

Review Article

Gender Matters: A Critical Piece in Mental Health

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Abstract

Gender is a socially constructed concept influenced by social practices, norms, and expectations. The impact of gender differences on mental health has been long recognized, with consequences such as over-diagnosis and pathologization or under-diagnosis of some disorders depending on gender. This also has implications for the treatments that each gender receives. In this narrative review, we will analyze (a) the gender differences in the prevalence of mental disorders, (b) the explanations for gender differences in mental health, including biological, social constructionist, and sociocultural risk factors, and (c) the gender differences in the treatment of mental disorders, including differences in health-seeking behavior and treatment outcomes. Overall, there is a consistent pattern of differences in prevalence, with women more likely to have internalizing disorders (e.g., anxiety or depression) and men more likely to have externalizing disorders (e.g., antisocial personality or substance use). The explanations aimed at disentangling the reasons for these gender differences are complex, and several approaches should be considered to achieve a comprehensive explanation. In addition to biological factors (e.g., hormonal changes), social constructionist factors (e.g., biased diagnostic criteria and clinicians' gender bias) and sociocultural factors (e.g., feminization of poverty, gender discrimination, violence against women, and prescriptive beauty standards) should be considered. Future studies in the field of mental health should consider gender differences and explore the bio-psycho-socio-cultural factors that may underlie these differences.

Keywords: diagnosis; gender differences; mental health; risk factors; treatment

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Gender as a Determinant of Mental Health

The connection between “madness” and women has been present throughout the history of psychopathology, coupled with the widely held belief that women are more susceptible to mental health problems. In ancient Greek mythology, the goddess of rage and madness was Lyssa who worked in conjunction with Mania, who were the spirits that personified insanity, madness, and crazed frenzy. In contrast, the god of medicine and healing was a male, known as Asclepius. This distinction between the attributes associated with the Greek goddess and the gods is an illustration of the long-standing gender differences in mental health.

First and foremost, it must be noted that gender is a complex concept, different from sex. Sex primarily refers to physical and biological traits, whereas gender refers to social or cultural traits (American Psychological Association [APA], 2015). In addition, gender is a non-binary socially constructed concept, influenced not only by intrinsic factors but also by social practices, norms, and the expectations of others (Lorber & Moore, 2002). Moreover, the socially determined roles vary across cultures and over time (National Institutes of Health, Office of Research on Women's

Health, 2017). The differences in socialization between women and men can significantly impact mental health, resulting in gender disparities in patterns of ongoing stressors or “chronic environmental strain”, behavioral patterns when coping with stress, cognitive factors, or the experience and expression of emotion (Street & Dardis, 2018), among other factors.

In addition, the multidimensional nature of mental health further complicates the relationship with gender. Mental health includes not only the absence of psychopathology, but also well-being (Keyes, 2005), which is also a complex phenomenon influenced by many factors, including individual characteristics—both biological and psychological—, social and economic circumstances, and broader cultural environmental factors (Allen et al., 2014). These elements interact dynamically to either protect or compromise mental health, making certain groups more vulnerable. In this sense, and according to the World Health Organization (WHO, 2014), women are a particularly vulnerable group as they often experience higher rates of mental health problems due to differential exposure to social, economic, and environmental factors, compared to men.

Although some evidence points out that mental health problems impact both men and women similarly (Kessler et al., 2005), certain conditions, such as major depression or anxiety disorders, are more prevalent among women. For instance, in Spain, evidence indicates that women are more than twice as likely to receive diagnoses of depression or anxiety compared to men (Ministerio de Sanidad, Consumo y Bienestar Social, 2019). Additionally, women experience a higher burden of mental disorders than men, as measured by disability-adjusted life years (Whiteford et al., 2013).

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Moreover, gender also interacts with other determinants such as age, family structure, income, education and social support, and with a variety of behavioral determinants (WHO, 2000). These interactions can often create vicious cycles that worsen women's mental health (Patel, 2005). For instance, the 2017 Spanish National Health Survey (Ministerio de Sanidad, Consumo y Bienestar Social, 2019) concluded that gender interacts with age and level of education (even when controlling for mental health and primary visits care). Thus, gender differences in depression and anxiety were even more prominent in older populations (especially those over 65) and with lower levels of education (e.g., the probability of being diagnosed with anxiety and depression in individuals with lower levels of education was 86% higher in women than in men). This means that gender differences in mental health are more pronounced among vulnerable women.

Therefore, gender is a variable that needs to be considered in mental health, as gender differences have been consistently found in the prevalence, symptomatology, risk factors, course, and treatment of mental disorders (Riecher-Rössler, 2010). In this narrative review, we analyze (a) the gender differences in the prevalence of mental disorders, (b) the explanations for gender differences in mental health, including biological, social constructionist, and sociocultural risk factors, and (c) the gender differences in the treatment of mental disorders, including the differences in health-seeking behavior and the treatment outcomes.

