## Abstract

Background. The negative impacts of the covid-19 pandemic on public health have affected people socially, psychologically and physically. Individuals worldwide are experiencing unprecedented levels of stress. Long-term stress may lead to psychological and physiological illness. Young people particularly have to adjust many aspects of them personal lives: including transitions to work, college and independent living. These individuals may find the present situation more stressful than those in other age groups. Personal resources are important in mitigating stress and improving mental well-being during pandemics. Sense of coherence—an orientation to life, could be considered as a personal resource to manage stressors. It reflects an enduring feeling individual views life as comprehensible—that the internal and external stimuli are structured and predictable; manageable—the resources are available to meet the requirements of the stimuli; meaningful—the problems faced in life are challenges rather than threats that are worthy of engagement and dedication.

Research gaps. Currently, a number of interventions have been developed to target the reduction of stress in young people. Little emphasis has been placed on developing a sense of coherence to reduce stress and promote mental well-being among young people. One such intervention, a Music Breathing (MB) programme, was developed by our research team member Dag Körlin, who integrated music therapy with mindful breathing to treat clients with

adjustment disorders, prolonged grief, and post-traumatic stress disorder (PTSD). He has documented clinically significant reductions in anxiety and fear. However, the effect of the MB programme on sense of coherence in young people has not been evaluated.

Objectives. The proposed study will evaluate the effect of the MB programme on young people's sense of coherence in promoting coping with stress.

Research plan. In the proposed randomised controlled trial, a sample of 290 young people

(aged 18-30) will be recruited and allocated randomly into one of two groups: the experimental group, which will participate in the MB programme, and the control group. Participants in the experimental group will participate in a 6-week MB programme that will include music therapy and mindful breathing guided by a certified music therapist. Participants in the control group will receive an active control condition for 6 weeks including mindful breathing guided by a therapist with training in mindfulness-based therapy, sharing among participants with background instrumental music played. The primary outcome of the study will be measured using Sense of Coherence Scale at week 6 and 4 weeks after completion of the MB programme.

The secondary outcomes will be measured using the Coping Self-Efficacy Scale, Difficulties

in Emotion Regulation Scale, Mindful Attention Awareness Scale, Depression Anxiety Stress

Scales, BBC Subjective Well-being scale, respectively, at week 6 and 4 weeks after completion of the intervention. Physiological outcome will be measured with salivary cortisol levels at week 6. Repeated measures analysis (e.g., MANCOVA or GEE) will be used to compare the outcomes between two groups.

Significance of the study. The results will inform you about practice in coping with stress through promoting a sense of coherence. While music therapy requires professionally trained music therapists for delivery, the skills for this intervention can be learned and practiced by young people. Individuals will benefit from the long-term effect of this intervention to enhance their sense of coherence to cope with stressful events and promote better mental well-being during the global pandemic.