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Citation:

Fisher, K and Seidler, ZE and King, K and Oliffe, JL and Robertson, S and Rice, SM (2022) Men's anxiety, why it matters, and what is needed to limit its risk for male suicide. *Discover Psychology*, 2 (1). pp. 1-7. ISSN 2731-4537 DOI: <https://doi.org/10.1007/s44202-022-00035-5>

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Men's anxiety, why it matters, and what is needed to limit its risk for male suicide

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Received: 25 January 2022 / Accepted: 24 February 2022

Published online: 04 March 2022

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Abstract

Anxiety disorders are the most prevalent mental health disorder experienced by men. If left untreated, anxiety is predictive of psychiatric disorders including depression and associated suicide risk. Despite the prevalence and impact of men's anxiety, it remains largely overlooked in the field of men's mental health. Globally, men are reported to have lower rates of anxiety disorders compared to women; however, these sex-differences do not reflect the complexity and nuance of men's experiences. There is early evidence to suggest a male-type anxiety phenotype which may go undetected with generic diagnostic classifications. Masculine norms (i.e., stoicism, toughness, invulnerability) appear to be central to men's experiences and expressions of anxiety as well as men's help-seeking and coping behaviours. This is particularly concerning given anxiety increases men's risk of physical and psychological comorbidities and suicide risk. The effective assessment, detection and treatment of men's anxiety is therefore critical to improve mental health outcomes across the male lifespan. We propose three key recommendations for the field of men's anxiety: (i) to develop a theoretical model surrounding men's experiences of anxiety, (ii) broaden mental health resources, interventions and suicide prevention strategies to encompass men's gendered experiences of anxiety (e.g., sentiments of shame, physical symptom manifestation), and (iii) utilise informal supports (i.e., friends and family) as an avenue of intervention to improve men's anxiety outcomes. Without a substantial research agenda in men's anxiety, we will fail to recognise and respond to men's gendered experiences of anxiety and ultimately fail to reduce male suicides.

1 Introduction

Despite being the most prevalent mental health disorder experienced by men, anxiety has been overlooked in mental health scholarship [1, 2]. Anxiety is often the first mental health disorder young men experience, and if left untreated it is predictive of comorbid psychiatric disorders including depression, bipolar disorder and psychosis [3]. In Australia, it is estimated 16% of females have had a diagnosed anxiety disorder in the past 12-months, in comparison to 11% of males [4]. Similar twelve-month anxiety prevalence rates are seen in other Western countries including the United States (23% of females vs. 14% of males; [5]), Canada (21% of females vs. 15% of males; [6]) and the United Kingdom [30% of females vs. 15% of males (aged 18–24 years); [7]]. Worryingly in the COVID-19 context, the rates of anxiety disorders, particularly in young people, are increasing [8, 9]. Epidemiological findings are largely confined to sex differences, juxtaposing *all males*

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with *all females*, to imply anxiety disorders may be less prevalent and by extension less debilitating with respect to men's overall wellbeing and social and emotional functioning [10–12]. Such sex difference analyses limit, and at times distract from thoughtful consideration of men's diverse lived experiences of anxiety [11, 13]. In this commentary, we summarise the critical issues surrounding men's anxiety and highlight largely unexplored implications, including associations with men's suicidality [14, 15]. Considering early identification and the treatment of men's anxiety is critical to improving men's mental health outcomes across the lifespan, this commentary recommends the following agenda for future research in this developing field of inquiry. Firstly, well-established scholarship in the field of men's depression should be leveraged to similarly develop a theoretical model surrounding men's experiences of anxiety. Secondly, it is crucial current mental health resources, interventions and suicide prevention strategies be broadened to encompass men's gendered experiences of anxiety. Lastly, informal supports (i.e., friends and family) should be utilised as a key avenue of intervention to improve men's anxiety outcomes.

