Transition-Age Youth Evidence Brief

August, 2016

Mental Health Promotion, Prevention, and Early Intervention through Campus Interventions and Integrated Service Centres

Purpose

The purpose of this evidence brief is to outline the available evidence on specific mental health promotion, prevention, and early intervention interventions for transition-age youth (TAY). Although there are a range of interventions for this population, mental health promotion and mental illness prevention interventions for post-secondary students and integrated service centres have been selected as priority areas for this evidence brief. Outcomes related to each of the priority intervention areas are presented, as well as the components of effective programming, as outlined in the literature.

The evidence presented in this brief can be used to inform policy and practice decisions, to promote the mental health of transition-age youth in the province, in support of Phase Two of Ontario's Mental Health and Addictions Strategy.

Main Messages

- Mental health promotion, prevention and early intervention supports for TAY must include interventions both on campus and in community-based settings that are diverse, integrated, and comprehensive.
- Promoting the mental health of post-secondary students requires on-campus programming targeted at individual students, as well as whole campus approaches that include the provision of comprehensive services and changes to the institutional structure and campus environment.
- Whole campus approaches to promoting mental health should include: a mental health strategy, comprehensive policy development, leadership at multiple levels, the integration of physical and mental health services, diverse additional supports for students, professional development and staff support, proactive communication strategies, appropriate funding and resourcing, and an inclusive campus ethos.
- Skills-based programs that incorporate supervised behaviour practice and feedback, such as those aimed at building cognitive-behavioural skills, mindfulness, or relaxation, have been shown to be effective at reducing levels of psychological distress among post-secondary students.
- Multi-component cognitive-behavioural programs, brief motivational interventions and personalized normative feedback interventions show the strongest evidence of effectiveness at reducing alcohol consumption among post-secondary students.
- Early evidence has demonstrated that integrated service centers, on campus or in the community, are effective at increasing access to mental health supports for TAY and somewhat effective at reducing psychological distress.

EENet Evidence Exchange Network for Mental Health and Addictions
www.eenet.ca
camh PSSP Provincial System Support Program

Background

Increasingly, the transition into adulthood is a more prolonged and unstable developmental age (McGorry et al., 2013). One in five young people in Canada between the ages of 15 and 24 report experiencing mental health or substance use concerns (British Columbia Integrated Youth Service Initiative, 2015). Those experiencing mental health concerns during this transitional time may also experience poor functioning, homelessness, justice involvement, and challenges with education and employment. These challenges are experienced more acutely by youth from vulnerable populations such as First Nations, Inuit, Métis, and newcomer youth, youth with disabilities, lesbian, gay, bisexual, and transgender youth and those involved with the justice and child welfare systems (Mental Health Commission of Canada, 2015).

The term transition age youth (TAY) typically refers to individuals between the ages of 16 and 25, however some have adopted a more flexible definition of TAY by identifying them to be as young as 12 years old (Cappelli & Davidson, 2011). Importantly, Cappelli & Davidson (2011) suggest that developmental age, rather than chronological age, should be considered in both the delivery and planning of mental health interventions.

Research from Canada, the United Kingdom, United States, and Australia demonstrates similar findings with respect to the inadequacy of financial and institutional structures at the interface of the child and adult mental health systems (Vloet et al., 2011). It is at this interface that McGorry et al. (2013) states that the mental health system is at its weakest. The Mental Health Commission of Canada (2015) suggests that what is needed to address the needs of TAY is an integrated, accessible, and responsive system that incorporates a spectrum of services, including universal promotion and prevention initiatives, as well as intensive services. Furthermore, economic analysis has demonstrated that there is a significant return on investment in mental health interventions for young people (BC-IYSI, 2015).

TAY require diverse, integrated, and comprehensive supports that promote mental wellness and seek to provide early identification of concerns related to mental health and substance use. As such, mental health promotion, prevention and early intervention supports for TAY must include programs both on campus and in community-based settings.

