Stopping the Gender Paradox: Male-Specific Interventions for Suicide

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ABSTRACT

Introduction: The "gender paradox" describes the phenomenon in which men are more likely to die by suicide, despite women being more likely to experience suicidal ideation and attempt suicide. Men experience unique social pressures associated with masculinity which affects their ability to seek and benefit from suicide interventions. Despite this, the Canadian public health strategy does not specifically account for the male experience when developing suicide interventions.

Objective: This literature review sought to determine the efficacy of male-specific interventions on male suicidality and compare the efficacy of these interventions to one another. It also aimed to identify what male-specific interventions are available in Canada and the feasibility of introducing or reinforcing these interventions nationally.

Methods: The literature review used PubMed and Semantic Scholar to find articles relating to male-tailored suicide interventions. A search using three national suicide prevention websites produced a list of male-specific interventions available in Canada.

Results: The literature search produced five articles, three of which discussed informational, internet-based interventions and two of which discussed community-based interventions. There were no studies which compared male-specific interventions to each other. Of the five male-specific interventions available in Canada, three were internet-based and two were community-based.

Conclusion: Male-specific interventions, regardless of modality, appealed to men and increased help-seeking behaviour. These interventions were generally accessible and cost-effective to the user. No conclusions can be drawn regarding which male-specific intervention is most effective in decreasing male suicide.

INTRODUCTION

The Gender Paradox

In Canada, an estimated 4,500 people will die by suicide annually (1). That is the equivalent of 12 people per day (1). The number of suicide deaths ranged from 3,512 to 4,581 between 2000 to 2022 (2). It is well established both in Canada, but also globally, that women are more likely to have suicidal ideation, but men are more likely to complete suicide (3, 4, 5). Women attempt suicide up to two times more often than men, yet men are three times more likely to die by suicide than women (6). The phenomenon of women experiencing more suicidal ideation and attempts, yet men being more likely to die by suicide is termed the "gender paradox" (7). In Canada, men (ages 35-49) die by suicide at a rate of 23.4 per 100,000 compared to the rate of 6.8 per 100,000 seen in their female counterparts (1). This rate is not exclusive to the 35-49 age group, similar ratios can be seen in all adult age groups past the age of 20 (1).

Social Factors Affecting Male Suicide

In Western societies, the social structures of hegemonic masculinity have long been understood to make men more vulnerable to suicide (3, 8). Hegemonic masculinity can be defined as the group of social norms which embody societal expectations of what it is to be a man (3). These norms include idealizing certain traits such as courage, independence, competitiveness, achievement, and control (3, 7). Other traits, such as vulnerability or emotional expression, are viewed as less masculine (3, 7). A deviation from these norms demonstrates a deviation from masculinity, which can leave some men feeling inadequate or weak (3). Compared to female identity, which centres around relationship and communication, male identity centres around competitiveness and isolation (7). Consequently, these masculine norms

have shown to limit help-seeking behaviours (5, 8). A cluster analysis of suicides in Toronto found that middle-aged men with suicide risk factors had little contact with psychiatry or the emergency department in the week leading up to their death (4, 9). Hegemonic masculinity also influences the suicide methods utilized; men are more likely to use violent methods such as hanging, firearms or jumping from a height (10). Women are more likely to use pharmacological drug overdose and exsanguination (10). It is believed that men use violent methods because they are considered to be more masculine and powerful; violent methods are a decisive way of taking control of an adverse situation (10).

These social factors continue to influence men even when they do seek help; a study conducted in Nova Scotia found that 75% of men who died by suicide had attempted contact with a health service at some point in the year preceding their death (9). This is due, in part, to existing interventions not accounting for the unique social pressures that men face and the subsequent preferences which arise from those social factors (5, 8). Men tend to prefer more discrete services that help them address their struggles without the service being overtly related to mental health (5, 8). Sport-based, social media, and other informal settings are more highly valued by men (5, 8, 11). Men also seem to derive a great deal of help and support from speaking to other men regarding their experiences with suicidality (5).

Current Intervention Strategy

Canada's public health approach to suicidality is generally gender neutral, with maternal health being a notable exception (9). The 2016 federal framework for suicide prevention does not identify men as being a vulnerable population group (12). The federal framework identified Canadian armed forces veterans, Indigenous populations, newcomers (including refugees), and

federally incarcerated individuals as being vulnerable populations to suicide (12). Even within the identified subgroups, the suicide risk of recent and long-term immigrant men was three times higher than their female counterparts (5). Similarly, the male Inuit population has a higher prevalence of suicide compared to Inuit women living in similar conditions (5). In the context of the unique social pressures experienced by men, a male-specific approach may be key to decreasing suicide in men, Canada's most vulnerable demographic to suicide (9, 6).