Differences in the Prevalence of Mental Disorders

When the evidence for differences in the prevalence of mental disorders is examined, some consistent results are found. Some global statistics suggest that there are no significant differences in overall prevalence (Kessler et al., 2005), but other studies point out that women suffer more from certain mental health problems than men, and vice versa.

Regarding disorders where there is a clear overrepresentation of women, depression rates exhibit a marked "female preponderance", as Weissman and Klerman (1977) noted in the 1970s. Most of the epidemiological studies worldwide show that women are twice as likely to be depressed as men (Bromet et al., 2011; Wittchen et al., 2011), although a significant narrowing has been found in recent studies (Seedat et al., 2009). According to the meta-analysis conducted by Salk et al. (2017), this gender gap emerges around 12 years old and reaches a peak in adolescence at age of 16, but then declines and remains stable in adulthood. This is a critical issue because depression is ranked by the WHO (2017a) as the single largest contributor to global disability (i.e., depression was responsible for 7.5% of all years lived with disability in 2015).

A similar pattern emerges with anxiety disorders, which are more common in women than in men (WHO, 2017a). According to the study conducted with more than 20,000 adults in the United States (McLean et al., 2011), women had higher rates of lifetime diagnosis for each of the anxiety disorders examined (i.e., the male-to-female ratio was 1:1.7), except for social anxiety disorder, which showed no gender difference in prevalence. The largest differences were found for generalized anxiety disorder and panic disorder, and it should also be noted that the level of disability or distress was considered higher in women (e.g., more days missed from work in the past month). However, no gender differences were observed in the chronicity of the disorder and age of onset (ranging from 8.7 years for specific phobia to 26.6 years for generalized anxiety disorder). In the case of children and adolescents, a study by Steinsbekk et al.

(2022), which analyzed the prevalence of anxiety disorders in a community sample from preschool to adolescence, found very small gender differences in prevalence rates in childhood. However, by age 14, girls were more likely than boys to have generalized anxiety, specific phobia, and social anxiety disorder. This finding is consistent with previous evidence that found that the gender gap in affective disorders is fully established between the ages of 13 and 15 (Nelemans et al., 2018).

Another disorder that is more common among women is post-traumatic stress disorder, as the lifetime prevalence is twice as high for women as for men (i.e., 8.5% vs. 3.4%) (McLean et al., 2011). Although women are exposed to fewer potentially traumatic events than men, the disorder is more common in women. This is because women are at greater risk for those traumatic events that significantly increase the likelihood of developing this disorder (e.g., rape, being beaten by a spouse or romantic partner, etc.) (Darves-Bornoz et al., 2008).

But undoubtedly, the disorders with the most pronounced gender differences are eating disorders, in which the onset often coincides with adolescence, especially in the puberty period (Culbert et al., 2021). In a study conducted with more than 35,000 adults in United States, the lifetime and 12-month diagnoses of all three eating disorders (anorexia, bulimia, and binge-eating disorder) were significantly greater for women than for men after adjusting for age, race and/or ethnicity, education, and income (Udo & Grilo, 2018). Similarly, in another study conducted in six European countries with adult populations, the lifetime prevalence was between three and eight times higher in women for all eating disorders (Preti et al., 2009), and is considered up to 10 times higher in the Diagnostic and Statistical Manual of Mental Disorders, (DSM-5) (Hartung & Lefler, 2019). Although the prevalence of anorexia and bulimia nervosa has been consistently higher in women, men have shown a tendency to show a higher prevalence of binge eating disorder (Smink et al., 2012; Qian et al., 2022).

In the case of personality disorders, some of them have historically been considered typically "female", such as the borderline, histrionic, and dependent, while others have been considered typically "male", such as the antisocial and paranoid (Corbitt & Widiger, 1995). Although evidence is somewhat inconsistent and appears to be highly dependent on the study setting (Schulte Holthausen & Habel, 2018), gender differences emerge in the scientific literature depending on the type of the personality disorder. For instance, since its inclusion in the DSM, (APA, 1980) borderline personality disorder has been considered to be more prevalent in women; however, recent studies suggest that it may be equally prevalent in men (e.g., Grant et al., 2008). The reason for the gender disparity in diagnosis may be related to the fact that borderline is less likely to be identified in men (Dehlbom et al., 2022), which in turn may be related to the differences in symptom expression (e.g., men are more likely to meet the criteria for "intense and inappropriate anger" and "impulsivity," whereas women are more likely to meet the criteria for "chronic feelings of emptiness," "affective instability," and "suicidality/self-harm behaviors") (Bozzatello et al., 2024). Conversely, another example of gender imbalance is antisocial personality disorder, which has a male preponderance (i.e., a 3:1 male to female ratio) (Compton et al., 2005). Again, the symptoms endorsed by each gender appear to differ (e.g., women tend to present less violent antisocial behavior and higher rates of aggressiveness and irritability) and the rates of impairment and social support are worse for women, suggesting that a higher threshold is established for women to be diagnosed (Alegria et al., 2013).