Context

Addressing the mental health and substance use needs of TAY is currently a high priority in Ontario. Closing critical service gaps for youth at key transition points is one focus of Open Minds, Healthy Minds, Ontario's comprehensive mental health and addiction strategy (Government of Ontario, 2011; OMHALAC, 2015). The first phase of the strategy focused intensely on children and youth. Ontario is now building on the first phase, expanding it to integrate services for TAY and to improve transitions between youth and adult services, between acute and community services, and between the health and justice systems, as well as between secondary and post-secondary educational settings.

Methodology

To guide the development of this evidence brief, the team established a research question, search strategy and inclusion/exclusion criteria. The research question was: "What does the evidence say about interventions related to mental health promotion, prevention, and early intervention for TAY?" More specifically, the research explored what the outcomes and components are of 1) mental health promotion and prevention interventions for post-secondary students, and 2) integrated service centres for TAY.

Key search terms included the following: mental health; mental health promotion; mental illness prevention; early intervention; campus; post-secondary, college or university students; integrated services; youth, young adult, transition age, or emerging adult.

The team reviewed peer-reviewed and grey literature published in English between 2006 and 2016. The following sources were searched: Google, Google Scholar, HealthEvidence.ca, and the Cochrane database of systematic reviews. In addition, the reviewers consulted with experts in the fields of youth and young adult mental health and conducted hand searching of reference lists.

Only review-level publications, such as meta-analyses and systematic reviews, were included in the search for evidence on campus interventions and interventions for TAY more broadly. The review of evidence on integrated service centres included single studies due to a scarcity of review-level literature.

The Evidence

Integrated Service Centres for Transition-Age Youth

The integration of physical and mental health services for TAY occurs both in community-based and campus settings. Integrated services are focused on early intervention and early identification of mental health and substance use concerns in TAY. They are designed to eliminate typical help-seeking access barriers and provide a 'soft entry' into the mental health system. Services provided may address concerns related to physical health, sexual health, mental health, substance use, family and situational issues, and vocational/ employment. TAY with mild to moderate psychological distress are provided with brief intervention and diverse supports, while those with significant mental health concerns are provided with supports to access services supported that are more appropriate to their needs.

Well-established examples of community-based integrated service centres include *headspace* in Australia and Jigsaw in Ireland:

- *headspace* centers aim to improve mental health outcomes by reducing help-seeking barriers and facilitating early access by providing a network of accessible, youth-friendly integrated community-based service hubs to respond to the mental health, general health, alcohol/drug and vocational concerns of transition age youth. Funded by the federal government, centres have been set up across Australia in various community-based settings that vary based on local capacity (Rickwood et al., 2015a; Rickwood et al., 2015b; McGorry et al., 2013; Vloet et al., 2011).
- Similarly, *Jigsaw* is an early intervention mental health service for youth aged 12-25 which provides mental health services and supports in collaboration with additional community services (O'Keefe et al., 2015; O'Reilly et al., 2015). Jigsaw was developed in response to the need for transformation of existing specialist mental health services found to be inadequate to engage and serve youth (McGorry et al., 2013; O'Reilly et al., 2015). O'Keefe et al. (2015) states that the core objectives of *Jigsaw* are ensuring young people have access to youth-friendly integrated mental health supports in their community, building capacity in front line workers to support young people's mental health, and promoting com- munity awareness.

Outcomes

Currently, no review level evidence is available on integrated services for TAY focused on prevention and early intervention in either a community or campus setting.

Evaluative studies have been conducted to describe early outcomes of both headspace and Jigsaw, which include increasing access, engagement, and reduction in psychological distress.

Both *headspace* and *Jigsaw* have been successful at reaching their target populations:

- Youth accessing the centers are most often between 15 and 17 years old, but there are significant numbers of youth aged 18 and 25 accessing service (Rickwood et al., 2015a; O'Reilly at al., 2015; McGorry et al., 2013).
- O'Reilly et al. (2015) found that almost half the youth engaging with *Jigsaw* were male, while a third at *headspace* were male (Rickwood et al., 2015a). This is significant as young males are traditionally less likely to seek help in relation to their mental health (O'Keefe et al., 2015).
- The majority of youth sought help for mental health concerns, with symptoms of depression and anxiety being the most common issues (Rickwood et al., 2015a; Rickwood et al., 2015b; O'Reilly et al., 2015).

