

NATIONAL MENTAL HEALTH RESEARCH STRATEGY

BACKGROUND PAPER: Young people (Session 5A)

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Introduction

Young people demonstrate high rates and burden of mental illness, making them a key population target for early intervention. Over a decade ago, the youth mental health sector was created to address the full range of mental health and social needs of young people aged 12 to 25 years.¹ Since it began in Australia, evidence-informed youth mental health reform has expanded to many countries, improving access to care and the outcomes of young people.^{1,2,3,4,5,6}

Background

The following areas relevant to youth mental health have achieved broad consensus:

- Becoming an adult is a lengthened process. The age of 18 no longer represents the commencement of adulthood, with mature adulthood now achieved around the mid to late 20s.^{7,8} This is reflected in the World Health Organization's definition of young people (10-24 years).
- Mental disorders are common among young people. The vast majority develop between childhood and young adulthood, prior to 24 years of age.⁹
- Mental illness in young people is often associated with ongoing disability, including impaired social functioning, reduced educational achievement, unstable employment, substance abuse and victimisation.^{10,11}
- The traditional configuration of mental health services based on a paediatric-adult split (i.e. child and adolescent mental health services vs. adult mental health services) is a design flaw.¹² It fails to reflect the pattern of mental illness onset and impact as well as the developmental and cultural needs of young people.
- Treatment in the earliest stages of mental illness can improve outcomes, particularly for psychotic disorders^{13,14,15,16} but also for depression, borderline personality disorder and other diagnoses.^{6,17,18,19}
- The course and functional impacts of even the most serious forms of mental illness can be positively altered through early intervention.^{16,20}
- Integrated mental health services for young people, including *headspace*, can improve service access, symptomatic and functional recovery, and client satisfaction.^{5,6}
- Early intervention in psychosis and youth mental health is valued by young people and their families.^{5,21}
- There are strong economic benefits for Australia to invest in youth mental health. It can deliver a substantial return on investment while achieving positive health and social benefits.²²

Gaps and uncertainties

The International Youth Mental Health Research Network²³ and Orygen²⁴ have recently conducted extensive consultation processes to identify current research gaps and develop research priorities for youth mental health. The following key research gaps were identified by the International Youth Mental Health Research Network. The research priorities developed are detailed in the 'Opportunities' section below.

Prevention, mental health promotion and epidemiology

The extensive evidence accumulated over the past three decades has challenged the historic, and now obsolete, view that mental disorders could not be prevented. A current gap is identifying modifiable risk and protective factors that can be effectively targeted by preventive interventions.

Despite increased provision of youth-specific models of care, seeking help for a mental disorder can be a challenging and complex process for young people. Mechanisms and strategies that improve young people's awareness of mental health issues and how, when and where to seek help are needed, in addition to research on stigma reduction.

Neuroscience and development

Despite numerous research attempts, there is limited understanding of the causes of mental disorders and the factors that predict treatment response. A limitation of the evidence base is that research efforts have not sufficiently focused on the early stages of mental illness.

Transdiagnostic clinical staging

Clinical staging is a new diagnostic method in psychiatry that links diagnosis with treatment and acknowledges the continuum of mental disorders (from asymptomatic to chronic illness) that is not captured by current diagnostic systems.^{25,26} Clinical staging has become increasing popular among researchers; however, a consensus approach has not been achieved, leading to inconsistency in how staging has been applied. A number of other new diagnostic approaches that complement clinical staging have been developed, but how these approaches can be combined to enhance the clinical utility of diagnosis is yet to be determined.

Treatment and novel interventions

Available therapies predominately target acute symptoms of mental disorders rather than long-term relapse prevention and functioning. This is reflected by their limited short and long-term outcomes. One third to half of young people with a mental disorder do not respond to first-line treatments^{27,28} and approximately 50% experience multiple episodes.²⁹ To improve these outcomes, the development of effective novel interventions, such as biotherapies, is needed in addition to addressing the challenges in implementing evidence-based programs and treatments into clinical practice.