2 Moving beyond sex-differences and prevalence rates

The true breadth and gravity of men's anxiety is unknown, which is particularly concerning given undetected and untreated anxiety predicts future deleterious mental health outcomes [3]. Indeed, there is emerging evidence suggesting a distinct male-type anxiety phenotype [13] characterised by physical symptoms (i.e., body pains, panic attacks and headaches), chronic recurrence of symptoms, and enduring out-of-control anxious sensations [16–18]. By comparison, restlessness, being easily fatigued, difficulty concentrating, irritability, muscle tension and sleep disturbance are the current diagnostic criteria for a diagnosis of Generalised Anxiety Disorder (GAD) in the *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition* (DSM-5; [19]). The putative male-type anxiety phenotype constitutes a gendered experience of anxiety that may be unique to men. Females, in comparison to males, are more likely to experience social disruption, teariness and interpersonal distress [16, 17]. These differences between male and female anxiety experiences have been largely attributed to biological factors (e.g., genetic disposition, sex specific trauma responses and increased physiological reactivity in females), psychological temperament (e.g., increased anxiety sensitivity in females) and cognitive mechanisms (e.g., lower levels of rumination and worry in males) [11, 12]. However, environmental influences such as gender socialisation, condition males and females to behave in certain gendered ways, moderating the sex-differences seen across biological, psychological and coping-mechanisms.

Traditional masculine norms prizing toughness, stoicism, self-reliance and emotional restrictiveness may be central in suppressing men's expression of anxiety in ways that align with the DSM-5 criteria [13, 20]. More specifically, mental health professionals and men themselves are unlikely to identify anxiety if it varies from current diagnostic classifications and common understandings [21]. Masculinity has been implicated in the experience and expression of depression, as well as in men's access and engagement with mental health care [22–24]. The role of masculine norms has predominantly been considered in the context of men's depression, with related symptoms often framed as a perceived failure to embody stoic, self-reliant masculine standards (e.g., [25]). However, similar gendered contradictions and conflicts are also likely associated with men's anxiety.

The discord between masculine expectations and men's anxiety is both subjective and socially conditioned [21, 26]. Men experiencing anxiety often rely on problem-solving strategies (i.e., confronting problems, searching for solutions, seeking information; [27, 28]), and attempt to deal with anxiety independently rather than utilising formal mental health services to help remedy their problems [29]. This may in part be to avoid or reduce feelings of shame, self-blame and powerlessness commonly arising from anxiety [1]. For men, shame in the context of anxiety centres on concerns around self and social acceptability leading to concealment of characteristics perceived to fall short or contradict gendered expectations of masculinity (i.e., decisiveness, rationality, coolness, calm and detachment; [30, 31]).

Anxiety may be concealed if men do not perceive it as sufficiently serious to warrant intervention. This threshold of severity, the point at which seeking help might be deemed appropriate, originates from childhood and the development of masculine identities whereby boys and young men are conditioned to embody fearlessness [30–32]. Observational studies show that boys, more so than girls, are disproportionately encouraged by parents to confront stressful and fearful stimuli [33]. This embodies a socialised rhetoric among men to '*face your fears*,' positioning fear as a deviation from masculine expectations. As such, men have been traditionally socialised in Western cultures to perceive core features of anxiety, such as fear and worry, as an unwanted and unacceptable experience [10, 33]. Fearlessness is, thus, adopted as an antidote, and men's fear is coped with in ways that do not compromise one's masculine status (i.e., internalised, avoided or counteracted; [30, 32]). This can often compound fear and anxiety for men whereby both the trigger for anxiety (e.g.,

socialising with others) and the presence of fear and worry itself become overwhelming, and manifest as something to be avoided, denied and often, dampened through self-medication with alcohol or drugs.

