

**Reducing Suicide and Enhancing Mental Health Engagement in Adult Men: A Systematic
Review of the Literature**

Monique Reyes-Lester

Texas State University

NURS 5391: Translational Science for Evidence-Based Practice and Innovation

Dr. Theresa Garcia

November 17, 2023

Abstract

Men's suicide rates are disproportionate compared to women, with rates nearly four times higher than women's. Despite the high prevalence of suicide rates, men underutilize mental health services. Understanding interventions that enhance men's mental health engagement is crucial. This systematic review, guided by the Theory of Planned Behavior (TPB), assessed interventions promoting men's mental health-seeking behavior, thus reducing suicide rates. Searches conducted in CINAHL, PubMed, and PsycINFO identified seven studies from 2018-2023 that met inclusion criteria. Peer-reviewed, quantitative, and qualitative studies focusing on adult men and mental health interventions were included. Gender-sensitive approaches and peer support emerged as key themes. Tailoring interventions to men's preferences reduced stigma and facilitated help-seeking. Peer support fostered community, encouraging open dialogue among men, and reduced feelings of isolation. Global outreach and online services were effective, especially in regions with limited access to traditional mental health services. Gender-sensitive, peer-supported interventions, aligning with TPB principles, significantly impact men's mental health engagement. Recommendations include incorporating peer support and tailoring interventions to men's preferences. Small sample sizes, limited randomized controlled trials, and variations in outcome measures constitute study limitations. This review offers valuable insights into evidence-based practices and policies targeting men's mental health. Addressing stigma, promoting help-seeking, and leveraging online resources can contribute to a cultural shift, creating environments where men actively seek mental health support, ultimately reducing suicide rates. Further research and high-quality studies are essential for refining interventions and improving outcomes in this population.

Keywords: men, mental health, interventions, suicide, engagement

Reducing Suicide and Enhancing Mental Health Engagement in Adult Men: A Systematic Review of the Literature

According to the American Foundation for Suicide Prevention, in 2021, men died by suicide almost four times more often than women (American Foundation for Suicide Prevention, 2023). Although men account for half of the population, they account for nearly 80% of all suicides (Centers for Disease Control and Prevention [CDC], 2023). Suicide is among the leading causes of death in men worldwide, with the most substantial risk factor for suicide being depression (Ogrodniczuk et al., 2021). Despite the high incidence of suicide and depression among men, they are not seeking support for mental health. Studies conducted over the last two decades have provided measurable evidence to support that men are less inclined to access mental health care than women, although they have mental illness at comparable rates (Kwon et al., 2023; Ogrodniczuk et al., 2021). Mental health is seen as the “other” silent killer among men, and we have to ask: Why is this? (Chatmon, 2020).

Despite the availability of numerous mental health services, a disproportionate number of males are affected by mental health disorders; however, they are not seeking treatment (Chatmon, 2020). Gender continues to emerge as a consequential predictor of receiving mental health treatment. Stigma greatly influences men’s reluctance to seek help, which poses a significant barrier to help-seeking behavior in this population (Ogrodniczuk et al., 2021). Given the extensive social and economic consequences of untreated mental illness in men and persistently high male suicide rates, there is a need to review and assess the effectiveness of published interventions to promote men’s mental well-being and increase their mental health-seeking behavior.

Background and Significance

Men are at a greater risk for suicide than women; in addition, they are less likely than women to seek mental health care due to the pressures to adhere to traditional masculine gender roles (Gilgoff et al., 2022). Gender significantly influences the utilization of mental health treatment, as evidenced by statistics in 2021 comparing men's and women's mental health utilization. These statistics indicate that 12.1% of men sought mental health treatment or counseling, while in comparison, their female counterparts have a higher utilization rate of 21.4% (2021 National Survey on Drug Use and Health: Detailed Tables, 2022). The CDC's 2022 data reveals alarming statistics when comparing suicide cases between men and women, with 39,255 and 10,194 fatalities occurring within that year, respectively (CDC, 2023). The gender disparity in service utilization of mental health services among men is a complex issue marked by various barriers that adversely affect men's mental health outcomes.

A primary deterrent that is a common trend in research thought to discourage men from seeking mental health services is the influence of social stigma, self-perceived stigma, and societal pressures to conform to traditional masculine gender roles (Chatmon, 2020; Gilgoff et al., 2022). Chatmon (2020) describes stigma as complex and prevalent and can be affected by social, self-perceived, and professional views. Social stigma encompasses negative attitudes and disapproval towards those dealing with mental health issues, often creating a misconception that mental illness is associated with weak character. These misconceptions often result in discrimination, avoidance, and rejection of those facing mental health issues. Social stigma is frequently the focus of discussion about stigma and directly affects self-stigma, as individuals internalize social stigma and feel shame regarding their mental health symptoms. The stigmas repeatedly implicated in decreased help-seeking among men are due to the traditional masculine ideals of strength, self-reliance, and emotional restraint (Ogrodniczuk et al., 2021). These ideals

characterize help-seeking among men as a manifestation of weakness, dependence, and vulnerability and pose dangerous barriers to men's reluctance to seek mental health services.

The need for interventions that target men's engagement in mental health is steadily increasing and is supported by research and various recommendations (Cheng et al., 2020; Frey et al., 2022; Gilgoff et al., 2022; Heisel et al., 2019; Kwon et al., 2023; Ogrodniczuk et al., 2021; Sagar-Ouriaghli et al., 2023). Unfortunately, men's mental health currently lacks supportive evidence of best practices and critical issues to consider when considering the disparity in service use (Seidler et al., 2018). Programs aimed at men's mental health promotion can reduce risk factors and offer opportunities to prevent onset, delay recurrence, and decrease the impact of many mental health disorders (Sharp et al., 2022). Tailoring interventions to increase men's engagement in seeking mental health services can yield several positive outcomes, thus possibly decreasing suicide rates.