New technologies

Preliminary evidence supports the effectiveness of digital mental health interventions.^{30,31,32} However, their translation into current models of care remains a challenge due to low patient and clinician uptake, the design of interventions and ineffective implementation strategies.^{33,34} The right balance between digital and existing service delivery platforms requires investigation.

Socio-cultural factors

Socio-cultural factors can influence mental illness onset as well as an individual's access to treatment. These factors are complex and greater research is needed to determine how they can be addressed within specific communities (e.g. indigenous, multicultural).

Service delivery and innovation

Integrated youth mental health services, such as *headspace*, improve access to care and yield favourable recovery outcomes. However, there is as yet no single integrated service delivery model that is regarded as the gold standard.³⁵

Translation and implementation

A significant body of knowledge and evidence has been built in youth mental health on the components of care and youth friendly service models, as well as effective interventions and treatments, particularly for psychosis and vocational programs.^{13,16,20,36,37,38} However, major gaps exist in access, knowledge translation and implementation science. This has impacted the routine delivery of evidence-based strategies for early diagnosis and treatment.^{39,40,41} Strategies and resources need to be developed and made available to the whole sector (both research and service delivery) to effectively translate relevant findings into practice in a timely and consistent manner.

Challenges

Lack of funding

To effectively implement national and global change, adequate investment in youth mental health research and care is critical. Research into the prevention, diagnosis and treatment of mental illness, particularly for children and young people, is significantly underfunded,⁴² obstructing progress in mental health care. In Australia, 7–8% of research funding from the NHMRC is awarded to mental disorder research, including substance use disorders, which stands in sharp contrast to its burden of disease (14.6%).⁴³

Pharmaceutical innovation and investment to support treatment discoveries have diminished and are exceedingly low compared to cancer research,^{44,45} despite the greater societal return on investment generated through mental health care.^{40,46} This has hindered the development of new biological interventions, which are important for early and personalised intervention.

Reinforce youth mental health as a discrete sector

The progress achieved in creating a youth mental health paradigm needs to be built upon to ensure that it is distinct from child and adolescent mental health, which has not achieved the same level of research output. Better integration between the various mental health service delivery levels (e.g. primary, tertiary care) and the research sector would enhance research capacity and translation.

Insufficient workforce

The critical mass of researchers needed to support further progress in youth mental health and early intervention, especially for non-psychotic disorders, is currently lacking. Strategies to attract and retain researchers and to support clinicians to engage in research are required.

Engaging vulnerable populations

Mental health research into vulnerable populations, such as Aboriginal and Torres Strait Islander, culturally and linguistically diverse and homeless young people, is challenging due to difficulties in engaging with these populations. To improve recruitment and retention of participants, strategies are needed that target specific barriers and facilitators.

Lack of common tools to assess mental health symptoms

There is a need to develop a standardised assessment toolkit that can be utilised nationally and internationally. This would enable the generation of large datasets that could be used to answer critical research questions. What should be measured and how is an area requiring consensus.

Opportunities

The national and global progress achieved thus far has been facilitated by a number of platforms that have originated in Australia and have supported national and global evidence-based reform through innovation in research and translation. These include the International Early Psychosis Association (now known as IEPA: Early Intervention in Mental Health to reflect its broader transdiagnostic focus), the journal *Early Intervention in Psychiatry* and the International Association for Youth Mental Health. New platforms are detailed below.

International Youth Mental Health Research Network (IYMHRN)

IYMHRN, a subprogram within the International Association for Youth Mental Health, aims to bring together researchers and research institutions with an interest in youth mental health from across the world to:

- collaboratively establish a set of international research priorities in youth mental health
- enable the generation of new knowledge through innovation and the exchange of research outcomes
- establish an evidence-based case for increased funding and investment in youth mental health research and service delivery
- identify, nurture and professionally develop a team of high-quality researchers and research leaders
- consult with young people and families in framing and progressing IYMHRN's aims, principles and priorities.