2.1 Men, anxiety and masculinities

This internal conflict between fear and fearlessness has been contextualised through the lens of a singular, traditional expression of masculinity. This sits as one of plural masculinities, the sum and parts of which are hierarchical in nature [34]. Multiple masculinities recognise the multifarious ways men action and embody gender in intersubjective encounters in ways which constantly shift across social situations and populations [34]. Adopting this concept of plural masculinities embraces diversity and inclusion in representations of how men express and manage their anxiety. It also allows for the naming and nuance of masculine norms that can emerge as simultaneously protective against anxiety in some contexts, and harmful in others [35, 36]. The masculine norm of toughness is an example, serving as a protective factor against anxiety by norming resiliencies and grit to counter and contest negative cognitive distortions towards oneself and the world [13, 36]. However, toughness can also encourage the concealment or masking of anxiety symptoms, ultimately delaying men's attempts to seek help or cope with their anxiety [37, 38].

2.2 Suicide and the implications of men's anxiety

Considering traditional masculine norms can norm the concealment of anxiety, men experiencing these symptoms may also be at increased risk of dire outcomes including suicide. Anxiety disorders have been identified as a unique risk factor for suicidality, even when controlling for other comorbidities including depressive symptoms, major depressive disorder and substance use disorder [14, 15, 39]. Surprisingly, despite the prevalence of anxiety disorders in men, little consideration has been given to the role of anxiety in male suicide [18]. Suicide is leading cause of death amongst males aged 15–44 years in Australia, and the fourth leading cause of death amongst males aged 15–19 years worldwide [40, 41]. This is despite men's suicide prevention becoming a global public health and economic priority [25, 42]. Men's suicidality has long been a '*black box*' in the field of men's mental health wherein a complex range of social and psychological factors can interconnect synergistically to intensify men's suicide risk [43].

Understanding and addressing men's anxiety might provide one solution in preventing male suicide. Over a five-to-ten-year period, nervousness, unease and anxiety are more strongly associated with suicide attempts for men than for women [44, 45]. This may be exacerbated by specific causes and consequences of men's anxiety experiences which include relationship breakdown [46, 47], self-harm [48], interpersonal violence and aggression [49, 50]. Given anxiety typically presents in childhood or early adolescents, the onset of suicidal ideation may therefore begin to manifest as anxiety and panic-type symptoms in some young men. As such, early identification, understanding and treatment of men's anxiety has great scope to simultaneously intervene in, and prevent, men's suicide outcomes.

3 A way forward: developing a theoretical model for men's anxiety

To reduce the risk of deleterious mental health outcomes associated with men's anxiety, the gendered elements of men's experiences, including masculinities, must be adequately considered and harnessed. The field of men's anxiety should leverage existing scholarship (i.e., men's depression research) to advance theoretical models and provide empirical weight to account for men's experiences of anxiety [2, 51, 52]. Theoretical models of men's anxiety must detail how men describe their anxiety experiences, including their patterns for expressing and managing their anxious states. They must also consider how masculine norms interconnect with men's experiences, and how this influences and informs men's ability to cope and seek help. Incorporating cultural aspects of men's anxiety into these theoretical models will ensure ample consideration is given to how men's experiences and expressions of anxiety, intersect with their race, ethnicity and social determinants of health including socio-economic status [53]. Men from culturally diverse backgrounds are likely to have varied expressions and experiences of anxiety which has significant implications on the detection, management and treatment of anxiety [54]. To develop these theoretical frameworks, qualitative research must be undertaken with culturally and socially diverse populations of men. This will help contextualise the intersections of masculinities and culture across a vast array of social determinants of health to distil practices, relations and structural influences and address men's health inequalities [55]. Such diversity and inclusion will help transcend binary sex-based research, and the ever-present reliance on overly homogenised samples of white, college-aged, middle-class men [56]. These findings

will encourage increased awareness of the nuanced ways men express and manage anxiety and improve the assessment, detection, diagnosis and treatment of men's anxiety to ensure it is gender sensitive and culturally appropriate.