Regarding substance use disorders, they seem to be more prevalent in men, although the historical gap in prevalence between men and women is narrowing worldwide (McHugh et al., 2018). In fact, societies with lower traditional gender roles (e.g., women's representation in the workforce, access to contraception, etc.) have a smaller gender gap (Seedat et al., 2009). These trends suggest that, apart from biological factors, social and cultural factors may explain the differences in the acute effects of substances (e.g., accelerated course of the abuse for some substances), their long-term consequences (e.g., severity of functional impairment), and the treatment (e.g., treatment seeking behavior, barriers to accessing treatment, and response to pharmacotherapy) (McHugh et al., 2018).

Suicide is another serious public health problem with a higher prevalence among men than women. Among adolescents and young adults, suicide rates are two to four times higher in males than in females, whereas suicide attempts are three to nine times more common in females (Eaton, Kann, et al., 2012; Wunderlich et al., 2001). Moreover, suicide mortality is estimated to be two to three times higher in young males than in females (Wasserman et al., 2005). These trends have been recently confirmed by a meta-analysis of adolescents and young adults (Miranda-Mendizabal et al., 2019). Payne et al. (2008) reviewed this gender disparity through the lens of social constructionist theory and found that men are more likely to engage in death suicidal behavior due to their tendency to ignore health symptoms, take risks, and adhere to traditional notions of being the "stronger" sex. Conversely, women's lower rates of death suicidal behavior may be attributed to their more frequent use of medical and other support services and their preference for less lethal methods.

In conclusion, there seems to be a consistent pattern of differences in prevalence, with women more likely to have internalizing disorders or problems rooted in distress and negative emotions (e.g., anxiety or depression), and men more likely to have externalizing disorders or problems rooted in risky behaviors (e.g., anti-social personality or substance use) (Eaton, Keyes et al., 2012; Seedat et al., 2009), suggesting that gender does not affect all disorders in the same way. Explanations aimed at disentangling the reasons underlying these gendered differences are complex, and to achieve a comprehensive explanation, several approaches need to be considered. In the following section, we will summarize three broad approaches to explaining these differences: The biological, the social constructionist, and the sociocultural explanations.

Explanations of Gender Differences in Mental Health

Several explanations have emerged to shed light on these gender differences in mental health. Traditional medical models have attributed these differences primarily to biological variables. In recent decades, however, gender-focused analyses have offered alternative and more comprehensive explanations. These approaches emphasize the importance of socially constructed variables, suggesting that socially imposed roles and behaviors have an important influence in explaining gender differences in mental health. In addition, sociocultural perspectives highlight the structural inequalities that women face within society and how these inequalities and discriminations increase women's risk of developing mental disorders. The following sections summarize the main approaches that have been used to explain gender differences in mental health.

Biological Risk Factors for Gender Differences in Mental Health: An Insufficient Explanation

For a considerable period of time, the prevailing hypothesis attributed gender differences in mental health to biological factors, such as constitutional, genetic or endocrine factors (Kuehner, 2017; Li & Graham, 2017). For example, some authors identified the hormonal and reproductive systems as major contributors to women's increased vulnerability to certain mental health conditions (e.g., Janowsky & Rausch, 1985). In fact, important life stages for a woman characterized by biological changes—such as puberty, the menstrual cycle, pregnancy, the postpartum period, or menopause—have been associated with mental health problems (Lolak et al., 2005).

A notable example of the prominence of the biological perspective in explaining gender differences in mental health relates to the concept of hysteria, which has historically been associated exclusively with women and considered a "woman's disease" (Tasca et al., 2012). Hippocrates (5th century BC) was the first to use this term, claiming that this disorder was caused by the abnormal movements of the uterus (Sterpellone, 2002). Since then, this view associating hysteria with femininity has persisted throughout history. In the 18th century, the perception of hysteria began to shift from being associated with the uterus to being associated with the brain, and this shift paved the way for the consideration of neurological causes. The implication was that if hysteria had a brain connection, then it might not be a female-specific disorder and could potentially affect both sexes (Tasca et al., 2012). However, this transition was complex. For instance, in 1840, Thomas Laycock described hysteria as the "natural state" of women but called it a "morbid condition" in men (Smith-Rosenberg, 1986), or in 1903 Otto Weininger asserted that "hysteria is the organic crisis of the organic mendacity of woman" (Bronfen, 1998).

