Evidence Review Methodology

October 2023

The Student Mental Health Project is an Office for Students (OfS) funded project that aims to help higher education providers (HEPs) 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.

The evidence review aims to provide an overview of mental health interventions and their efficacy in regards to improving student mental health and learning outcomes. The evidence review was conducted by a small team of researchers from the Centre for Transforming Access and Student Outcomes in Higher Education (TASO) and SMaRteN/ King's College London (SMaRteN/KCL).

Contents

Sources

Initial evidence review

Papers included in the first round of the evidence review were collated from May 2022 to September 2022. They were collated from the following reviews:

- 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 Centre for Wellbeing. https://whatworkswellbeing.org/wp-content/uploads/2020/03/Student-mental-health-full-review.pdf [Accessed 21st September 2023]
- TASO. (2022) What works to tackle mental health inequalities in higher education? Available at: https://s33320.pcdn.co/wp-content/uploads/Report_What-works-to-tackle-mental-health-inequalities-in-higher-education_AW-Secured-1.pdf [Accessed 21st September 2023]
- 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*, 100464. https://www.sciencedirect.com/science/article/pii/S1747938X22000331 [Accessed 21st September 2023]
- Pointon-Haas, J., Waqar, L., Upsher, R., Foster, J., Byrom, N., Oates, J. (2023). A systematic review of peer support interventions for student mental health and wellbeing in higher education. BJPsych Open [Preprint]

Evidence review update

Following the initial evidence review, it was clear that many more studies had been published, warranting an extensive update on the evidence review. For the update, systematic reviews were searched for replicating the search criteria of the Worsley et al. 2020 Review of Reviews cited above (Annex A) and conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The review protocol was registered in the International Prospective Register of Systematic Reviews (PROSPERO) (registration number: CRD42023434564). The systematic reviews were screened for eligibility by four researchers. One researcher then extracted all the eligible studies. Three researchers then screened the extracted studies for eligibility once more following the same inclusion and exclusion criteria used in the Worsley et al. 2020 Review of Reviews, with the additional exclusion of psychological interventions. Throughout all stages, any uncertainties regarding inclusion were addressed through discussions among the researchers during group meetings, and any discrepancies were resolved through further consultation with project managers and nominated consortium members from SMaRteN/KCL and WWW.

It is notable that we excluded widely researched psychological interventions, including mindfulness and CBT, that already have clear conclusions in regard to impact on student wellbeing (Worsley et al. 2020) from this evidence review. This decision to exclude these interventions so as to avoid duplication was made in consultation with the Consortium.

![TASO logo] Transforming Access and Student Outcomes in Higher Education

Inclusion and exclusion criteria

	Include	Exclude
Population, setting	Post-secondary students attending colleges of further education or universities. All age groups including mature students.	Students at other levels of education (e.g., secondary) and settings (e.g., schools).
Intervention	Interventions to improve general mental health.	Alcohol and sleep prevention studies were excluded if they did not include a mental health outcome. Interventions measuring confidence in staff training to deliver mental health interventions. Widely researched psychological interventions such as mindfulness and CBT.
Comparison	All control or comparator groups, or no control or comparator groups.	N/A
Other	Studies from any country world-wide, in the English language.	Studies not in English language or inaccessible via institutional login to library database.

Data collection process

Three researchers used a standardised Microsoft Excel spreadsheet to categorise the data for the original evidence review. The same process was repeated in the update of the evidence review by three researchers and a team of two research assistants and eight King's College London (KCL) student interns, all of whom received training and consulted on the development of the Evidence Review.

Due to the later addition of the Mental Health Charter[1] category in the typology of sources, an additional three interns and a research fellow recategorised the studies along the Mental Health Charter categorisation. Any uncertainties were discussed and resolved in regular meetings.

---

[1] The University Mental Health Charter is a call for universities to consider implementing evidence based strategies to support student mental health and proactively promote wellbeing. It includes an Award scheme and an evidence-based framework with principles that universities can follow to implement practical changes to improve student mental health. For more information, please see https://hub.studentminds.org.uk/university-mental-health-charter/

Inclusion of the Mental Health Charter themes

User testing workshops in February 2023 with stakeholders and practitioners working within HEPs in the UK indicated that the language of the intervention typology (see category 1 below) was unfamiliar. To mitigate this issue and make the evidence review more accessible for a wide range of practitioners, a decision was made in consultation with the Consortium to categorise the studies along the University Mental Health Charter themes (see category 2 below). This will enable practitioners to cross-reference the intervention typology which is based on research with the University Mental Health Charter themes which are based on UK practice.