The following was found with respect to engagement and access:

- Rickwood et al. (2015a) demonstrated the majority of *headspace* clients waited less than 2 weeks between request for appointment and initial service; 90% of youth self-reported they did not wait too long for initial services; and 93% of youth accessing *headspace* said they were satisfied with the care they received (McGorry et al., 2013).
- High-levels of self-referral and referral from parents helped to facilitate access (O'Reilly et al., 2015; Rickwood et al., 2015a).
- At *Jigsaw*, O'Keefe et al. (2015) found that the majority of youth that did receive service and were not referred to another service as the brief intervention provided was effective.
- Rickwood et al. (2015a) notes that while the majority of youth engaging with these centers are looking for mental health support, others seek support related to bullying or relationships, Youth seeking general health or sexual health services also received services related to mental health and wellness. This supports the preventive and early intervention focus of integrated services.

Outcomes related directly to psychological distress for community-based integrated services are:

- O'Keefe et al. (2015) found that youth at *Jigsaw* demonstrated significant differences in psychological distress after receiving service, where 62% of youth showed clinically significant improvements.
- Evaluation from *headspace*, focused on youth seeking mental health service, demonstrated a reduction in psychological distress in 36% of youth (Rickwood et al., 2015b). However, less improvement (21%) was noticed in youth with higher initial levels of distress.

- Youth that presented with moderate-severe and severe self-reported psychological distress were referred to other services.

There are limitations to these results related to psychological distress. Rickwood et al. (2015b) notes that the absence of a control group means the changes found cannot be attributed specifically to the *headspace* centres. Jorm (2015) suggests that the changes demonstrated at *headspace* are similar to outcomes achieved without intervention and as a result, may not be significant. Further research is needed to assess the long term outcomes of integrated service centers. Research is underway in Ontario to compare the performance of recently opened integrated service centres o usual care in youth outpatient psychiatric services.

Components of Effective Programming

The following outlines the components needed to guide the development of successful integrated services for TAY. Services that are guided by these components have the potential to successfully engage TAY and their families in appropriate and high quality care. They include:

- **Developing accessible, developmentally appropriate and integrated services** by reorganizing service delivery and establishing effective partnerships across and within services (Howe et al., 2014; O'Reilly et al., 2015; Rickwood et al., 2015a; McGorry et al., 2013; ACHA, 2010; CACUSS & CMHA, 2013).
- **Commitment to a promotion and prevention framework for mental health**, including a focus on **early intervention and early identification** (Howe et al., 2014; McGorry et al., 2013).
- Providing **holistic and stepwise care,** which includes services that address concerns related to mental health, substance use, and physical health (McGorry et al., 2013; Rickwood et al., 2015a; O'Reilly et al., 2015; CACUSS & CMHA, 2013; CICMH, 2015).
- **Improving early access by eliminating structural barriers** such as referral pathways and cost (Howe et al., 2014, O'Reilly et al., 2015; Rickwood et al., 2015a).
- Establishing **youth participation** in governance, planning and implementation, including the creation of a youth-friendly, stigma-free culture (O'Reilly et al., 2015; Howe et al., 2014; McGorry et al., 2013).
- **Providing interventions**, such as **cognitive behavioral therapy**, that are **based on the best available evidence.** Other evidence-based interventions may include supportive counselling, psychoeducation, interpersonal therapy, acceptance, and commitment therapy (O'Reilly et al., 2015; Rickwood, 2015a; Rickwood et al., 2015b; Howe et al., 2014).

Integrated services for TAY can improve early access to services to address concerns related to mental health, substance use, and physical health, whether in a campus or community setting. Preliminary evidence from community-based settings has demonstrated some effectiveness at reducing psychological distress and providing developmentally appropriate and stepwise care. The following section examines the full breadth of on-campus interventions to promote mental health and prevent mental illness.

Campus Mental Health Promotion and Prevention

Many post-secondary students, both undergraduate and graduate, experience mental health concerns and social difficulties (Conley et al., 2013). Excessive alcohol consumption is also common among university and college students and represents a significant public health concern. These mental health and substance use problems can have a negative impact on academic performance and drop-out rates (Reavley & Jorm, 2010). Campus settings are recognized as providing a unique opportunity for promoting mental health, and identifying and preventing mental illness (Reavley & Jorm, 2010). There is growing realization in the postsecondary sector that approaches to student mental health which focus solely on treatment are neither effective nor sustainable (MacKean, 2011).