PURPOSE OF STUDY

Interventions which are more tailored to men may increase the likelihood of seeking out help and decrease male suicidality (9). The objectives of this paper will be to a) determine the efficacy of male-specific interventions, b) compare the efficacy of these male-specific interventions, c) determine which male-specific interventions exist in Canada, and d) discuss the feasibility of introducing or reinforcing these interventions nationally. This paper will not focus on a specific sub-group within the male demographic, but rather discusses men more generally.

METHODOLODY

Study Design

This literature review was a selective review of male-specific suicide interventions. The inclusion criteria for articles included in this paper were as follows: a) the intervention must specifically target men, b) the intervention must aim to decrease suicidality, c) the men involved must be 18 and older, d) the study must take place in a Western nation, and e) the included papers must be written between 2003 – 2023. For the purposes of this paper, suicide and suicidality were inclusive of suicidal ideation, planning, attempts, and suicide deaths. Since

suicidal behaviours are interconnected and cohesively contribute to male suicide; inclusion of all of these behaviours presented a more comprehensive investigation of male suicide (5). Decreasing suicidality was defined by such metrics as: willingness of men to engage with these interventions, decreasing suicidal behaviour (e.g. suicidal ideation, planning or attempts), improving mood, or promoting help-seeking behaviour; these were all factors which were negatively correlated with suicide completion (13, 14). For the purpose of this paper, Western nations included most countries of the European union, the U.K., Norway, Iceland, Switzerland, the U.S., Canada, Australia and New Zealand (15).

Search Strategy for Articles

The literature review used PubMed and Semantic Scholar to find suitable articles. PubMed was used as a search engine as it is one of the largest health sciences databases (16). Semantic Scholar was also used as its system is designed to identify connections from within papers (17). The search terms for PubMed were “Male” [Mesh] AND “Mental Health” [MESH] AND “Suicide” [MESH] AND “Patient Acceptance of Health Care/psychology” [MESH]. A second search done on PubMed utilized the terms “Men” [MESH] AND “Suicide” [MESH] OR “Suicide Prevention” [MESH] to maximize the efficacy of the literature search. The search on Semantic Scholar used the terms “suicide interventions programs for men.” Filters applied to refine this search include “has PDF”, “psychology” and “medicine” as fields of study, and date range 2003-2023.

Search Strategy for Male-Specific Interventions in Canada

Various national suicide prevention websites were used to identify the male-specific suicide interventions available in Canada. Male-specific suicide interventions would include any intervention which specifically, though not exclusively, aimed to decrease male suicidality. Decreasing male suicidality was defined by the same metrics as used in the literature search. To that end, the Centre for Suicide Prevention, the Mental Health Commission of Canada, and the Canadian Association for Suicide Prevention were used to identify male-specific interventions in Canada (6, 18, 19).

RESULTS

Search Results for Articles Included in the Literature Review

A search conducted on PubMed on January 20, 2024 produced a total of 62 results. As discussed above, two searches were conducted on PubMed. The first search produced 17 results and the second search produced 44 results. Likewise, the search on Semantic Scholar yielded a total of 114 articles. Together, both databases produced 176 papers to review. Screening these articles identified 10 duplicates which were removed, yielding 166 abstracts to evaluate. Screening the abstracts of the remaining papers found 37 articles which were relevant to the research topic. Of these 37 articles, 27 were from PubMed and 10 were from Semantic Scholar. An analysis of the full texts of these 37 papers identified five which met inclusion criteria and were included in the final literature review. Figure 1 summarized the process of identifying the five articles which described the effect of male-specific suicide interventions on male suicidality.

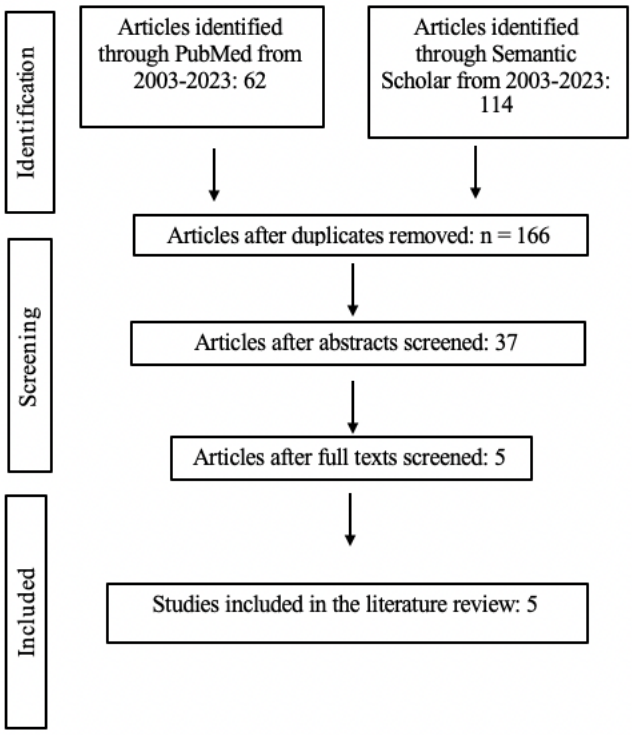

Figure 1: Diagram identifying the search results, screening, and the included articles for the literature search on male-specific suicide interventions.