The term hysteria was also included in the *Diagnostic and Statistical Manual* (DSM), with clear references to femininity. The first edition of the DSM (DSM-I; APA, 1952) included features of hysterical personality under the general category of "emotionally unstable personality", but an official diagnostic category for hysteria did not exist until the second edition of the DSM was published in 1968 (DSM-II; APA, 1968). The DSM-II included a reference to the "hysterical neuroses" (with dissociative and conversion subtypes), but also included the "hysterical personality". This category was listed separately as a personality disorder in the DSM-II, and described patients whose behavioral patterns were characterized by excitability, emotional instability, over reactivity, and self-dramatization, which according to Jimenez (1997), was an "essentially a caricature of exaggerated femininity" (pp. 158). Then, in 1980, the concept of hysterical neurosis was deleted from the DSM-III to avoid its negative connotations (Tasca et al., 2012), but it was replaced by "histrionic personality disorder" (Jimenez, 1997). Nevertheless, the descriptors of the typical patient still depicted an exaggerated femininity, describing them as "typically attractive and seductive...overly concerned with physical attractiveness" and interested in "controlling the opposite sex or entering into a dependent relationship (and constantly demanding) reassurance, approval, or praise" (DSM-III; APA, 1980).

However, some authors consider that the culmination of centuries of scientific discussion concerning the connection between psychopathology and woman's reproductive cycle was represented by the inclusion of premenstrual dysphoric disorder (PMDD) in the DSM in 1994 (Ussher, 2003). In the DSM-5 (APA, 2013), PMDD was classified as a full diagnostic category in the Mood Disorders

section. This disorder is a severe extension of premenstrual syndrome, which is characterized by both physical and emotional symptoms during the luteal phase of the menstrual cycle that significantly affect daily life. PMDD has been controversial for many years because, for some authors (e.g., Epperson et al., 2012), recognizing PMDD as a full diagnostic category helps to improve research and clinical care and validate the pain and suffering of women who have been historically dismissed, minimized, and denied. In addition, some authors (e.g., Hantsoo & Epperson, 2015; Landén & Eriksson, 2003) assert that PMDD cannot be considered a variant of an anxiety disorder or depression, given the evidence regarding the specificity in the symptom profile characterized by irritability and affect lability, comorbidity data, biological markers, or response to medication. In contrast, other authors (e.g., Cosgrove & Caplan, 2004) defended the lack of validity of PMDD as a different mental disorder. Along these lines, other authors (e.g., Chrisler & Gorman, 2015), criticize the disorder for pathologizing premenstrual symptoms and medicalizing a natural part of the menstrual cycle (i.e., something “wrong” with the body that needs to be “corrected” through medical treatment). These authors explain that changes in biochemistry can produce changes in women’s experiences, but it is how we feel and think about these changes and what they mean to us that turns “changes” into “symptoms”. Hence, even if this disorder does exist, its causes cannot be attributed solely to hormonal factors, as psychological and cultural influences also play a significant role. Differences in the prevalence and interpretation of premenstrual symptoms between Eastern and Western cultures cannot be explained by hormonal variables alone. For instance, in Eastern cultures, women report experiencing premenstrual water retention, pain, fatigue, and increased sensitivity to cold, but they rarely report negative moods (Chang et al., 1995; Yu et al., 1996).

Another disorder influenced by hormonal variables is postpartum depression (PPD). Pregnancy and the postpartum period are associated with deep physical and emotional changes, where some women develop PPD. PPD includes depressive episode symptoms, such as inability to sleep or sleeping too much, mood swings, fear of harming the baby, extreme concern and worry about the baby, sadness or excessive crying, feelings of doubt, guilt and helplessness, and recurrent thoughts of death, which may include suicidal ideation (Patel et al., 2012). According to the DSM-5, the symptoms start during pregnancy and for up to 4 weeks postpartum (APA, 2013). The prevalence has been reported to be 10–15% in all new mothers in several studies (e.g., Gavin et al., 2005; Shorey et al., 2018); however, this percentage is controversial because the prevalence of self-reported PDD has shown great variability across cultures. Halbreich and Karkun (2006) analyzed 143 studies in more than 40 countries, and they observed that self-reported PPD ranged from almost 0% to over 60% of women; while in the systematic review by Norhayati et al. (2015), the range was even broader, ranging from 5.2% to 74% in developed countries using self-report questionnaires. Halbreich and Karkun (2006) suggested that these could stem from a variety of factors, including cross-cultural variables, different perceptions of mental health and its associated stigma, socio-economic differences (e.g., poverty, social support, nutrition, and stress), and biological vulnerability factors. Hence, several authors emphasize that PPD will be fully understood only when social and cultural factors are considered together with biological and psychological factors. In this regard, a longitudinal study conducted in Canada by Benoit et al. (2007) that analyzed the role of social context and the lived experience of the mother found that household income and satisfaction with their birthing experiences (e.g., having choices in their birth plans, having things go as they

expected, and having access to continuous support from a caring provider) was linked to PDD. Along the same lines, Norhayati et al. (2015) found that psychological factors (e.g., poor marital relationship, stressful life events, and negative attitude toward pregnancy) or socio-demographic factors (e.g., low socio-economic factors, domestic violence and, most importantly, lack of social support) were important predisposing factors to PPD, while physical, biological, and cultural factors showed inconclusive results. Thus, the role of social support (e.g., emotional, tangible, affectionate, positive social interaction, and paternal support) has constantly been found to be a strong protective factor against PPD, irrespective of their racial/ethnic background (Pao et al., 2019).

