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Review article

# Adolescent and Young Adult Male Mental Health: Transforming System Failures Into Proactive Models of Engagement

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A B S T R A C T

Adolescent and young adult men do poorly on indicators of mental health evidenced by elevated rates of suicide, conduct disorder, substance use, and interpersonal violence relative to their female peers. Data on global health burden clearly demonstrate that young men have a markedly distinct health risk profile from young women, underscoring different prevention and intervention needs. Evidence indicates that boys disconnect from health-care services during adolescence, marking the beginning of a progression of health-care disengagement and associated barriers to care, including presenting to services differently, experiencing an inadequate or poorly attuned clinical response, and needing to overcome pervasive societal attitudes and self-stigma to access available services. This review synthesizes key themes related to mental ill health in adolescent boys and in young adult men. Key social determinants are discussed, including mental health literacy, self-stigma and shame, masculinity, nosology and diagnosis, and service acceptability. A call is made for focused development of policy, theory, and evaluation of targeted interventions for this population, including gender-synchronized service model reform and training of staff, including the e-health domain. Such progress is expected to yield significant social and economic benefits, including reduction to mental ill health and interpersonal violence displayed by adolescent boys and young adult men.



**IMPLICATIONS AND CONTRIBUTION**

Urgent investment is needed to address the poor indicators of mental health outcomes for adolescent boys and young adult men. Service delivery systems, based on youth mental health models, are identified. Future directions, including policy and theory development, attention to nosology, and broader cultural issues, are emphasized.

Adolescent boys and young adult men are an underserved population relative to their mental health needs [1]. For those in the 16–24 age range, population estimates suggest that only 13.2% of young men experiencing a recent mental health problem will access mental health services [2]. Current Australian data indicate that suicide is, by far, the leading cause of death for young men, with male suicide accounting for 24.4% of *all* deaths of young people aged 15–24 years [3]. Similar statistics are noted in other Western nations [4–6], where young men are among the least likely to seek mental health help [7]. Given that the development of mental ill health in adolescence and emerging adulthood

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**Table 1**
Top causes of global death, YLDs, and DALYs in young people 15–19 years and 20–24 years

| | 2013 Top 5 causes of death—males (females) | | 2013 Top 5 causes of YLDs—males (females) | | 2013 Top 5 causes of DALYs—males (females) | |
|---|---|---|---|---|---|---|
| # | 15–19 Years | 20–24 Years | 15–19 Years | 20–24 Years | 15–19 Years | 20–24 Years |
| 1. | Road injuries (self-harm) | Road injuries (self-harm) | Skin diseases (depressive disorders) | Back, neck pain (depressive disorders) | Road injuries (depressive disorders) | Road injuries (depressive disorders) |
| 2. | Interpersonal violence (road injuries) | Self-harm (road Injuries) | Back, neck pain (skin diseases) | Depressive disorders (back, neck pain) | Skin diseases (skin diseases) | Skin diseases (back, neck pain) |
| 3. | Self-harm (HIV/AIDS) | Interpersonal violence (tuberculosis) | Depressive disorders (back, neck pain) | Skin diseases (skin diseases) | Back, neck pain (back, neck pain) | Back, neck pain (skin diseases) |
| 4. | Drowning (tuberculosis) | Tuberculosis (HIV/AIDS) | Conduct disorder (iron deficiency) | Other disorder, substances (migraine) | Interpersonal violence (iron deficiency) | Interpersonal violence (iron deficiency) |
| 5. | HIV/AIDS (fire, heat, hot substances) | Drowning (fire, heat, hot substances) | Anxiety disorders (anxiety disorders) | Drug use disorders (anxiety disorders) | Depressive disorders (self-harm) | Depressive disorders (self-harm) |

Source: Mokdad et al. (2016). Global burden of diseases, injuries, and risk factors for young people's health during 1990–2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, *387*(10036), 2383–2401.
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DALY = disability adjust life year; YLD = year lost due to disability.