Table 1 includes a summary of each of the five articles' objectives, methods, findings, and conclusions. Three studies explored internet-based male suicide interventions (11, 20, 21). One article described an intervention applied in a primary care clinic (22). The remaining article discussed an intervention using a local football club (23). Although one of the objectives of this literature review was to compare the effects of different male-specific suicide interventions to one another, this objective was not addressed by any of the articles produced by the literature search.

Table 1: Summary of the five articles used in the literature review, including the study, objectives, methods, findings, and conclusions.

Study	Objectives	Methods	Findings	Conclusions
Frey et al., 2022 (11)	Determine the effects of using the website, Man Therapy, on suicidal ideation and depression among middle-aged men.	- 554 men enrolled - 421 completed survey on suicidal ideation/depression - Control condition: Healthy Men Michigan (HMM) - Trial condition: HMM & Man Therapy (MT) - Repeated survey three months later	- 62% of men who used MT revisited the site during three-month period - MT users stated mental health and problem-solving skills improved, viewed professional help-seeking more positively.	- Men who used MT and HMM improved - Benefits from MT on mental health and help-seeking
Gilgoff et al., 2022 (20)	Determine the effects of a male-tailored suicide prevention website on professional and nonprofessional help-seeking.	- Surveys from 354 men - Control condition: HMM - Trial condition: HMM & MT - Measured professional help-seeking (eg. support groups, psychotherapy etc) and non-professional help-seeking (eg. using personal support network etc)	- MT users: 1.6 times more likely to use professional help but no significant correlation with non-professional help-seeking - Inverse relationship with romantic relationship and professional help-seeking	- Demonstrated that web-based suicide prevention can promote professional help-seeking
King et al., 2019 (21)	Determine the effectiveness in facilitating help-seeking and conversations about suicide and mental health via a website.	- Used website data from Google analytics and emails sent to the Man Up Team - Looked for indicators that the website encouraged help-seeking	- 43 140 new users, 11 829 returning users. - 802 downloads of health information - 307 clicks to linked organizations. - Majority positive feedback and request for more resources from	- Website provided opportunity for participants to seek help and learn more about male suicide

			emails sent to the team	
Jerant et al., 2020 (22)	Examine the effects of a tailored interactive computer program on encouraging middle-aged men to discuss suicide with primary care providers	- 48 men aged 35-74 with recent active suicidal thoughts recruited - Recruited from 42 primary care providers - 22 primary care providers were in the control condition - 20 providers were part of the Men and Providers Preventing Suicide (MAPS) intervention	- 65% of men in MAPS discussed with primary care providers (only 35% in control) - 37.5% without suicide preparatory behaviours discussed with provider (only 22% in control) - 92% of men with suicide preparatory behaviours discussed this with their providers.	- Tailored MAPS program encouraged middle-aged men to broach suicide discussions with primary care providers
Pringle et al., 2004 (23)	Determine the ability of a community mental health project to help adult men address issues around depression, self-esteem and suicide.	- Used football as metaphor for psychological concepts - Took place in Moss Rose Stadium (home of Macclesfield Town) - Qualitative reports from participants at the end of 6 sessions	- After 6 sessions, endorsed improved confidence, self-esteem, social support and new problem-solving skills - Participants wanted more sessions - Subset of members made "Supporters Club" after study concluded	- Community-based interventions and relevant metaphors may help improve mental well-being and form social connections

Internet-Based Male Suicide Interventions

All the internet-based male suicide interventions found in the literature search were information-based; they all shared information about various topics which aimed to decrease male suicidality (20). Three studies discussed how these internet-based male suicide interventions aimed to address harmful male gender norms and promote mental well-being (11, 20, 21).

Frey et al. conducted a randomized control trial to assess the effectiveness of an online, male suicide intervention called Man Therapy (11). Man Therapy aimed to a) demonstrate how gender affects mental health, b) reduce stigma, c) encourage help-seeking, and d) reduce male suicidality. The study enrolled 554 men. The control condition utilized the Healthy Men Michigan (HMM) campaign. Healthy Men Michigan was a print and online campaign which encouraged men to visit an online website and take an anonymous survey on depression and suicide. The online website was also an information-based site like Man Therapy. In the trial condition, men utilized both HMM and Man Therapy. The Continuum of Suicidality Risk Assessment (CSRA) and the Social-Ecological Suicide Prevention Model (SESPM) assessed the participants' symptoms of suicide and depression. Men in both conditions improved over time, endorsing decreased suicidal ideation and depression. Men using Man Therapy specifically reported fewer days of poor mental health, increased social support, and greater openness in eliciting help from loved ones and professionals (11).

