

Chapter 70

Deliberate Self-Harm and Suicide Ideology in Medical Students

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ABSTRACT

The risk of deliberate self-harm (DSH) and suicide ideology in medical students is a pertinent issue that has received a surge in attention over recent years. Medical students are at risk of normalisation of DSH and suicide ideology despite their mental health literacy levels and are still susceptible to the stigma of help-seeking for their mental wellbeing. This chapter will explore assessment, preventative and management strategies to improve education, awareness and ultimately reduce the rates of DSH and suicide risk. A comprehensive review of practices and techniques that medical training community and their family members could utilise to aid medical students to adequately and safely manage DSH and suicide ideology. This will assist in identifying crucial areas for future research to aid students, professionals, family and friends in supporting medical student health to optimise mental health overall wellbeing of medical students.

BACKGROUND

The risk of deliberate self-harm (DSH) and suicide ideology in medical students is a pertinent issue that has received a surge in attention over recent years (Wu et al., 2016, Rotenstein et al., 2016). Rates of suicide among general adolescents are increasing at staggering rates. This population of young adults

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are considered 'at risk' in 33% of countries around the world (Miletic, Lukovic, Ratkovic, Aleksic, & Grgurevic, 2014). Rotenstein et al. extracted suicidal prevalence data from 24 cross-sectional studies from 15 countries resulting in a pooled prevalence of suicidal ideation of 11.1% in medical students. Wu et al. conducted a cross-sectional study of over 4000 students from 22 Chinese medical universities, and found that prevalence of DSH was 9.6% over 12 months. It is, therefore, important for medical students, professionals, parents, and friends to understand the impact of DSH and suicide ideology on an academic and psychosocial level. Furthermore, because DSH and suicide ideology prevalence can be reduced with early intervention, it is all too important to know how to screen for early signs and symptoms as well as provide appropriate intervention (Downs et al., 2014).

Medical students are a unique population as they are learning about the organic and psychosocial impacts of mental health, including factors that may contribute to poor mental health, whilst being exposed to these exact factors. Stressors that are prominent in medical students include increased contact hours, high academic pressure, assessments, exposure to high-intensity workloads, high-performance expectations, strained social balance and workplace bullying (Chan, Batterham, Christensen, & Galletly, 2014; Osama et al., 2014; Wu et al., 2016). There are multiple factors contributing towards negative mental health sequelae among medical students and it can lead to undeniably anxious and stressful times during their academic and clinical career. These sequelae may involve more common psychiatric presentations such as anxiety and depression, to more formidable presentations such as DSH and suicidal ideology (Wege, Muth, Li, & Angerer, 2016).

Medical schools have an inherent requirement to produce safe working graduates and they must also ensure that students are primed to cope with stress, burnout, and failure. Addressing the negative mental health sequelae is therefore in the best interest of every medical school. Promoting and enhancing medical student well-being will be beneficial for each trainee throughout their career, with benefits in overall education, physician resilience, personal fulfilment, professionalism and of course patient care (Dunn, Iglewicz & Moutier, 2008).

DSH is most commonly associated with borderline personality disorder and is often associated with major depression, antisocial personality disorder, dissociative identity disorder, posttraumatic stress disorder, eating disorders, autism, developmental disabilities and Lesch-Nyhan syndrome (Stanley et al., 2010). At a molecular level, serotonergic and dopaminergic dysfunctions do not appear to be related to DSH, however, it has been demonstrated that those who self-harm have lower levels of CSF β -endorphins and met-enkephalins, both of which are opioids involved in emotion-induced and physical pain analgesia (Stanley et al., 2010). This is an important distinguishing factor as serotonergic and dopaminergic dysfunctions are usually associated with suicidal behaviour and depression, whereas endogenous opioid deficiency plays a more prominent role in DSH without suicidal intent (Stanley et al., 2010). This relationship will be discussed further in the following sections.

For the purposes of addressing medical student stress, this chapter refers to medicine as traditional Western medicine, not inclusive of any alternative medicine fields.

DEFINING DELIBERATE SELF-HARM

Deliberate self-harm may seem to be a straightforward definition in and of itself, however, many more aspects must be considered, including the frequency and time-period that DSH may occur, the purpose or expectations by the individual and the associations that DSH may have with concurrent moods, feel-

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