

Contents lists available at ScienceDirect

Mental Health & Prevention

MENTAL HEALTH

journal homepage: www.elsevier.com/locate/mhp

The dual continua in youth mental health policy and practice: Screening and intervention for low mental wellbeing in youth to achieve targeted prevention

Lachlan Kent^{a,b,c}, Maja Havrilova^a, Suzanne Dick^a, Stephen Carbone^{a,*}

^a Prevention United, Melbourne, Australia

^b Wellbeing and Psychosocial Risk, Royal Melbourne Institute of Technology, Melbourne, Australia

^c Insitute of Health and Wellbeing, Federation University Australia, Berwick, Australia

A R T I C L E I N F O

Keywords: Mental health promotion Preventative mental health Mental wellbeing Screening Policy and practice Dual continua

ABSTRACT

Background: The mental health of young people in Australia and other nations has declined dramatically over the last decade and a half. While an increase in youth mental healthcare services is needed to meet rising demand, on its own, this is unlikely to reverse the concerning trend. A greater focus on prevention is needed.

Aims: This article aims to propose an innovative, theoretically-grounded approach to prevention that complements more common population-based (i.e., changing risk and protective factors) and targeted (i.e., supporting individuals with subthreshold symptoms of mental illness) approaches. Aligned with the dual-continua model of mental health (i.e., where mental well-being and ill-health are distinct dimensions of overall mental health), this third approach focuses on addressing low levels of mental wellbeing, which is both a significant predictor of future mental ill-health and a distressing and disabling state that requires intervention in its own right.

Recommendations: Large-scale screening for low mental wellbeing, using psychometrically sound tools, could be conducted online and through schools, higher education, and primary care services. Those with low mental wellbeing could be linked to community services offering evidence-based interventions. This approach is likely to carry less stigma and may be easier to achieve than targeting those with subthreshold symptoms through clinical services.

Conclusions: The dire state of youth mental health is an urgent call-to-action to adopt novel approaches to address this crisis. We need to make better use of the available evidence and tools at-hand to strengthen our focus on low mental wellbeing, not just mental ill-health.

1. The issue

Young people today are facing a 'polycrisis' of global challenges including climate change, cost-of-living pressures, disruptive technologies, overt and covert geopolitical conflict, and political polarisation that is reducing social cohesion (McGorry et al., 2024). Young people also continue to be exposed in high numbers to well known risk factors for poor mental health such as child maltreatment, bullying, and loneliness, while poor sleep, physical inactivity and vaping are increasing (Grummitt et al., 2024; Smout et al., 2024). Perhaps not surprisingly, the prevalence of psychological distress and of diagnosed mental illness are both on the rise among young people in Australia (Australian Bureau of Statistics, 2023; Enticott et al., 2022). This dramatic increase in youth mental ill-health cannot be alleviated by a focus on treatment alone, particularly if services are underperforming (Jorm, 2014). In Australia, demand for services exceeds their availability, quality is patchy, and many young people experience significant barriers to access such as cost, difficulties navigating the system, and stigma and embarrassment (Seidler et al., 2020). The most recent National Report Card on the performance of Australia's mental health system concludes "...we are not seeing an improvement in the mental health and wellbeing for people in Australia over the past decade or more, and some are experiencing a decline in whole of life outcomes" (National Mental Health Commission, 2024). This is occurring despite steadily increasing per capita expenditure on mental healthcare in Australia since the early 1990s (Australian Institute of Health and

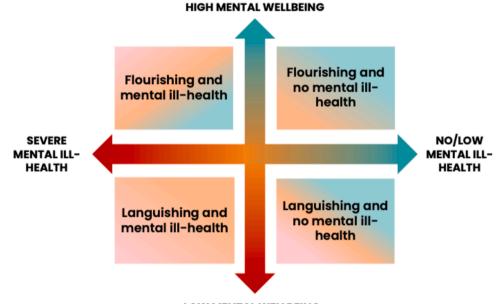
https://doi.org/10.1016/j.mhp.2025.200403

Received 29 November 2024; Received in revised form 26 January 2025; Accepted 26 January 2025 Available online 29 January 2025 2212-6570/© 2025 Elsevier GmbH. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

The dual continua in mental health policy and practice: Screening and intervention for low mental wellbeing among youth to achieve targeted prevention.