Gilgoff et al. expanded on the work done by Frey et al. and sought to determine if Man Therapy increased both professional and non-professional help-seeking behaviour (20). They utilized the same data generated by Frey et al.'s study. Professional help-seeking encompassed seeking out statewide community mental health services, using the substance use and mental health services website locator tool, making an appointment with a professional, attending a support group, and seeing their primary care provider. Non-professional help-seeking was characterized as accessing peer-based support groups, utilizing online forums or chat rooms, sharing their struggles with their support network, and searching the internet for information from trusted sources. Those who did use Man Therapy were 1.6 times more likely to seek out professional help. Those in romantic relationships were half as likely to seek out professional

help. No statistically significant association was found between the use of Man Therapy and non-professional help-seeking (20).

King et al. designed a study which assessed the effectiveness of an online resource in facilitating help-seeking and encouraging conversations about suicide and mental illness (21). Man Up was an initiative wherein a three-part documentary was released to help normalize men's emotional experiences, challenge harmful masculinity, and provide positive role models to help reduce male suicidality. The documentary was associated with a website which expanded on the messages and resources discussed in the documentary. A total of 43,140 users accessed the website with 11,829 being returning users. The website produced 307 clicks to helping organizations and 802 downloads of health information. The program organizers received 304 emails, 66 of these shared personal stories, 127 shared general positive feedback, 26 asked for resources to help others, and four asked for help for themselves. However, use of the website waned as the documentary progressed, with 12,000 users visiting after the first episode, but only 6,000 for subsequent episodes (21).

Community-Based Male Suicide Interventions

Jerant et al. developed a computer program designed to encourage middle-aged men to discuss suicide with their primary care providers (22). The researchers developed the Men and Providers Preventing Suicide (MAPS) computer program. It was designed to provide tailored responses on how to discuss suicide with a primary care provider. Forty-two primary care providers participated in the study, with 22 being assigned to the control condition and 20 to the trial condition. The researchers then called 4,000 men to determine eligibility for the study. They recruited 48 men aged 35-74 with thoughts of active suicidality within the last four weeks. The

27 participants in the control condition used a program which discussed risk factors, answered questions about perceptions about care-seeking, and provided encouragement to speak with their primary care provider. The remaining 21 men used MAPS prior to their visit with their provider. Sixty-five percent of men in MAPS did discuss suicide with their primary care providers compared to the 35% of men in the control condition. Among men who endorsed suicide preparatory behaviours and used MAPS, 92% discussed these behaviours with the clinician. For men without preparatory behaviours, 37.5% discussed suicide with their providers compared to the 22% in the control condition (22).

Pringle et al. used the football club, Macclesfield Town, to provide psychiatric support for young, adult men in ways which would resonate with them (23). The researchers utilized a football location and football metaphors to establish a psychiatric nursing service in the community. The club was open to all men. Pringle et al. recruited participants from multiple sources including clinical settings, pubs, workplaces, family, and friends. The psychiatric nurse leading the six sessions was called "the manager" and the sessions, or rather "games," aimed to explore how masculinity and personal coping strategies affected men and their risk of suicide. At the end of the six sessions or "season," participants felt that they had improved their confidence and self-esteem, in addition to skill development by means of approaching problems in novel ways. Most participants stated the season was too short and they would have liked a second season. Subsequently, a group of participants independently developed the "Supporters Club", wherein a group of participants who had successfully finished the season would come together and support each other (23).

Search Results for Male-specific Suicide Interventions in Canada

A search conducted on December 20, 2023 using the Centre for Suicide Prevention, the Mental Health Commission of Canada, and the Canadian Association for Suicide Prevention identified male-specific interventions available in Canada (6, 18, 19). The search for male-specific suicide interventions in Canada using both the Centre for Suicide Prevention and the Mental Health Commission of Canada produced identical results (6, 18). Table 2 summarizes these results. The Canadian Association for Suicide Prevention did not provide any male-specific intervention in their resource directory (19). In total, the search identified five male-specific interventions available in Canada.

Table 2: Summary of the male-specific suicide interventions in Canada, including the intervention, the intervention style, and the resources they offer.

