TITLE: Mindful Self-Compassion Support for Undergraduate Nursing Students: a Feasibility Study
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Nursing students experience significant stress and anxiety, impeding learning and increasing attrition (Turner and McCarthy 2017). Stress impacts not only the physical and emotional well-being of students whilst in university (Jimenez et al., 2010), but also their future clinical roles (Rudman and Gustavsson, 2012). Mindfulness research has shown dependable and reproducible demonstrations of relevant reductions in psychological symptoms in healthcare staff (McConville et al 2017) and mindfulness training can positively impact holistic wellbeing and mental health of healthcare practitioners (HCPs) with resultant positive effects on patients.

Mindful compassion-based approaches cultivate compassion towards self and others, (Gilbert, 2009) in order to nurture genuine consideration and sympathy for people facing difficulties and to ease distress and suffering (Hopkins, 2001). Self-compassion focuses on alleviating distressing personal experiences, such as caring for distressed patients, acknowledging that such human experiences must be expected and accepted (Neff & Germer, 2013). Self-compassion training has the potential to impact outcomes which influence the ability to study and nurse effectively including depression, anxiety, mindfulness, satisfaction, being connected socially, optimism and self-efficacy, (Breines & Chen, 2012; Neff & Germer, 2013). It also leads to reduced academic apprehension (Williams, Stark, & Foster, 2008). Mindfulness compassion focussed programmes are therefore required and need evaluating and are likely to benefit nursing students.

Research objectives

- Adapt the 8-week Mindfulness Based Stress Reduction (MBSR) programme developed by Mindfulness UK, informed by an interdisciplinary Advisory Group.
- Identify best practice for implementing the intervention in a School of Nursing and Midwifery with UG and PG nursing students.
- Establish recruitment, retention and participation rates for a future trial.
- Identify time needed for recruitment, data collection and data analysis.
- Explore the acceptability of a mindfulness based intervention.
- Explore the suitability of outcome measures.
- Identify estimated costs of delivering the intervention and methods for assessing cost-effectiveness in a full trial.
- Develop the protocol for a definitive randomised controlled trial and economic evaluation.

Research methods

This 4-phased study will be conducted in the School of Nursing and Midwifery, Queens University Belfast.

Phase 1 – Adaptation of the intervention
The MBSR intervention will be adapted in conjunction with an inter-disciplinary Advisory Group. It will include a 4-week face-to-face, hour long programme which includes online materials. It will explore mindfulness at work; developing resilience; compassionate communication, emotional intelligence and self-compassionate practices.

Phase 2 – Feasibility Randomised Controlled Trial
Participants will include 3rd year UG and PG nursing students.

Eligibility criteria:
- Aged 18 or over
- Not experiencing severe periods of anxiety, depression, mental illness (as self-reported by students)
- No recent major loss.

A sample of 60 has been agreed with a University statistician to meet the objectives of the study.

Recruitment
Eligible participants will be informed of the intervention and associated research via email and will contact if interested. Participants will be randomly allocated to a control group or experimental group following the collection of baseline data. Block randomisation at a ratio of 1:1 will be used (Suresh, 2011). Sixty participants (40 per UG and 20 per PG group) will be recruited; 50% of those recruited in each group will be randomly allocated to the experimental group, and 50% to a control group.

Data Collection and outcome measures
Feasibility outcomes of interest include recruitment, participation and retention rate of participants. Baseline demographic data will include age, gender, ethnicity, socio-economic status. Self-compassion (Raes, Pommier, Neff, & Van Gucht, 2011), depression (Kroenke & Spitzer, 2002), anxiety (Spitzer et al., 2006), and the ability to be mindful (Bohlmeijer, ten Klooster, Fledderus, Veehof, & Baer, 2011) will be measured at baseline, post intervention and at 3 months.

Data analysis
Data analysis will be conducted using the Statistical Package for the Social Sciences (SPSS v 24). Descriptive statistics will be used to present baseline demographic and clinical data. Recruitment, participation and retention rates will be reported Exploratory inferential statistics will be conducted. We aim to estimate the sample size required to conduct a phase III RCT.

Phase 3 – Process evaluation
Participants will be offered the opportunity to participate in focus groups as part of the process evaluation once they complete the intervention.

Data Analysis
The focus groups will be recorded and transcribed verbatim. Inductive thematic analysis will be used to analyse the data collected and thematic analysis completed (Braun and Clarke, 2006). Progression to a definitive RCT will be determined by recruitment rates and the acceptability of the intervention.

Significance of the research

We will explore the feasibility of implementing a shortened 4-week mindfulness intervention (as opposed to the usual 8-week approach) and its utility to nursing healthcare students. Our aim is to increase equitable access for nursing students to evidence-based mindfulness research and associated tools and interventions that have potential to improve the lives of students and staff and impact positively on patient care.