

**Happiness is Hear to Listen: Promoting college student well-being using recent discoveries
in neuroscience and social science**

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Multiple surveys conducted in 2021-2, in both the UK and the US, have revealed that a staggering 50% of secondary school and college students are experiencing disabling depression or anxiety. About 30% have depression and 35% have anxiety, with 50% experiencing at least one condition. This is not only due to the impact of COVID-19. The pandemic has only served to exacerbate a rapid increase in psychological distress, which in the UK, and many industrialized nations, had more than doubled from 2015 to 2020.

In spite of its evident impact on student life and performance, few colleges around the world have been able to address the sheer scale of the “inner pandemic.” One reason is the lack of sufficient professional resources capable of dealing with the numbers involved, as well as the small to moderate impacts that previous interventions have had on student psychological well-being.

We surmise that one possible reason for the weak impact of such interventions could be an almost exclusive focus on the cognitive and psychosocial skills championed by established approaches such as Cognitive-Behavioral Therapy, Social-Emotional Learning and Positive Psychology.

Yet recent discoveries in the realm of neuroscience have highlighted the growing probability that modern changes in lifestyle have exerted a physiological as well as social impact

on psychological well-being, and consequently exacerbated the steep increase in depression prior to COVID-19. These include the impact of changes in nutrition on the microbiome, which we have now discovered modulates the production of critical neurotransmitters, the impact of an increasingly sedentary lifestyle on physical activity (which in turn, impacts neuroplasticity as well as neurodegeneration), and the widely recognized impact of electronic devices on circadian rhythms and sleeping patterns. These discoveries point to the growing possibility that the current epidemic of depression may have extensive physiological as well psychosocial roots.

In an effort to address both the physiological as well as psychosocial roots of the crisis, as well as implement a peer support model to empower and impact students on the broad scale necessitated by the pandemic, an intervention was launched at the University of Strathclyde.

The hybrid intervention, which combined online education and onsite interaction, was conducted during the 2021-2022 academic year through the collaboration of Strathclyde University Student Union and a team from the Pursuit of Happiness nonprofit, based in New York.

In the study, we combined online training, in specific well-being related life skills, with an onsite peer support initiative. In the volunteer-driven peer support component, Strathclyde University students served as “Listeners,” on campus, making themselves available to fellow students who might be in distress. The volunteer-driven nature of the program, coupled with the low-cost online training, minimized expenses by providing at-risk students with immediate access to a toolbox of resources, both on campus and online. Additionally, the volunteers gained important benefits through the act of helping others. We measured the volunteers before and after the online course, and again at the end of the academic year. The study design also included

a control group of undergraduate psychology students, who were tested in the fall and again at the end of the year.

We found statistically significant improvements in the volunteers' self-efficacy, and specifically confidence in their ability to affect their own psychological well-being. We also saw significant decreases in their levels of depression.

The Listeners took the online course in the fall of 2021. They were then given initial listener training. They met weekly and scheduled their own shifts during which they would meet with students around campus, at the student union, or virtually. The director of the program, Dr. Marie Cooke, met individually with each of the more than one hundred and twenty Listeners over the course of the academic year.

“...as the semester has progressed, I've felt more motivated to be a Listener, since I'm aware of the positive impact that the project has had on students that have used it. Current events have also led to more distress in the general student population, so I'm motivated to do my best to help the people who need someone to talk to.”

– Student Listener.

Study Design

The Listeners completed an online course that gave them science-based insights into 7 correlates of psychological well-being. These include relationships, meaning and purpose, flow, strengths and virtues, kindness, positive mindset, and the physiological aspects of well-being (diet, exercise, sleep, and sunlight). Every few weeks throughout the year, Listeners received email reminders – one for each module in the course – that included a short video from the course and a “challenge” that students could use to apply one of the principles of psychological

well-being in their daily lives. The students also developed a camaraderie and began to meet weekly for what they called “happy hours,” involving various activities, such as dance and yoga, which they had spontaneously designed. By developing meaningful relationships, volunteering, and having the experience of helping other people at critical times in their lives, the Listeners were enacting many of the key principles of psychological well-being described in the POH course.