In conclusion, while biological factors undoubtedly influence gender differences in mental health, a comprehensive explanation must include the intricate interplay of biological, psychological, and social factors. In this sense, PMDD and PPD are examples of syndromes that must be theorized, assessed, and treated from a biopsychosocial model (Chrisler & Johnston-Robledo, 2002).

Social Constructionist Risk Factors for Gender Differences in Mental Health

From a social constructionist perspective, gender differences in mental health may be shaped by socially constructed factors. This suggests that the roles and expectations assigned to men and women in society can contribute to these differences (Payne et al., 2008). In other words, the disparities observed in mental health outcomes could stem from the societal norms and pressures associated with gender roles. Along the same lines, the social construction of psychopathology (Maddux et al., 2019), and the tendency to pathologize the mental health of women should also be considered a possible explanation in gender differences (Kupers, 1998).

In some cases, gender differences may stem from biased diagnostic criteria and gender-biased psychometric instruments used for assessment. In this regard, some authors argue that the DSM defines healthy mental health with characteristics typically associated with masculinity (e.g., assertiveness and autonomy), while typically feminine behaviors (e.g., emotional expressiveness) are more often considered to be problematic (Martin et al., 2013). For instance, some critics argue that symptoms listed for Major Depressive Disorder in the DSM represent a feminine-gendered pattern, as defined in Western culture, as some depressive symptoms align with the traditional female gender role and the traditional femininity view (e.g., expressing emotions and focusing on internal judgments of their own inadequacies). In contrast, as men are socialized to “act out”, the symptoms of depression are more likely to manifest as chronic anger, self-destructive behaviors, or substance abuse, which can lead to men being under-diagnosed and under-treated (Kilmartin, 2005). However, the evidence for gendered responses to stress is inconsistent within and across studies (e.g., Assari & Lankarani, 2016; Slopen et al., 2011), further complicating the picture.

In addition, even if the diagnostic criteria themselves are unbiased, some authors argue that clinicians may interpret them differently depending on the gender of the patient. Several studies have shown that the likelihood of clinicians diagnosing depression is higher when the patient is female (Bertakis et al., 1995; Borowski et al., 2000; Stoppe et al., 1999). This gender disparity means that women describing identical symptoms are more likely to receive a depression diagnosis compared to men. Even with the same diagnosis or the same symptomatology and the same number of consultations, women are more likely to receive a prescription for pharmacological drugs (Markez et al., 2004). A cross-sectional study

conducted in Spain with more than 22,141 individuals aged 18 and over from the Spanish National Health Interview Survey 2017 showed that women consume significantly more psychotropic drugs than men (Maestre-Miquel et al., 2021). Hence, in health-care systems, unconscious gender biases and subjective judgment heuristics may affect patient care, resulting in differential health outcomes for each gender, as women are stereotyped as “sensitive, intuitive, helpful, and demure” (Travis et al., 2012). These biases are evident not only in clinical settings but also in family contexts, as close relatives are more likely to consider one of their female members to be experiencing depression compared to male family members (Brommelhoff et al., 2004).

Moreover, gender-based biases are not only present for depression or anxiety, but also for other mental disorders. In the field of personality disorders, as mentioned before, some authors argue that borderline personality disorder is less likely to be identified in men than in women, with the result that men are more likely to be undertreated (Dehlbom et al., 2021). The explanation around these gender differences in this disorder remains unanswered, as it is not clear if men are less inclined to seek mental health care than women, or if the health-care system fails to correctly diagnose men who seek help. This latter explanation may be related to the bias in the diagnosis because emotions are pathologized differently in each gender. In this regard, the experimental study conducted by Barrett and Bliss-Moreau (2009) should be highlighted, as they found that individuals tended to attribute men’s sadness and anger to situational factors (e.g., “having a bad day”), whereas women’s sadness and anger were judged to be related to dispositional attributions (e.g., “being emotional”).

On the contrary, attention-deficit/hyperactivity disorder (ADHD) has historically been considered a male dominant disorder, but evidence now shows that ADHD also affects females equally (Faheem et al., 2022). In many studies, males are more likely than females to meet criteria for an overall diagnosis of ADHD (Willcutt, 2012). However, this difference may suggest that ADHD is frequently missed or diagnosed late in females, and it is becoming clear that there are diagnostic practices and sociocultural explanations underlying this difference, such as the criteria suitability (e.g., the symptom criteria may be more appropriate for behaviors and difficulties that typically present in males and might be less suitable for identifying ADHD behaviors in females), diagnostic overshadowing (e.g., other mental health issues, such as anxiety or depression, could overshadow ADHD in females), gender-specific diagnostic thresholds (e.g., being higher for females), gendered expectations (e.g., stereotypes surrounding ADHD as a condition occurring more commonly in males), gender differences in ADHD presentation (e.g., ADHD symptom criteria might not fully capture the types of symptoms that are experienced by females, as they experience the inattentive subtype more often than the hyperactive-impulsive subtype, which is less disruptive) or the greater use of compensatory behaviors for coping with ADHD symptoms in the case of females (Martin, 2024).