Review of the Literature

The complex issue of men's under-engagement in mental health services is brought to the forefront by the insights gleaned from three studies conducted by Kwon et al. (2023), Sharp et al. (2022), and Sileo and Kershaw (2020). These studies collectively illuminate key themes and challenges, shedding light on the complex nature of the problem. Kwon et al.'s (2023) quantitative investigation reveals autonomy, professionalism, authenticity, and systemic barriers as critical factors influencing men's disengagement in mental health services, emphasizing the significance of autonomy. The study underscores healthcare professionals' vital role in shaping men's involvement, emphasizing the need for a gender-sensitive approach. Sharp et al.'s (2022) qualitative exploration delves into men's perceptions of mental health, exposing hurdles related to limited emotional expression, societal expectations, and the clash between traditional

masculine ideals and mental well-being. The study advocates for community-based mental health promotion to overcome stigma and integrate mental health practices into acceptable lifestyle activities. Sileo and Kershaw's (2020) perspective cohort study adds another layer by examining the impact of masculine norms on depression rates and mental health service utilization among young men. The findings highlight the nuanced relationships between embracing masculine norms and mental health outcomes, emphasizing the need for tailored interventions.

These studies collectively underscore the importance of addressing traditional masculinity, healthcare professionals' roles, societal expectations, and tailored interventions to engage men in mental health services. The call for a systematic review becomes evident as a means to consolidate and analyze existing knowledge, identify effective interventions, and ultimately curb the alarming rates of suicide among men. Furthermore, these studies align with established recommendations such as the U.S. Preventive Services Task Force's call for depression screening and the APA Guidelines for Psychological Practice with Boys and Men, emphasizing the imperative of gender-sensitive approaches to address men's unique challenges in mental health comprehensively.

Purpose and Clinical Question

Data reflecting gender disparity among men and women who seek mental health services is a public health issue that warrants attention and intervention. Women are twice as likely to be diagnosed with depression; men are four times as likely to die from suicide, suggesting that men have undiagnosed and untreated mental health issues (Call & Shafer, 2015). Annual treatment rates among U.S. males and females with any mental illness are 40% and 51.7%, respectively (Mental Health by the Numbers, 2023). These statistics raise a concern suggesting that many men may struggle with undiagnosed mental health issues.

In light of these disparities and the urgent need to address men's mental health, the clinical question guiding this systematic review was: "Among adult men, what targeted interventions have a measurable impact on improving men's attitudes and engagement in mental-health-seeking behaviors and/or reducing suicide ideation and/or suicide rates." This systematic review aims to consolidate knowledge and identify effective interventions that may help guide evidence-based practices and policies to address the challenges of increasing help-seeking behavior and reducing suicide ideation and rates among men.

Conceptual Framework

The Theory of Planned Behavior (TPB) developed by Icek Ajzen in 1991 is highly relevant to understanding the challenges surrounding men's engagement in mental health care and how targeted interventions could increase help-seeking behavior and provide better health outcomes. The TPB suggests attitudes toward behavior, subjective norms, and perceived behavioral control shape behavioral intentions (Ajzen, 1991). TPB posits that an individual's attitude toward a behavior significantly influences their choice to engage in that behavior. In the case of men's mental health, societal stereotypes and traditional masculine gender roles cause a negative attitude toward help-seeking. Subjective norms refer to social pressure to perform or not perform a given behavior, and in this case, social stigma plays a significant role. Perceived behavioral control relates to an individual's perceived ease or difficulty of performing behavior. Men may perceive seeking mental health care as challenging due to a deficit in health literacy or fear of judgment. In the context of this review, using the TPB sheds light on why men may be reluctant to seek mental health care and how interventions can address these issues. Applying the TPB can guide interventions that aim to change men's attitudes toward mental health care,

reduce the social stigma and subjective norm of conformity to traditional gender roles, and improve the perceived behavior control of seeking help.

Methods

Project Design

A systematic review of the literature was conducted to determine the most effective targeted interventions described in the literature affecting men's attitudes and engagement in mental-health-seeking behaviors and/or reducing suicide ideation and/or suicide rates. The Theory of Planned Behavior (TPB) guided this review by providing a framework of concepts, such as subjective norms and behavioral control, that could affect interventions and behavioral outcomes in this population.

Search Strategy

A comprehensive search from three electronic databases, CINAHL, PubMed, and PsycINFO was conducted. Key terms used to perform the search included "help-seeking," AND "adult male," AND "mental health," AND "interventions," AND "engagement," AND "suicide prevention strategies." An ancestry search was conducted to identify additional articles from the included studies. To be included in the review, articles met the following inclusion criteria: focused on adult males aged 19 and older, addressed interventions that measured mental health-seeking behaviors, and included measurable outcomes, primary quantitative or qualitative research, published between 2018-2023 in the English language and subjected to peer review. The quality appraisal tool used to appraise the quality of each study was obtained from Melnyk & Fineout-Overholt (2019) and is specific to the study's design. A cutoff score of 7/10 was required for each study to be included in the review.

Selection Process

The article selection process occurred by title screening, abstract screening, and full-text review (Higgins et al., 2023). Title screening involved assessing the relevance of articles based on their titles. The list of articles retrieved from the search query was reviewed, and a preliminary judgment was based on the title being relevant to the research question. Inclusion criteria for the title selection included interventions that targeted men's engagement to utilize mental health services, causing a decrease in suicide rates among this population. Titles that included systematic research were excluded from the selection.

After title screening, a detailed screening of the article's abstract occurred of the articles that passed the title screening stage (Higgins et al., 2023). The content of the abstract was evaluated to determine whether it provided appropriate data about the study's objectives, methods, results, and relevance to the research question. The inclusion criteria for the abstract included interventions that effectively created mental-health-seeking behavior in men.

The final stage of the review was a full-text review of the article, where the selected articles received a thorough examination of the content (Higgins et al., 2023). A comprehensive review of the introduction, methods, results, discussion, and conclusion section occurred for each article that passed the title and abstract screening stages. The methodology, data presentation, results, and interpretation of each article were critically evaluated. The relevance of the study's findings to the research question determined the final selection of an article once the full-text review was complete.