impacts on the most economically productive years of life [8], there is a convincing socioeconomic rationale for improving mental health service access for young men. Although broad health and mental health outcomes among boys and young men are substantially worse than those for girls and young women, this gender-based disparity has received relatively little global attention [9]. The unmet mental health needs of adolescent boys and young adult men are especially concerning for specific populations, including sexually diverse young men, those from culturally diverse backgrounds, and young men engaged with the justice system [10–12]. To better address mental ill health in adolescent boys and young adult men, the right cultures of mental health care must be developed and provided [13]. These models should be developmentally appropriate and youth- and male-friendly [14–16], and should focus on increasing young men's service engagement. Such progress will be facilitated by focused development of both policy and theory related to young men's mental health.

This review synthesizes key themes related to mental ill health in adolescent boys and young adult men. We contend that young men often present to services differently or not at all, that our systems tend to provide an inadequate response, and that pervasive societal attitudes stymie help seeking. Recommendations for prevention, intervention, and research are then provided.

## Review of the Relevant Literature

### *Mental ill health impacts and inequalities for young men*

Globally, mental ill health is the single most critical issue facing young people [13], and early detection and intervention are key to influencing trajectory and preventing life course recurrence [17,18]. The first onset of mental ill health typically occurs in the years of adolescence and emerging adulthood [19]. For a significant proportion of adolescent boys and young adult men, symptom onset marks the beginning of a life course persistent pattern of mental ill health [20], impacting across the life span in broad domains, including social adjustment, functioning, and economic productivity [21]. With rising rates of adolescent and young adult mental ill health forecast to translate to unprecedented demand for services, the Lancet's Commission on Adolescent Health has called for major investment into prevention and intervention for this population [22].

Analysis of the global burden of disease statistics (see Table 1) shows that, next to road injuries, intentional self-harm (i.e., suicide) and interpersonal violence account for the greatest proportion of deaths in men aged 15–25 years [23]. Arguably, a high proportion of young men's deaths attributable to road injuries intersects with mental health domains, including impeded impulse control, risk taking, or substance misuse [24–26], factors often implicated in the expression of psychological distress in young men [27–29]. Global statistics also show that, for adolescent boys aged 15–19 years, depressive and conduct disorders are the third and fourth top causes for years lived with disability, whereas for men aged 20–24 years, depressive disorders, other mental disorders, and drug use disorders are within the top five causes of years lived with disability [23].

Although the global burden of disease data clearly demonstrates that young men have a markedly distinct health risk profile relative to their female peers, there are also substantial gender-specific mental health impacts. For example, conduct disorder, for which the burden of disease is substantially greater for adolescent boys and young adult men relative to women [30], is related to future offending behavior and victimization of others, in addition to general mental and physical health status and poorer academic achievement [20,31]. Further, one in every three deaths among adolescent boys within low- to middle-income countries in the Americas is attributable to interpersonal violence [32], and although it is not possible to directly attribute mental ill health as the causative factor in all of these deaths, a confluence of related factors, including emotion regulation and impulsivity, prescriptive gendered attitudes, the presence of peers with antisocial values, and easy access to psychoactive substances, are implicated [33]. Indeed, problematic substance use, including patterns of abuse and dependence, is comparatively high for adolescent boys and young adult men relative to their female peers [34], and is associated with substantial social and economic impacts [35]. Stark gender differences also exist for longer-term outcomes associated with psychotic disorders, which tend to emerge earlier among men in comparison with women. Relative to women, men with psychosis are more likely to have comorbid substance use disorders, are more likely to experience homelessness, and are less likely to be engaged in evidence-based psychological therapy [36].

