Gaps in the Evidence

October 2023

The Student Mental Health Project is an Office for Students (OfS) funded project that aims to help higher education providers develop their student mental health interventions. The project has developed a Student Mental Health Evidence Hub, a free resource consisting of an evidence-based toolkit, evaluation guidance, examples of practice and the results of our sector engagement and student panel work.

The project was led by The Centre for Transforming Access and Student Outcomes in Higher Education (TASO) as part of a consortium with What Works Wellbeing, SMaRteN, Student Minds and AMOSSHE, the Student Services Organisation.

Contents

Introduction

The evidence presented here is based on an extensive review of studies on student mental health interventions. Studies were selected from four selected pre-existing Review of Reviews (Haas unpublished, TASO 2022, Upsher et al. 2022, Worsley et al. 2020) as well as an update following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This evidence review includes relevant studies published up to March 2023.

This evidence review codifies existing evidence by type of evidence, student lifecycle, target population, type of provider, intervention type, method of delivery, sign of impact on mental health outcomes, sign of impact on student outcomes and strength of evidence. For a full methodology of the evidence review, please see the Evidence Review Methodology.

For detailed descriptions of intervention types, please see Annex A.

Gaps in the evidence

Our evidence review consisted of 435 studies. For a detailed summary of the breakdown of the number of studies by each intervention type, please see the summary table of available evidence below. To reliably make recommendations about which kinds of student mental health interventions work and for whom, we need to develop a larger evidence base.

This evidence review found the following types of evidence are limited or missing:

- Studies based in the UK higher education system.
    - Only 8% of studies in this evidence review came from the UK. The rest of the studies were based outside of the UK, with the largest proportion coming from the United States (57%).

- Studies measuring long-term student outcomes, including access, attainment, retention and progression.
    - Student outcomes were measured in only 31 studies (7%), only one of which came from the UK.

- Causal, UK-based, studies on interventions relating to pedagogy and professional training, recreational activity and physical activity.
    - This evidence review showed only weak evidence for these interventions because of the lack of UK-based causal studies.[1]

- UK studies on interventions relating to places and spaces, settings based and intersystem collaboration
    - There were no UK studies in these categories.

- UK studies on targeted interventions, targeted to a variety of demographics and needs, including students that are socio-economically disadvantaged, disabled (non-mental health disability), first in family to attend university, mature, vocational learners, international students, carers or students that have experiences of care or students who identify as Black, Asian or minority ethnic, male or LGBTQA+. There is no evidence base for intersectional targeting.
    - This evidence review found that, where targeting has happened within the studies, it is predominantly aimed towards those with specific mental health needs, followed by those on specific academic courses (such as nursing, for example) and female learners.

[1] For more information on how we define our strength ratings please see our Hub Explainer page on the Student Mental Health Evidence Hub.

Summary table of available evidence

Intervention Type (Annex A)	Total Number of Studies	Type of Evidence[2]	Strength of Evidence[3]	Study Provenance	Impact on Student Mental Health[4]	Impact on Student Outcomes	Target Population
Psychological	103	Majority causal (68 studies). Minority empirical (31 studies).	Strong	9 UK Studies. 94 non-UK Studies	Majority mixed (47 studies). Some small positive (26 studies), no impact (13 studies) and large positive (14 studies). The majority of other outcomes measured were alcohol related behaviours (5 studies).	Small positive impact (3 studies), followed by no impact (4 studies) and large positive (1 study). Of these, the majority measured attainment (7 studies), followed by retention (2 studies), progression and access (1 study each). Only one of these studies came from the UK. These studies also focused on measuring stress (4 studies), self-efficacy (2 studies), depression, anxiety and psychological flexibility (1 study each).	Majority studies measured targeted interventions (78 studies). The majority of targeted interventions were aimed at those with pre-existing mental health difficulties (38 studies) and on specific courses such as nursing for example (22 studies). Minority were non-targeted/universal population (42 studies).