The Flow Diagram (Figure 1) documents the screening process. One researcher used manual file storage to conduct the studies' search and screening process. The Quality Appraisal Tool Melnyk & Fineout-Overholt (2019) was used to appraise each study in the full-text group. Studies not scoring above the cutoff score of 7/10 were excluded.

Synthesis Method

An evidence-synthesis table, Table 1, was used to organize the information from each article following a systematic and easy-to-read format that summarized data from the multiple studies. Data in the table included the author of the study, the purpose of the study, the framework used to guide the study, the study design, the study sample and setting, methods, findings, quality appraisal rating, limitations, conclusions, and application. The table allowed an organized and concise analysis of the studies, including the ability to compare and contrast the studies, identifying common themes, and an overall understanding of the existing research on interventions to increase men's mental health-seeking behaviors and decrease suicide ideation and/or suicide rates.

Results

Search Results

In total, 90 articles were identified (see Figure 1). After removing 8 duplicates, excluding 57 articles due to the title and abstract not applicable to the research topic, and being unable to retrieve the full-text of 11 articles, 14 articles made it for full-text review. Full-text articles were excluded because of the incorrect study population, lacking inappropriate interventions, and did not meet the quality cut-off score. Seven articles met all inclusion criteria for the systematic review.

Characteristics of Studies

Once the articles met inclusion criteria and quality appraisal ratings were completed, an Evidence Synthesis Table (Table 1) was used to summarize essential data from each study. The study designs included in the systematic review consisted of 1 randomized control trial (Frey et al., 2022), one community-based psychological group intervention study (Heisel et al., 2019),

one mixed methods process evaluation study (King et al., 2019), one hybrid effectiveness implementation study (McGrath et al., 2022), one quantitative program evaluation study (Ogrodniczuk et al., 2021), one feasibility intervention study (Sagar-Ouriaghli et al., 2023), and one quasi-experimental study (Sharp et al., 2020). Their purposes ranged from evaluating the efficacy of eHealth resources on men's engagement and effectiveness in decreasing depression and suicidal ideation (Frey et al., 2022; King et al., 2019; Ogrodniczuk et al., 2021) to assessing the effectiveness of community-based programs on improving help-seeking and mental health outcomes (Heisel et al., 2019; McGrath et al., 2022; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). Their sample size ranged from 24 men (Sagar-Ouriaghli et al., 2023) to 1,665,356 online users (Ogrodniczuk et al., 2021), with a total sample size across studies of 1,769,515.

Other similarities across studies included different frameworks utilized to guide each study. Most articles utilized a conceptual framework to help guide their studies. The framework aims to provide structure, context, and a systematic approach to their research. The specific framework chosen depends on the research goals and nature of the project. All the frameworks primarily pertained to psychology and behavior (Heisel et al., 2019; King et al., 2019; McGrath et al., 2022; Ogrodniczuk et al., 2021; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). These frameworks such as the Transtheoretical Model of Change (Ogrodniczuk et al., 2021) and other implementation frameworks (McGrath et al., 2022; Sagar-Ouriaghli et al., 2023), involve a model of stages through which individuals progress in their behavior change journey. Most notably, these frameworks recognize the importance of social and environmental factors in shaping behavior. Quality appraisal ratings across studies varied from 0.73 to 0.89 (Frey et al., 2022; Sagar-Ouriaghli et al., 2023).

Synthesis Across Studies

After synthesizing the data in Table 1, several common themes and findings provided insight into how to promote men's mental health and combat suicide rates. Using methods described by Whittemore & Knafl (2005), themes across studies emerged, such as gender-sensitive approaches and increasing engagement by using peer support.

Theme 1: Gender-sensitive approaches

An overarching theme among all of the studies was that gender-sensitive programs tailored for men were found to be effective in engaging men in health promotion and improving their mental health across studies (Frey et al., 2022; Heisel et al., 2019; King et al., 2019; McGrath et al., 2022; Ogrodniczuk et al., 2021; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). Tailoring interventions to men's preferences and values can contribute to changing the culture of silence around men's mental health issues, thus decreasing the stigma men face when discussing their mental health.

Gender-sensitive programs varied across studies; however, each effectively reached the targeted population. Frey et al. (2022) utilized an online intervention called Man Therapy tailored to reduce suicidal ideation and depression in men aged 25-64 who lived in Michigan. Programs and interventions focused on engaging men in gender-responsive ways have supported them in reconstructing healthier definitions of masculinity, creating a culture of help-seeking versus suffering in silence (Frey et al., 2022). Community support programs such as Meaning-Centered Men's Groups focused on psychological resiliency and prevention of suicide ideation among men transitioning to retirement (Heisel et al., 2019). Findings from this study indicated men are willing to participate actively in group interventions and can engage in emotional expression within a confidential and supportive setting. These programs, whether online or in a community setting, collectively exemplify the impact of gender-tailored approaches in creating

environments where men feel comfortable seeking help, reconstructing healthier definitions of masculinity, and ultimately contributing to a reduction in suicide rates.

Theme 2: Increasing engagement by using peer support

Another theme found among 5 of the 7 studies was that peer support was found to be a practical component in interventions as it allows men to feel comfortable sharing their mental health issues and increasing their help-seeking behavior (Heisel et al., 2019; King et al., 2019; McGrath et al., 2022; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). Men may find it easier to open up about their mental health challenges when they interact with peers who have experienced similar issues. Peer support creates a sense of community where individuals can relate to each other's experiences, creating an environment of openness and trust.

Peer support groups such as Sheds for Life significantly improved subjective well-being, life satisfaction, worth, and self-rated health (McGrath et al., 2022). Sheds for Life showed an increased propensity in men's willingness to seek information regarding their mental health. Furthermore, trust ratings, sense of belonging, and close support increased significantly. These improvements were sustained at six and twelve months compared to baseline. Sheds for Life effectively engaged men in a safe, familiar, and informal peer-supported environment. Sagar-Ouriaghli et al. (2023) had similar outcomes where three interventions were delivered to improve knowledge of mental health problems, self-help techniques, and available help and support. Formal and informal structured interventions suggested an opportunity to facilitate help-seeking behaviors among male students. Furthermore, informal interventions such as "Man Cave" were found to be successful in engaging hard-to-reach male students.