Intervention	Intervention Style	Intervention Objective	Resources Offered
Buddy Up (24)	Informational and internet-based	- Male suicide prevention campaign - Encourages connections with others - Helps teach how to navigate discussions about male suicidality	- Articles on having conversations about suicidality - Activities promoting connection with others - List of recommended readings - Campaigns to raise awareness about male suicidality
Man Therapy (25)	Informational and internet-based	- Online site which uses humour to destigmatize mental illness - Provides practical advice to improve mental well-being	- Instructions for healthy coping mechanisms (e.g. exercising, journal writing etc) - Resources to help reduce male suicidality

HeadsUpGuys (26)	Informational and internet-based	- Online resource providing information to improve mental health and decrease male suicidality	- Free self-guided courses on stress management and mindfulness - Recovery stories from men with past suicidality and depression
DUDES Clubs (27)	Activity and community-based	- Promote men's health and wellness using Indigenous traditional teachings and community activities	- Provides a space for men to gather and discuss issues (eg. mental illness and suicide).
Men's Sheds (28)	Activity and community-based	- Improve participants' physical and mental well-being through activities (e.g. woodworking, cooking, music etc).	- Provides a space for men to work on projects and form connections with others who have similar interests

Of the five interventions identified, three were informational websites and two were activity-based. The informational sites included: Buddy Up, Man Therapy, and HeadsUpGuys; all of which aimed to raise awareness about male suicide and provided resources for further support (24, 25, 26). Buddy Up is a predominantly Canadian resource which demonstrated various approaches, including: discussions on suicidality, launching campaigns to raise awareness on male suicide, providing a list of challenges to promote connection with others, and offering a list of recommended readings (24). Man Therapy is an online source which gave instructions for coping mechanisms (e.g. journal writing, seeking out new experiences, exercising etc.) and listed resources for individuals, loved ones and businesses who want to help decrease male suicidality (25). The resources discussed on Man Therapy were largely American as this website is based in the U.S. (25). HeadsUpGuys offered advice and online articles which provided men with tools to help decrease depression and offered recovery stories from men who have struggled with suicide and depression (26). These online articles offered information about a variety of topics, such as addressing misconceptions about depression and suicide and self-

guided courses for stress management and mindfulness at no cost (26). HeadsUpGuys also included an international therapist directory (26).

DUDES Clubs and Men's Sheds, were the two community-based, in-person interventions identified (27, 28). DUDES Clubs aimed to model and promote Indigenous men's wellness (27). DUDES clubs connected men to other men in the community where they could discuss multiple issues, particularly mental illness and suicide (27). Despite the focus on Indigenous culture and teaching, DUDES clubs were not exclusive to Indigenous members (27). Men's sheds sought to improve physical and mental health through activities and gaining new skills (e.g. carpentry, metalworking, gardening, and bike repair) (28). Likewise, Men's Sheds gave men the opportunity to work on projects and connect with other men over shared interests (28).

DISCUSSION

Efficacy of Male-Specific Interventions

For the purposes of this paper, efficacy of male-specific interventions was defined as any intervention which led to outcomes that may decrease male suicide risk (13, 14). Of the articles reviewed, one of the central themes identified was the positive regard men expressed towards these interventions, even within the different modalities. Sixty-two percent of men using Man Therapy used the site more than once in a three-month period (11). Moreover, 27% of the individuals who used Man Up were returning users (21). The use of psychiatric support in the form of football metaphors was effective in that men both wanted more "seasons" and proceeded to create a similar club independently upon the study's completion (23). Given that men have historically demonstrated a lower likelihood to engage with therapies or have shown to struggle

in connecting with existing therapies, these interventions are significant in their ability to engage men (9).

Another common theme in male-specific interventions was an increase in help-seeking behaviour. Men who utilized Man Therapy reported more positive attitudes towards professional help and were 1.6 times more likely to seek professional help compared to men who did not (20). Additionally, 65% of men who used MAPS discussed suicidality with their primary care providers compared to the 35% of men who did not (22). Among men who were engaging in suicide preparatory behaviours, 92% of men who used MAPS did discuss these behaviours with their clinician (22). The Google analytics from the Man Up website indicated that participants made 802 downloads of health information, 271 clicks to other helping organizations, and sent four emails to ask for help managing their suicidality directly (21). The men participating in Macclesfield Town reported feeling that they could depend on their teammates for help and support for their struggles (23). Despite the variety of modalities used for these studies, the research is supportive of the notion that men do experience a decrease in suicidality with male-specific interventions.