^{*} Corresponding author at: Prevention United, 552 Victoria Street North Melbourne, Victoria 3155, Australia.

E-mail address: stephen.carbone@preventionunited.org.au (S. Carbone).



LOW MENTAL WELLBEING

Fig. 1. The dual continua model of mental health.

Welfare, 2023). Moreover, while treatments can help reduce population prevalence, they have no impact on disorder incidence.

Australia is not unique in experiencing these issues, they are a global phenomenon affecting young people worldwide (McGorry et al., 2024). If we are unable to treat our way out of this problem, then primary prevention becomes the key to alleviating the (inequitable) burden of mental ill-health. Given that around 75 % of mental health conditions are diagnosed before age 25 a focus on children and young people is imperative (Solmi et al., 2021).

2. Primary prevention

There are two main pathways to primary prevention: 1) identifying and supporting people at elevated risk and/or with incipient subthreshold symptoms of a mental health condition (selective and indicated prevention), or 2) reducing risk across the whole population by tackling causes and/or putting in place protective factor offsets (universal prevention). Both pathways are complicated but achievable. The first requires screening for high risk and/or incipient symptoms followed by appropriate intervention. The second requires efforts to tackle either the most 'potent' cause(s) (i.e., child maltreatment) or multiple causes simultaneously (i.e. addressing the polycrisis). The second approach has been discussed in a previous Special Issue (Reavley & Jorm, 2024, in press), and our focus here is on targeted prevention (i.e., selective or indicated).

At present screening for risk is difficult as we lack sufficiently sensitive and specific tools to measure key predictors of future mental illhealth. Such predictive screening is available for many physical health conditions such as cardiovascular disease (Nelson et al., 2024) and colorectal cancer (Shaukat & Levin, 2022), but not for mental health. Screening for incipient symptoms is easier with existing tools such as the Kessler Psychological Distress Scale (Mewton et al., 2016) – which is routinely used in primary care settings – and other screening for subthreshold disorders is uncommon in Australia, and even when people demonstrate worrying symptoms, proactive action is rarely taken unless they meet a disorder threshold.

One option for improved primary prevention is therefore to improve the way we identify and support the cohort of individuals with subthreshold symptoms of depression and anxiety. However, convincing individuals with subthreshold symptoms to access clinical support can be difficult, and in the context of demand for services already exceeding supply, this would only work if support options were provided by 'nonclinical' service providers or through digital and online programs.

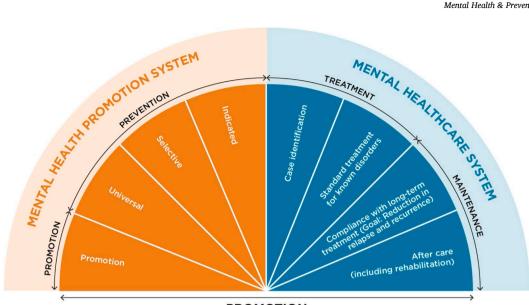
An alternative and currently overlooked targeted approach is to focus on screening for low mental wellbeing. This approach is based on the principle of the dual continua of mental health.

3. The dual continua model of mental health

According to the 'dual continua' model of mental health (Westerhof & Keyes, 2010, see Fig. 1), mental wellbeing is a dimension of mental health that is distinct from experiences of mental ill-health. It can be defined as feeling good (i.e., hedonic wellbeing) and functioning well psychologically and socially (i.e., eudaimonic wellbeing) (Huta & Waterman, 2014). A high level of mental wellbeing is often termed 'flourishing' and a low level termed 'languishing' (Keyes, 2002). The experience of mental wellbeing is correlated with, but independent to the experience of mental ill-health, and according to Keyes 'complete' mental health consists of high levels of mental wellbeing coupled with no or few symptoms of mental illness. This has important implications for mental health policy and practice, especially with respect to primary prevention (Iasiello et al., 2020).