Other Findings

One commonality found in several studies was the impact of global outreach (King et al., 2019; Ogrodniczuk et al., 2021). The studies conducted by King et al. (2019) and Ogrodniczuk et al. (2021) were not limited to a specific region and may have a broader impact on men's mental health worldwide. Men's lack of mental health engagement is a worldwide issue, with suicide being a leading cause of death in men on a global scale (Naghavi, 2019). The importance of online and eHealth resources can reach and engage men with limited access to traditional mental health services. The findings in these studies differed from those in the other studies, as the other studies did not use eHealth resources to reach a broader audience.

The Theory of Planned Behavior (TPB) posited by Icek Ajzen was used as a framework to explain the common themes found across these studies. TPB helps explain how gender-sensitive approaches and peer support impact men's intentions and behaviors regarding help-seeking for mental health issues. By addressing attitudes, subjective norms, and perceived control, these approaches aim to reduce barriers men face and increase the likelihood that they will actively seek help and engage in peer support, ultimately improving their mental well-being. TPB highlights the impact of these psychosocial factors in promoting effective mental health support tailored to men's preferences and needs.

Discussion

This systematic review aimed to summarize the extant literature on ways to engage men in help-seeking behavior and suicide prevention. Different interventions were explored, ranging from eHealth resources to community-based programs, all aimed at improving men's mental health and increasing help-seeking behavior. Two common themes emerged across these studies, essential to addressing men's mental health challenges: gender-sensitive approaches (Frey et al., 2022; Heisel et al., 2019; King et al., 2019; McGrath et al., 2022; Ogrodniczuk et al., 2021;

Sagar-Ouriaghli et al., 2023; Sharp et al., 2020) and increasing engagement by peer support (Heisel et al., 2019; King et al., 2019; McGrath et al., 2022; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). Additionally, global outreach and the impact of online and eHealth resources were highlighted in some studies, which can help engage men with limited access to traditional mental health services (King et al., 2019; Ogrodniczuk et al., 2021).

The purpose of this systematic review was to consolidate knowledge and identify effective interventions that may help guide evidence-based practices and policies to address the challenges of increasing help-seeking behavior and reducing suicide ideation and rates among men. The systematic review brings together a diverse range of studies with unique approaches and findings and consolidates knowledge on men's mental health and suicide prevention. It offers guidance for implementing interventions and evidence-based practices to address the challenges of increasing help-seeking behavior and reducing suicide ideation and suicide rates among adult men.

The findings from these studies provide a foundation for future efforts to improve men's mental health and well-being and reduce suicide rates. The synthesis of these studies highlights the importance of tailored, gender-sensitive approaches, peer support, online resources, and global outreach in addressing men's mental health and reducing suicide rates. These strategies provide insight into practical efforts and interventions that promote help-seeking behavior, improve men's mental well-being, and reduce suicide rates. Furthermore, these studies indicate that gender-sensitive approaches can contribute to changing the culture of silence around men's mental health issues. Encouraging men to seek help for mental health concerns is a critical step in reducing suicide rates.

The Theory of Planned Behavior (TPB) is utilized to explain how these common themes effectively improve men's mental health and increase their help-seeking behavior. TPB helps explain the impact of psychosocial factors, such as attitudes, subjective norms, and perceived control, in promoting effective mental health support tailored to men's needs. TPB provides valuable insights into the psychological mechanisms that strengthen the success of gender-sensitive approaches and peer support in these studies.

Recommendations from Findings

Based on the findings from the systematic review, several recommendations can be made to improve practices aimed at increasing help-seeking behavior and reducing suicide ideation and rates among adult men. Incorporating peer support as a core component of mental health interventions and programs can create a sense of community and trust and reduce feelings of isolation, making it easier for men to open up about their mental health challenges. When men observe their peers openly discussing and seeking help for mental health issues, this sets a positive subjective norm and can enhance their perceived behavioral control. The importance of embedding mental health promotion within peer settings was highlighted in a study performed by Sharp et al. (2022), where men found it easier to seek help when assisting others, thus promoting selflessness and open conversations about mental health. Another recommendation is tailoring interventions to meet men's unique needs and preferences. Gender-sensitive approaches to promote mental health engagement for men involve acknowledging and promoting men's preferences for self-reliance as a critical component in their self-management of mental health. As noted in the study by Ogrodniczuk et al. (2021), encouraging men to actively participate in strategies and interventions that empower them to take control of their mental well-being promotes their preferences.

Limitations

There were several limitations for this systematic review: few articles provided high-level evidence, few articles addressed suicide interventions, and small sample sizes in several articles. Only one of the seven articles was a randomized controlled trial (Frey et al., 2022). More intervention studies with a randomized controlled trial study design are needed to gather high-level evidence to support effective interventions to increase help-seeking behaviors and reduce suicide among adult men. Although men's engagement in mental health is crucial, many of the studies did not incorporate how the interventions decreased suicide ideation which ultimately could help decrease suicide rates (King et al., 2019; McGrath et al., 2022; Ogrodniczuk et al., 2021; Sagar-Ouriaghli et al., 2023; Sharp et al., 2020). Future studies should include measurements of suicidal ideation pre- and post-intervention along with their other measurement scales, such as the Columbia Suicide Severity Rating Scale used in Frey et al. (2022) or the Geriatric Suicide Ideation Scale used in Heisel et al. (2019). Two studies had small sample sizes of 30 or fewer participants (Heisel et al., 2019; Sagar-Ouriaghli et al., 2023). Small sample sizes can restrict the external validity of the research and may struggle to detect minor or subtle effects of the intervention (Melnik & Fineout-Overholt, 2019). The small sample sizes for these two studies may be attributed to the stigma behind men's mental health issues, causing patients to be reluctant to participate. Researchers should approach future study participants with empathy and understanding and use non-stigmatizing language to help increase the willingness of participants to join the study.