Although these studies were encouraging, they were not without limitations. All studies included in this literature review either explicitly exclude participants with severe mental illness, include participants with relatively lower suicidality severity, or do not adequately account for severe mental illness within their study. Pringle et al. excluded all individuals with psychosis or multiple psychiatric diagnoses from participating in Macclesfield Town (23). Likewise, men who reported or were perceived to have unstable mental health status were also not included in the MAPS intervention (22). The men recruited to participate in Man Therapy had generally lower values of suicide severity. All men in the study were initially screened using the Columbia

suicide severity rating scale (C-SSRS) (11). The scores on this scale ranged from zero to five with higher scores representing greater risk (11). The mean C-SSRS scores for the control and trial conditions were 1.48 and 1.55 respectively (11). As Gilgoff et al. utilized the same dataset as Frey et al., their study had the same limitations (20). Although anyone could access the Man Up website, the researchers could not differentiate the effects of the intervention on varying intensities of mental illness since this data was not collected during the study (21). Therefore, it was unclear how effective these interventions would be for men experiencing more severe suicidality and psychiatric symptoms. This was a significant limitation given that mental illness itself is a risk factor for suicide (13).

Another limitation observed in these articles was lack of long-term follow-up. Although Man Therapy did seem helpful in reducing suicidal ideation and depression, these results were based on three-month follow-up (11). When evaluating the effectiveness of the website, Man Up, the researchers collected data from August 8, 2016 to November 14, 2016 (21). It was unclear if the interest in Man Up and the subsequent benefits would have persisted beyond November. However, given that there were almost no users who accessed the website prior to the documentary's release in October, these benefits may only be seen when there was a strong advertising campaign presented concurrently (21). The two remaining studies have no follow-up data at all, not even on a short-term basis (22, 23). Given the lack of long-term follow-up, it was possible that these encouraging findings were only present for a limited period of time.

Comparing Male-Specific Interventions

Despite a thorough search of male-specific interventions, none of the studies encountered had compared male-specific interventions to one another or to existing social therapies in a

controlled fashion. Therefore, it was difficult to conclude which male-specific intervention would have the greatest ability to reduce male suicidality. This was an especially salient point given that the interventions discussed vary greatly both in approach and the resources required to provide them (11, 20-23). Despite the promising findings found in the articles discussed (11, 20-23), it remained unclear how effective these therapies were compared to existing social therapies. Although men seemed to respond well to these interventions (11, 21, 23), there might not have been a significant difference between the two styles of intervention. Further research in comparing these various interventions would be beneficial in understanding which interventions were most effective for men. More resources could then be directed to the interventions which were shown to best decrease male suicidality.

Male-Specific Interventions in Canada

Although there were no articles which discussed the efficacy of male-specific interventions found in Canada, with the notable exception of Man Therapy, the interventions were analogous to those discussed in the literature review. Information-based internet interventions such as Man Therapy, HeadsUpGuys, and Buddy Up all sought to address maladaptive gender norms and provided further resources for support (25, 26, 24). Similarly, Man Therapy and Man Up were specifically designed for men to meet the same core goals (11, 21, 24-26). All of these sites were designed to engage men in various ways such as with humour or personal accounts from previously suicidal men (11, 21, 24-26). Similarly, the Canadian community-based interventions utilized interests held by men and forming male social networks to lower the risk of suicide. Just as Macclesfield Town used football to engage men in better understanding one's self, DUDES clubs used community activities and traditional

practices to engage men in discussion of their psychological well-being (23, 27). In both cases, the interventions utilized trained professionals to better discuss these issues with participants (23, 27). Men's Sheds functioned similarly, but focused on emphasizing building a community among men so that they could support each other and form connections of trust (28). The importance of connection cannot be understated as social networks were protective against suicide (14). Therefore, both the internet-based and the community-based Canadian interventions had the potential to reduce male suicidality.

Feasibility of Implementing Interventions

The feasibility of each male-specific intervention varied depending on the modality used. For example, the internet-based modalities were useful in that they were easily accessible, free to use, and were available anytime. Since 93.5% of Canadians had access to high speed internet, 98% of Canadians are expected to have high-speed internet by 2026, and 84% of Canadians had a computer in the home, online resources could be an effective intervention method (29, 30).

Community-based interventions had unique resource requirements compared to their internet-based counterparts. They required physical spaces so that individuals could meet to engage with their services. Funding was also required to maintain the activities that were held. In the case of DUDES clubs, funding was set aside to bring speakers, such as health professionals and elders, to lead sessions focused on different issues (27). DUDES clubs also accounted for food and outdoor excursions (27). Similarly, allocated funds would be required for supplies necessary to complete projects, such as woodworking or metalworking, as seen in Men's Sheds (28). However, the cost of these interventions was variable. For example, most DUDES clubs could comfortably function on a budget of less than $5,000 per year (27).

A notable challenge with all of the discussed interventions was recruiting men to engage with them. Online and in-person campaigns were required to recruit men for the Man Therapy studies (11, 20). The researchers involved in the MAPS study called over 4,000 men so that they could identify those who would benefit from this intervention, only 48 men would go on to participate (22). The Man Up campaign used radio advertisement and a documentary to pique interest for the website (21). Interest was evidently waning as the novelty ceased as only half the participants continued to visit the website by the time the second and third episodes of the documentary aired (21). Activity-based interventions were no exception; the Macclesfield Town intervention required advertising in several locations (23). Therefore, even when the interventions could be implemented, a substantial amount of effort would be required to gain and maintain interest.

