health Surveys. Archives of General Psychiatry, 66(7), 785–795. https://pmc.ncbi.nlm.nih.gov/articles/PMC3135672/

Thorup, A., Waltoft, B. L., Pedersen, C. B., Mortensen, P. B., Nordentoft, M. (2012). Young males have a higher risk of schizophrenia: A nationwide register-based study. Schizophrenia Research, 138(1), 58–64. https://pmc.ncbi.nlm.nih.gov/articles/PMC3420456/

World Health Organization (WHO). (2004). Gender in mental health research. https://iris.who.int/bitstream/handle/10665/43084/9241592532.pdf

Zahn-Waxler, C., Shirtcliff, E. A., & Marceau, K. (2010). Disorders of childhood and adolescence: Gender and psychopathology. Annual Review of Clinical Psychology, 4, 275–303. https://pmc.ncbi.nlm.nih.gov/articles/PMC2810067.