*Social determinants of adolescent and young adult male mental health*

Although young men in many societies tend to benefit from opportunity, privilege, and power that are not equally offered to young women [37], these advantages do not render better mental health outcomes [9]. As some traditionally male-dominated industries start to fade among Western nations, challenges in the employment market (i.e., unemployment or precarious employment) will likely impact the mental health of young men [38,39]. Adolescence marks the onset of gender differences in mortality rates, whereby men commence on a trajectory of elevated risk of premature death [40]. The gender gap in premature death continues throughout the life span. Illustrating this, in every county in the world, women live longer than men. At present, data show overall life expectancies of 73.8 and 69.1 years, respectively, for women and men [14]. Projections suggest that, by 2030, the gender mortality gap will have widened, with women outliving men on average by 7.2 years [41]. Although there are complex contributing factors for this gender difference in mortality including lower immunocompetence, higher job hazards, and greater propensity for risk-taking behaviors for men especially around puberty [42,43], a significant proportion of this mortality is both preventable and related to mental ill health [44,45].

Primary mortality risk factors for men are seeded in the formative years of development, spanning adolescence and young adulthood. Key social determinants must be clearly identified in order for the development and implementation of suitable prevention and intervention [46]. Recent epidemiological data suggest that little progress has been made in addressing the premature death of young men [47], let alone addressing modifiable risk factors. Key social determinants of young men's mental health and potential intervention and prevention targets are addressed below. Each of these determinants discussed further can act as both a barrier to access and as a barrier to the effectiveness of interventions.

*Health service disengagement.* There is strong evidence that men commence the process of disconnecting from health-care services during adolescence [48], marking the beginning of a progression of health-care disengagement [49]. For example, recent epidemiological data show that the majority (61%) of Australian men do not access regular health check-up visits, signaling a major lost opportunity for preventative mental health discussions [50]. While gender-comparable rates of health service utilization appear to exist for younger male adolescents (i.e., 11–15 years) [49], rates significantly differ for older (i.e., ≥16 years) male and female adolescents [49,51,52]. Furthermore, young men are less likely to have been known by health services before suicide than are young women [6], suggesting a critical missed opportunity for early identification and intervention. Some recent studies suggest that young men may have a preference for accessing help online [53,54], and more generally through technology-based mediums [55]. Indeed, as the next generation of online interventions starts to embed dynamic professional moderated social media-based support [56,57], young men's engagement rates may improve.

*Mental health literacy.* Relative to their female peers, poorer rates of mental health symptom recognition and mental health literacy have been noted in populations of young men [58,59]. Mental health literacy, defined in relation to knowledge about mental disorders to aid recognition, management, and prevention, is seen as a critical step in empowering individuals in managing their well-being and accessing appropriate help when needed [60]. In school-age adolescents, men are less likely than women to correctly label depression-based vignettes, are less likely to endorse concern over a depressed peer, and have less confidence in their ability to identify individual symptoms of depression [61]. Such sex differences have been widely replicated [62–64]. A further complicating factor regarding young men's mental health literacy is emotional competence; men are more likely than women to experience higher rates of alexithymia [65], defined as the inability to recognize and describe emotional states. Even for those adolescent boys and young adult men who are able successfully to navigate the care pathway process, many report difficulties in emotion-based disclosures typically demanded by standard talk-based psychotherapies [66]. These are factors that actively delay early help seeking for young men. New targeted approaches to educate adolescent boys and young adult men, building awareness within the context of peer support, have been shown to help frame discussions around young men's mental health [67].

