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### Mindfulness for Addressing Key Public Health Concerns in Young People: Preventative Applications and Safety Concerns

Mental illness, obesity, and problematic leisure activities such as gambling, video gaming, and social media use arguably reflect some of the most pressing global public health concerns currently affecting children and adolescents. For example, between 10-20% of children and adolescents worldwide experience a mental health problem during any given one-year period (Kieling *et al.*, 2011), and 50% of all mental illnesses first occur in individuals aged under 14 years (World Health Organization [WHO], n.d.). Approximately 340 million children and adolescents aged 5-19 years, and 41 million children under the age of five years, are overweight or obese (WHO, 2018). In fact, while 4% of young people aged 5-19 years in 1975 were overweight or obese, 18% of young people in the same age group were obese or overweight in 2016 (the corresponding increase for children aged under five years was from 1% to 7% between 1975 and 2016) (WHO, 2018). Furthermore, up to 12% of youth internationally exhibit problem gambling behaviour (Calado, Alexandre, Griffiths, 2017; Dowling *et al.*, 2017), and adolescents engage in gambling at a higher rate than adults (Calado *et al.*, 2017).

Mental health problems in children and adolescents are associated with (amongst other things) academic underachievement, criminal behaviour, reduced employment prospects, risk-taking behaviour, and psychiatric issues during adulthood (Dray *et al.*, 2017; Granero *et al.*, 2014; Grant *et al.*, 2010; Sapthiang, Van Gordon, & Shonin, 2018). Being overweight or obese is

correlated with a range of non-communicable diseases (e.g., diabetes mellitus and mental illness) and also with lower educational attainment, increased risk of disability, premature death, and obesity in adulthood (Leme *et al.*, 2018; The GDB 2015 Obesity Collaborators, 2017). Similarly, problematic youth gambling leads to negative consequences including (for example) mental and somatic health problems, intra-personal conflict, educational impairment, impaired employment prospects, legal and financial problems, and delinquency (Derevensky & Gupta, 2004; Dowling *et al.*, 2017; Griffiths, 2011). Gambling in youth also incurs a greater risk of developing gambling disorder (Granero *et al.*, 2014; Griffiths, 2011) as well as other forms of addiction and impaired psychosocial functioning later in life (Grant *et al.*, 2010; Griffiths, 2010).

While the aforementioned global public health concerns affect children and adolescents in different ways, they appear to share some common features in terms of their underlying aetiology. In this article, we discuss some of these mutual aetiological factors and then critically appraise both the utility and risks associated with using mindfulness for preventing and treating some of the major public health concerns effecting young people today.

#### Mutual aetiological factors

Child and adolescent public health concerns such as mental illness, obesity, and problematic leisure activities (e.g., gambling) each have

multifactorial aetiologies that, in line with the socio-ecological model, typically involve the interplay of factors operating at the level of the individual (e.g., psychological, genetic and lifestyle factors), micro-environment (e.g., schools, family, peers, parents and social factors) and macro-environment (e.g., religion, policy, culture, environmental and commercial factors) (Eruyar, Maltby, & Vostanis, 2018; Sapthiang *et al.*, 2018). However, although these public health concerns have very different symptoms and are experienced by young people in different ways, there appears to be some commonality in terms of the causal factors that operate at the individual, micro- and macro-environmental levels. For example, mutually applicable determinants for each of the three aforementioned public health concerns in children and adolescents include (but are not limited to) low socio-economic status, social isolation, and lack of peer or family support (Dowling *et al.*, 2017; Griffiths, 2011; WHO, 2012). Similarly, research indicates that the risk of developing mental illness, obesity and/or problematic gambling in young people is reduced by “transdiagnostic” protective factors such as family and community cohesion, healthy lifestyle behaviours, pro-social behaviour and social connectedness, support from schools and mental health services, and access to social capital more generally (Dray *et al.*, 2017; Sapthiang *et al.*, 2018; WHO, 2012).

According to problem behaviour theory (Donovan, Jessor, & Costa, 1991), ontological addiction theory (Van Gordon *et al.*, 2018), and the need-state and dispositional model relating to gambling disorder (Griffiths & Delfabbro 2001), health concerns and problematic behaviours in children and adolescents are often manifestations of more systemic unmet needs. We have described some of these unmet needs as being psycho-spiritual unrest as well as ontological addiction, which involves young people forming implausible beliefs relating to who they think they are and how they think they exist (Van Gordon *et al.*, 2018). These systemic unmet needs can lead to maladaptive cognitive or behavioural strategies such as thought rumination, self-blame and aggression, which reflect flawed attempts by young people to cope with difficult feelings or situations (Canale *et al.*, 2016). This is particularly relevant for children and adolescents in whom

emotions are often experienced with greater frequency and intensity due to cognitive and biological maturation, as well as having to contend with pressures relating to peer acceptance (Agarwal & Dixit, 2017; Sapthiang *et al.*, 2018).