4. Screening and intervention for low mental wellbeing

Screening for low mental wellbeing could potentially provide significant benefits as an alternative (or complement) to screening for subthreshold mental health conditions. Low mental wellbeing is a predictor of future mental illness (Keyes et al., 2010, 2020). People whose scores on complementary measures of mental wellbeing and mental ill-health place them in the bottom left-hand quadrant of Fig. 1 (i.e., those who are experiencing low levels of mental wellbeing *but* low levels of mental ill-health) are around seven times more likely to be diagnosed with a mental health condition and/or episode within the next 2–10 years (Keyes et al., 2010, 2020). Second, low levels of mental wellbeing cause sufficient distress and impairment to warrant intervention in their own right (Lam et al., 2024). And third, from a practical perspective encouraging young people to access interventions to boost their mental wellbeing may prove easier than encouraging young people to access



PROMOTION

Fig. 2. The dual systems approach to mental health.

interventions to treat subthreshold mental ill-health.

5. What's required?

The dual continua model suggests that, from a targeted perspective, we should focus on young people with *either* low mental wellbeing *or* subthreshold symptoms of mental ill-health with pre-emptive, preventive focused wellbeing and support initiatives. Screening young people for signs of languishing could be done through schools, universities, primary care settings or online, using validated instruments such as the Mental Health Continuum Short-Form (Lamers et al., 2011) or COMPAS-W Wellbeing Scale (Lam et al., 2024). Indeed, for primary prevention to be most effective, we need to identify young people who are languishing through the natural settings in which they live, learn, and play (i.e., schools, universities, sporting and recreation clubs, arts and culture groups, online communities, and so on). This screening could be done on its own or alongside standard measures of mental ill-health such as the Kessler Psychological Distress Scale (Mewton et al., 2016).

However, screening is only the first step towards effective targeted prevention. It is equally important that young people who are languishing are referred or linked to appropriate interventions. Recent reviews have identified a wide range of evidence-based initiatives that could potentially be used to promote mental wellbeing. Broadly speaking this includes initiatives to promote healthy behaviours (e.g., regular physical activity, good sleep hygiene, healthy eating, nonsmoking/vaping, time in nature, participation in the arts); those to promote healthy thinking [e.g., mindfulness, positive psychology interventions, and psychological strategies derived from Acceptance and Commitment Therapy (ACT) or Cognitive Behaviour Therapy (CBT)]; strategies to encourage positive relationships and social connectedness (e.g., youth mentoring, social prescribing); and activities that promote a sense of accomplishment, meaning and purpose (e.g., sport, youth development programs, volunteering)(Daykin et al., 2018; Seligman, 2018; Titov et al., 2024; van Agteren et al., 2023).

In trends that are common throughout developed countries, Australia has a range of not-for-profit providers trying to make these interventions available to young people, including through schools as a primary setting for reaching children and young people. However, they are currently not supported by government funding or health insurance subsidies to the same degree that mental healthcare treatments are in Australia. This is despite the fact that such interventions: 1) carry far less stigma than accessing mental healthcare services; 2) can be provided by a range of service providers rather than by clinicians who are in very short supply; and 3) can generally be provided cost-effectively at a relatively low cost per person. In Australia, economic evaluations estimate that several evidence-based interventions (e.g., e-Health interventions to prevent of anxiety disorders in young people, parenting interventions to prevent anxiety disorders in children, school-based interventions to prevent bullying, and school-based psychological interventions to prevent depression in young people) have positive returns-on-investment (ROIs between 1.19–3.06) which, if implemented at-scale, could save society/government millions of dollars in treatment costs for future mental health conditions (National Mental Health Commission, 2019).

This dearth of investment in youth mental health promotion is also occurring despite the fact that initiatives that promote flourishing, such as participation in arts and cultural activities and access to green spaces, are the types of interventions that young people are calling for in addition to traditional mental healthcare services (Houlihan et al., 2024).

6. Conclusion - Focusing on promotion to achieve prevention

We are currently seeing a dramatic decline in young people's mental health. To successfully stem or even reverse this trend, we need to place greater emphasis on preventing mental illness. Screening and intervention for low mental wellbeing offers a novel way to achieve this.