Categorisation of evidence

Each paper was coded according to relevant criteria. These were agreed across the consortium and with the Office for Students, based on what would be most accessible and useful to the sector, i.e., in demonstrating what works and for whom. The criteria are outlined below:

Category 1: Intervention type (see Annex B for further description of each intervention)
- Psychological
- Recreation
- Physical activity/exercise
- Active Psychoeducation
- Passive Psychoeducation
- Pedagogy and curriculum-based
- Places and Spaces
- Setting-based
- Peer mentoring/support
- Intersystem collaboration
- Other (more specific interventions that do not fit into the above categories)

Category 2: Mental Health Charter Intervention Type[2]
- Learn
    - Transition Into University
    - Learning, Teaching and Assessment
    - Progression
- Support
    - External Partnerships and Pathways
    - Information Sharing
    - Risk
    - Support Services
- Work
    - Staff Wellbeing
    - Staff development
- Live
    - Proactive interventions and a mentally healthy environment

---

[2] Mental Health Charter Framework available at: https://universitymentalhealthcharter.org.uk/themes/

- ○ Social Integration and Belonging
- ○ Residential Accommodation
- ○ Physical Environment
- Enabling Themes
  - ○ Leadership, Strategy and Policy
  - ○ Student Voice and Participation
  - ○ Cohesiveness of support across the provider
  - ○ Inclusivity and intersectional mental health
  - ○ Research, innovation and dissemination

Category 3: Standards of evidence[3]
- Type 1: Narrative.
  A coherent theory of change for how a particular intervention is designed and looks to affect mental health outcomes.
- Type 2: Empirical.
  Data is collected on those receiving an intervention pre and post-intervention in order to observe a change in mental health outcomes. This does not establish a causal impact of the intervention but an association between the intervention and outcomes.
- Type 3 – Causal.
  Demonstration of a causal link between the intervention and mental health outcomes, through use of a control or comparator group.

Category 4: Methodology
- Primarily qualitative methods (for instance, interviews and/or focus groups)
- Primarily quantitative (for instance, pre-post designs, randomised controlled trials, and quasi-experimental designs)
- Mixed (employing both qualitative and quantitative methods)

Category 5: Student life-cycle
- Pre-entry to higher education (HE)
- Undergraduate
- Postgraduate
- Transition from HE to employment

Category 6: Provider-type
- Top-third/research-intensive
- Post-92
- Metropolitan
- Small and specialist
- FE college

Category 7: Target population
This is important to establish whether interventions are targeted at particular demographic groups, those with previous or existing mental health difficulties, or whether the intervention is made available to all learners. Target populations included:
- All students (no targeting)
- Students on specific HE courses (e.g. Psychology, Medicine)
- Male or female students
- Students from low socioeconomic status (Free School Meal status, Index of Multiple Deprivation quintile 1)

---

[3] Office for Students 'standards of evidence' available at:
https://www.officeforstudents.org.uk/media/6971cf8f-985b-4c67-8ee2-4c99e53c4ea2/access-and-participation-standards-of-evidence.pdf

- Students living in a low participation in HE area (POLAR/TUNDRA quintile 1)
- Students from specific ethnic backgrounds
- Mature students
- International students
- First in family to go to HE
- Students with experience of care
- Young Carers
- Identify as LGBTQ+
- Students living with existing or previous mental health difficulties
- Other (specify)

Category 8: Outcomes addressed
- Mental health/wellbeing, including:
  o Anxiety
  o Depression
  o Stress
  o PTSD
  o Eating disorder symptoms
  o Suicide prevention
  o Confidence and self-esteem
  o Help-seeking behaviour
  o Mental health literacy
  o Belonging
- Access to HE
- Attainment
- Progression
- Retention/continuation

Category 9: Sign of impact on Mental Health Outcomes - what was the effect of the intervention?
- No impact
- Small positive
- Large positive
- Small negative
- Large negative
- Mixed

Category 10: Sign of impact on Student Outcomes[4] - what was the effect of the intervention?
- No impact
- Small positive
- Large positive
- Small negative
- Large negative
- Mixed

Category 11: Strength of the evidence based on the methods used (see Annex C for detail)
- Weak
- Emerging
- Medium
- Strong

Category 12: Location of study
- UK

---

[4] Student Outcomes include access to HE, attainment, retention and progression.

