

INNOVATIVE USE OF TECHNOLOGY TO SUPPORT A COMMUNITY OF CARE/MENTAL HEALTH AND WELL-BEING MONITORING

The prevalence of distress symptoms reflects a “new normal” in the psychological profile of our youth: more children and adolescents struggle with challenges around anxiety and depression at deeper levels than ever before. It is clear that as a community of parents, teachers, friends and professionals, we are limited in our ability to accurately read and prioritize these signs and symptoms of distress before acute behaviours develop- even in those close to us. The current mental health and wellbeing support screening framework for youth in school and OOH setting is simply not adequate to proactively identify needs, or invite a timely opportunity to provide either individual or systemic prevention solutions.

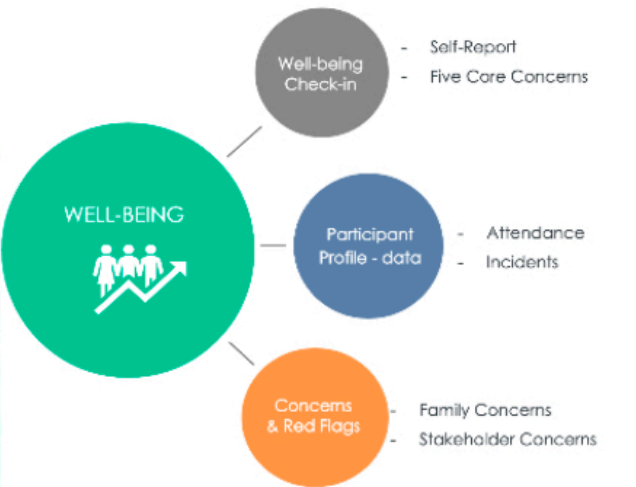
Any child or youth screening model that seeks to target preventative population screening of mental health must be portable, flexible, and low cost. The model must minimise stigma, accurately and immediately provide feedback for the individual, and aggregate population data to provide practical insights on needs and trends. In the context of school or OOH services, coherent, evidence-based and brief web-based applications must be at the heart of any meaningful preventative solution. In providing accurate and meaningful screening for wellbeing, it is essential that screening information is triangulated through self-reporting, adult observations and performance information to reduce false positives and false negatives; supporting the ‘community of care’ approach. Finally, the core protective factors must be considered alongside acuity and risk, in order to account for resiliency and treatment prognosis.

Identifying child or youth well-being and distress

The public stigma associated with mental illness and psychological distress are significant barrier to accurate screening and access to treatment (Parcesepe and Cabassa, 2010). This public stigma leads to experience negative perceptions, fear, and mistrust (Corrigan and Penn 1999). An effective screening model must consider the impact of language, using more positive perspective such as that offered in the consideration of well-being. The implementation of the screening tools should be implemented universally whenever possible, to convey the universality of the human condition.

Mental health and well-being is well understood as one of the most critical and pressing challenges for family, community and individual health across the globe. The World Health Organization, along with many internationally funded government and non-government bodies, have prioritized the funding of preventative interventions and programs for mental health conditions in childhood and adolescence. The modern conceptualization of mental health has moved beyond simply the absence of psychological distress or pathology, to acknowledge the parallel consideration of overall well-being, protective factors, and personal resilience. Considered together, this frames a richer understanding of the human condition, with insights into interventions and support with far greater potential for healing and recovery.

Different lines of research have conceptualized mental health as a bi-dimensional model with distress and well-being on opposite ends of a continuum. This approach states that mental illness and well-being are distinct but related concepts on the same scale (Piqueras et al., 2017). Recent research has shown that children and adolescents with mental health difficulties also score low on psychological well-being, and that both factors are predictive of academic functioning (Wille, Bettge, & RavensSieberer, 2008) (S. Suldo, Thalji, & Ferron, 2011; S. M. Suldo & Shaffer, 2008). Mental health assessments should therefore address both distress and resilience (Piqueras et al., 2017)



The impact of wellbeing difficulties on students

Poor school performance, including measures of quality of engagement, attendance, learning capacity, and peer norming have been clearly linked to student mental health and well-being. Depression in adolescents is associated with negative outcomes such as problems with academic performance, interpersonal relations and substance abuse (Pannebakker et al., 2019). Depression and anxiety have the potential to negatively affect academic performance (Glover & Albers, 2007).

Students with undetected mental health issues do not function very well in a school environment if no arrangements are made to support them (Mitchell, Kern & Conroy, 2019). It is clear that some students with mental health needs benefit from individualised supports that will foster their learning and well-being (Sutherland, Lewis-Palmer, Stitcher & Morgan, 2008).

Mental health literacy including the basic understanding of symptoms and needs, is lacking in schools and youth services. Studies suggest that globally only approximately 50% of adolescents can recognize depression symptoms, whereas the rate is much lower for anxiety disorders or symptoms (e.g. less than 2% for social anxiety disorder) (Coles et al., 2016).