Conclusions and Implications

This systematic review highlights the importance of tailored gender-sensitive approaches and peer support as crucial strategies for improving men's mental health engagement. The

effectiveness of interventions that consider men's unique needs and preferences while providing them a sense of community and trust through peer support are key findings from this systematic review. Addressing men's mental health and suicide prevention requires approaches that recognize the importance of social and environmental factors in shaping behavior. By promoting help-seeking behavior and reducing the stigma surrounding men's mental health, we can make progress in improving their mental well-being. These findings can improve clinical practice by guiding evidence-based interventions and policies to increase help-seeking behavior and reduce suicide ideation and rates among men. Clinicians can benefit from incorporating gender-sensitive approaches and peer support into their programs and services, ultimately creating a culture where men feel comfortable discussing their mental health issues and seeking help. Global outreach and online resources also provide opportunities to reach a broader audience and engage men who may not have access to mental health resources. To continue addressing this problem, further research is needed to explore and evaluate the effectiveness of interventions targeted to improve men's help-seeking behaviors, ultimately decreasing suicide rates. Additionally, studies should focus on the development and assessment of online and eHealth resources that can reach men on a global scale. It is essential to continue refining and implementing practices to reduce stigma, promote help-seeking behavior, and ultimately reduce suicide rates. The Theory of Planned Behavior (TPB) provides a valuable framework for understanding the psychological mechanisms behind these interventions and should be further explored and integrated into clinical practice.

References

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- American Foundation for Suicide Prevention. (2022, October). *2021 national survey on drug use and health: Detailed tables* [PDF]. Substance Abuse and Mental Health Services Administration. Retrieved November 17, 2023, from <https://www.samhsa.gov/data/sites/default/files/reports/rpt39441/NSDUHDetailedTabs2021/NSDUHDetailedTabs2021/NSDUHDetailedTabs2021.pdf>
- American Foundation for Suicide Prevention. (2023, May 19). *Suicide statistics*. <https://afsp.org/suicide-statistics/>
- American Psychological Association, Boys and Men Guidelines Group. (2018, August). *APA guidelines for psychological practice with boys and men*. <https://www.apa.org.https://www.apa.org/about/policy/boys-men-practice-guidelines.pdf>
- Call, J. B., & Shafer, K. (2015). Gendered manifestations of depression and help seeking among men. *American Journal of Men's Health*, 12(1), 41–51. <https://doi.org/10.1177/1557988315623993>
- Centers for Disease Control and Prevention. (2023, August 15). *Suicide data and statistics*. Retrieved September 4, 2023, from <https://www.cdc.gov/suicide/suicide-data-statistics.html>
- Chatmon, B. N. (2020). Males and mental health stigma. *American Journal of Men's Health*, 14(4), 155798832094932. <https://doi.org/10.1177/1557988320949322>
- Cheng, V., Davenport, T., Johnson, D., Vella, K., Mitchell, J., & Hickie, I. B. (2020). Naturalistic evaluation of a sport-themed mental health and wellbeing app aimed at men

(mindmax), that incorporates applied video games and gamification. *Internet*

Interventions, 20, 100306. <https://doi.org/10.1016/j.invent.2020.100306>

Frey, J. J., Osteen, P. J., Sharpe, T. L., Mosby, A. O., Joiner, T., Ahmedani, B., Iwamoto, D.,

Nam, B., Spencer-Thomas, S., Ko, J., Ware, O. D., Imboden, R., Cornette, M. M., &

Gilgoff, J. (2022). Effectiveness of man therapy to reduce suicidal ideation and

depression among working-age men: A randomized controlled trial. *Suicide and Life-*

Threatening Behavior, 53(1), 137–153. <https://doi.org/10.1111/sltb.12932>

Gilgoff, J. N., Wagner, F., Frey, J. J., & Osteen, P. J. (2022). Help-seeking and man therapy: The

impact of an online suicide intervention. *Suicide and Life-Threatening Behavior*, 53(1),

154–162. <https://doi.org/10.1111/sltb.12929>

Heisel, M. J., Moore, S. L., Flett, G. L., Norman, R. G., Links, P. S., Eynan, R., O'Rourke, N.,

Sarma, S., Fairlie, P., Wilson, K., Farrell, B., Grunau, M., Olson, R., & Conn, D. (2019).

Meaning-centered men's groups: Initial findings of an intervention to enhance resiliency and reduce suicide risk in men facing retirement. *Clinical Gerontologist*, 43(1), 76–94.

<https://doi.org/10.1080/07317115.2019.1666443>

Higgins, J., Thomas, J., Cumpston, M., Li, T., & Page, M. (2023, August). *Cochrane handbook*

for systematic reviews of interventions version 6.4. Cochrane Training.

www.training.cochrane.org/handbook

King, K., Schlichthorst, M., Turnure, J., Phelps, A., Spittal, M. J., & Pirkis, J. (2019). Evaluating

the effectiveness of a website about masculinity and suicide to prompt help-seeking.