3.1 Targeting anxiety to improve men's mental health outcomes

An increased awareness and understanding of men's anxiety has the potential to reduce associated deleterious mental health outcomes and early mortality [44, 57]. The field of men's anxiety needs to consider firstly, how diverse risk factors (e.g., social isolation, relationship breakdown, unemployment, substance use; [42, 58]) interconnect to intensify men's risk of suicide, and secondly determine how these risk factors vary across differing, at-risk male sub-groups (i.e., Indigenous, LGBTQIA+ and adolescent men). Robust longitudinal research is desperately needed over short cross-sectional accounts to determine the course of anxiety across the lifespan for men. Longitudinal research will firstly, ascertain the association of anxiety with the aetiology of other co-morbid mental health issues such as depression, substance misuse, body dysmorphia and suicidality and secondly, evaluate any semblance of intervention or influence that may ultimately reduce men's anxiety. Large cohort samples and publicly available datasets can be used to identify and track the trajectory of anxiety-related behaviours and outcomes on men's mental health [such as the Canadian Community Health Survey (CCHS); [59], and Ten to Men: The Australian Longitudinal Study on Male Health; [60], the US National Epidemiologic Survey on Alcohol and Related Conditions (NESARC); [61]]. In addition, anxiety should be operationalised as a layered precipitating and predisposing factor for suicide. It is therefore essential that future research determines the ways in which anxiety exists as both a *cause*, and *consequence* of the above-mentioned risk factors for male suicide. Rather than depicting anxiety as a dichotomous variable (i.e., the presence or absence of anxiety), researchers should consider anxiety on a spectrum (as both an emotional experience and trait disorder) to better explore its role and interactions with numerous physical and psychological comorbidities [62].

3.2 Broadening resources and public health promotion to encompass men's anxiety

The absence of a gendered understanding of men's anxiety has created a blindside in developing tailored and potentially life-saving public health campaigns. The focus has been on men's depression, stress and resilience, which is likely due to the strong empirical links between depression and suicide and established evidence surrounding the severity and seriousness of depression [25, 63]. Existing mental health promotion resources for men's depression (e.g., 'HeadsUpGuys'; [64], 'Real Men Real Depression'; [65]) and interventions (e.g., 'Men's Shed'; [66], 'MATES in Construction'; [67], 'Men's Stress Workshop'; [68], Healthy@Work; [69]) should be widened to include men's anxiety. These interventions should challenge traditional and restrictive masculine norms that have fragilized the experience of anxiety for men, or associate anxiety with femininity [70]. Interventions that attempt to normalise anxiety within a masculine context will help to destigmatise the legitimacy of male anxiety [29]. Public health campaigns targeted towards young men may be particularly effective. Young men are more likely to conform to traditional masculine norms than older cohorts [71], and in both experiencing and disclosing anxiety symptoms, perceive a cost to their masculinity, in turn expressing feelings of self-blame, failure and powerlessness [18, 29].

3.3 Informal support: a promising intervention for men's anxiety

Mental health resources and interventions targeting men's informal supports (i.e., partners, family and friends) are also likely to be effective in the identification, management, treatment and ultimate prevention of men's anxiety. Men have indicated a preference for informal support over formal mental health services to manage their anxiety [29], and men's intimate relationships and friendships have been shown to be a space where men can talk about anxiety [2]. Informal sources of support play a significant role in improving the knowledge surrounding mental health symptoms, and positively influencing attitudes towards formal mental health care [72, 73]. The gendered frames of male help-giving influence men's normative help-seeking attitudes and behaviours, as well as their reception towards assistance from others [74]. Challenging overtly restrictive practices of male help-giving will promote reciprocal mental health support amongst men that is devoid of indebtedness and promotes openness towards both formal and informal help-seeking [75].