In summary, these examples highlight the multifaceted influence of social constructs on gender differences in mental health and underscore the importance of addressing societal norms and biases when these disparities are analyzed.

Sociocultural Factors for Gender Differences in Mental Health: The Role of Psychosocial Variables and Stressors

In addition to the aforementioned socially constructed factors, there are other sociocultural variables and stressors that also play

a role in contributing to gender differences in mental health in our society. One important variable is poverty, and more specifically the “feminization of poverty” (Belle & Doucet, 2003). There is a strong connection between poverty and gender, as women not only have a higher incidence of poverty than men, but their poverty is more severe than in men (European Network of Equality Bodies [EQUINET], 2021). In turn, it is well-established that individuals living in poverty are more prone to developing mental health issues (Palacios-Barrios & Hanson, 2019). Additionally, there is a bidirectional relationship between mental health and poverty, as mental health issues worsen the economic situation of individuals, creating a vicious cycle that is difficult to escape from. Therefore, poor women are more likely to experience mental health problems (EQUINET, 2021).

Moreover, evidence suggests that women suffer more mental health issues than men in societies with greater levels of gender inequality (Yu, 2018). Women are exposed to a variety of adverse experiences and environments that negatively impact their health and well-being (Hosang & Bhui, 2018). Thus, women face stressors that contribute to gender inequality, such as lower rates of schooling and employment, lower pay for similar work, underrepresentation in leadership positions, and higher levels of psychosocial stressors and problems, from the burden of caregiving (e.g., children, the elderly, and individuals with illnesses) to gender-based violence (e.g., intimate partner violence) (WHO, 2022). According to the social gender role theory, this long-standing disadvantaged social status can increase chronic strain or decrease the sense of mastery contributing to worsening mental health (Wang et al., 2016).

Another important social stressor affecting mental health in women is gender discrimination (Hackett et al., 2019). Discrimination is defined as the differential treatment of a person based on a socially ascribed characteristic, such as gender (Alvarez-Galvez & Salvador-Carulla, 2013). Thus, gender discrimination (or gender disadvantage) refers to inequalities or disparities that include a range of experiences and structural inequalities, such as beliefs, attitudes, and social norms, as well as discriminatory practices and actions towards women (Hosang & Bhui, 2018). Gender discrimination is manifested in a variety of ways, both at a structural level (e.g., structural barriers to education and opportunities in different spheres of life, such as the lower likelihood of holding positions of economic, social, or political power, etc.) and at an individual level through daily interactions and experiences with others (e.g., micro-aggressions, sexual objectification, assumptions of intellectual and physical inferiority, etc.). According to the Eurobarometer survey (European Commission: Directorate-General for Justice and Consumers, 2015) including more than 25,000 European adults, gender discrimination was the third most frequently reported discrimination attribution, after ethnicity and sexual orientation. Along the same lines, in a more recent Eurobarometer survey (European Commission: Directorate-General for Justice and Consumers, 2023), 38% of the respondents considered that gender discrimination was widespread in their country. This is important considering that the meta-analysis by Schmitt et al. (2014) found an association between perceived gender discrimination and poor mental well-being. Along these lines, a longitudinal study carried out in more than 3,000 women in England and the UK showed that perceived gender discrimination was reported by 9.2% of women, and was prospectively related to greater loneliness scores and lower quality of life and life satisfaction over a 6-year follow-up period (Hackett et al., 2024).

A major public health problem that arises from gender discrimination is violence against women, including intimate partner

violence and sexual violence. According to WHO (2017b) data, one in three women (30%) worldwide has experienced either physical and/or sexual violence by an intimate partner or sexual violence by a non-partner in their lifetime. A large percentage of this violence is due to intimate partner violence, as 27% of young women (aged 15–49 years) who have been in relationships report that they have been subjected to some form of physical and/or sexual violence by their intimate partner. All this violence affects not only women's physical, sexual, and reproductive health, but also mental health. Gender-based violence (e.g., intimate partner physical violence, rape, or sexual assault) is associated with higher rates of depression and post-traumatic stress disorder (PTSD) (Silove et al., 2017; Vázquez et al., 2012). Moreover, obstacles and limitations within the health system in responding to intimate partner violence further exacerbate these issues, particularly in countries like Spain (Badenes-Sastre et al., 2023). A study conducted in Australia with more than 4,000 women aged between 16 to 85 years showed that for women exposed to three or four types of gender-based violence, the rates of mental disorders were 77.3% for anxiety disorders, 52.5% for mood disorder, 47.1% for substance use disorder, 56.2% for PTSD, 89.4% for any mental disorder, and 34.7% for suicide attempts (Rees et al., 2011).

