WISE (Wellbeing in Secondary Education) Project
A cluster randomised controlled trial of an intervention to improve the mental health support and training available to secondary school teachers

Sarah Bell1, Judi Kidger1, Rhiannon Evans2, Kate Tilling1, William Hollingworth3, Rona Campbell1, Tamsin Ford4, Simon Murphy5, Ricardo Arauya2, Richard Morris1, Bryan Kadir3, Sarah Harding1, Rowan Brockman1, Jill Grey4, David Gunnell1

1 School of Social and Community Medicine, University of Bristol, Canynge Hall, 39, Whatley Road, Bristol BS8 2PS, UK, 2DECIPHer, School of Social Sciences, Cardiff University, 1-3 Museum Place, Cardiff, CF10 3BD, UK, 3Bristol Randomised Trials Collaboration, School of Social and Community Medicine, University of Bristol, Canynge Hall, 39, Whatley Road, Bristol BS8 2PS, UK, 4University of Exeter Medical School, South Cloisters, St Luke’s Campus, Exeter EX1 2LU, UK, 5University College London, Gower Street, Bloomsbury, London WC1E 6BT

Background
Secondary school teachers have poor rates of wellbeing and high rates of depression compared to the general population. Teachers are in a key position to support students, but poor mental health may be a barrier to them doing this effectively. Failure to attend to heightened levels of stress and distress may lead to longer term mental health problems, poor performance at work (presenteeism), sickness absence, and health-related retirement in teachers. Teachers report a lack of training in how to support students, which exacerbates their work-related stress. A number of school-based studies have attempted to improve student mental health, but these have mostly focused on classroom based approaches and have failed to establish effectiveness. Only a few studies have introduced training for teachers in supporting students, and none to date have included a focus on improving teacher mental health. A pilot of the WISE study conducted in 2009 showed evidence of promise.

Aim
To evaluate the effectiveness and cost effectiveness of the WISE intervention that provides mental health first aid training for school staff (to support colleagues and students) and a staff peer support service in school (to support colleagues).

Objectives
• The primary objective is to establish if the WISE intervention leads to improved teacher wellbeing compared to usual practice
• Secondary objectives are to evaluate the impact of the intervention on:
  • Teacher depression, absence and presenteeism
  • Student wellbeing, mental health difficulties (psychological distress), attendance, and attainment

Research questions
1. Does the WISE intervention lead to improved teacher wellbeing, lower levels of teacher depression, absence and presenteeism, improved student wellbeing, attendance and attainment, and reduced student mental health difficulties compared to usual practice?
2. Do any effects of the intervention differ according to the proportion of children receiving free school meals, geographical area, or individual level baseline mental health, gender, ethnicity and FSM?
3. What is the cost of the WISE intervention, and is it justified by improvements to staff and student wellbeing and reductions to staff depression and student difficulties?
4. Does the WISE intervention work according to the mechanisms of change hypothesised in the logic model?
5. Is the WISE intervention sustainable?

Research Design
• ‘Wellbeing In Secondary Education’ 3 year trial
• Cluster Randomised Controlled Trial (RCT)
• Embedded process and economic evaluations
• Research run by the University of Bristol and University of Cardiff (PI Dr Judi Kidger)
25 secondary state funded schools in England (Bristol and surrounding area) and Wales (Cardiff and surrounding area)
12 intervention schools (receive WISE intervention) and 13 control schools (usual practice)
Within each geographical area (England/Wales) and stratum (FSM-an indicator of the socioeconomic catchment area, and local authority) schools randomly allocated to study arm (after baseline data collection)

Description of the intervention (delivered Sep 2016-Jan 2017)

Mental Health First Aid (MHFA) (https://mhfaengland.org/) was developed in Australia in 2000 and is now internationally recognised in 23 countries. MHFA courses teach people how to recognise the signs and symptoms of common mental health issues, provide help on a first aid basis and effectively guide someone towards the right support.