Low mental wellbeing is a significant predictor of future mental illhealth and it is also a distressing and disabling state that requires intervention in its own right. For these reasons we need large scale screening for low mental wellbeing, using validated measures. We then need to link young people into evidence-based interventions that promote mental wellbeing through their school, university, local community or online. This could provide a new, effective, low-stigma, approach to targeted prevention.

From a systems perspective, we need to adopt a dual systems approach to mental health that aligns with the dual continua model of mental health. This requires building and then integrating a new mental health promotion system that complements our existing mental healthcare system (see Fig. 2). At present, the dual continua model of mental health is a theoretical model waiting to be translated into policy and practice. The dire state of youth mental health in Australia and globally is an urgent call-to-action for everyone in government, health, community, and family settings to do more to protect those in their care. Making full use of the available evidence and the tools at-hand is a logical first step.

Funding statement

No funding was received for the preparation of this manuscript.

CRediT authorship contribution statement

Lachlan Kent: Writing – review & editing, Writing – original draft, Conceptualization. Maja Havrilova: Writing – review & editing, Conceptualization. Suzanne Dick: Writing – review & editing. Stephen Carbone: Writing – review & editing.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Prevention United, a non-profit mental health promotion charity, delivers mental health promotion training and consulting to public and private sector clients. In the course of this paid work, it advocates for the use of the dual continua approach. It does not, however, have a financial interest in any specific measure of mental wellbeing as advocated for in this article, although it does hold intellectual property over a mental health promotion online program. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The authors would like to thank members of Prevention United's Youth Advisory Group for their contribution to our work, including the development of the Youth Survey cited herein.

References

- Australian Bureau of Statistics. (2023). National survey of mental health and wellbeing: summary of results (2020-2022). https://www.abs.gov.au/statistics/health/mental -health/national-study-mental-health-and-wellbeing/latest-release.
- Daykin, N., Mansfield, L., Meads, C., Julier, G., Tomlinson, A., Payne, A., et al. (2018). What works for wellbeing? A systematic review of wellbeing outcomes for music and singing in adults. *Perspectives In Public Health*, 138(1), 39–46. https://doi.org/ 10.1177/1757913917740391
- Enticott, J., Dawadi, S., Shawyer, F., Inder, B., Fossey, E., Teede, H., et al. (2022). Mental health in Australia: Psychological distress reported in six consecutive cross-sectional national surveys from 2001 to 2018. *Frontiers in Psychiatry*, 13, Article 815904. https://doi.org/10.3389/fpsyt.2022.815904
- Grummitt, L., Baldwin, J. R., Lafoa'i, J., Keyes, K. M., & Barrett, E. L. (2024). Burden of mental disorders and suicide attributable to childhood maltreatment. JAMA Psychiatry. https://doi.org/10.1001/jamapsychiatry.2024.0804
- Houlihan, M., Maidment, K., Carbone, S., Kent, L., Orr, T., & Prevention united youth advisory group - Sander, A. et al. (2024). *Be part of the ripple – Listening to the voices that matter!* https://nest.greenant.net/s/sGS3taGinLBPt4L.
- Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from Hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 15(6), 1425. https://doi.org/10.1007/s10902-013-9485-0