LIMITATIONS AND FUTURE DIRECTIONS

This literature review was associated with some limitations. A fundamental limitation identified in all of the aforementioned articles was the failure to identify any cooccurring treatments that participants were receiving during the study. It was unclear if the men involved were receiving medication, psychotherapy, or other resources which may have also been protective against suicide. Therefore, conclusions regarding the efficacy of these interventions may be attributed to confounding variables rather than male-specific treatments alone. Additionally, there were relatively few papers which discussed male-specific suicide interventions; two of the five articles discussed used the same data set (20). With the exception of Man Therapy, the results found in the literature may not by applicable to the existing Canadian male-specific suicide interventions. Although the interventions may be analogous or

share similar principles, they were still considered distinct interventions. It was also possible that more analogous or similar Canadian male-specific interventions were omitted from this paper, as interventions were identified at a national level rather than by health region due to the time constraints of this project. Studies of male-specific interventions in Canada would be crucial in better understanding and supporting these therapies.

CONCLUSION

Men experiencing suicidality experience unique social pressures which render them more vulnerable to suicide. This literature review developed a better understanding of the efficacy of different types of male-specific suicide interventions, whether they be more information-based or more community-based. Overall, male-specific interventions, regardless of modality, appeared to appeal to men and helped increase help-seeking behaviour. Although it was unclear if other concurrent therapies may have mediated the effects, these interventions were at least useful adjuncts to existing methods. These interventions were also useful in that they could be a conduit to other forms of help. Future research comparing the efficacy of male-specific interventions to each other and to other social interventions could improve current understanding of the most effective interventions to reduce male suicidality. This research would also better direct resources to the therapies which were most effective. Further research in long-term follow-up and inclusion of individuals with more severe mental illness would also better characterize the limitations of these interventions. Many of these therapies were available for relatively little cost and were fairly accessible. The reach of these interventions would be better maximized by wide-reaching campaigns which could target a large male audience. These existing interventions were

potential precursors of therapies which centre the male experience and produced a significant decrease in male suicidality.

REFERENCES

1. Public Health Agency of Canada. Suicide in Canada. Statistics Canada. Updated Jan 10 2024. Accessed Jan 9, 2023. https://www.canada.ca/en/public-health/services/suicide-prevention/suicide-canada.html
2. *Leading causes of death, total population, by age group.* Statistics Canada; 2024. Accessed May 13, 2024. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039401
3. Schlichthrost, M. *Engaging men in conversations about masculinity and suicide – an evaluation of the man up social media campaign*. Dissertation. University of Melbourne; 2020. Accessed October 5, 2023. https://rest.neptune-prod.its.unimelb.edu.au/server/api/core/bitstreams/f4342ce1-dd75-599a-8544-8fd8ffa13bd9/content
4. Bank BJ, Hansford SL. Gender and friendship: why are men's best same-sex friendships less intimate and supportive? *Pers Relatsh*. 2000;7: 63-78. doi:10.1111/j.1475-6811.2000.tb00004.x
5. Struszyck, S, Galdas PM, Tiffin PA. Men and suicide prevention: a scoping review. *Journal of Mental Health*. 2017; 28 (1): 80-88. doi: 10.1080/09638237.2017.1370638
6. Centre for Suicide Prevention. Men and suicide. Centre for Suicide Prevention. March 30, 2022. Accessed December 20, 2023. https://www.suicideinfo.ca/local_resource/men-and-suicide-fact-sheet/
7. Moller-Leimkuhler AM. The gender gap in suicide and premature death or: why are men so vulnerable? *Eur Arch Psychiatry Clin Neurosci*. 2003; 253: 1-8. doi:10.1007/s00406-003-0397-6
8. Grace B, Richardson N, Carroll P. "...If you're not part of the institution you fall by the wayside": service providers' perspectives on moving young men from disconnection and isolation to connection and belonging. *Am J Mens Health*. 2016;12(2):252-264. doi: 10.1177/1557988316634088
9. Oliffe JL, Kelly MT, Montaner GG, Links PS, Kealy D, Ogrodniczuk JS. Segmenting or summing the parts? A scoping review of male suicide research in Canada. *Can J Psychiatry*. 2021;66(5): 433-445.doi: 10.1177/07067437211000631
10. Tsirigotis K, Gruszczynzki W, Tisirigotis M. Gender differentiation in methods of suicide attempts. *Med Sci Monit*. 2011;17(8): 65-70. doi: 10.12659/MSM.881887
11. Frey JJ, Osteen PJ, Sharpe TL, Mosby AO, Joiner T, Ahmedani B et al. Effectiveness of man therapy to reduce suicidal ideation and depression among working-age men: a randomized trial. *Suicide Life Threat Behav*. 2022;53(1): 137-153. https://doi.org/10.1111/sltb.12932
12. Government of Canada. *The federal framework for suicide prevention: working together to prevent suicide in Canada*. Public Health Agency of Canada; 2016. Accessed October

