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Student Mental Health - Why taking a public health approach is necessary

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Student mental health is frequently in the news, and for good reason. In the past decade, research has consistently shown rising rates of mental health concerns among students. A recent meta-analysis reported that rates of depression and anxiety have doubled among children and adolescents during the COVID-19 pandemic (Racine et al., 2021). Mental health-related emergencies rose 24% for children aged 5-11 and 31% for adolescents aged 12-17 (Leeb et al., 2020). Even more alarmingly, suicide attempts were 1.77 times higher during the pandemic compared to the same time in the prior year for 11-21 years old (Hill et al., 2021). For university students, trends indicate the possibility of delayed impact, with specific sub-populations found to be at greater risk of suicidality including students identifying as being from minorities (Cogan et al., 2023) and/or living in poverty (Jones et al., 2023).

Mental health disclosure and help-seeking

Research has highlighted significant inequities and disparities in access to mental health services and care (Lever et al., 2024). Between 2011 and 2020, the number of students applying to universities in the UK who disclosed having a mental health condition increased by 450%, from 3,840 in 2011 to 21,105 disclosures in 2020 (UCAS, 2021; Sanders, 2023). Increasing awareness of students' mental health problems has been an unfortunate consequence of the crisis's worsening over the course of the COVID-19 pandemic (Cogan et

al., 2023). Yet, it has also shed light on the ongoing barriers to seeking mental health support including the stigma of mental health help-seeking (Taylor et al., 2022) and lengthy waiting times to accessing over-stretched mental health supports and services (Lui et al., 2022). Indeed, evidence suggests that increased uncertainty about global safety, cost of living, and environmental challenges (e.g., living in a post-pandemic world, global warming), contribute to the upswing of the numbers of students seeking support through their academic institutions (O'Donnell et al., 2019). This draws attention towards finding an alternative solution to an already urgent and critical problem.

Currently, schools and universities cannot meet the demand for mental health care. Average waiting times for institutional mental health services have markedly increased, with students waiting over three months for a first counselling session (O'Donnell et al., 2019; dos Santos Sousa, 2023). Prolonged waiting times for mental health support are associated with a variety of negative psychological and behavioural consequences, such as decreased academic performance, worsening symptoms, and suicide (Punton et al., 2022). Given the huge challenges facing children and adolescents experiencing disproportionate mental health impacts, as well as barriers to mental health care and support (Samji et al, 2022), it may result in longer-term adverse outcomes in health and wellbeing and poorer levels of educational attainment (Agnafors et al., 2021).

A shift to addressing student mental health through a public health approach

A public health approach to student mental health provides educational institutions a framework to provide care that can reduce demand on counselling and mental health services and increase student wellbeing and resilience (Lever et al., 2023). Extending beyond individual-level interventions that target specific populations, diagnoses, risk factors and treatments (i.e. increasing the number of on-campus counsellors or developing an alcohol prevention program), a public health approach adopts a wider systems perspective, considering social, psychological economic, environmental and contextual factors that can synergistically impact on mental health and wellbeing (Campion et al., 2020).

Recontextualising mental health through a public health 'lens' shifts the focus from identifying individual risk factors or providing individual treatment, and instead highlights multiple leverage points across societal, community, relational, and individual levels of the system to support promotion, early intervention, prevention, treatment, and recovery (Cramer et al., 2020). This recognises the complex and contemporary challenges that students face when it comes to maintaining positive mental health and wellbeing and who

might be most vulnerable to developing mental health problems (Mental Health Foundation, 2016).

A public health approach helps to support students who tend to slip through the cracks.

Although attitudes toward mental health are evolving, a considerable number of at-risk students are not seeking counselling support. A public health approach as a 'whole university intervention' embeds mental health resources, support, and education across the entire student community, rather than targeting specific individuals (Mental Health Foundation, 2016). It does not preclude the use of individualised support (e.g., 1:1 therapy), but views this as complementary to efforts conducted at the population level. Importantly, this approach also advocates for mental health and wellbeing concurrently, widening benefits to all students, regardless of their characteristics or vulnerabilities, by prioritising prevention, early intervention and promotion efforts. By adopting such an approach, students already experiencing mental health challenges, as well as those who are with a relatively low risk, can be supported and safeguarded.