Gender-based violence may also explain why the prevalence of PTSD is higher among women (Kessler et al., 2012), even though men are significantly more exposed to traumatic situations in general (Tolin & Foa, 2008). The risk of developing PTSD varies according to the type of trauma experienced. The most common traumatic experiences for women are sexual assault/rape and childhood sexual abuse, which may be more likely to contribute to the development of PTSD. In contrast, the most common traumas for men are accidents, nonsexual assault, combat or war, disaster or fire, or serious illness or unspecified injury, and witnessing death or injury accidents (Tolin & Foa, 2008). In this regard, according to the review by Street and Dardis (2018), societal definitions of masculinity and femininity should also be considered risk factors for developing PTSD. Thus, patterns of trauma exposure (i.e., exposure to different amounts and different types of traumatic experiences), the level of chronic environmental strain, behavioral responses to distress (e.g., the tendency to internalize emotions, value others above the self, or the use of emotion-focused coping), cognitive factors (e.g., the tendency to appraise events as more stressful), and the experience and expression of emotion in each gender should be considered as gender-based factors underlying the risk factors for PTSD. Hence, these authors emphasize that understanding the impact of gender roles on PTSD may help us develop more comprehensive models of PTSD risk and, consequently, more effective treatment.

Finally, related to gender discrimination, the pressures associated with beauty ideals and increased societal expectations on women's bodies should also be highlighted. The "prescriptive beauty norm" or the social pressure for women to spend considerable amounts of money, time, and effort on attaining beauty may restrict women's behavior, undermining the progress toward gender equality. Ramati-Ziber et al. (2020) described several reasons for this conclusion, such as the fact that the investment in these beauty-related activities inevitably comes at the expense of other life goals, increases women's self-objectification, and relegates women to the role of sex objects, undermining the perception of their competence, and consequently, their ability to achieve power, status, resources, and independence. In addition, this pressure to achieve beauty is currently amplified by social media. Activities on social networking sites, such as browsing or following celebrities, fashion, and beauty

sites, have been linked to objectification and comparison of appearance, increasing the risk of body dissatisfaction (Seekis et al., 2020). Moreover, in adolescent girls, the use of social media has been related to body image concerns, and in turn, to depressive symptoms and disordered eating. According to the developmental–sociocultural framework developed by Choukas-Bradley et al. (2022) social media generates the "perfect storm" for increasing mental health problems, as the characteristics of social media (e.g., idealized images and quantifiable indicators of approval) interact with adolescents' developmental factors (e.g., importance of peer relationships and heightened self-consciousness), but also with sociocultural gender socialization processes (e.g., societal over-emphasis on girls' and women's physical appearance).

In summary, a range of sociocultural factors and stressors contribute to gender disparities in mental health. It is essential to address these issues to gain insights into the factors that contribute to gender differences.

Gender Differences in Mental Health Treatments

In the previous sections, a summary of the variables that may affect gender differences in mental health has been provided. These variables can help us understand the variations in the onset and expression of mental distress. However, it is also important to consider the gender differences in mental health treatments. This involves analyzing the underlying issues that create gender disparities in accessing mental health treatments and examining the differences in the effectiveness of the treatments provided.

When considering the factors underlying the disparities in accessing mental health care, it is important to highlight the differences in help-seeking behavior between genders. Gender plays a significant role in attitudes toward seeking professional psychological help, with females generally holding more positive attitudes than their male counterparts (Gonzalez et al., 2011; Nam et al., 2010). The reluctance of men to seek help for mental health issues may stem from their adherence to dominant masculine norms. These norms discourage expressions of weakness, limit self-disclosure, and emphasize self-reliance. Consequently, men who conform more strongly to these norms tend to hold more negative attitudes toward help-seeking (Tang et al., 2014). This conformity, often exemplified by the notion of "boys don't cry", can lead to self-stigmatization, as men internalize perceived prejudices and develop negative feelings about seeking professional assistance. As a result, they may believe they should be able to manage their mental health concerns independently, without professional help (Latalova et al., 2014). At the same time, males show poorer mental health literacy (i.e., one's knowledge of prevention, symptom recognition, and available treatments including self-help strategies) than females, which is also related to lower use of mental health services (Bonabi et al., 2016). Hence, the gender differences in receiving mental health treatment may be often attributed to differences in socialization and gender constructs.

To improve the balance in the treatment between genders, Sagar-Ouriaghli et al. (2019) conducted a systematic review of the specific techniques that contributed to an improvement in psychological help-seeking in men in terms of attitudes, intentions, and behaviors. They found that using role models to convey information, psychoeducational material to improve mental health knowledge, assistance with recognizing and managing symptoms, active problem-solving tasks, motivating behavior change, signposting services, and including content that builds on "positive

male traits” (e.g., responsibility and strength) were key strategies in improving psychological help-seeking in men. These strategies align with Bonabi et al. (2016), who proposed that disseminating public information about mental health may reduce self-stigma, constituting a more successful approach to changing help-seeking attitudes than trying to change “hegemonic masculinity” attitudes. Hence, psychotherapy should take into account the preferences to receive specific types of therapy between genders. For instance, in the study conducted by Liddon et al. (2018), women showed a greater preference for psychotherapy (maybe be due to the fact of sharing emotions), while men preferred support groups (maybe be due to the fact of sharing information),