*Stigma.* A lack of direct and open communication about mental health within society results in strong perceptions of social stigma, and that experiencing mental ill health is socially undesirable in general, but especially for adolescent boys and young adult men [68,69]. Men report higher rates of self-stigma than do women [70], and in relation to significant exposure risk factors for mental ill health, for example, sexual abuse, young men tend to experience significant (and for many a lifelong) difficulty with related disclosure and access to suitable help [71]. Interwoven within stigma is shame, a potent factor in impeding help seeking that is significantly associated with avoiding treatment [70,72]. Qualitative studies with adolescent boys and young adult men commonly identify shame, or the need to save face, as a salient barrier for the help-seeking process [7,66]. Further, help seeking can be seen as a threat to masculine identity in young men. For example, when young men are faced with a perceived threat to their masculine identity, experimental evidence suggests that they are more likely to experience shame than are young women who are exposed to a perceived threat to womanhood [73]. In this way, for young men (and likely men in general), manhood can be viewed as a state that requires ongoing social proof; conceptualized by Vandello and Bosson as something that is essentially hard won but easily lost [74]. Notions of self-stigma and shame for young men cannot be separated from cultural expectations related to masculinity.

*Cultural expectations and masculinity.* Within Western countries, young men tend to rely on long-standing masculine ideals as their ontological reference point [75]. Although expressions of masculinity are diverse [76], with some young men constructing a pluralistic masculine identity [77], most boys in Western countries are socialized to embody hegemonic masculine ideals that actively discourage vulnerability, weakness, or emotional expression [78]. Typically modeled within the family of origin and community context, help-seeking behaviors for men have historically been minimized, avoided, or actively shunned, impacting boys from a young age. Although national awareness campaigns have specifically sought to counter this message for adult men (i.e., the *Real Men, Real Depression* campaign [79])

substantial work remains in implementing developmentally targeted campaigns for adolescent boys and young adult men.

Young men are often highly conscious of the amount of masculine capital they have available. Masculine capital is akin to insurance or credit that can be used to allow or compensate for nonmasculine behavior, serving to buffer young men against threats to their masculine identity should they engage with actions or traits considered nonmasculine [80]. The more closely adolescent boys and young men conform to traditional masculine norms, the poorer their attitudes are to help seeking, and the greater their physical and mental health risk status [81]. The service response to this population must evolve—we cannot expect adolescent boys and young adult men to fundamentally and suddenly change their help-seeking attitudes and behaviors without adjusting the services to which we ask them to present to. Some evidence, however, suggests that the relationship between masculine norms and help seeking may be weaker for sexually diverse (i.e., same-sex attracted) men [82]. In their global analysis of 38 systematic reviews into youth mental health interventions with young people, Das et al. [83] called for greater focus on differentiating the impact of mental health interventions by gender to suitably determine whether strategies and interventions are beneficial for specific subgroups (i.e., young men). Efforts should also be made to examine engagement rates according to the cultures of care provided (and how proactive these cultures are). Das et al. argue that such disaggregation would, in turn, assist with targeting strategies for subpopulations to optimize intervention effectiveness.

*Nosology and diagnostic issues.* In line with dominant cultural expectations related to masculinity, there is evidence that young men may show an alternative symptom pattern for some mental disorders (i.e., depression) [84]. For example, commonly accepted expressions of distress (i.e., tearfulness, sadness, and worthlessness) contravene traditional notions of masculinity that emphasize stoicism and invulnerability, and a subsyndrome of distress or depression may exist for men [85]. This is conceptualized via masculine variants including a range of externalizing behaviors or symptoms, including anger and aggression, risk taking, or substance abuse [86]. Recent meta-analytic evidence appears to support this claim [28], and it well known that, during adolescence and emerging adulthood, higher levels of sensation seeking and disinhibition place men at risk of externalizing psychopathology [87]. Population studies show that, although adolescent boys and young adult men are less likely than their female peers to experience probable serious mental ill health when considering internalizing symptoms (i.e., sadness, worthlessness, or hopelessness), they report markedly higher rates of drug use, alcohol use, and gambling [88]. Indeed, longitudinal research has found that men are significantly more likely to engage in externalizing behaviors following major stressful life events than are women [89].