Men's anxiety interventions and resources should integrate the following principles of informal support, targeted towards men's friends and family. Firstly, knowledge and literacy surrounding the vast diversity in men's anxiety symptoms and disorders must be prioritised. This is particularly important given emerging evidence to suggest a male-type

anxiety phenotype, which falls outside of current diagnostic classifications and mental health services [13]. Secondly, strategies that promote positive and productive help-giving behaviours must be outlined to upskill men's friends and family in providing informal support that is both *needed* and *wanted* by men with anxiety [2]. This can only be determined by first understanding the *needs* and *wants* of men themselves and providing them opportunities to openly discuss their subjective experiences. One example of an informal support intervention could be upskilling fathers to become more effective help-givers to better detect, acknowledge and support son's experiencing anxiety. A similar project has already been undertaken with fathers and daughters aiming to optimise girl's physical health and social-emotional wellbeing (Dad's And Daughters Exercising and Empowered [DADEE]; [76, 77]). Lastly, rather than replacing the need for formal support, informal support is most effective when it "proceeds, co-occurs and survives" therapeutic treatment [75]. Informal support should therefore parallel all facets of therapeutic treatment for men with anxiety, including initial help-seeking, engagement, mental health outcomes and recovery [2, 72, 75].

4 Conclusion

Anxiety has a significant impact on men's physical and psychological wellbeing [57, 78]. Prioritising early detection and intervention approaches for men's anxiety can be improved by a gendered understanding and will benefit men's mental health outcomes, including reduced suicide. Gender-sensitive approaches for men's anxiety need to be co-designed, implemented and evaluated with men themselves. Interventions should attempt to de-stigmatise and norm anxiety symptoms for men (and psychological distress more broadly) privileging context and lay language to inform tools for improving the detection and management of symptoms. Treating men's anxiety has great potential to improve men's mental health outcomes across the lifespan and to promote positive physical, emotional, and social functioning.

Authors' contributions KF wrote the manuscript. ZS, SR, JO, KK and SMR reviewed and edited the manuscript. All authors contributed to the conceptualisation of the article. All authors read and approved the final manuscript.

Funding KF was supported by a Men in Mind scholarship through the global men's health charity, Movember. ZS was supported by an National Health and Medical Research Council (NHMRC) Emerging Leader Fellowship. SMR was supported by an NHMRC Career Development Fellowship, and a 2020 Dame Kate Campbell Fellowship. JLO is supported by a Tier 1 Canada Research Chair in Men's Health Promotion.

Data availability We did not analyse or generate any data as this manuscript is a perspective article with a theoretical approach.

Declarations

Competing interests The authors declare that they have no competing interests.

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References

1. Drioli-Phillips PG, et al. Men's talk about anxiety online: constructing an authentically anxious identity allows help-seeking. *Psychol Men Masc.* 2020;22(1):77–87.
2. Gough B, Robertson S, Luck H. Engendered expressions of anxiety: men's emotional communications with women and other men. *Front Sociol.* 2021;6:138.
3. Doering S, et al. Anxiety at age 15 predicts psychiatric diagnoses and suicidal ideation in late adolescence and young adulthood: results from two longitudinal studies. *BMC Psychiatry.* 2019;19(1):1–11.
4. Australian Bureau of Statistics. 4364.0. 55.001—National Health Survey: first results, 2017–18. 2015.
5. Kessler R. National comorbidity survey: reinterview (NCS-2), 2001–2002. 2015, Inter-university Consortium for Political and Social Research [distributor].
6. Statistics Canada. Canadian perspectives survey series 2: monitoring the effects of COVID-19, May 2020. In: *The Daily.* June 4, 2020.

