A systematic review of interventions embedded in curriculum and assessment design to improve student wellbeing at university

ADMINISTRATIVE INFORMATION

1a. Identification
This is a systematic review only.

1b. Update
This review is novel and not an update of any previous review.

2. Registration
This systematic review will be registered on the PROSPERO database (International Prospective Register of Systematic Reviews).

3. Authors
3a. Contact
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3b. Contributions
RU drafted the first version of the protocol, AN and NB reviewed the draft, provided comment and refined content.

4. Amendments
The following amendments were made to version 1.1 of the protocol in response to reviewers’ comments:

This section will detail any amendments of protocol version 1.1. in response to reviewers’ comments.

5. Support
5a. Sources
This research was funded by Office for Students Challenge Competition: Achieving a step change in mental health outcomes for all students.

INTRODUCTION
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6. Rationale
Less than a third of university students seek formal support for their mental health difficulties. It is therefore essential to focus efforts on early and preventative initiatives to support the wellbeing of all students. The curriculum is a key point of contact for all students where reports on student mental health and wellbeing in the UK (for example, King’s College London Student mental health and wellbeing report and strategic plan; Higher Education Academy report; and Student Minds University Mental Health Charter) recommend focusing on student wellbeing through curriculum content, curriculum process, and assessment design. There is currently no detailed guidance for academics on teaching that supports better student mental health. A systematic review focusing on student and staff targeted interventions promoting mental health at university was conducted, screening literature up to 2015. This review included a range of university-set group-based interventions including, policy, environment structure, academic or curriculum-based, and community strategies, but it did not include the evaluation of pedagogical practices. Overall, the results were inconclusive on defining best interventions towards mental health at university and the review did not specifically focus on wellbeing in the curriculum. Therefore, a review of the current literature on wellbeing-embedded curriculum is needed to help evaluate pedagogical practices, which better student mental health. Therefore, a review of the current literature (2015-2020) on wellbeing-embedded curriculum is needed to help evaluate pedagogical practices, which better student mental health.

7. Objectives
The overall aim is to conduct a systematic review of initiatives and interventions developed to adapt curriculum, pedagogy and assessment design to improve mental wellbeing outcomes in university students.

METHODS

8. Eligibility criteria
Study design
Studies with a quantitative longitudinal design will be included. Qualitative only studies and cross-sectional studies will be excluded.

Population
The population of interest is adult (≥18 years) university students including undergraduate or postgraduate students. Non-university students will be excluded.

Intervention
Interventions will be extracted from studies where a) mental health and/or wellbeing is embedded in the curriculum; b) adaptations to the pedagogy are made with the aim of improving student’s mental health or wellbeing; or c) mental health or wellbeing is the focus of assessment design. Interventions,
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which help recognise others mental health state rather than self-mental health awareness will be excluded. Interventions that target students with specific mental health problems or deliver stand-alone psychoeducation sessions will be excluded as we would like to include interventions which are inclusive of all students and embedded within the curriculum. Finally, interventions targeting university staff will be excluded.

**Comparator**
A comparator is not an inclusion criterion as any longitudinal design will be included. However, studies with a longitudinal design and a comparator intervention will be included. In these cases, comparators will include interventions for students studying the same course subject (for example, psychology) at the same university as the main intervention but did not receive part of the curriculum or assessment, which embedded a mental health or wellbeing component (for example, attended a different psychology module).

**Outcomes**
The primary outcome will be change in a quantitative measure of wellbeing or mental health outcomes of university students, for example, stress, anxiety, depressive symptoms, resilience, empowerment, loneliness, quality of life, burnout, belongingness, self-efficacy, self-esteem. Studies will be excluded if no quantitative measure of wellbeing or mental health outcome is examined. Mental health or wellbeing outcomes of anyone other than the students themselves will not be included as a primary outcome. Secondary outcomes will be dictated by available quantitative data in included studies, for example, change in knowledge of subject. Secondary outcomes will not be an inclusion criteria.