A public health approach outlines how mental health support should not just be a standalone service provided by a specialist team. Instead, it should be integrated into all aspects of school and university life – from design of curricula and assessments to the physical environment (Brewster & Cow, 2022). This asks all aspects of a school or university to respond to student mental health concerns. Promoting positive student mental health and wellbeing is positioned as a priority which contributes to wider goals (like reducing dropout rates).

What can schools and universities do?

Many schools and universities have already begun to integrate public health approaches to student mental health systems of support (Parcover et al., 2015). A continuum of support is part of the solution, but there are other elements that can support a robust public health approach to building these systems. Much has already been written about multitiered systems of support rooted in a public health perspective such as Positive Behavioural Interventions and Supports (PBIS; McIntosh & Goodman, 2016). As institutions differ vastly in terms of structure, services, resources, and student demographics, it is integral that embedded public health approaches be flexible and context specific. A system-level

strength-based analysis, which explores programmes and services already in place at different schools and universities, would provide a route to developing a public mental health strategy and policy framework to guide best practice.

The following practices may serve as a pathway for educational institutions toward a public mental health approach:

- Mental health awareness training for administrative staff, faculty, residence life teams, and students to identify and support at-risk students
- Promotion of physical activity for mental health and wellbeing
- Student-led wellbeing initiatives and campaigns (e.g. peer to peer support)
- Cross-institutional partnerships to share successful strategies and projects in mental health promotion and prevention
- Assessing the efficacy and efficiency of counselling support services both within and across educational institutions
- Improving working partnerships and collaborations between student mental health supports and services within educational institutions and with external providers (e.g. health and social care agencies)
- Formation of interdisciplinary wellbeing teams that include both staff and students to map out the various forms of support available to ensure visibility and ease of access to all students
- The translation between high-level strategy and in-practice activity
- Participatory research methods and co-produced interventions that generate solutions that meet the needs of schools and universities for improving student mental health.
- Implementing evidence-based approaches to public mental health policy, research and practice to support its effectiveness

Schools and universities can take these steps to collectively enhance student mental health and wellbeing. Integrating a public health approach has the potential to instil lasting positive impacts that extend far beyond students' academic journey and into broader societal gains (Herman et al., 2020). Seeing student mental health as everyone's responsibility, we must go beyond simply providing education and treatment services by increasing efforts to prevent mental health problems from arising and promoting the mental health and wellbeing of all students.

Public mental health and artificial intelligence

In the years ahead, the application of machine learning algorithms and artificial intelligence (AI) will be increasingly employed in public health research and practice (Fisher & Rosella, 2022). These algorithms can analyse large quantities of data on student mental health, like electronic mental health records, and find trends and anticipate how mental health issues and wellbeing improvements will change among students over time. Data from social media, web search engines, media, mobile devices, wearables and apps provide information about the determinants of student mental health that is more nuanced than that from traditional sources. Interactive online tools, apps and chatbots powered by AI technologies can also provide highly accessible digital interventions (Graham et al., 2019). With such rapid innovations comes great responsibility and consideration of existing ethical and governance frameworks to guide AI activities and analytic processes. Addressing AI biases by ensuring that data from students from diverse backgrounds and minority groups are incorporated into Al algorithms can help increase digital inclusivity (Flores et al, 2023; Zidaru et al, 2021). Successfully integrating such innovations and technologies in educational settings should include reviews and modernisation of existing organisational data and governance infrastructures, developing collaborative partnerships and co-producing machine learning algorithms to align with best practices in consideration of equity and inclusivity for all students.