Health Promotion Journal of Australia, 30(3), 381–389. <https://doi.org/10.1002/hpja.237>

- Kwon, M., Lawn, S., & Kaine, C. (2023). Understanding men's engagement and disengagement when seeking support for mental health. *American Journal of Men's Health*, 17(2), 155798832311579. <https://doi.org/10.1177/15579883231157971>
- Martin, L. A., Neighbors, H. W., & Griffith, D. M. (2013). The experience of symptoms of depression in men vs women. *JAMA Psychiatry*, 70(10), 1100. <https://doi.org/10.1001/jamapsychiatry.2013.1985>
- McGrath, A., Murphy, N., Egan, T., & Richardson, N. (2022). Sheds for life: Health and wellbeing outcomes of a tailored community-based health promotion initiative for men's sheds in Ireland. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-13964-6>
- Melnik, B., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing & healthcare: A guide to best practice* (Fourth, International ed.). Lippincott Williams and Wilkins.
- Naghavi, M. (2019). Global, regional, and national burden of suicide mortality 1990 to 2016: Systematic analysis for the global burden of disease study 2016. *British Medical Journal*, 364, Article 194. <https://doi.org/10.1136/bmj.194>
- National Alliance on Mental Illness. (2023, April). *Mental health by the numbers*. Retrieved September 13, 2023, from <https://www.nami.org/mhstats>
- Ogrodniczuk, J. S., Beharry, J., & Oliffe, J. L. (2021). An evaluation of 5-year web analytics for headsupguys: A men's depression e-mental health resource. *American Journal of Men's Health*, 15(6), 155798832110633. <https://doi.org/10.1177/15579883211063322>
- Ross, V., Caton, N., Gullestrup, J., & Kølves, K. (2019). Understanding the barriers and pathways to male help-seeking and help-offering: A mixed methods study of the impact of the mates in construction program. *International Journal of Environmental Research and Public Health*, 16(16), 2979. <https://doi.org/10.3390/ijerph16162979>

- Sagar-Ouriaghli, I., Godfrey, E., Tailor, V., & Brown, J. L. (2023). Improving mental health help-seeking among male university students: A series of gender-sensitive mental health feasibility interventions. *American Journal of Men's Health*, 17(3), 155798832311637. <https://doi.org/10.1177/15579883231163728>
- Seidler, Z. E., Rice, S. M., Ogrodniczuk, J. S., Oliffe, J. L., & Dhillon, H. M. (2018). Engaging men in psychological treatment: A scoping review. *American Journal of Men's Health*, 12(6), 1882–1900. <https://doi.org/10.1177/1557988318792157>
- Seidler, Z. E., Rice, S. M., Oliffe, J. L., Fogarty, A. S., & Dhillon, H. M. (2018). Men in and out of treatment for depression: Strategies for improved engagement. *Australian Psychologist*, 53(5), 405–415. <https://doi.org/10.1111/ap.12331>
- Sharp, P., Bottorff, J. L., Rice, S., Oliffe, J. L., Schulenkorf, N., Impellizzeri, F., & Caperchione, C. M. (2022). “People say men don’t talk, well that’s bullshit”: A focus group study exploring challenges and opportunities for men’s mental health promotion. *PLOS ONE*, 17(1), e0261997. <https://doi.org/10.1371/journal.pone.0261997>
- Sharp, P., Stolp, S., Bottorff, J. L., Oliffe, J. L., Hunt, K., & Caperchione, C. M. (2020). Can lifestyle interventions improve Canadian men’s mental health? outcomes from the hat trick programme. *Health Promotion International*, 36(4), 943–951. <https://doi.org/10.1093/heapro/daaa120>
- United States Preventive Services Task Force. (n.d.). *Recommendation: Depression and suicide risk in adults: Screening*. U.S. Preventive Services Task Force. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-depression-suicide-risk-adults#bootstrap-panel--5>

Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, 52(5), 546–553. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>