Current diagnostic and classification systems may be poorly aligned with the range of ways in which adolescent boys and young adult men may experience distress, leading to difficulty in detection within primary care settings. This finding underscores the need to apply broader transdiagnostic approaches that circumvent problematic issues of diagnostic classification [90]. Indeed, analysis of birth cohort data from adolescence to midlife suggests that psychiatric disorder can be explained by three higher-order factors: internalizing, externalizing, and thought disorder domains, with young men having a stronger tendency toward externalizing (i.e., conduct and substance use) pathology [91]. In terms of specific disorders, adolescent boys and young adult men can expect differences in service-based responses. For example, within the domain of eating disorders, adolescent boys and young adult men might respond differently to treatments as men may conceive of their weight concerns and family relationships differently from women. Indeed eating pathology in adolescent boys and in young adult men has been forced within a theoretical and clinical framework largely focused on young women's physical, psychological, and emotional development [92]. A similar situation exists regarding depression [93]. It is critical that interventions seeking to better engage adolescent boys and young men are mindful of the complex interplay between issues of nosology, diagnosis, masculinity, and mental health.

*Service acceptability.* There is a clear need to improve the acceptability and user-friendliness of mental health services to better facilitate help-seeking and attendance rates for adolescent boys and young adult men [94]. It is here that system reform and the youth mental health model [95,96], distinct from child and adolescent, or adult service delivery systems are most relevant. Specific youth mental health services seek to support young people in the developmental period spanning 12–25 years, and such initiatives are now established throughout Australia, Ireland, the United Kingdom, and Denmark [97]. Data suggest that these services can effectively engage young men, although service provision remains higher for adolescent girls and young adult women [14]. Within the context of the youth mental health model, strength-based approaches, and the adoption of positive masculinity perspectives that emphasize male relational styles, male courage and humor (among other factors) may be particularly effective [98,99]. New data from effective interventions with men, including young men identifying with warrior culture (i.e., military veterans), suggest essential therapeutic aspects include providing therapy environments where men feel competent, free from judgment, engaged in interventions seen to bolster mental toughness and agility (as opposed to clinical interventions for correcting a deficiency), are supported by "down-to-earth" peers, and are closely integrated with practitioners perceived to be genuine, credible, and trustworthy [100–102].

Finally, the psychology of men tends to be poorly addressed in clinical training programs [103] and greater emphasis is needed on the training of frontline staff on how to best work with young men [104], including practitioners working in e-health environments. The gender competence of clinicians working with male clients can account for large effect sizes in clinical outcome [105]. As part of this, practitioners may need to be aware that clients who experience significant alexithymia are more likely to elicit greater negative reactions from therapists [106]. Related to this is the need for young men to feel empowered and, to some extent, in control of the help seeking and treatment process [107]. This will assist to offset possible experiences of shame that impede open disclosure and help seeking. As mentioned, the application of positive and diverse models of masculinity needs to occur, and needs to span all developmental phases.

## Discussion

### *Increasing mental health literacy*

Reversing patterns of health service disengagement and improving rates of mental health literacy are essential pillars in

improving young men's mental health outcomes. Although the Australian and Scandinavian contexts demonstrate that youth-specific models can boost young people's engagement with mental health services, young men's rates of in-person attendance and e-mental health access remain well below those of their female peers [14,108]. New strategies to improve mental health literacy, including school-based training initiatives for educators [109] as well as for adolescent boys [110], are needed. Novel interventions are also needed to bolster the mental health literacy skills of nonprofessionals in supporting young men. As attitudes to mental ill health continue to improve, subsequent generations of adolescent boys and young adult men will not face the same challenges related to stigma. However, at present, stigma remains a major barrier, and although many young men experience a supportive response related to disclosure of mental health challenges to parents, teachers, peers, or employers, validation and understanding are far from universal [111].