Conclusion

Public mental health is increasingly being accepted as an important and integral part of student mental health research, policy and practice. Adopting such an approach involves a paradigm shift away from individual 'diagnose and treat' models of student mental health problems to a much broader focus on population level mental health and wellbeing. It adopts a wider systems perspective, considering social, psychological, economic, environmental and contextual factors that can synergistically impact on mental health and wellbeing. Furthermore, incorporating interdisciplinary perspectives and building collaborative working partnerships is essential to developing a 'whole systems' approach to the pertinent issues concerning student mental health. Taken together, the evidence base for public mental health is growing as innovations embracing new technologies are emerging. While advances in Al for analysing big data will increasingly improve the timeliness and robustness of public health data on student mental health, it is essential that Al biases that could misrepresent student populations or skew results are addressed through inclusivity and co-produced algorithms with student data from marginalised groups. Open collaboration among experts of

diverse backgrounds (eg, professions, race/ethnicity) working in public health is needed. The time is now ripe to move from knowledge to action to innovation to benefit the students in schools and universities today and in the years ahead.

References

Agnafors, S., Barmark, M., & Sydsjö, G. (2021). Mental health and academic performance: a study on selection and causation effects from childhood to early adulthood. *Social Psychiatry and Psychiatric Epidemiology*, *56*, 857-866. https://doi.org/10.1007/s00127-020-01934-5

Brewster, L., & Cox, A. M. (2023). Taking a 'whole-university' approach to student mental health: The contribution of academic libraries. *Higher Education Research & Development*, 42(1), 33-47. https://doi.org/10.1080/07294360.2022.2043249

Campion, J., Javed, A., Vaishnav, M., & Marmot, M. (2020). Public mental health and associated opportunities. *Indian Journal of Psychiatry*, *62*(1), 3. https://doi.org/10.4103/psychiatry.IndianJPsychiatry 687 19

Cogan, N. A., Liu, X., Chin-Van Chau, Y., Kelly, S. W., Anderson, T., Flynn, C., Scott, L., Zaglis, A., Corrigan, P. (2023). The taboo of mental health problems, stigma and fear of disclosure among Asian international students: implications for help-seeking, guidance and support. *British Journal of Guidance & Counselling*, 1-19. https://doi.org/10.1080/03069885.2023.2214307

Cogan, N., O'Toole, M., Gardani, M., Murray, A., & Long, E. (2022). Student mental health: a university crisis?. *Education Today*. https://www.educationtoday.com.au/news-detail/Student-Mental-Health-5620

Davidson, L., & Locke, J. H. (2010). Using A Public Health Approach to Address Student Mental Health. *Mental Health Care in the College Community*, 267-288. https://doi.org/10.1002/9780470686836.ch14

dos Santos Sousa, F., & Feeny, A. (2023). A Time of Crisis? Can Scottish University Counselling Services Cope with the Increasing Demand for Mental Health Support? *University and College Counselling, 11*(2) 22-25. https://www.bacp.co.uk/bacp-journals/university-and-college-counselling/may-2023/articles/a-time-of-crisis/

Fisher, S., & Rosella, L. C. (2022). Priorities for successful use of artificial intelligence by public health organizations: a literature review. *BMC Public Health*, 22(1), 2146. https://doi.org/10.1186/s12889-022-14422-z

Flores, L., Kim, S., & Young, S. D. (2024). Addressing bias in artificial intelligence for public health surveillance. *Journal of Medical Ethics*, *50*(3), 190-194. https://doi.org/10.1136/jme-2022-108875

Graham, S., Depp, C., Lee, E. E., Nebeker, C., Tu, X., Kim, H. C., & Jeste, D. V. (2019). Artificial intelligence for mental health and mental illnesses: an overview. *Current Psychiatry Reports*, *21*(11), 116. https://doi.org/10.1007/s11920-019-1094-0

Herman, K. C., Reinke, W. M., Thompson, A. M., M. Hawley, K., Wallis, K., Stormont, M., & Peters, C. (2020). A public health approach to reducing the societal prevalence and burden of youth mental health problems: Introduction to the special issue. *School Psychology Review*, *50*(1), 8-16. https://doi.org/10.1080/2372966X.2020.1827682

Hill, R. M., Rufino, K., Kurian, S., Saxena, J., Saxena, K., & Williams, L. (2021). Suicide Ideation and Attempts in a Pediatric Emergency Department Before and During COVID-19. *Pediatrics*, *147*(3), e2020029280. https://doi.org/10.1542/peds.2020-029280

