

Screening for somatisation in an Asian children's hospital emergency setting

Dear Editor,

In recent years, self-harm is the leading cause of morbidity and mortality among adolescents in Singapore.^{1,2} This is just the tip of the iceberg as youths with undiagnosed mental health disorders often present to the healthcare system with non-psychiatric symptoms.³ These psychosomatic symptoms do not have an organic pathology but are often unrecognised and over-medicalised. Early recognition and interventions can prevent progression to more serious psychiatric disorders.^{4,5}

Emergency physicians are typically ill-equipped to manage adolescents with psychosocial and mental health distress. Face-to-face psychosocial evaluation is time consuming and close to impossible in the busy emergency department (ED). However, psychosocial evaluation remains crucial because the ED is often their last safety net for seeking help.⁶

We describe the development of a self-administered Youth Well-Being (YWB) questionnaire (Appendix in online Supplementary Material) tool for efficient adolescent psychosocial evaluation, and how this tool is used efficiently in the Paediatric ED of KK Women's and Children's Hospital (KKH), Singapore.

The YWB questionnaire is modelled after the HEADS-ED, which is the ED version of the well-established Home, Education, peer group Activities, Drugs, Sexuality and Suicidality interview instrument (HEADSS).⁷ HEADSS is a systematic approach to psychosocial assessment of adolescents.⁸ The aim of our study is to efficiently identify psychosocial distress and to facilitate early intervention.

A multidisciplinary workgroup was convened in 2019 to develop the YWB questionnaire and the workflow for its use. The team comprised physicians trained in paediatric emergency medicine, adolescent medicine and paediatric psychiatry, as well as paediatric advanced practitioner nurses, clinical psychologists and medical social workers. A clinical guideline on the workflow for the administration of the questionnaire in the ED was also established. Based on clinical audit review of questionnaire responses documented in the electronic medical records, qualitative feedback from the ED medical and nursing team, and patient focus group discussion via the SingHealth Patient Advocacy Network (SPAN)@KKH, iterative changes were made to the questionnaire design and workflow.

The YWB questionnaire is designed to be relevant to the sociocultural context of Singapore adolescents. The questions are phrased in a non-judgmental and empathetic manner. Adolescents are required to answer questions under the 9 domains: home, school, activities, safety, habits, recreational screen time, sleep, mood and suicidality, and access to support network. Concerning responses prompt the clinician to probe deeper as part of the clinical consultation. Disclosures of low mood or thoughts of self-harm require a face-to-face Suicide Risk Screening.⁹ The tool is designed to give the troubled adolescent a psychologically safe "space" for confidential disclosures of their psychosocial difficulties. As a communication tool, it serves to guide a subsequent face-to-face interview that is more empathetic and targeted. It is not designed to be a diagnostic tool. Hence, there is no scoring system, nor measures of reliability and construct validity.

Since February 2020, the YWB questionnaire has been administered to clinically stable adolescents aged 10–18 years who present to KKH Paediatric ED with possible somatic symptoms such as headache, chest pain, abdominal pain, syncope, breathlessness or non-traumatic musculoskeletal pain. These symptoms remain medically unexplained after careful clinical evaluation. Adolescents with intellectual disability are excluded (Fig. 1 for YWB workflow). Based on the findings, attending ED physicians can organise psychosocial and mental health support, in tandem with medical care. Patients with mild issues require only self-help and psychoeducation resources that are given to patients and parents at the point of the ED discharge counselling. Adolescents with moderate difficulties are referred to counsellors in schools or youth social service agencies funded by the Agency for Integrated Care. Youths with serious mental health or social problems are given appropriate referrals to medical social work, psychology or adolescent psychiatry services.

The YWB questionnaire has been integrated into routine clinical care in KKH Paediatric ED since February 2020. The questionnaire design and workflows have been regularly audited for face validity and revised throughout the period of the local COVID-19 pandemic, which also saw increased ED attendances by adolescents with psychosocial problems. It is currently administered in hardcopy format.

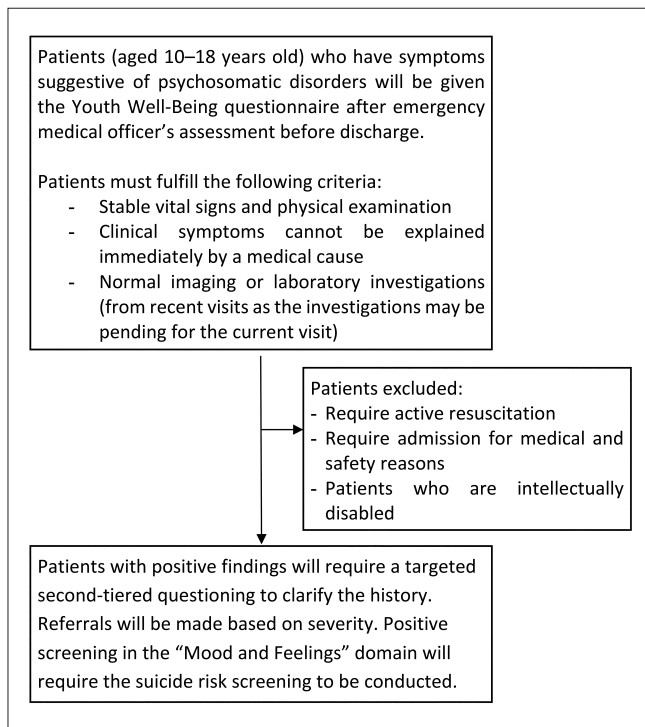


Fig. 1. Youth Well-Being workflow.

Discussion. Diagnosing somatic symptoms is challenging in the ED setting due to time constraints. Another hurdle is the inherent reluctance of youths to disclose stigmatising mental health difficulties or disapproved behaviours. However, given the magnitude of Singapore's youth mental health problem, failure to recognise psychological distress and social safety concerns can lead to disastrous consequences for the individual, wasteful consumption of healthcare resources, and long-term loss of human potential. Therefore, the YWB questionnaire provides an efficient solution to enhance capacity for early identification of adolescents with psychosocial distress. In terms of risk management, the YWB questionnaire enables identification of adolescents who present with somatic symptoms but do not disclose their suicidal thoughts to the ED triage nurse. As there are insufficient resources for universal screening, using the YWB questionnaire to identify the subset of adolescents for face-to-face Suicide Risk Screening provides the most sustainable solution to prevention of adolescent suicide as a sentinel event.

The YWB questionnaire differs from HEADS-ED in that HEADS-ED is conducted via a face-to-face interview, which would impose a huge inefficiency on the ED physician, whereas the YWB questionnaire is self-administered. This time-saving feature enables efficient psychosocial evaluation in our paediatric ED, which has an average attendance of more than 150,000 patients

annually. Secondly, additional domains like recreational screen-time and sleep hygiene that commonly impact mental health are incorporated into the YWB questionnaire, but are not found in HEADS-ED.

Guided by evidence that adolescents prefer to disclose personal difficulties through a digital interface, the team is in the final stages of developing a digital version of the YWB questionnaire.¹⁰ The software application is interactive and encourages disclosures through the use of relaxing music, animated graphics and an algorithm that asks relevant deeper questions based on the disclosures to first-tier questions. Future plans include working with multidisciplinary and inter-agency stakeholders to explore the use of the tool in other settings such as polyclinics, specialist clinics, other EDs and social service agencies.

The YWB questionnaire has great potential to impact Singapore's adolescent behavioural and mental health through early recognition and early interventions.

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