**Report characteristics**
The search will be limited from June 2015-current. Relevant literature up to 2015 was identified in another review (Fernandez, Howse, Rubio-Valera, Thorncraft, Noone, Luu, X., ... & Salvador-Carulla, 2016). We will include English-language studies only published worldwide. We will include published literature only. We will only include studies conducted in a university setting.

**9. Information sources**
A search will be conducted in the following databases from June 2015-current: Ovid (PsycINFO, Medline, Embase), Cinahl, Web of Science, ERIC, and CENTRAL. The reference lists of included studies will be reviewed for relevant papers.

**10. Search strategy**
Search terms will be developed in Medline and adapted for the other databases. Key terms will include population terms (e.g. “university”, “student”), intervention terms (e.g. “curriculum”, and “pedagogy”), and outcome terms (e.g. “mental health” and “well-being”). Intervention terms will
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explicitly refer to education and the curriculum. A full search strategy will be developed using existing systematic reviews with same key terms to identify relevant MeSH terms and free text terms. In addition, we will include free text terms identified in relevant studies from a scoping search.

11. Study records
11a. Data management
Studies identified in databases will be exported and managed in ENDNOTE. Duplicates will be removed in ENDNOTE before the screening process. At title/abstract screening phase records will be sorted into included and excluded folders in ENDNOTE. At full text screening phase papers in the title/abstract included folder will be imported to ENDNOTE. Then papers will be sorted into a full text included or excluded folder. Data extraction will be managed in Review Manager (version 5.3), which will be used to create tables (e.g. study characteristics) and figures (e.g. risk of bias data).

11b. Selection process
Firstly, the titles and abstracts of papers identified by electronic searches will be independently screened for inclusion by two researchers (RU and AN). If there is any uncertainty over inclusion at this stage papers will be included for full text review. Any discrepancies between researchers at this stage will result in abstracts going forward for full text review.

In the second stage, papers identified for inclusion at the title/abstract stage will be independently screened for inclusion by two researchers (RU and AN) for full text review. Full text papers identified for inclusion will be compared by the two researchers and any discrepancies will be resolved by a third researcher (NB).

11c. Data collection process
A data extraction form will be developed and approved by the research team before being piloted on 5 studies independently by 2 researchers (RU and AN). Data extraction for these studies will then compared between the researchers and then refined before applying to all included studies.

12. Data items
The following data items will be extracted:

a) Publication characteristics: year of publication, country of recruitment, university of recruitment, funding source.

b) Population characteristics: sample size, undergraduate or postgraduate, year of study, mean age, ethnicity distribution, gender distribution, subject of study.

c) Intervention characteristics: design, comparator (if present), type of wellbeing or mental health module or pedagogy approach or assessment, intervention facilitator job role, number of sessions in module or assessments, duration of module or assessment.
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d) Outcome characteristics/measures: quantitative measures of wellbeing and/or mental health of students at pre- and post- intervention.

e) Results

f) Conclusions.

13. Risk of bias in individual studies
Risk of bias assessment will be made by two independent researchers (RU & AN), and disagreements will be resolved by a third researcher (NB). The NICE checklist for methodology quality assessment will be used for all study designs assessing risk of bias on several domains: selection bias, performance bias, attrition bias, detection bias, overall assessment of internal validity and overall assessment of external validity.

Graphic representations of bias within and across studies will be generated in Review Manager (RevMan) separately for randomised controlled trials and non-randomised trials.

14. Data synthesis
A narrative synthesis of all studies included in the systematic will be conducted reporting all data item characteristics.

15. Dissemination
The findings of this systematic review will be disseminated via:

i. Social media. The aim is to publicise through social media accounts of SMARTEN, Office for Students, and Student Minds Charity.

ii. Peer-reviewed journals. A research article will be submitted to peer reviewed higher education journals.

iii. National conferences. This work will be presented to fellow academics and students at sector relevant conferences.

iv. Student wellbeing events. The aim is to present this work at student wellbeing events run by SMARTEN and Student Minds.

References

Office for Students Project, Protocol version 1.1.


Wright, K. (2014). Student Wellbeing and the Therapeutic Turn in Education. The Australian Educational and Developmental Psychologist, 31(2), 141-152.