With increased understanding of the importance of taking an upstream approach has come the implementation of a number of campus-based interventions to foster self-esteem, improve student coping abilities, and reduce stress and depression. These include programs targeted at individuals with and without mental health concerns, along with systemic approaches to promoting positive mental health at a population level, such as changes to institutional structure and campus environment.

The following section outlines the evidence on the effectiveness of interventions, focused on:

- psychological distress,
- suicide prevention,
- alcohol misuse, and
- whole campus mental health promotion.

The components of effective interventions are also provided, where possible.

Outcomes and Components of Effective Campus Programming

i. Campus interventions for psychological distress

Evidence of the effectiveness of campus-based interventions to prevent or intervene early in instances of student psychological distress is diverse, multi-faceted, and sometimes contradictory, depending on the specific type or target of intervention. An evaluative review by Conley et al. (2013) explored controlled universal mental health promotion and prevention (MHPP) interventions involving undergraduate or graduate post-secondary students. Their focus was on programs with three main outcomes: social and emotional skills (e.g. coping, communication, assertiveness, or emotional self- awareness), self-perceptions (e.g. self-esteem/efficacy), and level of emotional distress (e.g. depression or anxiety).

The review found that skill-oriented programs that included supervised practice, composed of behaviour rehearsal and positive feedback, demonstrated the strongest benefits for all outcomes. Similarly, a meta-analysis by Conley et al. (2015) revealed that skill-training programs including a supervised practice component were significantly more effective than both psychoeducational programs and skill-training programs without supervised practice. They were found to be more effective at reducing symptoms of anxiety, stress, depression, and general psychological distress, as well as improving social-emotional skills, self-perceptions, and academic behaviours and performance (Conley et al., 2015).

Evidence related to the components of skill-training programs with supervised practice is as follows:

- One meta-analysis found that **relaxation** interventions demonstrated the most benefit, followed by **cognitive-behavioural** and **mindfulness-based interventions**, meditation, and psychoeducational interventions (Conley et al., 2015). An earlier publication found that mindfulness training, such as programs based on Jon Kabat-Zinn's Mindfulness Based Stress Reduction approach, was more effective than cognitive-behavioural techniques (Conley et al., 2013). **Psychoeducational or didactically-oriented** programs were found not to be effective (Conley et al., 2013). A review by Reavley and Jorm (2011) revealed that the majority of evaluated interventions to prevent depression or anxiety were skills-based cognitive-behavioural programs. The authors found evidence of reductions in depression or anxiety symptoms for some months following intervention, but little evidence of effectiveness in the long term, often because no follow-up was completed (Reavley and Jorm, 2011).
- **Programs involving graduate and professional students** achieve larger effects than those involving undergraduate students. Conley et al., (2015), note that this may be due to motivation or cognitive ability associated with developmental differences between these two age groups.
- **Interventions conducted as a class** are more effective than small-group programs, such as workshops (Conley et al., 2013). This may be due to duration, the familiarity of learning new content in class settings, or the effort and motivation typically associated with course-based interventions led and evaluated by an instructor. However, Conley et al., (2013, 2015), still recommend that MHPP courses containing experiential components should be incorporated into the routine structure of higher education institutions, and supported by the institutions' staff and administration.

It is important to note the high degree of variability in the outcomes of skill-training interventions explored in different studies. Specific features of effective programs are not reported in the literature due to a lack of detailed information in the studies reviewed (Conley et al., 2013; Conley et al., 2015). The factors influencing this variability are unknown and may include:

- duration of program;
- methods of defining, presenting, or demonstrating skills;
- how practice is scheduled and paced;
- how and how often feedback is delivered; and

- strategies to maintain student motivation and encourage the transfer or generalizability of learned skills (Conley et al., 2015).

Furthermore, researchers state that participant motivation or level of engagement in a given intervention may mediate outcomes as much as mastery of the skill being taught in a given program (Conley et al., 2015).