The aforementioned ontological addiction theory (OAT) asserts that various mental health and behavioural problems derive from insecurity because of a child’s or adolescent’s faulty beliefs concerning their self-construct (Van Gordon *et al.*, 2018). Intervention studies based on OAT show that by addressing these maladaptive underlying ontological beliefs, improvements can be elicited across a broad range of somatic, psychological and psychospiritual outcomes (Van Gordon *et al.*, 2018). OAT asserts that these improvements are a result of undermining attachment to faulty self-constructs, which occurs when an individual starts to understand that they do not exist separately from all other life forms and phenomena (Shonin, Van Gordon, & Griffiths, 2016). Furthermore, OAT posits that by reducing the locus (i.e., a highly self-orientated self-construct) upon which emotional and conceptual ‘baggage’ can amass, the underlying causes of maladaptive cognitive and behavioural processes are undermined (Shonin *et al.*, 2016).

### **Mindfulness as a treatment and resilience-building approach**

Mindfulness is a meditative technique that derives from Buddhist practice. We have described it as the “*process of engaging a full, direct, and active awareness of experienced phenomena that is: (i) psycho-spiritual in aspect, and (ii) maintained from one moment to the next*” (Van Gordon, Shonin, & Griffiths, 2015a, p.592). In the context of treating mental illness, findings show that mindfulness can foster improvements in young people’s levels of (i) depression and anxiety (Zoogman *et al.*, 2014), (ii) rumination, hostility, negative coping, intrusive thoughts, and emotional arousal (Sibinga *et al.*, 2011; 2013), (iii) co-occurring post-traumatic stress and substance use disorder (Fortuna, Porche & Padilla, 2018), and (iv) diabetes (Shomaker *et al.*, 2017). Furthermore, controlled studies have shown that mindfulness can lead to reductions in body mass index in adolescents (Razavi, Ahadi, & Forooshani, 2015) as well as in slightly older student groups studying undergraduate

university courses (Mantzios & Giannou, 2014; Mantzios & Wilson, 2013). In adult populations, mindfulness has also been shown to be an effective treatment for individuals who have shown resilience to other obesity interventions (Lillis *et al.*, 2009; Tapper *et al.*, 2009). Furthermore, while research specifically investigating the utility of mindfulness for treating problem gambling in young people is less developed, studies involving adults demonstrate that mindfulness can be an effective means of treating the disorder (Griffiths, Shonin, & Van Gordon, 2016; Shonin, Van Gordon, & Griffiths, 2014a) as well as other forms of behavioural addiction (Van Gordon, Shonin, & Griffiths, 2016; Van Gordon *et al.*, 2017).

In preventative contexts, research findings also show that mindfulness can build resilience in children and adolescents via improvements in (i) emotional wellbeing (Galla, 2016), (ii) optimism and social competent behaviours (Schonert-Reichl & Lawlor, 2010), (iii) self-compassion, perceived stress, and life satisfaction (Bluth, Roberson, & Gaylord, 2015), (iv) working memory capacity (Quach, Jastrowski Mano, & Alexander, 2016), and (v) healthy lifestyle behaviours such as physical exercise (Salmoirago-Blotcher *et al.*, 2018). Furthermore, mindfulness is associated with adaptive behaviours relating to eating habits where, for example, one study demonstrated that mindfulness is negatively correlated with visits to 'all you can eat' food buffets (Ali *et al.*, 2017).

### Preventative processes

Various mindfulness interventions have been formulated which are intended to adapt or modify the technique for use in a given setting or population. However, our view is that there exists only one type of mindfulness that can be applied in numerous life situations and treatment contexts (Van Gordon *et al.*, 2015b). Indeed, irrespective of which particular mindfulness intervention is delivered to young people, a key mechanism of action appears to be cultivating 'mental breathing space' that enables young people to better observe their thoughts and feelings, as well as learn to remain 'unattached' to them by regarding them as 'passing phenomena' (Sapthiang *et al.*, 2018). In turn, this greater awareness and perceptual distance from thoughts, feelings and sensory processes fosters a

greater capacity to regulate emotions during the developmentally demanding periods of childhood and adolescence (Kristeller, Wolever, & Sheets, 2014; Sapthiang *et al.*, 2018; Van Gordon *et al.*, 2014). (For recommendations previously published in *Education and Health* on how to teach mindfulness to children and adolescents, see Shonin, Van Gordon, & Griffiths, 2014b).