7. Slee A, et al. Trends in generalised anxiety disorders and symptoms in primary care: UK population-based cohort study. *Br J Psychiatry*. 2021;218(3):158–64.
8. Santomauro DF, et al. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet*. 2021;398(10312):1700–12.
9. Wilkins R, et al. The household, income and labour dynamics in Australia survey: selected findings from waves 1 to 19. 2021.
10. McLean CP, Anderson ER. Brave men and timid women? A review of the gender differences in fear and anxiety. *Clin Psychol Rev*. 2009;29(6):496–505.
11. Craske MG. *Origins of phobias and anxiety disorders: why more women than men?* Oxford: Elsevier Science; 2003.
12. McLean CP, et al. Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *J Psychiatr Res*. 2011;45(8):1027–35.
13. Fisher K, et al. Men's anxiety: a systematic review. *J Affect Disord*. 2021. <https://doi.org/10.1016/j.jad.2021.08.136>.
14. Nepon J, et al. The relationship between anxiety disorders and suicide attempts: findings from the national epidemiologic survey on alcohol and related conditions. *Depress Anxiety*. 2010;27(9):791–8.
15. Nock MK, et al. Mental disorders, comorbidity and suicidal behavior: results from the national comorbidity survey replication. *Mol Psychiatry*. 2010;15(8):868–76.
16. Auerbach RP, et al. Cognitive vulnerability, stress generation, and anxiety: symptom clusters and gender differences. *Int J Cogn Ther*. 2012;5(1):50–66.
17. Bender P, et al. Emotion dysregulation and anxiety in children and adolescents: gender differences. *Pers Individ Differ*. 2012;53(3):284–8.
18. Drioli-Phillips PG, et al. "I feel abused by my own mind": themes of control in men's online accounts of living with anxiety. *Qual Health Res*. 2020;30(13):2118–31.
19. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (DSM-5®)*. 5th ed. Washington, Dc: American Psychiatric Association; 2013.
20. Pavlova TS, Kholmogorova AB. Psychological factors of social anxiety in Russian adolescents. *Psychol Russ*. 2017;10(2):179–91.
21. Gallegos JM, Vescio TK, Shields SA. Perceived morality determines the acceptability of stereotypic feminine emotional displays in men. *Psychol Men Masc*. 2019;20(4):623–36.
22. Rice SM, et al. Male-type and prototypal depression trajectories for men experiencing mental health problems. *Int J Environ Res Public Health*. 2020;17(19):7322.
23. Seidler ZE, et al. The role of masculinity in men's help-seeking for depression: a systematic review. *Clin Psychol Rev*. 2016;49:106–18.
24. Wong YJ, et al. Meta-analyses of the relationship between conformity to masculine norms and mental health-related outcomes. *J Couns Psychol*. 2017;64(1):80.
25. Oliffe JL, et al. Men's depression and suicide. *Curr Psychiatry Rep*. 2019;21(10):103.
26. Stoyanova M, Hope DA. Gender, gender roles, and anxiety: perceived confirmability of self report, behavioral avoidance, and physiological reactivity. *J Anxiety Disord*. 2012;26(1):206–14.
27. Byrne B. Relationships between anxiety, fear, self-esteem, and coping strategies in adolescence. *Adolescence*. 2000;35(137):201–15.