- Other (specify)

Annex A: Search criteria

Student Mental Health systematic review of reviews

Search strategy (database syntaxes)

MEDLINE; MEDLINE In Process and Other Non-indexed Citations. Ran via OVID

N°	Terms
1	(university student* OR undergraduate student* OR postgraduate student* OR college student* OR tertiary student* OR higher education OR tertiary education).ti,ab.
2	(mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation).ti,ab.
3	(review OR synthes* OR meta-analysis OR overview).ti,ab.
4	AND 1-3
5	Limit 4 to English Language, Humans and, Jan 2021 to March 2023

Social Science Citation Index. Ran via Web of Science

N°	Terms
1	TS=("university student*" OR "undergraduate student*" OR "postgraduate student*" OR "college student*" OR "tertiary student*" OR "higher education" OR "tertiary education")
2	TS=(mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation)
3	TS=(review OR synthes* OR meta-analysis OR overview)
4	AND 1-3
5	Limit 4 to English Language, Humans, and Jan 2021 to March 2023

PsycINFO. Ran via EBSCOhost

N°	Terms
1	(TI (("university student*" OR "undergraduate student*" OR "postgraduate student*" OR "college student*" OR "tertiary student*" OR "higher education" OR "tertiary education"))) OR (AB (("university student*" OR "undergraduate student*" OR "postgraduate student*" OR "college student*" OR "tertiary student*" OR "higher education" OR "tertiary education")))
2	(TI ((mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation))) OR (AB ((mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation)))

N°	Terms
3	(TI ((review OR synthes* OR meta-analysis OR overview))) OR (AB ((review OR synthes* OR meta-analysis OR overview)))
4	AND 1-3
5	# 3 Limited to English Language, and Jan 2021 to March 2023

CINAHL Plus. Searched via EBSCOhost.

N°	Terms
1	(TI (("university student*" OR "undergraduate student*" OR "postgraduate student*" OR "college student*" OR "tertiary student*" OR "higher education" OR "tertiary education"))) OR (AB (("university student*" OR "undergraduate student*" OR "postgraduate student*" OR "college student*" OR "tertiary student*" OR "higher education" OR "tertiary education")))
2	(TI ((mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation))) OR (AB ((mental OR wellbeing OR well-being OR depress* OR anxi* OR stress* OR resilience OR wellness OR coping OR mindfulness OR cognitive OR behavioural OR mediation)))
3	(TI ((review OR synthes* OR meta-analysis OR overview))) OR (AB ((review OR synthes* OR meta-analysis OR overview)))
4	AND 1-3
5	# 3 Limited to English Language, and Jan 2021 to March 2023

Annex B: 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.

Annex C: Strength of evidence descriptions

The table below was adapted from the Office for Students (OfS) Evaluation Toolkit[5] for use on the Student Mental Health evidence review.

	Weak	Emerging	Medium	Strong
Type 1: narrative	No theory of change. No engagement with literature or current debates. No clear link between intervention theory and outcomes.	Capturing qualitative data through interviews or focus groups with a small, targeted sample	Capturing qualitative data through interviews or focus groups with a medium-sized sample and some thematic analysis of findings	Capturing qualitative data through interviews with a medium-sized sample, conducting thematic analysis to extract latent themes and using methods to ensure the validity of findings (e.g. inter-rater testing; participant verification)
Type 2: empirical enquiry	Small sample. The data that is collected is not related to the aims of the intervention and data only collected at one time point.	Using quantitative data collection (e.g. surveys) to capture attitudes towards a programme	Using quantitative data to capture attitudes or experiences before or after a programme, but without a control or comparison group	Using pre and post-intervention quantitative data to assess change in a validated instrument, but without the use of a comparison group
Type 3: causal	Outcome measures aren't relevant to the activity, cross-contamination of treatment and comparator group. Tests of statistical significance of	A quasi-experimental study design with a small sample, quantitative pre- and post intervention data and a result that is only statistically significant	A randomised controlled trial design with a small sample, quantitative pre- and post intervention outcome data on a relevant construct and a statistically significant result with a small to medium effect size /	A randomised controlled trial design with a large sample, quantitative pre- and post intervention outcome data captured for a relevant construct and a statistically significant result with a large effect size / conclusive zero effect

[5] Office for Students. (2019) Using standards of evidence to evaluate impact of outreach. Available at: https://www.officeforstudents.org.uk/media/f2424bc6-38d5-446c-881e-f4f54b73c2bc/using-standards-of-evidence-to-evaluate-impact-of-outreach.pdf (Accessed: 21st September 2023)

the difference between groups not undertaken.	after multiple corrections	conclusive zero effect (confidence intervals aren't spread around zero) Alternatively, a systematic review, which shows a general trend towards the positive effects of a particular programme	(confidence intervals not aren't spread around zero) Alternatively, a meta-analysis or systematic review showing statistically significant results with medium to large effect sizes / conclusive zero effect (confidence intervals aren't spread around zero)

Important to note:
- A well-designed RCT with zero effect/negative effect can still be medium to strong if it is closely estimated and well powered.
- A non-conclusive RCT would be weak. The confidence interval could be zero but we don't know whether the intervention is useful or harmful or neutral.