[2] For guidance on TASO types of evidence, please see TASO's guidance: https://taso.org.uk/evidence/evidence-standards/
[3] For more information, please see please see TASO's guidance: https://taso.org.uk/evidence/evidence-standards/
[4] For guidance on TASO impact ratings, please see TASO's guidance: https://taso.org.uk/evidence/evidence-standards/

Intervention Type (Annex A)	Total Number of Studies	Type of Evidence[2]	Strength of Evidence[3]	Study Provenance	Impact on Student Mental Health[4]	Impact on Student Outcomes	Target Population
Recreation	56	Majority causal (35 studies). Minority empirical (17 studies).	Weak	3 UK Studies. 53 non-UK Studies	Majority mixed (24 studies). Some small positive impact (15 studies). Minority no impact (6 studies), and large positive (7 studies). The majority of other outcomes measured were physical health (2 studies) and programme evaluation (2 studies).	Only 1 study measured a small positive impact on attainment. This study was outside the UK. It also measured depressive symptoms.	Small difference between studies measuring targeted interventions (33 studies), and non-targeted/universal interventions (29 studies). 11 studies targeted towards those on specific courses and 9 towards those with pre-existing mental health difficulties.
Physical Activity	37	Majority causal (24 studies). Minority empirical (13 studies).	Weak	No UK Studies. 37 non-UK Studies	Majority mixed (20 studies). Minority no impact (7 studies), and small positive (5 studies). Majority of other outcomes measured was physical health (7 studies), followed by social support networks (2 studies).	No studies.	Majority non-targeted/ all learners (22 studies). Minority targeted towards those with pre-existing mental health difficulties (8 studies) and those on specific courses (6 studies).

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Active Psychoeducation	130	Majority causal (70 studies). Minority empirical (56 studies).	Emerging	9 UK Studies. 121 non-UK Studies	Majority mixed (70 studies). Some small positive (29 studies) and no impact (23 studies). Minority large positive (7 studies). Other outcomes measured include physical health, accessibility and engagement data (1 study each).	Mixed impact (3 studies) and no impact (2 studies). Balance between large positive, small positive (1 study). Of these, the majority measured attainment (6 studies, retainment (2 studied), progression and access (1 study each). None of these studies were based in the UK. When also measuring mental health outcomes, these studies examined stress, anxiety and depression (1 study included all measures).	Majority targeted interventions (91 studies), with some for course specific learners (35 studies), and pre-existing mental health difficulties (25 studies). Minority for female learners (16 studies). There were 58 studies measuring non-targeted interventions.
Passive Psychoeducation	50	Majority causal (34 studies). Minority empirical (14 studies).	Emerging	5 UK Studies. 45 non-UK Studies	Majority mixed (26 studies). Minority small positive (12 studies). Majority of other outcomes measured were alcohol related behaviours (10 studies).	Only 1 study showing no impact and measuring attainment. When also measuring mental health outcomes studies focused on self-efficacy.	Relative balance of non-targeted/ all learners (27 studies) and targeted interventions (25 studies). There was a split between targeting those with mental health difficulties (10 studies)

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							and those on specific courses (8 studies).
Pedagogy and Professional Training	33	Balance between causal (18 studies) and empirical (13 studies).	Weak	2 UK Studies. 31 non-UK Studies	Balance between small positive impact (12 studies) and mixed impact (10 studies). Minority showed no impact (6 studies). Physical health was another measured outcome (3 studies).	Majority no impact (6 studies), small positive impact (1 study). Of these, the majority measured attainment (7 studies), progression (3 studies) and retention (2 studies). Only 1 study comes from the UK. When also measuring mental health outcomes, these studies focused on stress (5 studies), general wellbeing (3 studies) and anxiety (2 studies).	Majority targeted towards those on specific courses, particularly nursing and medicine (23 studies). Minority non-targeted (10 studies).
Places and Spaces	0	N/A	Weak	N/A	No studies.	No studies.	No studies.
Settings Based	1	1 causal study.	Weak	No UK Studies. 1 non-UK study	Not conclusive as there is only one study showing no impact.	No studies.	1 study of a non-targeted/ universal intervention.
Peer Mentoring and Support	58	Balance between	Weak	9 UK Studies.	Majority mixed (22 studies), followed by no	Small positive impact (5 studies), mostly focusing	Majority targeted interventions (37

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		causal (29 studies) and empirical (24 studies).		49 non-UK Studies	impact (19 studies) and small small positive (14 studies).	on access. Some studies had no impact (3 studies). Of these, studies measured access (5 studies), retention (3 studies) attainment (2 studies) and progression (1 study). None of these studies came from the UK. These studies also measured stress and depression in terms of mental health outcomes.	studies), followed closely by non-targeted/universal interventions (23 studies). Minority targeted towards those with pre-existing mental health difficulties (10 studies), course specific (12 studies) and BAME learners (6 studies).
Intersystem Collaboration	1	1 empirical study	Weak	No UK Studies. 1 non-UK study	Not conclusive as only one study showing small positive impact.	Not measured.	1 study targeted towards disabled learners.