Evidence on other types of campus interventions to prevent or intervene early in instances of student psychological stress can be summarized as follows:

- **Online support groups** were found to show no additional benefit when compared to the effects on depression and anxiety symptoms of having access to an informational website (Reavley and Jorm, 2011).
- Educational programs that provided **personalized feedback** about symptoms and suggestions for coping showed mixed evidence of effectiveness; they reduced depression and anxiety symptoms, but reductions were not always maintained at follow-up. They were found in one study to improve students' treatment seeking (Reavley and Jorm, 2011).
- In terms of campus-wide interventions, Reavley and Jorm (2011) found one study showing the impact of a **social marketing** campaign to prevent depression and anxiety. The campaign showed some evidence of effectiveness at increasing student knowledge about symptoms, but not knowledge about treatment.

ii.Campus interventions for suicide prevention

A systematic review by Harrod et al. (2014) explored evidence on the effectiveness of interventions for the primary prevention of suicide in post-secondary educational settings. The study compared the impact of classroom instruction, institutional policies, and gatekeeper training programs on number of completed suicides and suicide attempts, suicidal ideation, changes in knowledge and attitudes about suicide, and availability of means of suicide. The authors found the following:

- **Classroom instruction**: may slightly enhance students' short-term confidence in their ability to prevent suicide; long-term effects and effects on suicidal behaviour haven't been studied.
- **Institutional policies**: one policy restricting access to cyanide in labs and requiring professional assessment for students who threatened or attempted suicide significantly reduced suicides; findings haven't been replicated.
- **Gatekeeper training** (i.e. training of faculty and staff to identify and respond to students at risk): limited evidence shows minimal longer-term effects on suicide-related knowledge; effects on suicide or suicidal behaviour haven't been studied.

Based on the findings, the authors concluded that there is insufficient evidence to support widespread implementation of any programs or policies targeted at suicide prevention on campus. Because all of the evaluated interventions the authors identified combined primary and secondary prevention components, independent effects of primary prevention were not able to be determined (Harrod et al., 2014).

iii.Campus interventions for alcohol misuse

The evidence of effectiveness for interventions to reduce alcohol consumption among post-secondary students is strongest for multi-component cognitive-behavioural skills-based programs, brief motivational interventions and personalized normative feedback interventions delivered face-to-face or via computer (NSDHW, 2012; Reavley & Jorm, 2011).

The overall findings about the effectiveness of such programs can be summarized as follows (NSDHW, 2012; Reavley & Jorm, 2011):

- **Cognitive-behavioural skills-based interventions**: These types of programs are reportedly effective at reducing drinking and associated harms when students are mandated to attend, though it remains unclear whether outcomes are due to the skills being taught or the sanction. Expectancy challenge interventions and social skills training interventions appear effective at reducing risky drinking behaviour, at least in the short term, however more quality research is needed. These types of programs are most effective when combined with normative feedback and motivational interviewing.
- **Brief motivational interventions**: Brief motivational interventions that incorporate personalized feedback have been found to be effective with or without in-person intervention. Some studies have shown beneficial effects of involving peers and/or parents.
- **Personalized normative feedback interventions**: Interventions delivered by computer or in individual face-to-face sessions are effective at reducing alcohol consumption, interventions provided within a group setting are less effective.

Less strong evidence of effectiveness has been found for the following intervention components (NSDHW, 2012; Reavley & Jorm, 2011):

- **Educational/awareness building interventions**: The provision of information about the risks of drinking and approaches based on brief values clarification are shown not to be effective at reducing student alcohol consumption. Though evidence is inconclusive, normative re-education programs are more effective than other educational approaches at modifying attitudes and perceptions of drinking behaviour, though effects are minimal. These may also be combined with cognitive-behavioural programs.
- **Social norms marketing campaigns**: Found to be an effective component of campus efforts to reduce heavy drinking among first year students in one multi-site study, but results could not be replicated and, therefore, their effectiveness is debated. It is possible that the impact of social norms marketing campaigns may be moderated by the availability of alcohol on campus.