5, 2023. https://www.canada.ca/content/dam/canada/public-health/migration/publications/healthy-living-vie-saine/framework-suicide-cadre-suicide/alt/framework-suicide-cadre-suicide-eng.pdf
13. Oliffe JL, Ferlatte O, Ogrodniczuk JS, Seidler ZE, Kealy D, Rice SM. How to save a life: vital clues from men who have attempted suicide. *Qual Health Res*. 2021;31(3):415-429. https://doi-org.uml.idm.oclc.org/10.1177/1049732320975747
14. Ogrodniczuk JS, Oliffe JL, Kealy D, Seidler ZE, Black N, Rice SM. Conditional process modeling of the relationship among self-reliance, loneliness, and depressive symptoms, and the moderating effect of feeling understood. *J Nerv Ment Dis*. 2022;210(1): 32-36. doi: 10.1097/NMD.0000000000001407
15. World Population Review. Western Countries 2024. World Population Review. 2024. Accessed April 7, 2024. https://worldpopulationreview.com/country-rankings/western-countries
16. National Library of Medicine. PubMed Overview. PubMed. August 15, 2023. Accessed April 7, 2024. https://pubmed.ncbi.nlm.nih.gov/about/#:~:text=PubMed%20is%20a%20free%20resource,and%20abstracts%20of%20biomedical%20literature.
17. Allen Institute for AI. Helping Scholars Discover New Insights. Semantic Scholar. 2024. Accessed April 7, 2024. https://www.semanticscholar.org/me/library/folder/8895008
18. Mental Health Commission of Canada. What we do. Mental health commission of Canada. 2023. Accessed December 20, 2023. https://mentalhealthcommission.ca/what-we-do/
19. Canadian Association for Suicide Prevention. Resources. Canadian Association for Suicide Prevention. 2023. Accessed December 20, 2023. https://suicideprevention.ca/resources/#support-services
20. Gilgoff JN, Wagner F, Frey JJ, Osteen PJ. Help-seeking and Man Therapy: the impact of an online suicide intervention. *American Association of Suicidology*. 2022;53:154-162. DOI: 10.1111/sltb.12929
21. King K, Schlichthorst M, Turnure J, Phelps A, Spittal MJ, Pirkis J. Evaluating the effectiveness of a website about masculinity and suicide to prompt help-seeking. *Health Promot J Austr*. 2019;30(3): 381-389. doi: 10.1002/hpja.237. Epub 2019 Mar 10.
22. Jerant A, Duberstein P, Kravitz RL, Stone DM, Cipri C, Franks P. Tailored activation of middle-aged men to promote discussion of recent active suicide thoughts: a randomized controlled trial. *J. Gen Intern Med*. 2020;35: 2050-2058. https://doi.org/10.1007/s11606-020-05769-3
23. Pringle A, Sayers P. It's a goal!: basing a community psychiatric nursing service in a local football stadium. *JRSH*. 2004;124(5): 234-238. https://journals-sagepub-com.uml.idm.oclc.org/doi/epdf/10.1177/146642400412400522
24. Centre for Suicide Prevention. Buddy up. Buddy up. 2024. Accessed April 7, 2024. https://www.buddyup.ca/

25. Grit Digital health. Man Therapy: it’s ok to cry, even when it’s not about sports. Man therapy. 2024. Accessed April 7, 2024. https://mantherapy.org/
26. HeadsUpGuys. HeadsUpGuys. HeadsUpGuys. 2024. Accessed April 7, 2024. https://headsupguys.org/
27. Dudes Club Society. Dudes clubs. Dudes clubs. 2024. Accessed April 7, 2024. https://dudesclub.ca/
28. Kevin Ford. Men’s Sheds Canada. Men’s sheds. 2022. Accessed April 7, 2024. https://www.mensshedscanada.ca/
29. Government of Canada. High-speed internet for all Canadians. Innovation, science and economic development Canada. March, 15, 2024. Accessed April 7, 2024. https://ised-isde.canada.ca/site/high-speed-internet-canada/en
30. Fisher SR, Sim SE. Computers and Canadian society. The Canadian encyclopedia. May 30, 2023. Accessed April 7, 2024. https://www.thecanadianencyclopedia.ca/en/article/computers-and-society#:~:text=Eighty%2Dfour%20per%20cent%20of,a%20laptop%20or%20tablet%20computer.