Part A: Mental health and wellbeing session
All teachers (non-teaching staff also invited) to attend a mental health awareness raising session
1 hour

Part B: MHFA standard and peer supporter service
8% of staff (teaching and non-teaching) nominated by peers for 2 day standard MHFA training to develop skills in supporting emotional health and wellbeing of others
Staff set up a confidential peer support service for all colleagues to support staff emotional health and wellbeing (to run Jan 2017-Jan 2018)

Part C: MHFA for schools and colleges
8% of teachers selected by school
1 day MHFA for schools and colleges to develop skills in supporting student emotional health and wellbeing

Outcomes
Primary Outcome
• Improved teacher wellbeing (self-report Warwick Edinburgh Mental Wellbeing Scale - WEMWBS)

Secondary Outcomes
• Reduced teacher depression (self-report Patient Item Questionnaire - PHQ-8)
• Reduced teacher absence (self-report and routine absence data collected by the school)
• Reduced teacher presenteeism (self-report and item from the Work Productivity and Activity Impairment questionnaire-WPAI)
• Improved student wellbeing (self-report WEMWBS)
• Reduced student mental health difficulties (psychological distress) (self-report Strengths and Difficulties Questionnaire-SDQ)
• Improved student attendance (routine attendance data published online)
• Improved student attainment (routine attainment data published online)

Process outcomes
The following components will be explored:
• Mechanisms of change and contextual effects (whether intervention worked as hypothesised in the logical model and any contextual influences)
• Reach (quantifying the proportion of teachers who directly engage with the peer supporters, and the proportion of teachers/students who perceived a positive change in the whole school environment)
• Contamination (monitoring exposure to MHFA in control schools, contact between intervention and control schools, and any changes to usual practice that might be a result of study participation)
• Fidelity (during training and implementation of the peer support service, this will examine adherence to the intervention, how far training content and materials are standardised across different schools, and any variations in intervention quality)
• Acceptability (to individual staff within schools, school Senior Leadership Teams (SLT), and public health practitioners and commissioners, who have delivered/funded the intervention)
• Sustainability (of the intervention, and its scale-up into uncontrolled settings)
• Unintended harmful consequences (and mechanisms underlying these)

Economic outcomes
• The economic evaluation will be a cost consequence study
• Economic costs of the intervention will be calculated using information on the amount charged for training delivery by the trainers, the salary costs of teachers attending training and delivering peer support, and any costs relating to venue and refreshments
• We will examine whether these initial costs are offset by downstream savings due to reduced presenteeism, absenteeism and teacher turnover during the follow-up period using human capital measures and alternative methods that take into account the broader impact on the school of teacher absences

Data collection and analysis
• Baseline T0 June 2016: Baseline teacher and student (Year 8) self-report outcomes
• Follow-up T1 June 2017: Follow-up teacher self-report outcomes
• Follow-up T2 June 2018: Follow-up teacher and student (Year 10) self-report outcomes
• All study schools (n=25) will provide primary and secondary outcome data and some process evaluation data, for example school mental health policies and practices; head teacher, funding organisation and trainer interviews; and peer supporter feedback and logs.
• A sub-sample of case study school (n=8) will provide more detailed focus group, interview and observation data
• Qualitative data will be audio recorded and transcribed verbatim. The qualitative data analysis software package Nvivo 11 will be used to support analysis and data management. Thematic analysis will be conducted.
• Quantitative analysis (accounting for clustering by school using robust standard errors) will be conducted using Stata 13. Repeated measures (random effects) models will be used to examine patterns of change in the primary outcome over baseline, 1 year and 2 year follow-ups adjusted for stratification variables and additional appropriate variables. Results will be presented as mean differences in the primary outcome between the trial arms, with 95% confidence intervals and p-value. For the secondary outcomes, linear, multinomial and logistic regression models will be used depending on the outcome measure.

Potential public health impact
• Potential to improve mental health and wellbeing in staff and students
• Reduction in days lost in education and work, economic impact in the community; reduction in associated NHS costs

Quote from peer supporter in WISE pilot study
"Often people just really do need somebody to listen to them and spend a little bit of time and care over what’s going on for them. You don’t necessarily need a resolution"