- **Parental involvement**: One study revealed that having parents encourage non-drinking social activities and communicate with their college-aged children about the harms of alcohol reduced rates of student drinking and changed student attitudes about alcohol.
- **Environmental interventions**: These include efforts to limit alcohol availability and restrict alcohol marketing on campus, the development of policies to prevent alcohol-related harm, and the monitoring, enforcement, and communication of those policies and related laws. There is no explicit evidence of the impact of such environmental interventions on drinking behaviour in campus settings, but more research is needed. Event-specific prevention (ESP) is considered a promising practice, comprised of environmental strategies to reduce consumption and associated harms at high risk times of the school year, such as orientation, sporting events, and holidays.

iv.Whole campus mental health interventions

A systemic approach to campus mental health is one that considers the whole campus as the domain to be addressed and as responsible for enhancing and maintaining the mental health of campus community members (CACUSS & CMHA, 2013). Furthermore, it involves all stakeholders in the creation of environmental conditions grounded in values of social equity, sustainability, informed choice, and student direction (CACUSS& CMHA, 2013). Comprehensive mental health strategies for the post-secondary student population can have a significant impact on the well-being of students and a high return on investment by decreasing the social and economic costs of mental illness in the broader population (OUCHA, 2009).

While the specific components of whole-campus approaches to mental health promotion, prevention and early intervention are varied, and there is scarce evidence of the links between these components and student outcomes, the following are identified in the literature as being key components for promoting mental health and well-being on campus (CACUSS & CMHA, 2013; CICMH, 2015; Jed Foundation, 2011; MacKean, 2011; Warwick et al., 2008; ACHA, 2010):

- **A campus mental health strategy**, based on a public health or health promotion framework which considers individual, interpersonal, and environmental factors. The following criteria have been identified for an effective strategy: prevention-focused; comprehensive; planned and evaluated; strategic and targeted; research-based; multi-component; coordinated and synergistic; multi-sectoral & collaborative; supported by infrastructure, systems, and commitment (Jed Foundation, 2011).
- **Comprehensive policy development**, where mental health is 'mainstreamed' or tied to broader strategic objectives, such as a culture of equity and diversity, student attainment and retention. A broad spectrum of policies that impact the social determinants of mental health, the whole student population, students at risk of mental health problems, and students in distress is recommended (CICMH, 2015).

These may include policies for supporting students at pre-entry and admission, an accommodation policy, a leave of absence policy, protocols for crisis management, privacy and confidentiality policies, and a student code of conduct (CICMH, 2015; CACUSS & CMHA, 2013).

- **Leadership** at multiple levels, including at the top, with middle managers as champions and senior managers as essential drivers of change.
- **Integration of physical and mental health services** that are accessible, streamlined, coordinated, and grounded in strengths-based and recovery principles (ACHA, 2010; CACUSS & CMHA, 2013). These include services provided by professionals and peer-to-peer supports (CICMH, 2015; MacKean, 2011).
- Development of **additional supports for students**, both on campus and external where necessary. Supports include:
    - ◊ **Learning supports**, such as tutors and mentors (Warwick et al., 2008)
    - ◊ **Social networks**, such as small living-and-learning communities that decrease student isolation (Jed Foundation, 2011; MacKean, 2011).
    - ◊ **Non-academic life-skills education**, such as opportunities to build coping skills, conflict resolution, and financial management competencies (CACUSS & CMHA, 2013; Jed Foundation, 2011; MacKean, 2011).
- **Professional development and support for faculty and staff**, with respect to campus mental health policies, available services, and the links between mental health and student achievement. This would serve to increase the campus community's capacity to respond to early indications of students concern (CACUSS & CMHA, 2013).
- **Proactive communication strategies** that build awareness of mental health, that fight stigma, and that inform the campus community about relevant policies and available supports (CICMH, 2015).
- **Appropriate funding and resourcing**, originating both from the core institutional budget and budget for learning supports (Warwick et al., 2008).
- **Development of an inclusive campus ethos and environment** based on values of social equity (CACUSS& CMHA, 2013; CICMH, 2015; MacKean, 2011; Warwick et al., 2008).

Overall, campus-based mental health promotion and mental illness prevention interventions include those targeted at individuals and systemic approaches to promoting positive mental health at a population level. There is an array of outcomes and components associated with the effectiveness of interventions focused on psychological distress, suicide prevention, alcohol misuse, and whole campus mental health promotion.