The global coverage and expertise of the IYMHRN places it in a strong position to generate significant gains in youth mental health research through collaborations that capitalise on the wealth of data collected to date, whilst also fostering opportunities for new and innovative discoveries.

This network has made substantial progress that provide major opportunities for youth mental health research, including:

- the <u>identification of critical research gaps</u> (see 'Gaps and uncertainties', above)
- the <u>development of global research priorities</u> for youth mental health (see table below), recently published in the journal *Early Intervention in Psychiatry*.²³ The recommended priorities are directed towards areas that are likely to generate the greatest impact on youth mental health nationally and internationally
- establishment of a Lancet Psychiatry Commission on Youth Mental Health⁴⁷
- development of an international consensus statement on clinical staging for young people.⁴⁸

Table: Research priorities for youth mental health²³

Research area	Research priorities
Prevention, mental health promotion and epidemiology	 Identify malleable risk and protective factors for preventive interventions Develop an accepted common language and terminology for positive mental health and mental illness Focus on high-risk groups, notably LGBTIQ people, refugees, indigenous populations, culturally and linguistically diverse populations, and young people in out-of-home and statutory care Conduct international comparative population and cohort studies Develop an internationally standardised toolkit of assessment and outcome measures for youth mental health, including a core instrument or set of instruments that is used transnationally to evaluate and compare service outcomes and to identify effective or ineffective service features
Neuroscience and development	 Conduct biomarker studies in broader transdiagnostic samples of patients from the earliest stages of mental ill-health, using multiple methods and more potent statistical tools Enable the better prediction of outcome in young people with mental ill-health by developing relevant developmental trajectory curves (including brain and epigenetic age, and cognitive development) that can use neurobiological data combined with clinical and functional data to map the impact of treatments Proactively link to general population neurological and development research and build on these findings with a focus on mental health
Transdiagnostic clinical staging	• Develop an international consensus statement for clinical staging in youth mental health that will enhance clinical practice, support youth mental health service planning, and can provide a framework for research
Treatment and novel interventions	 Accelerate the development of new and novel interventions and the translation of knowledge through sector networking, knowledge sharing and supporting study designs Re-engage with the pharmaceutical industry to support the creation of new biological therapies Build on virtual technologies by investing in research and development for psychosocial therapies that incorporate virtual or augmented reality
The role of new technologies in youth mental health	 Build new service delivery models that incorporate technology and ensure these models can (1) promptly and effectively adapt to technological advances and (2) be supported by rapid and iterative development and evaluation approaches, using methodologies such as co-design with young people to ensure their involvement in the process of continuous improvement
Socio-cultural factors and youth mental health in low- and middle- income	 Capitalise on the already existing broader global health and mental health sector (that is already significantly funded by organisations such as Grand Challenges Canada and the National Institutes of Health) by becoming more involved in and partnering with initiatives and organisations already working in these areas Investigate the opportunities to conduct a World Health Survey focused on young people that includes a wider range of LMICs given the large population of young people within these nations

countries (LMICs)	
Services, delivery and innovation	 Develop robust trial methodologies that are applicable across a range of mental health systems (i.e. established or minimally established) and would allow the youth mental health sector to make more definitive statements about the key aspects of the ideal youth mental health service delivery model Transnationally test a consensus model of care that can be implemented in a range of high-income countries (HICs) and LMIC settings, and that accounts for all countries' financial and infrastructure constraints. This includes models utilising lay health workers within LMICs, which may also be applied to certain settings within HICs (i.e. remote and low-resource areas, indigenous communities)
Translation and implementation	 Model consumer and stakeholder preferences for knowledge translation, transfer and exchange approaches to determine what works for whom Build the capacity of youth mental health researchers to conduct translational research and develop a technical assistance centre to support researchers internationally in developing and delivering implementation science Invest in training and education to build the capacity of the broader youth mental health workforce (including fellowships, global exchanges) for knowledge translation and implementation Develop online courses, including massive open online courses, to facilitate knowledge transfer and translation at a global level

National Research Priorities Framework

Orygen has also developed a National Research Priorities Framework²⁴ in order to identify priorities and objectives consistent with enabling Australian youth mental health research to address a number of goals aimed at better understanding and treating young people experiencing mental ill-health. <u>The goals of the Framework align with national policy directions and service system priorities</u> while leveraging Australia's unique national youth mental health service system through large-scale studies that are now possible for the first time in the youth mental health field. This represents a key opportunity for future progress.