28. Garcia-Lopez L-J, Ingles CJ, Garcia-Fernandez JM. Exploring the relevance of gender and age differences in the assessment of social fears in adolescence. *Soc Behav Pers Int J*. 2008;36(3):385–90.
29. Clark LH, et al. Barriers and facilitating factors to help-seeking for symptoms of clinical anxiety in adolescent males. *Aust J Psychol*. 2018;70(3):225–34.
30. Brownlow A. A geography of men's fear. *Geoforum*. 2005;36(5):581–92.
31. De Groof S. And my mama said: the (relative) parental influence on fear of crime among adolescent girls and boys. *Youth Soc*. 2008;39(3):267–93.
32. Goodey J. Boys don't cry: masculinities, fear of crime and fearlessness. *Br J Criminol*. 1997;37(3):401–18.
33. Stevenson-Hinde J, Shouldice A. Wariness to strangers: a behavior systems perspective. In: Rubin KH, Asendorpf JB, editors. *Social withdrawal, inhibition, and shyness in childhood*. New York: Psychology Press; 2013.
34. Connell RW, Messerschmidt JW. Hegemonic masculinity: rethinking the concept. *Gend Soc*. 2005;19(6):829–59.
35. Clark LH, et al. Investigating the impact of masculinity on the relationship between anxiety specific mental health literacy and mental health help-seeking in adolescent males. *J Anxiety Disord*. 2020. <https://doi.org/10.1016/j.janxdis.2020.102292>.
36. Bruch MA. Cognitive bias in men's processing of negative social information: the role of social anxiety, toughness as a masculine role norm, and their interaction. *Cogn Ther Res*. 2007;31(3):273–89.
37. Randell E, et al. Tough, sensitive and sincere: how adolescent boys manage masculinities and emotions. *Int J Adolesc Youth*. 2016;21(4):486–98.
38. Gucciardi DF, Hanton S, Fleming S. Are mental toughness and mental health contradictory concepts in elite sport? A narrative review of theory and evidence. *J Sci Med Sport*. 2017;20(3):307–11.
39. Diefenbach GJ, Woolley SB, Goethe JW. The association between self-reported anxiety symptoms and suicidality. *J Nerv Ment Dis*. 2009;197(2):92–7.
40. Australian Bureau of Statistics. *Causes of death, Australia, 2018*, in catalogue no. 3303.0. 2019: Belconnen, ACT: Commonwealth of Australia.
41. World Health Organization. *Preventing suicide: a global imperative*. Geneva: World Health Organization; 2014.
42. Richardson C, Robb KA, O'Connor RC. A systematic review of suicidal behaviour in men: a narrative synthesis of risk factors. *Soc Sci Med*. 2021. <https://doi.org/10.1016/j.socscimed.2021.113831>.
43. Oliffe JL, et al. Segmenting or summing the parts? A scoping review of male suicide research in Canada. *Can J Psychiatry*. 2021;66(5):433–45.
44. Weitoft GR, Rosén M. Is perceived nervousness and anxiety a predictor of premature mortality and severe morbidity? A longitudinal follow up of the Swedish survey of living conditions. *J Epidemiol Commun Health*. 2005;59(9):794–8.
45. Weiss S, et al. Gender differences in suicidal risk factors among individuals with mood disorders. *J Depress Anxiety*. 2016;5(218):2167-1044.1000218.
46. Porter E, Chambless DL. Social anxiety and social support in romantic relationships. *Behav Ther*. 2017;48(3):335–48.