Innovative approaches to screening

Adolescents view the internet as a reliable source of health information independent of socioeconomic status or sex. Using the internet may circumvent barriers to helpseeking behavior among adolescents (Edwards-Hart & Chester, 2010). Web-based mental health assessment of depression and anxiety in children and adolescents has shown excellent reliability and is highly feasible in this population (Hamann, Schultze-Lutter, & Tarokh, 2016). Web based applications to target preventative population screening of mental health and well-being are highly portable and flexible, low cost, can immediately provide feedback for the individual, and effectively aggregate data to provide cohort and population trends. Engagement of parents, family, or close supports is critical in any preventative solution. The significant influence of the family environment on young people makes parent engagement an important factor in the screening, treatment, and recovery process (Haine-Schlagel & Walsh, 2015). Meta analyses have demonstrated consistent improvement in outcomes when parents are involved in the treatment, regardless of diagnosis. This includes general level of functioning and academic outcomes such as increased academic productivity and homework performance (Dowell & Ogles, 2010). Key then to the design of a preventative strategy is to ensure that the parent or caregivers are invited to contribute feedback in a private and nonstigmatizing manner. The evidence of a negative trajectory of statistics related to the declining mental health and well-being for children and adolescents within Australia, the United States and internationally is clear and deeply concerning. There is also evidence that mental health literacy is limited in school settings and there is a need for ongoing and targeted investment in psycho-education and well managed result reporting. Deliberate population-based well-being screening of children and adolescents is a critical ‘Tier 1’ strategy to improve student mental health and school performance. The context of the school setting offers an opportunity for robust screening that reduces stigma. In designing and achieving a suitable model of screening, a web based clinical software platform appears to hold significant promise for innovative, scalable, flexible, and low cost implementation.



Mental Health and School Performance

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Internalising and externalising factors

The internalisation of psychological distress can impact the health of students and also leave them without early treatment and identification. The risk is potentially increased if their symptom experience of challenge is prolonged (Liu et al., 2011). In contrast, the students who ‘act out,’ or externalise, their distress through disruptive behaviours, are likely to attract greater levels of attunement from adults and authority figures in efforts to respond and contain the impact of their presentations on themselves or others. Although often attracting largely negative attention, the externalising cohort has the benefit of being identified, and at the minimum, receiving some level of reactive or protective response.

The impact of internalising behaviours in the child or youth extends beyond simply keeping everything to themselves. Youth who internalise will also engage in lifestyle and social patterns of withdrawal and isolation. A study presented cases of internalisation at classroom level adversity (CLA), whereby the student falls into a pattern of tardiness or even absenteeism (Arby et al., 2017). Over a long period of time, internalising behaviours are noted to impact on the student's mobility and health, requiring intervention. The study further noted the patterns of CLA for externalising behaviour were correlated at all levels of boys and girls, meanwhile internalising behaviour were correlated for girls only at all levels. This could suggest that boys who externalise may be projecting their psychological and behavioural distress, which could be a sign that they wish to have help or support (Arby et al, 2017).

Discussion

This paper discusses a project investigating the relationship between the mental health challenges school-based populations struggle with and the utilisation of effective screening strategies to identify, and ultimately support, at-risk students. Statistical analysis of the study data reflects the crisis of youth facing mental distress and coping by internalising their symptoms. School-based screening holds significant value as the regulating and monitoring of the student mood is more direct and is mediated by teaching professionals. It was found that students who internalise are the most vulnerable to acute mental health risks, due to low self-reporting and limited coaching for the teachers and third-party observers. Therefore, the need for proactive strategies to identify internalised symptoms is crucial in intervening before the onset of detrimental effects of mental distress

Findings from the project flagged that challenges regarding internalisation affect all age groups. This means that all age cohorts require screening examination to capture ‘at-risk’ symptoms. Seeking and examining screening output contrasts over time is also critical, such as through regular ‘check-ups,’ and provides ready feedback regarding the participants’ experience of the provision of help-seeking’ avenues via technology.

PREVENTION THROUGH SCHOOL BASED SCREENING

“Through early identification and monitoring we can connect students with existing support pathways for care. Mental illness is treatable and preventable.”

This study flags some critical considerations for the use of technology-based well-being screeners in the school context as a mechanism for capturing the students’ mental well-being. Mental health conditions are challenging, as they go beyond noticing visible or physical symptoms. Therefore, the suggestion of psycho-education for students, teachers, and parents will enable the gaining of knowledge around sleep disturbance and internalising symptoms of distress. Frequency of technology/app deployment is also a consideration, as each school setting may approach the platform differently, for example, some may gather data monthly while others every six months.

The use of well-designed and adaptive technology, such as GM5 in this study, appears to have the potential to provide a level of utility that enables positive, responsive access to participants, a good level of indicative and comparative data output, and a level of required immediacy to identification of at-risk individuals and cohorts.