Other mechanisms of action by which mindfulness is likely to target the mutual aetiological factors underlying mental illness, obesity and/or problematic leisure time activities in children and adolescents include: (i) substituting the need for emotional or hedonic reward (e.g., from gambling-related highs or consuming energy dense foods) with the tranquil states associated with mindfulness, (ii) improved psycho-spiritual awareness that broadens life perspective, (iii) "urge surfing" that improves the regulation of habitual compulsive responses, (iv) greater self-compassion that helps to ameliorate self-disparaging schemas that typically occur with mental illness, obesity, and problematic leisure time activities, and (v) conscious breathing that fosters calm due to reductions in autonomic and psychological arousal (Sapthiang *et al.*, 2018; Shonin, Van Gordon, & Griffiths, 2012; Van Gordon, Shonin, & Griffiths, 2015c).

### Challenges and risks

In traditional meditation practice settings, an individual would typically be required to undergo many years of daily mindfulness practice prior to being deemed to have even a basic level of competence in the technique (Shonin, Van Gordon, & Griffiths, 2015a). Furthermore, this competency would ordinarily need to be developed and refined for a period extending beyond a decade before the individual was accepted as an authentic mindfulness teacher. This contrasts with the situation of today, where the task of teaching mindfulness in clinical and educational contexts is increasingly being appended onto the day job of a school teacher or healthcare professional who, in some cases, may have attended as little as eight weeks of mindfulness training (typically involving just a few hours of formal teaching each week) (Shonin *et al.*, 2015a). In fact, even some prominent mindfulness teachers reportedly lack the necessary level of contemplative awareness in order to be able to impart more than a superficial

understanding of the practice (Shonin *et al.*, 2015b). Furthermore, some widely propagated mindfulness approaches such as Kabat-Zinn's Mindfulness-Based Stress Reduction have been criticized as constituting a form of 'McMindfulness' that bears limited resemblance to genuine mindfulness practice (see Van Gordon, Shonin, Garcia-Campayo, 2017). There has been insufficient research explicitly seeking to determine whether there are risks associated with incorrectly taught mindfulness, or whether there could be other explanations for some of the positive outcomes that are typically reported in mindfulness intervention studies. Nevertheless, emerging empirical reports and expert recommendations have started to suggest that some contemporary models of contextualising and teaching mindfulness can lead to negative outcomes such as personal-identity challenges, intrapsychic problems, exacerbation of mental health issues, executive memory impairments (including false memory susceptibility), dissociative episodes, asociality, panic attacks, psychotic episodes, spiritual problems, and impaired reality testing (Dobkin, Irving, & Amar, 2012; Farias & Wikholm, 2016; Lomas *et al.*, 2015; Lustyk *et al.*, 2009; Van Gordon, Shonin, & Griffiths, 2017). Some participants of mindfulness interventions such as MBSR have also been left confused as to whether such interventions are supposed to constitute a psychological technique or a form of Buddhist and/or spiritual training (Shonin *et al.*, 2015a).

In recent years, there has been emphasis on the need for mindfulness intervention studies to improve their overall methodological quality in order to rule out the influence of confounding factors. However, while the methodological rigour of randomised controlled trials (and corresponding meta-analyses) has gradually started to improve (Shonin, Van Gordon, & Griffiths, 2015b), very few studies have managed to effectively control for a 'hype effect' whereby somehow, enthusiasm stemming from the popularity or "political ideology" of mindfulness (Purser, 2015, pp. 8-9) appears to work its way into and thus bias the study implementation.

## Conclusions

Mental illness, obesity, and problematic leisure time activities such as gambling are examples of key public health concerns affecting young

people globally. Some established and recent theories of health and human functioning assert that many mental health and behavioural issues (e.g., problematic eating, sedentary lifestyle, problematic gambling, problematic social media use) are symptomatic of more systemic unmet needs. Furthermore, health concerns in young people such as mental illness, obesity, and problem gambling appear to share some of the same determinants. Consequently, there exists a strong rationale for a public health response to these global health issues that utilises broad-based "transdiagnostic" preventative interventions. Mindfulness appears to be a promising preventative approach in this respect because learning to practice mindfulness effectively during childhood and adolescence appears to foster beneficial psychosomatic health outcomes in the short-term, as well as engender resilience and coping skills that continue to have utility during adulthood (Sapthiang *et al.*, 2018). However, although mindfulness has been shown to be a cost-effective approach that can also be administered in an online context, a key challenge has been identified as a shortage of mindfulness teachers with the requisite experience and knowledge to train young people effectively and safely in how to embody the art of mindful living (Sapthiang *et al.*, 2018). There is also a need for more methodologically robust research that controls for the hype or popularity effect concerning mindfulness, as well as more research that specifically seeks to determine whether there are circumstances in which mindfulness may be contraindicated for young people.

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