References

Haas, J. (2022). Systematic review of peer support interventions for student mental health. BJPsych Open [Preprint]

TASO, (2022). What works to tackle mental health inequalities in higher education? https://s33320.pcdn.co/wp-content/uploads/Report_What-works-to-tackle-mental-health-inequalities-in-higher-education_AW-Secured-1.pdf [Accessed 3rd October]

Upsher, R., Nobili, A., Hughes, G. and Byrom, N., (2022). A systematic review of interventions embedded in curriculum to improve university student wellbeing. *Educational Research Review*, 37, 100464. DOI: 10.1016/j.edurev.2022.100464

Worsley, J., Pennington, A. and Corcoran, R., (2020). What interventions improve college and university students' mental health and wellbeing? A review of review-level evidence. What Works Wellbeing. https://whatworkswellbeing.org/wp-content/uploads/2020/03/Student-mental-health-full-review.pdf [Accessed 3rd October]

Annex A: Intervention descriptions

Psychological

Interventions under this category are typically therapies that provide a safe and confidential space for a person to explore their feelings, thoughts and behaviours with a trained professional. A psychological intervention can include talking therapies and counselling, of which there are many kinds such as Cognitive Behavioural Therapy (CBT), Acceptance and Commitment Therapy (ACT) or psychotherapy. A psychological intervention may also take the form of mindfulness (a practice characterised by control of attention, awareness of the present moment and non-judgemental thoughts), attention training or stress management.

A psychological intervention can be tailored to the needs of the client or targeted group. It can be appropriate for people living with a wide range of experiences and mental health difficulties. This sort of intervention can be universal or targeted towards specific demographics.

Psychological interventions tend to be delivered on a one-to-one basis but may also be delivered in small groups. It is usually led by trained professionals who help the client to develop a better understanding of themselves and the world around them in order to help them to bring about the changes that they want to make. Many services offer time-limited interventions, though some individual therapies can be ongoing, at the client and therapist's discretion.

Many services can be run online, either via online conference platforms or specialist apps and websites. Online therapeutic platforms may not involve direct contact with a trained professional though they are usually designed and moderated by trained professionals.

This intervention can be integrated within student support services or be outsourced to specialist organisations. Funding requirements and referral structures will depend on which departments or organisations are delivering the intervention as well as the level of training required.

Recreational

A recreational intervention uses creative methods such as writing, music or art to explore feelings, thoughts and behaviours. Animal therapies are also included in this category. This sort of intervention can be intended to relieve stress and can aid self-expression. Some offer a way of communicating and exploring feelings that are non-verbal and may be considered a good alternative intervention for those who might find it hard to express themselves in words. They can also be appropriate for a wide range of experiences and mental health difficulties and can be targeted (towards specific demographics) or non-targeted. This sort of intervention is often framed as preventative.

A large variety of facilitators may run recreational interventions, ranging from untrained volunteers with a keen interest in the activity to trained art or animal therapists. Most often, they are run in small groups and have an additional benefit of reducing social isolation. This sort of intervention often requires additional materials and space. For this reason, it is sometimes difficult to run recreation interventions online unless materials are provided beforehand.

Physical activity/exercise

A physical activity intervention engages people in physical activity over a period of time in order to improve both their physical and mental health. This may include indoor activities such as yoga or gym sessions, or outdoor activities such as running, cycling or walking. They can be offered in groups or individually and, in some cases, without being guided by a professional. This intervention can also be delivered online via online conferencing or specialist apps that track progress and make recommendations for the individual to follow. Physical activities can be adapted to suit an individual's needs regardless of physical ability. This type of intervention can be a good accompaniment to other therapies and is often preventative.

Active psychoeducation

Active psychoeducation refers to workshops and training programmes where a trained professional informs students about mental health. In active psychoeducation, practitioners might guide students in learning about better mental health or they might focus on raising awareness about particular mental health difficulties. The intervention often includes teaching skills that enable students or staff to manage their mental health. These workshops or programmes can be broadly themed such as managing wellbeing, or more specifically themed, such as managing exam stress, breakups or alcohol problems. This intervention also includes programmes that equip attendees with the skills to help others such as the mental health first aid training course.