Jones, L. B., Vereschagin, M., Wang, A. Y., Munthali, R. J., Pei, J., Richardson, C. G., Halli, P., Xie, H., Rush, B., Yatham, L., Gadermann, A. M., Pendakur, K., Prescivalli, A. P., Munro, L., Bruffaerts, R., Auerbach, R. P., Mortier, P., & Vigo, D. V. (2023). Suicidal Ideation Amongst University Students During the COVID-19 Pandemic: Time Trends and Risk Factors. Canadian journal of psychiatry. Revue canadienne de psychiatrie, *68*(7), 531–546. https://doi.org/10.1177/07067437221140375

Leeb, R. T., Bitsko, R. H., Radhakrishnan, L., Martinez, P., Njai, R., & Holland, K. M. (2020). Mental Health-Related Emergency Department Visits Among Children Aged <18 Years During the COVID-19 Pandemic - United States, January 1-October 17, 2020. MMWR. Morbidity and Mortality Weekly Report, 69(45), 1675–1680. https://doi.org/10.15585/mmwr.mm6945a3

Lever, N., Orenstein, S., Jaspers, L., Bohnenkamp, J., Chung, J., & Hager, E. (2024). Using the Whole School, Whole Community, Whole Child Model to Support Mental Health in Schools. *The Journal of School Health*, *94*(2), 200–203. https://doi.org/10.1111/josh.13322

Liu, C. H., Pinder-Amaker, S., Hahm, H. C., & Chen, J. A. (2022). Priorities for addressing the impact of the COVID-19 pandemic on college student mental health. *Journal of American College Health*, 70(5), 1356-1358. https://doi.org/10.1080/07448481.2020.1803882

Maguire, C. & Cameron, J. (2021). Thriving Learners, The Mental Health Foundation. https://www.mentalhealth.org.uk/sites/default/files/2022-06/MHF-Thriving-Learners-Report-Full.pdf

O'Donnell, C., Scott, A., & Murray, C. (2019). *University Counselling Services in Scotland: Challenges and Perspectives*. British Association for Counselling and Psychotherapy. https://www.bacp.co.uk/media/6659/hucss-university-counselling-services-scotland-challenges-perspectives-jan19.pdf

Punton, G., Dodd, A. L., & McNeill, A. (2022). "You're on the waiting list": An interpretive phenomenological analysis of young adults' experiences of waiting lists within mental health services in the UK. *PLOS ONE*, *17*(3). https://doi.org/10.1371/journal.pone.0265542

Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J., & Madigan, S. (2021). Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19: A Meta-analysis. *JAMA Pediatrics*, *175*(11), 1142–1150. https://doi.org/10.1001/jamapediatrics.2021.2482

Samji, H., Wu, J., Ladak, A., Vossen, C., Stewart, E., Dove, N., Long, D., & Snell, G.(2022). Review: Mental health impacts of the COVID-19 pandemic on children and youth - a systematic review. *Child and Adolescent Mental Health*, *27*(2), 173–189. https://doi.org/10.1111/camh.12501

Sanders, M. (2023). Student mental health in 2023 - Who is struggling and how the situation is changing. TASO. https://cdn.taso.org.uk/wp-content/uploads/student-mental-health-in-2023.pdf

Taylor, R., Cogan, N., Jenkins, P., Flowers, P., Liu, X., Hunter, S. C., & Corrigan, P. (2021). *Mental illness self-stigma in young people: a scoping review protocol*. https://doi.org/10.1101/2021.07.06.21260070

Tickell, A., Fonagy, P., Hajdú, K., Obradović, S., & Pilling, S. (2024). 'Am I really the priority here?': help-seeking experiences of university students who self-harmed. *BJPsych open*, 10(2), e40. https://doi.org/10.1192/bjo.2023.652

Tressler, R. (2021). *UCAS Report on Student Mental Health*. UCAS. https://www.ucas.com/file/513961/download?token=wAaKRniC

Zidaru, T., Morrow, E. M., & Stockley, R. (2021). Ensuring patient and public involvement in the transition to Al-assisted mental health care: A systematic scoping review and agenda for design justice. *Health Expectations*, *24*(4), 1072-1124. https://doi.org/10.1111/hex.13299