Table 1
Evidence Synthesis Table

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|---------------|--|-----------|--------|--|--|---|---|---|
| Frey, 2022 | Evaluated efficacy of MT as an online intervention to reduce SI and depression in men. | n/a | RCT | Online survey of 379 men aged 25-64 who lived in Michigan scored as “at risk” for SI or behavior and/or at moderate risk for depression. | C-SSRS and HANDS were used as measurement tools to determine eligibility and assess primary outcomes of suicide risk and depression risk. SI and depression were measured three times throughout 3-months study between control and intervention groups. | LGCM results indicated SI and depression decreased over time in both groups, and specific risk and protective factors were associated with these outcomes. Sub-group analysis indicated statistically significant differences in MT group for one risk factor and three protective factors. Men in MT group reported reduced days impacted by adverse mental health, improvements in perceived problem-solving focused on social support, help-seeking behavior for suicidality, and | Quality Appraisal Rating: 0.73 Limitations/Weaknesses: Concealment of random assignment to avoid bias, blinding of participants or providers not mentioned, reasons for participant attrition not provided. | The study highlights online screening programs for men to reduce SI and depression over time. MT may increase protective factors for suicide while reducing risk factors, which could be a way to increase engagement and decrease suicide rates in males. MT aligns with recent guidelines recommending expanding anti-stigma education and pro-help-seeking messaging using creative strategies and leveraging technology to support at-risk populations. |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|-----------------|--|--------------------|---|--|--|--|---|--|
| | | | | | | treatment motivation. | | |
| Heisel, 2019 | Assessed the effectiveness of MCMG in psychological resiliency and prevention of suicide ideation among men transitioning to retirement. | Meaning in Life | Community- based psychological group intervention design | 30 Men in Canada aged 55-70 who planned to retire within two years, were in the process of retiring, or had retired within the past five years. | MCGM sessions conducted once a week for 12 weeks, lasting 90 minutes. Sessions focused on various aspects of retirement, including work and retirement, leisure, relationships, and generativity, all within context of finding meaning in these experiences. Group discussions and exercises were used to engage participants and facilitate cohesion. Measurement tools used: MIL, PWB, SWLRS, GSIS, GDS, BHS, and a version of UCLA Loneliness Scale. | Participants in MCMG showed significant improvements in positive psychological factors, including increased orientation toward finding meaning in adversity and positive experiences, improved psychological well- being, increased life satisfaction, enhanced retirement satisfaction, and improved overall health ratings. Significant reductions in negative psychological factors, including SI, and reduction in depressive symptoms. | Quality Appraisal Rating 0.8 Limitations: Clear rationale for sampling method was not provided, selection bias or self-report inaccuracies were not explained. | MCMG can be an effective intervention for addressing psychological concerns and facilitating a healthy transition to retirement among men facing this life challenge and a preventive intervention to reduce the risk of suicide in this population. Findings also indicate men are willing to actively participate in group interventions and capable of engaging in emotional expression within a confidential and supportive setting. These strategies and interventions can be helpful in increasing men's engagement in mental health services, thus decreasing suicide rates. |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|---------------|--|---------------------------------------|-------------------------------------|---|---|---|--|---|
| King, 2019 | Assessed effectiveness of Man Up, a website in engaging men in help-seeking and fostering conversations about suicide. | Theory of Planned Behavior | Mixed Methods Process Evaluation | 103,243 total page views. 81,663 new users and 21,580 returning users on the Man Up website in Australia. | Google Analytics used to evaluate Man Up attracted and engaged users, did the website facilitated help-seeking, and whether Man Up fostered conversations about suicide, mental health, and help-seeking. | Results suggest significant user engagement and prompted mental health and help-seeking discussions. Google Analytics data revealed the Man Up website reached 43,140 users. The Man Up website engaged users to stay longer on the site and received more return visits compared to similar sites. | Quality Appraisal: n/a Limitations: No established guidelines for use and interpretation of Google Analytics for eHealth platforms. Number of users may be inaccurate. Calculation of average session duration may be inaccurate. Limited demographic data. Users' perspectives and feedback were not collected. Specific strategies for integration not offered. | Man Up initiative positively impacted help-seeking behavior, a crucial aspect of men's mental health and well-being. Man Up engaged users, facilitating help-seeking and promoting conversations about mental health and suicide. The study emphasizes importance of multi-level media-based public health interventions to promote key messages and facilitate help-seeking. This approach is highlighted as a successful model for initiatives involving increasing men's mental health engagement. |
| McGrath, 2022 | Evaluated effectiveness of SFL on men's health and | Established implementation frameworks | Hybrid effectiveness-implementation | 421 adult male Shed Members participated in SFL in Ireland. | Questionnaires assessing health and well-being were administered one-to-one in Sheds at | Significant improvements in subjective well-being, life satisfaction, life | Quality Appraisal Rating: 0.83 Limitations: study design was non- | Gender-specific approach of SFL is effective in engaging men with health wellbeing and |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|--------|--|-----------|-------------------|--------------------|--|---|---|---|
| | well-being over a 10- week program. | | n study design | | baseline, 3, 6, and 12 months. SRH measured using Likert scale. PA was measured using SEE. Life worth, satisfaction, and interpersonal trust were recorded using Office of National Statistics subjective well-being 11-point scale. Mental well- being measured using SWEMWBS. Loneliness measured using UCLA 3-item scale. Social Capital measured based on relevant recommendations from WhatWorksWellbei ng. | worth, and self- rated health following SFL program. Intervention groups showed increased propensity to seek information about their health. Mental well-being measured by SWEMWBS scores significantly improved. Depression prevalence scores decreased significantly in intervention group and shedders reported increased certainty in managing their mental health. Trust ratings, sense of belonging and close support significantly increased. Sustained improvements in well-being mental health, physical activity, and lifestyle behaviors at 6 and 12 months | randomized study design and potential bias. | encourages positive and sustained change. It effectively engages men in a safe, familiar and informal way while providing opportunities for structures health and wellbeing initiatives through a community-based approach. |