*Education surrounding masculinities*

Cultural expectations related to masculinity exert a powerful influence on young men's mental health-related behaviors. The field needs to progress beyond a one-size-fits-all conceptualization of masculinity as men's (and indeed young men's) alignment with masculine norms varies [112]. Of note, young men themselves have called for direct, positive, and solution-focused advertising that is relevant to their lives and representative of diversity in experience [66,69]. Young men and boys tend to experience less socially supportive friendships than do women and girls [113], and social connectedness and belonging have been identified as critical factors in positive mental health [7] and suicide prevention [114]. This work must look at diverse groups of at-risk young men, including same-sex attracted, first nations and indigenous populations, and homeless young men [115,116]. Part of the solution here will be facilitating social connectedness in adolescent boys and in young adult men outside of alcohol-fueled environments, given that alcohol use is intertwined with notions of traditional masculinity [40].

*Assessment and diagnosis*

In addressing issues associated with diagnosis and nosology, the clinical staging model may assist in early detection [58,117]. The clinical staging model seeks to identify early, transdiagnostic clinical phenotypes [97]. These may be particularly fruitful for identifying at-risk young men, given the emphasis on identifying both changes to functioning and subthreshold symptom states. Related to the staging transdiagnostic approach are suitably sensitive and appropriate screening tools. The recently developed Male Depression Risk Scale [89,118], cross-validated in populations of Australian and Canadian men [119], is one such example designed to assess subthreshold symptoms of distress that may place men at risk.

*Gender-appropriate intervention*

In terms of delivering more acceptable services and interventions, game-changing approaches may look to leverage the role of sport or gaming, and tap into other favored domains of young men (i.e., music and social media) [66]. Ideally, the next generation of population-based interventions will take a gender-synchronization approach, via a programmatic umbrella, minimizing barriers for all young men and boys, *and* all young women and girls [120,121]. Youth-friendly models of care are the idea platform for this work [108]. Specific strategies are needed for working with adolescent boys and young adult men who may have a high need for care, yet are unwilling to engage or are aggressive in clinical interactions [122]. Gender-based motivational interviewing may be an effective means of increasing young men's service use [123], and gender-transformative approaches, which seek to free both men and women from destructive gender norms, should also feature, given they are more efficacious than gender-neutral programs in improving health outcomes [124,125]. Gender-transformative approaches are particularly relevant to aspects of offending behavior, including violence prevention [126–128]. The establishment of youth-specific early intervention forensic mental health services is also warranted [129], mindful that young men's interactions with the justice system can exert iatrogenic harm, including psychological trauma [130]. Specific evidence-based gender-informed models of working with such challenging populations are needed.

*Theory development*

To further scholarship and to guide the next generation of research and practice, the refinement of theoretical frameworks specific to disparities in adolescent boys' and young adult men's mental health is needed [131]. The present findings align with the health, illness, men, and masculinity framework that articulates how masculinity intersects with key social determinants to create men's health disparities across the life course [78]. The framework states that socialization processes for adolescent boys and young adult men (and indeed boys) emphasize a "take it like a man" attitude from an early age, impeding help seeking due to perceived associated vulnerability or weakness. Instead, physical risk is naturalized and promoted. Indeed, the global burden of disease data supports this notion with road injuries, interpersonal violence, and drowning featuring in the top five causes of death for young men [23], although young men's health service utilization rates decline in midadolescence [108,132]. Further, recent work has theorized men's help seeking for suicidal behaviors relative to the character of professional support available, contrasting facilitative person-centered interventions with clinician-centered and mental illness approaches that may impede engagement [133]. Attempts should be made to extend such models to younger populations (i.e., adolescents).

*Policy leadership*

At present, the unique mental health needs of young men and the associated gender disparities are poorly addressed in the health policies and programs of major global health institutions [9,37]. Global policy leadership is urgently needed in this area. Within the Australian context, *Orygen, The National Centre for Excellence in Youth Mental Health* has developed the first Young Men's Mental Health Policy Framework [134]. This policy highlights the need for specific investment in domains related to service reform and provision, workforce development, research, and data, and highlights the socioeconomic benefits linked to investment in young men's mental health. Funding bodies must urgently consider developing targeted schemes, enabling researchers and clinicians to develop and evaluate next-generation interventions. To this end, Movember has become a global leader in funding major projects related to the mental health of boys

and men [135], but a great deal more investment from Government, the private sector, and philanthropy is urgently required. Such investment should also capitalize on close youth engagement, including direct codesign methodologies [67] regarding program development and evaluation, integration with stakeholders, and young men's input into social marketing [136].