This intervention is often preventative. It can help to raise awareness, reduce stigma and signpost to other services. Psychoeducation workshops can be delivered in person and online and therefore have the benefit of reaching a large number of people. This intervention can be delivered in a one-off or drop-in format or as a longer running programme of sessions.

Passive psychoeducation

Passive psychoeducation refers to information, guidance and toolkits aimed at raising awareness, signposting and providing essential information for managing mental health difficulties. As students can access these resources independently, this intervention does not require a trained professional to actively guide students. These resources can vary widely in their theme and content, ranging from tips to help with general wellbeing to developing skills that help people to manage anxiety, sleep or other specific difficulties. Passive psychoeducation materials can be devised by a variety of practitioners, ranging from those working in a mental health context to those supporting a student's academic development.

They are often preventative resources that provide students with some initial or additional support. This intervention can be made accessible in multiple media forms, online, in print, or on video, for example. As they are a self-service resource, they hold the benefit of being accessed independently and privately, on a student's own terms, though some can be programmes which can be accessed for a certain number of hours, days or weeks. .

Pedagogy & Professional training

This intervention aims to improve mental health through the academic aspects of the student experience. It makes changes to the teaching practices, assessment or curriculum in ways that may help improve student mental health. Professional training can be aimed at any staff working with students and might cover topics such as listening skills or signposting. While

this intervention is usually non-targeted in its approach, it may also provide targeted support such as training to support specific student groups (those living with autism, for example). A pedagogical intervention may also include new systems that provide tailored support or reasonable adjustments for students living with specific mental health difficulties.

Places and Spaces

An intervention that makes use of spaces in order to improve the mental health of people using them are referred to under the places and spaces category. Most often this is in reference to shared spaces where people meet to socialise, work or engage in leisure activities. This may include interventions that look at building use or infrastructural or landscape design to affect how people feel in the space. An example of this may be making aesthetic changes or engaging the community to use it in new or different ways. This intervention usually benefits the whole population though it may also be targeted if it is designed with the aim of supporting certain student groups in a particular space in the case of interventions that improve accessibility for disabled students, for example.

Settings-based

A settings-based interventions involve a holistic, 'whole-system' approach to implementing changes to improve mental health. It relies on working collaboratively across a HEP, implementing the same ethos to the ways of working of all aspects of the institution. This intervention holds at its core the principle that mental health is affected by a combination of environmental, organisational and personal factors. The intervention therefore aims to provide support at multiple different junctures of the student experience. For example, this may include financial support interventions to aid financial anxieties, or interventions that improve a sense of security and belonging on campus. The delivery of this type of intervention involves strategic planning and often the collaboration between multiple departments.

Peer mentoring / peer support

The central tenet of a peer support intervention is that the facilitators and recipients share a certain set of experiences. These experiences may be based on a particular mental health difficulty or the experience of living in a certain social context. Most often this means that peer support interventions are delivered by students themselves. This category includes peer learning, peer support groups or peer mentoring interventions. Facilitators may have some prior training and most often are provided with some additional supervision. This can be an intervention appropriate for a wide range of experiences and does not have to be targeted in order to establish a model of shared experience. It is often seen as an accessible solution that balances out hierarchical imbalances in support groups led by professionals. These interventions require a significant amount of support to be run safely, as well as a safe space in which the intervention can be delivered. Delivery can be individual or in small groups and can be done either in person or online via video conferencing. This sort of intervention can also be delivered on specially designed platforms where peers can communicate anonymously online. The frequency of peer support sessions can also be adjusted to suit the needs of the recipients. The structure of peer support means that it can be delivered in varying levels of formality in terms of referral and monitoring.

Intersystem collaboration

Intersystem collaboration refers to an intervention which is delivered by multiple organisations or departments working in partnership. This can be for preventative, ongoing

or crisis support. Collaboration and communication between services can be internal or external, and is centred upon information sharing through appropriate channels. Internal intersystem collaboration may be between, for example, academic staff and student support services within a singular higher education provider. External collaboration may be between a HEP and a local NHS Trust or a mental health charity. Depending on the organisations involved, this intervention can be targeted or for a universal student population.

Intersystem collaboration initiatives are distinct from setting-based interventions as they may include collaboration between one university department and another, or an external body, as opposed to providing a provider-wide approach.