Limitations

There are several limitations to this evidence brief. The evidence presented here may not provide a com prehensive overview of knowledge on the broad subject of mental health promotion, prevention, and early intervention for TAY. This is due to the specificity of the research question, the selected intervention examples, and corresponding search terms, as well as the time constraints on the process of searching for and synthesizing the evidence. The amount of evidence on intervention effectiveness and associated components varies widely across types of interventions. For instance, little research has been done on integrated service centres for TAY. Finally, as a result of the diversity of interventions for TAY, it is difficult to draw conclusions about their comparative effectiveness or about components found consistently across effective interventions.

Conclusion

TAY require an integrated, accessible, and responsive system that incorporates a spectrum of services, including universal promotion and prevention initiatives as well as intensive services (MHCC, 2015). Mental health, promotion, prevention and early intervention supports for TAY must include programs both on campus and in community-based settings.

There are multiple outcomes with respect to interventions for TAY, depending on the intervention and the setting of the intervention. Campus settings are recognized as providing a unique opportunity for promoting mental health, and identifying and preventing mental illness (Reavley & Jorm, 2010).
Skill-oriented programs that include supervised practice demonstrate the strongest benefits to reduce psychological distress. With respect to reduction of alcohol consumption, evidence of effectiveness is strongest for multi-component cognitive-behavioural skills-based programs, brief motivational interventions and personalized normative feedback interventions delivered face-to-face or via computer (MSDHW, 2012; Reavley & Jorm, 2011).

In community-based settings, there is a need to re-orient existing services to make them more accessible and developmentally appropriate (McGorry et al., 2013, O'Reilly et al., 2015). Integrated services centres have demonstrated that they can increase access and improve psychological distress, primarily with respect to TAY experiencing mild/moderate distress related to depression and anxiety.

Effective components and service infrastructure depend on the target population and issues being experienced by TAY, however there are components that are necessary to develop these comprehensive supports.

These include:

- Changes to service delivery structures, such as the re-orientation of health and mental health services to form integrated service centres, as well as broad environmental changes such as policy initiatives
- Incorporating relevant stakeholders, including youth, families and providers working with youth, and building new partnerships across and within services
- Use of evidence-based interventions such as cognitive behavioral and brief motivational interventions, skill-building programs that include supervised practice and personalized normative feedback, and supportive counselling where more appropriate.

This evidence brief has summarized the outcomes and components for mental health promotion, prevention and early intervention for TAY to inform decision making. More specifically, it looked at interventions for post-secondary students and integrated service centres. In summary, providing Ontario's TAY with diverse and comprehensive supports that promote access to developmentally appropriate services across various settings is essential for preventing additional challenges faced by those with mental health and substance use concerns during an already unstable period of development.

References

American College Health Association (2010). Considerations for Integration of Counseling and Health Services on College and University Campuses. Linthicum, MD.

British Columbia Integrated Youth Services Initiative (BC-IYSI) Working Group (2015). British Columbia Integrated Youth Services Initiative: Rationale and Overview. Victoria, BC.

Canadian Association of College & University Student Services and Canadian Mental Health Association. (2013). Post Secondary Mental Health: Guide to Systemic Approach. Vancouver, BC.

Cappelli, M. and Davidson, S. (2011). We've got growing up to do: Transitioning youth from child and adolescent mental health services to adult mental health services http://www.excellenceforchildandyou th.ca/ sites/default/files/policy_growing_up_to_do.pdf

Centre for Innovation in Campus Mental Health (2015). Environmental Scan of Promising Practices and Indicators Relevant to Campus Mental Health. Toronto, ON.

Conley, C. S., Durlak, J. A., & Dickson, D. A. (2013). An evaluative review of outcome research on universal mental health promotion and prevention programs for higher education students. Journal of American Col- lege Health, 61(5), 286-301.

Conley, C. S., Durlak, J. A., & Kirsch, A. C. (2015). A meta-analysis of universal mental health prevention programs for higher education students. Prevention Science, 16(4), 487-507.