47. Oliffe JL, et al. Masculinity and mental illness in and after men's intimate partner relationships. *SSM Qual Res Health*. 2022. <https://doi.org/10.1016/j.ssmqr.2022.100039>.
48. Klonsky ED, Oltmanns TF, Turkheimer E. Deliberate self-harm in a nonclinical population: prevalence and psychological correlates. *Am J Psychiatry*. 2003;160(8):1501–8.
49. Carré JM, et al. Interaction between trait anxiety and trait anger predict amygdala reactivity to angry facial expressions in men but not women. *Soc Cogn Affect Neurosci*. 2012;7(2):213–21.
50. Hanby MS, et al. Social anxiety as a predictor of dating aggression. *J Interpers Violence*. 2012;27(10):1867–88.
51. McDermott RC, Schwartz JP, Rislin JL. Men's mental health: a biopsychosocial critique. In: Wong JY, Wester SR, editors. *APA handbooks in psychology. APA handbook of men and masculinities*. Washington, DC: American Psychological Association; 2016.
52. Seidler ZE et al., Australian men's initial pathways to mental health services. *Health Promotion Journal of Australia*, 2021. <https://doi.org/10.1002/hpja.524>
53. Hofmann SG, Anu Asnaani M, Hinton DE. Cultural aspects in social anxiety and social anxiety disorder. *Depress Anxiety*. 2010;27(12):1117–27.
54. Heinrichs N, et al. Cultural differences in perceived social norms and social anxiety. *Behav Res Ther*. 2006;44(8):1187–97.
55. Editorial. Raising the profile of men's health. *Lancet*. 2019;394(10211):1779.
56. Courtenay W. A global perspective on the field of men's health: an editorial. *Int J Mens Health*. 2002;1:1–14.
57. Remes O, et al. Generalised anxiety disorder and excess cancer deaths: findings from a large, longitudinal population study. *The Lancet*. 2016;388:S100.
58. Gunnell D, et al. Why are suicide rates rising in young men but falling in the elderly?—a time-series analysis of trends in England and Wales 1950–1998. *Soc Sci Med*. 2003;57(4):595–611.
59. Gravel R, Béland Y. The Canadian Community Health Survey: mental health and well-being. *Can J Psychiatry*. 2005;50(10):573–9.
60. Pirkis J, et al. Cohort profile: ten to men (the Australian longitudinal study on male health). *Int J Epidemiol*. 2017;46(3):793–794i.
61. Hasin DS, et al. Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Arch Gen Psychiatry*. 2007;64(7):830–42.
62. Spielberger CD. *Anxiety: current trends in theory and research*. Hoboken: Elsevier; 2013.
63. Ribeiro JD, et al. Depression and hopelessness as risk factors for suicide ideation, attempts and death: meta-analysis of longitudinal studies. *Br J Psychiatry*. 2018;212(5):279–86.
64. Ogrodniczuk J, Oliffe J, Beharry J. HeadsUpGuys: Canadian online resource for men with depression. *Can Fam Physician*. 2018;64(2):93.
65. Rochlen AB, Whilde MR, Hoyer WD. The real men. Real depression campaign: overview, theoretical implications, and research considerations. *Psychol Men Masc*. 2005;6(3):186.
66. Ballinger ML, Talbot LA, Verrinder GK. More than a place to do woodwork: a case study of a community-based Men's Shed. *J Men's Health*. 2009;6(1):20–7.
67. Gullestrup J, Lequertier B, Martin G. MATES in construction: impact of a multimodal, community-based program for suicide prevention in the construction industry. *Int J Environ Res Public Health*. 2011;8(11):4180–96.
68. Primack JM, et al. The men's stress workshop: a gender-sensitive treatment for depressed men. *Cogn Behav Pract*. 2010;17(1):77–87.
69. Jarman L, et al. Does workplace health promotion contribute to job stress reduction? Three-year findings from Partnering Healthy@ Work. *BMC Public Health*. 2015;15(1):1–10.
70. Clark LH, Hudson JL, Haider T. Anxiety specific mental health stigma and help-seeking in adolescent males. *J Child Fam Stud*. 2020;29(7):1970–81.
71. Rice SM, Fallon B, Bambling M. Men and depression: the impact of masculine role norms throughout the lifespan. *Educ Dev Psychol*. 2011;28(2):133.
72. Calear AL, et al. Help-seeking attitudes and intentions for generalised anxiety disorder in adolescents: the role of anxiety literacy and stigma. *Eur Child Adolesc Psychiatry*. 2021. <https://doi.org/10.1007/s00787-020-01512-9>.
73. Rickwood DJ, Deane FP, Wilson CJ. When and how do young people seek professional help for mental health problems? *Med J Aust*. 2007;187(S7):S35–9.
74. McKenzie SK, et al. Masculinity, social connectedness, and mental health: Men's diverse patterns of practice. *Am J Mens Health*. 2018;12(5):1247–61.
75. Lauzier-Jobin F, Houle J. A comparison of formal and informal help in the context of mental health recovery. *Int J Soc Psychiatry*. 2021. <https://doi.org/10.1177/00207640211004988>.
76. Morgan PJ, et al. Engaging fathers to increase physical activity in girls: the “dads and daughters exercising and empowered”(DADEE) randomized controlled trial. *Ann Behav Med*. 2019;53(1):39–52.
77. Morgan P, et al. Engaging dads to increase physical activity and well-being in girls: the DADEE (Dads And Daughters Exercising and Empowered) RCT. *J Sci Med Sport*. 2015;19:e11.
78. Van Hout HP, et al. Anxiety and the risk of death in older men and women. *Br J Psychiatry*. 2004;185(5):399–404.

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