- Iasiello, M., Agteren, J., & Muir-Cochrane, E. (2020). Mental health and/or Mental illness: A scoping review of the evidence and implications of the dual-continua model of Mental health. *Evidence Base*, 2020(1), 2–45. https://doi.org/10.21307/eb-2020-001
- Jorm, A. F. (2014). Why hasn't the mental health of Australians improved? The need for a national prevention strategy. Australian & New Zealand Journal of Psychiatry, 48(9), 795–801. https://doi.org/10.1177/0004867414546387
- Keyes, C. L., Dhingra, S. S., & Simoes, E. J. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American Journal of Public Health*, 100(12), 2366–2371. https://doi.org/10.2105/ajph.2010.192245
- Keyes, C. L. M., Yao, J., Hybels, C. F., Milstein, G., & Proeschold-Bell, R. J. (2020). Are changes in positive mental health associated with increased likelihood of depression over a two year period? A test of the mental health promotion and protection hypotheses. *Journal of Affective Disorders*, 270, 136–142. https://doi.org/10.1016/j. jad.2020.03.056
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. Journal of Health Society and Behaviour, 43(2), 207–222.
- Lam, J. R., Park, H. R. P., & Gatt, J. M. (2024). Measuring mental wellbeing in clinical and non-clinical adolescents using the COMPAS-W Wellbeing Scale. Frontiers in Psychiatry, 15, Article 1333828. https://doi.org/10.3389/fpsyt.2024.1333828
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the mental health continuumshort form (MHC-SF). Journal of Clinical Psychology, 67(1), 99–110. https://doi.org/ 10.1002/jclp.20741
- McGorry, P. D., Mei, C., Dalal, N., Alvarez-Jimenez, M., Blakemore, S. J., Browne, V., et al. (2024). The lancet psychiatry commission on youth mental health. *The Lancet Psychiatry*, 11(9), 731–774. https://doi.org/10.1016/S2215-0366(24)00163-9
- Mewton, L., Kessler, R. C., Slade, T., Hobbs, M. J., Brownhill, L., Birrell, L., et al. (2016). The psychometric properties of the Kessler psychological distress scale (K6) in a general population sample of adolescents. *Psychological Assessment, 28*(10), 1232–1242. https://doi.org/10.1037/pas0000239
- National Mental Health Commission. (2019). The economic case for investing in mental health prevention - Summary. Canberra: NMHC.
- National Mental Health Commission. (2024). National report card 2023. Sydney: NMHC. Nelson, M. R., Banks, E., Brown, A., Chow, C. K., Peiris, D. P., Stocks, N. P., et al. (2024). 2023 Australian guideline for assessing and managing cardiovascular disease risk. Medical Journal of Australia, 220(9), 482–490. https://doi.org/10.5694/mja2.52280
- Rearley, N. J., & Jorm, A. F. (2024). What should a nation do to prevent mental and behavioural disorders? Key elements of a national strategy. *Mental Health & Prevention*, 200360. https://doi.org/10.1016/j.mhp.2024.2003602025.
- Seidler, Z. E., Rice, S. M., Dhillon, H. M., Cotton, S. M., Telford, N. R., McEachran, J., et al. (2020). Patterns of youth mental health service use and discontinuation: Population data from Australia's headspace model of care. *Psychiatric Services*, 71 (11). 1104–1113. https://doi.org/10.1176/appi.ps.201900491
- Seligman, M. (2018). PERMA and the building blocks of well-being. The Journal Of Positive Psychology, 13(4), 333–335. https://doi.org/10.1080/ 17439760.2018.1437466
- Shaukat, A., & Levin, T. R. (2022). Current and future colorectal cancer screening strategies. Nature Reviews Gastroenterology & Hepatology, 19(8), 521–531. https:// doi.org/10.1038/s41575-022-00612-y
- Smout, S., Champion, K.E., O'Dean, S., Halladay, J., Gardner, L.A., & Newton, N.C. (2024). Adolescent lifestyle behaviour modification and mental health: Longitudinal changes in diet, physical activity, sleep, screen time, smoking, and alcohol use and associations with psychological distress. International Journal of Mental Health and Addiction. https://doi.org/10.1007/s11469-024-01350-9.
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., et al. (2021). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, 27. https://doi.org/10.1038/s41380-021-01161-7
- Titov, N., Dear, B. F., Nielssen, O., Barrett, V., Kayrouz, R., & Staples, L. G. (2024). A pilot study examining whether restricting and resuming specific actions systematically changes symptoms of depression and anxiety. A series of N-of-1 trials. *Behaviour Research and Therapy*, 177, Article 104536. https://doi.org/10.1016/j. brat.2024.104536
- van Agteren, J., Iasiello, M., & Lo, L. (2023). A guide to what works for mental wellbeing. Melbourne, Australia: Beyond Blue.
- Australian Institute of Health and Welfare, A.G. (2023). Expenditure on mental healthrelated services. https://www.aihw.gov.au/mental-health/topic-areas/expenditure.
- Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, 17(2), 110–119. https://doi.org/10.1007/s10804-009-9082-y