*Reducing stigma*

Stigma reduction must be prioritized as a vehicle to improving attitudes toward mental health help seeking in adolescent boys' and young adult men's mental ill health. Short-term school-based programs have been shown to be effective in reducing stigma in school-aged boys [137]. In addition to personal experience and previous help seeking, exposure to antistigma campaigns and parental attitudes influence stigma and should be considered important in mental health stigma reduction for adolescent boys and young adult men [138].

*Integration with families*

Better support for families, and wherever possible for both mothers *and* fathers or male caregivers, is also critical to cultural change in this area. Programs to engage fathers have been largely absent from the empirical and clinical literature [139], which is problematic, given the critical role fathers and male caregivers play in the socialization of adolescent boys and young adult men [140]. Indeed, adolescents are more likely to seek mental health treatment in the context of an engaged, warm, and supportive father figure [141]. This is significant as research has repeatedly demonstrated that traditional notions of masculinity are associated with a tendency for men to conceal, overlook, or under-report symptoms of mental ill health [27], and fathers can play a profound role in modeling help-seeking behavior. Services may, however, actively need to assist fathers to feel less alienated from the care of a young person [142,143]. To date, very few well-designed studies have been undertaken with the view of improving father engagement [144].

Although engaging through sport, technology, and new media has been identified as a potential facilitator, intervention programs must also have sufficient levels of safety, trust, rapport, and meaningful relationships that build and sustain meaningful connections among young men [7]. Also critical is the need to move beyond the world view of simply seeing young men as "the problem" in as much as they may exhibit poor emotional awareness and help-seeking motivation. Worldwide, the Men's Shed movement has taken a proactive approach to engaging typically older men in connectedness and health service engagement [145]. This approach has worked effectively because it meets men where they are at, both literally and figuratively.

## Summary and Implications

The global burden of disease rates clearly show that preventable and treatable mental health disorders and associated outcomes are responsible for substantial mortality and disability in adolescent boys and young men aged 15–25 years. Given that mental health outcomes in adulthood typically have their origins in adolescence and childhood [146], the rationale for better prevention and intervention for young men is compelling. Adolescent boys and young adult men have been identified as a neglected group within health policy and intervention domains [1]. They have also been somewhat blamed for their relatively poor help-seeking attitudes and behaviors rather than being proactively engaged by systems that are purposively designed to assist them. We contend that there is a critical need for gender-sensitive research and intervention programs in the area of adolescent boys' and young adult men's mental health. Either when viewed from a stand-alone perspective, or in interaction with other key determinants of health, gender is a crucial driver of mental health outcomes [37].

To enable targeted prevention and intervention, a strengthening of the evidence and research base for adolescent boys' and young men's mental health is required. At present, few cross-national datasets suitably compare patterns of gendered health-care seeking behaviors, as opposed to intervention availability [37], and such data for young people's mental health are even more scarce. Recent calls have been made for funding bodies to encourage direct support of research and intervention programs that focus on men's mental health disparities, including directly addressing social determinants of health [131]. The paucity of gender-sensitive intervention studies in the mental health field in general is of concern [147], with very few addressing the specific needs of young men. High-quality data, disaggregated by gender, are urgently needed on indicators of mental health, including prevalence, policies and legislation, interventions and services, health outcome data, and overall functioning and quality of life. These data will inform the extent of the problem, including major risk and protective factors in specific subpopulations [148]. Such approaches form a critical component of improving indicators of young men's mental health, essential in improving global population health.

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