Regarding the differences in the adherence to the treatment and response to psychological treatments between genders, the results are contradictory. On the one hand, regarding adherence, there are studies that found more dropouts in women (e.g., Spek et al., 2008), while other studies in men (e.g., Asher et al., 2019). On the other hand, regarding the effectiveness of treatments, the meta-analyses that analyze the effect of gender in cognitive behavior therapy and pharmacotherapy for adult depression was not considered a significant predictor or moderator of the outcomes (Cuijpers et al., 2014), while others found a greater reduction in women after cognitive behavior therapy (e.g., Asher et al., 2019). In a recent study by Ferreres-Galán et al. (2024), they analyzed the gender differences in clinical variables and response to a transdiagnostic treatment for emotional disorders, and comparable improvements were found for both genders after the intervention and after the 12-month follow-up.

Overall, the gender differences in mental health treatment appear to be in terms of access to help and preferences for the type of therapy rather than in terms of outcomes.

Conclusions

The aim of this narrative review was to highlight the gender differences in mental health that have been consistently found in the prevalence, symptomatology, risk factors, course and treatment of mental disorders (Riecher-Rössler, 2010). Overall, evidence has shown a consistent pattern of differences in prevalence, with women more likely to have internalizing disorders (e.g., anxiety or depression) and men more likely to have externalizing disorders (e.g., antisocial personality or substance use) (Eaton, Keyes, et al., 2012; Seedat et al., 2009). However, the historical prevalence ratios are now changing, and several disorders are narrowing their disparities (Seedat et al., 2009). In addition, some authors point out that the results of epidemiological studies are mixed and limited to a narrow range of mental health conditions. They argue that a comprehensive assessment of gender differences would necessitate a systematic and exhaustive examination of the entire spectrum of mental health disorders. However, this endeavor is notably complex due to the absence of consensus in the diagnostic categories and the tendency to pathologize women (Hill & Needham, 2013).

In addition to the controversies over prevalence, the explanations for these differences are multifaceted and several approaches should be considered to achieve a comprehensive explanation. Gender differences cannot be solely explained by intrinsic biological factors (e.g., hormonal changes). Sociocultural factors should also be considered. Despite major changes in female gender roles in recent decades, traditional gender roles that involve housework, childbearing, gender discrimination, gender-based violence,

or prescribed beauty standards promote exposure to stressors that can lead to psychological distress among women. In this context, public awareness campaigns that challenge stereotypes and encourage people of all genders in need of seeking help are needed. Adopting a gender approach to mental health can also offer insights for prevention strategies. Policies and actions are needed to develop and integrate gender indicators and to implement measures to combat discrimination against women (Bacigalupe et al., 2020). This would help to address the “mortality/morbidity paradox”, where women live longer than men but are in poorer health (Case & Paxson, 2005; Sánchez-López & Limiñana, 2017). According to Payne et al. (2008), dismantling the power structure that produces inequality will ultimately benefit both men and women in the long term.

In addition, gender-sensitive training for health care providers is needed to identify and reduce gender bias in diagnosis and treatment. From a social constructionist perspective, the impact of social construction on gender and mental health has a psychological impact on individuals producing specific risk factors, but also in the diagnosis and treatment of patients. In this regard, some authors suggest the need for therapists to explore the ways in which gender roles can affect their patients’ health care (Travis et al., 2012). Health professionals should validate women’s disclosures of distress, conduct holistic assessments that include women’s social contexts (including exposure to gender-based violence), make referrals to address the social determinants of distress, and reduce the pathologization of women’s disorders. In addition, health professionals should be aware of the gender biases that contribute to the under-diagnosis of disorders in both women and men, as these biases inevitably lead to a lack of appropriate treatment.

We would not want to finish this brief review without highlighting that gender is a non-binary social construct, and men and women are only one part of it. Other categories, such as transgender or non-binary people, have not been included in this paper but there is a need to move beyond a male-female approach. A holistic gender perspective is imperative as this will enrich our understanding of mental health and pave the way for a more inclusive and equitable approach to mental health care.

In summary, research and clinical practice should consider gender thoroughly. The use of precise terminology, accurate measurement tools, and the reduction of biases related to gender, will allow us to more precisely measure the prevalence rates and underlying causes of psychopathology, and enhance the effectiveness of our assessment and treatment methods (Hartung & Lefler, 2019). The profound impact of gender inequality on the global population health underscores the urgent need for comprehensive actions to promote gender equity in health across all levels (Sen et al., 2007). Continuous monitoring of gender differences is essential to mitigate mental health challenges and their associated burden in both genders. Integrating bio-psycho-socio-cultural factors into mental health models alongside a gender-based perspective will promote more comprehensive frameworks, and potentially, more effective treatments.

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