Government of Ontario. (2011). Open Minds, Healthy Minds: Ontario's comprehensive mental health and addictions strategy. Ottawa, ON. Retrieved from: http://www.health.gov.on.ca/en/common/ministry/ publications/reports/mental_health2011/mentalhealth_rep2011.pdf

Harrod, C. S., Goss, C. W., Stallones, L., & DiGuiseppi, C. (2014). Interventions for primary prevention of suicide in university and other post-secondary educational settings. The Cochrane Library.

Howe, D., Batchelor, S., Coates, D., and Cashman, E. (2014). Nine key principles to guide youth mental health: development of service models in New South Wales. Early Intervention in Psychiatry, 8: 190-197

Jed Foundation (2011). A guide to campus mental health action planning. Retrieved from the Jed Foundation website: http://www.jedfoundation.org/CampusMHAP_Web_final.pdf

Jorm, A.F. (2015). How effective are 'headspace' youth mental health services? Australian & New Zealand Journal of Psychiatry, 49(10) 861–862.

MacKean, G. (2011). Mental health and well-being in post-secondary education settings. In CACUSS preconference workshop on mental health.

McGorry, P., Bates, T., & Birchwood, M. (2013). Designing youth mental health services for the 21st century: examples from Australia, Ireland and the UK. British Journal of Psychiatry, 202, s30-s35.

Mental Health Commission of Canada (2015). Taking the Next Step Forward: Building a Responsive Mental Health and Addictions System for Emerging Adults, Ottawa, ON: Mental Health Commission of Canada.

Nova Scotia Department of Health and Wellness. (2012). Reducing alcohol harms among university students: A summary of best practices. Retrieved from the Centre for Innovation in Campus Mental Health website: http://campusmentalhealth.ca/wpcontent/uploads/2015/10/Reducingalcoholharms among university students.pdf

Ontario's Mental Health and Addictions Leadership Advisory Council. (2015). Better Mental Health Means Better Health: Annual Report of Ontario's Mental Health and Addictions Leadership Advisory Council. Retrieved from: http://www.health.gov.on.ca/en/common/ministry/publications/reports/bmhmbh/mental_health_adv_council.pdf

O'Keefe, L., O'Reilly, A., O'Brien, G., Buckley, R., Illback, R. (2015). Description and outcome evaluation of Jigsaw: an emergent Irish mental health early intervention programme for youth people Irish Journal of Psychological Medicine, 1-7

O'Reilly, A., Illback, R., Peiper, N., O'Keefe, L, & Clayton, R. (2015). Youth engagement with an emerging Irish mental health early intervention programme (Jigsaw): participant characteristics and implications for service delivery. Journal of Mental Health, 24(5), 283–288.

Ontario University and College Health Association. (2009). Towards a comprehensive mental health strategy: The crucial role of colleges and universities as partners. Retrieved from the OUCHA website: http ://oucha.ca/ pdf/mental_health/2009_1 2_ OUCHA_Mental_ Health _Report .pdf

Reavley, N., & Jorm, A. F. (2010). Prevention and early intervention to improve mental health in higher education students: a review. Early intervention in psychiatry, 4(2), 132-142.

Rickwood, D.J. et al. (2015b). Changes in psychological distress and psychological functioning in young people visiting headspace centres for mental health problems. The Medical Journal of Australia, 202(10), 537-542

Rickwood, D.J., Telford, N.R., Mazzar, K.R., Parker, A.G., Tanti, C.J., & McGorry, P.D. (2015a). The services provided to young people by headspace centres in Australia. The Medical Journal of Australia, 202(10), 533-536

Universities UK. (2015). Student mental wellbeing in higher education: Good practice guide. Retrieved from the Universities UK website: http:/ /www.universitiesu k.ac.uk/policy-and-analysis/reports/Documents/2015/ student-mental-wellbeing-in-he.pdf

Vloet, M., Davidson, S., & Cappelli, M. (2011). Formulating Policies to Reclaim Youth In Mental Health Transitions. Healthcare Quarterly. Vol 14 Special Issue .

Warwick, I., Maxwell, C., Statham, J., Aggleton, P., & Simon, A. (2008). Supporting mental health and emotional well-being among younger students in further education. Journal of Further and Higher Education, 32 (1), 1-13.