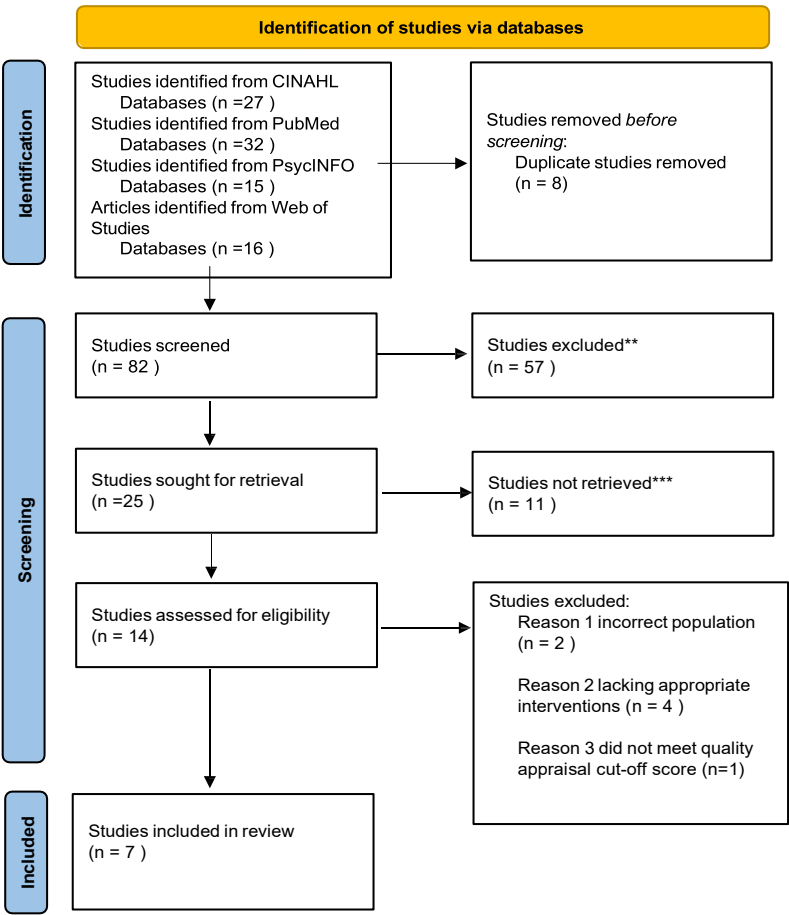
| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|-------------------|---|----------------------------------|---------------------------------|---|--|---|--|--|
| Ogrodniczuk, 2021 | Provided insight into effectiveness of HeadsUpGuys in supporting men's mental health over five years. | Transtheoretical Model of Change | Quantitative Program Evaluation | 1,665,356 users, with % users from United States, United Kingdom, and Canada. | Google Search Console and Google Tag Manager used to collect user behavior and engagement data with HeadsUpGuys website. Measure of depressive symptoms with PHQ-9. | <p>compared to baseline.</p> <p>HeadsUpGuys shows growing credibility as a mental health resource. Suicidality-related search terms were prominent in organic search traffic, indicating users find value in candidly seeking information online. Wide geographical representation of users suggests the website addresses barriers related to fee-for-service healthcare models and inequities. Improvement in mental health literacy around depression was noted with Self-Check Tool. The study acknowledged presence of female visitors seeking information to support the men in</p> | <p>Quality Appraisal: n/a</p> <p>Limitations: Absence of specific guidelines for using Google Analytics to measure success of an eHealth platform. Some analytics may not be relevant or valid for assessing an eHealth platform's impact. Overestimating or underestimating number of users. Average session duration may not reflect user engagement. Limited geographic data that may not represent diversity of user population. Lack of user perspectives or feedback</p> | <p>The 5-year review highlights the significance of eHealth resources addressing men's mental health. eHealth provides an alternative avenue for engagement, particularly for men who may lack access to other forms of support. HeadsUpMen is an eHealth program tailored for men dealing with depression that showcases a growing user base, global outreach, and positive user engagement. HeadsUpGuys emphasizes the appeal of genuine discussions that are vital in empowering men to manage their mental health effectively. HeadsUpGuys</p> |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|----------------------|---|----------------------------|---------------------------------|---|---|---|---|--|
| | | | | | | their lives, which indicates HeadsUpGuys content may benefit a broader audience. | regarding satisfaction with website. | encourages men's preferences for self-reliance which is a critical component in their self-management of mental health. |
| Sagar-Ourighli, 2023 | Explored feasible and effective gender-sensitive approaches that improve help-seeking and mental health outcomes. | Behavior Change Techniques | Feasibility Intervention Design | 24 male undergraduate or postgraduate students at a University in London. | 3 interventions delivered to include a psycho-educational intervention designed to improve knowledge of mental health problems, self-help techniques, and available help and support. Improving Psychological Strength for Men was aimed to provide a more positive masculine image, enabling male students to engage in a mental health intervention. Intervention 3 was an informal and fun setting titled "Man Cave," emphasizing male-only focused groups. Help-seeking attitudes | All three interventions were rated positively in terms of overall acceptability, affective attitude, ethicality, self-efficacy, intervention coherence for help-seeking, and perceived effectiveness for help-seeking and well-being. Both formal and informal interventions are considered valuable, with informal drop-in interventions possibly helping to engage hard-to-reach male students. | Quality Appraisal Rating: 0.89 Limitations Sample size was small, different recruitment approaches occurred which each intervention | Formal structured interventions and informal approaches, such as drop-ins or social spaces can be effective in engaging male students. Informal approaches are particularly promising for engaging hard-to-reach male students. Offering informal interventions, suggests that there is an opportunity to facilitate help-seeking behaviors among male students. Increased engagement through these approaches may provide male students with more opportunities to address mental health difficulties and |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|----------------|--|---|---------------------------|---|---|--|--|--|
| Sharp, 2020 | Explored changes to men's depression risk and quality of life after participating in HAT TRICK, a gender-sensitized lifestyle intervention for overweight men. | Social Cognitive Theory and Self-Determination Theory | Quasi-experimental design | 62 Canadian men over 35 years with less than 150 min of physical activity per week and have a BMI over 25 kg/m and a pant waist size of 38 in or greater. | measured with ATSPPH-SF and mental health assessments measured using WEMWBS. Depression risk rated using MDRS. SF-12 used to assess participants' quality of life. HAT TRICK intervention was a 12-week program focused on three key components: physical activity, diet, and social connectedness. Feasibility and effectiveness of the HAT TRICK intervention were analyzed using MLM at baseline, post-program, and 9-month follow-up. | Depression risk decreased and mental health improved immediately after the 12-week intervention and 9-month follow-up. Lifestyle interventions like HAT TRICK can positively impact men's mental health. HAT TRICK is congruent with many men's values and can be effective in improving mental health. Peer support increased self-efficacy, and the use of behavior change techniques. | Quality Appraisal Rating: 0.88 Limitations: need for more detailed reporting of standard deviations for outcomes. | reduce the risk of suicide. The study emphasizes success of HAT TRICK, a gender-sensitized program in engaging men in health promotion. It improves mental health at the individual level and contributes to changing the culture of silence around men's mental health issues. This approach can potentially encourage movement to seek help for mental health concerns and ultimately contribute to reducing suicide rates. |

| Author | Purpose | Framework | Design | Sample/ Setting | Methods | Findings | Quality Appraisal/ Limitations | Conclusions/ Application |
|--|---------|-----------|--------|--------------------|---------|----------|--------------------------------------|-----------------------------|
| Abbreviations (<i>in alphabetical order</i>)ATSPPH-SF= Attitudes Toward Seeking Professional Psychological Help Scale- Short Form; BHS= Beck hopelessness scale; C-SSRS= Columbia suicide severity rating scale; GDS= Geriatric Depression Scale; GSIS= Geriatric suicide ideation scale; HANDS= Harvard department of Psychiatry/NDSD scale; LGCM= longitudinal growth curve model; MATES= mates in construction; MCMG= meaning-centered men's groups; MDRS= Male Depression Risk Scale; MIL= measures of life satisfaction scale; MT= man therapy; PA=physical activity; PHQ-9= Patient Health Questionnaire- 9; PWP= psychological well-being scale; RCT=randomized controlled trial; SEE= self-efficacy for exercise; SFL= sheds for life; SI= suicidal ideation; SRH=self-related health; SWEMWBS= Short Warwick Edinburgh Mental Wellbeing Scale; SWLRS= satisfaction with life in retirement scale; WEMWBS= Warwick Edinburgh Mental Well-Being Scale | | | | | | | | |

Figure 1
Flow Diagram of Systematic Review Process



** Studies excluded due to title and abstract not applicable to research topic

***Studies not retrieved due to being unable to obtain full text