The Framework outlines a set of research priorities for youth mental health that was developed following a comprehensive consultation process with a broad range of stakeholders. These priorities, together with the priorities developed by the IYMHRN, confirm a number of areas that should be a national priority for research:

- epidemiology and prevention of mental illness
- mental health promotion
- new and novel interventions (e.g. biological, online and virtual reality)
- service delivery
- translation and implementation.

Clinical trial networks

There is a strong need and opportunity for a clinical trial network in youth mental health. Orygen has recently led the design of a <u>Child and Youth Mental Health Clinical Trial Network (CYMH CTN)</u>, the first in mental health, which is being facilitated by the Australian Clinical Trials Alliance (ACTA) and the Commonwealth Department of Health. The CYMH CTN is broadly focused on a range of mental health diagnoses.

Orygen is also the host for the new <u>Australian Early Psychosis Collaborative Consortium (AEPCC)</u>, funded by the Wellcome Trust. This is a national clinical registry and clinical trials and translation network focused particularly on early psychosis in young people. There is potential for future partnership between these networks to ensure strategic alignment and increase efficiencies.

The CYMH CTN poses a number of benefits and opportunities. It will:

- create a re-usable, sustainable and shared infrastructure to strengthen the capacity, quality, efficiency and effectiveness of clinical trials in child and youth mental health. This can subsequently support trials across the whole of the lifespan, from younger children to the elderly
- play a vital role in the implementation of high-quality mental health care for children and young people and strengthen collaborations between mental health care and research professionals
- increase research involvement and build research capacity across the child and youth mental health care sector, and develop a strong research culture in these settings.

Other key opportunities

- Engaging with young people and families in defining areas of research and informing, and participating in, the implementation of research activities.
- Leveraging Orygen's partnership with the World Economic Forum to develop a global framework for youth mental health and an associated investment framework. This represents a significant opportunity to increase the spread of the youth mental health sector and enhance collaboration between leading centres in mental health research and care.⁴⁹
- Harnessing 'big data' by linking mental health data with educational, social and other health datasets. While the advantage of this is that it would create large datasets, it would also build research capacity through the recruitment of skilled researchers who are able to analyse these datasets.
- Funding opportunities: The Wellcome Trust has recently established a new mental health priority area that is focused on anxiety and depression in young people. The National Institute of Mental Health has also demonstrated interest in early intervention for psychosis. A long-term investment and commitment to youth mental health research is essential.

Conclusion

The youth mental health field has emerged and matured over the last two decades. To capitalise on this growth, it is critical that the sector develops a strategy that addresses critical research gaps and explores effective methods to implement findings that deliver improved outcomes for young people. Australia has been an international leader in youth mental health (and early psychosis) research and service reform. To continue this leadership, youth mental health research requires adequate coordination, planning and funding.

The enabling platforms for this have already been developed through the creation of a research priorities framework for youth mental health and the establishment of the International Youth Mental Health Research Network, the Child and Youth Mental Health Clinical Trial Network and the Australian Early Psychosis Collaborative Consortium. National research priorities should focus on the epidemiology and prevention of mental illness, mental health promotion, neuroscience and development, clinical staging, novel interventions, technology, socio-cultural factors, service delivery, and translation and implementation.

The above platforms have the potential to further transform the youth mental health sector by substantially strengthening research capacity and maximising the translational success of research findings in collaboration with key stakeholders, including young people, their families, mental health clinicians and service providers, and policy makers.

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