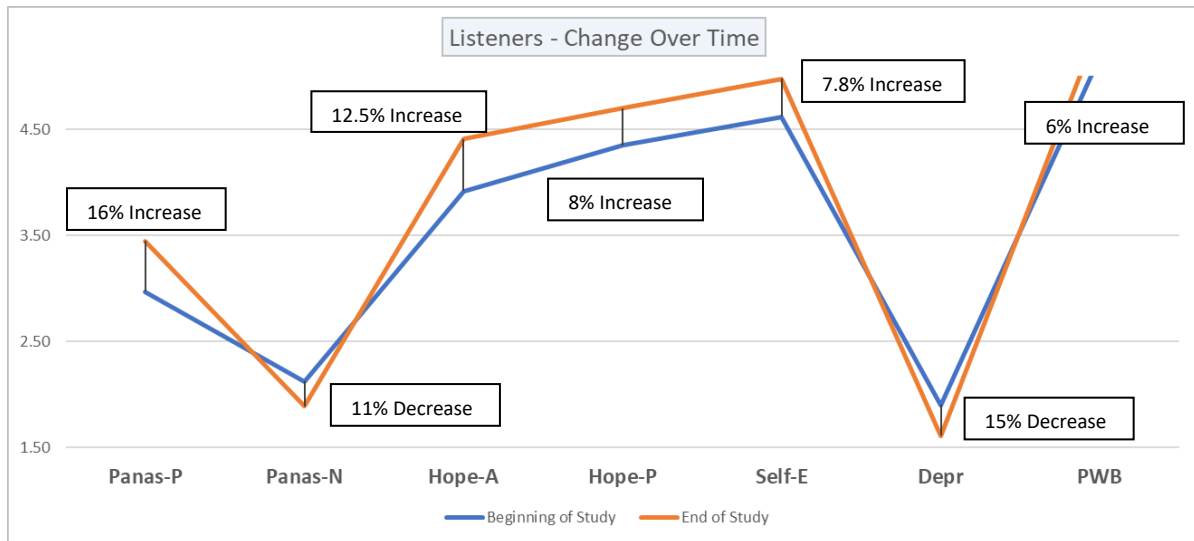
“volunteering and helping people with their well-being brings me joy and improves my own well-being.”

– Student Listener.

At the end of the year, Dr. Cooke organized an awards ceremony for the Listeners and invited Members of the Scottish Parliament to recognize students for their accomplishments and encourage them to continue serving their communities.

Study Findings

At the end of the study, the intervention group (The “Listeners”) scored higher on all positive measures (positive affect, hope, self-efficacy, and psychological well-being), and lower on all negative measures (negative affect and depression) than the control group. The figure below shows the percent change in the Listeners’ scores from the beginning of the study to the end.



Note. Panas-P = Positive Affect; Panas-N = Negative Affect; Hope-A = ‘Agency’ component of hope; Hope-P = ‘Pathway’ component of hope; Self-E = Self-Efficacy; Depr = Depression; PWB = Psychological Well-being.

On each measure, the Listeners improved over the course of the study. Their positive measure scores were higher, and their negative measure scores lower, following the intervention.

An underlying theme of the course, and the science behind it, is that we each have the ability to exercise some control over our own well-being through daily lifestyle choices. We saw an increase in the Listeners’ self-efficacy to affect their own well-being immediately after they took the online course. As shown in the figure above, that increased self-efficacy was still evident at the end of the academic year. We believe the “Hear to Listen” program extended those benefits over the long-term.

“after deepening my understanding about active listening and constructive responding I feel that I understand key principles of happiness and how I can apply these to my own life and to others - especially in my role as a listener.”

– Student Listener.

In follow-up measurements completed at the end of the academic year, the intervention group registered significant improvements, compared to baseline, in hope, self-efficacy, psychological well-being, and depression. There were no significant changes in any of the measures for the control group from baseline to the end of the academic year follow-up, with the exception of a decrease in depression.

These are exciting results. The online course appears to have had an immediate effect (pretest to posttest) on students' self-efficacy. The Hear to Listen program appears to have improved a number of measures of psychological well-being over the course of the academic year. The combination of a science-based course and a prolonged involvement in a volunteer program that provided support to others allowed those impacts (and others) to be sustained.

Interpretation

The fact that there was an immediate and significant effect of a short, asynchronous course on students' self-efficacy is a key finding, reflecting the focus of the course. The increase in student self-efficacy showed that the knowledge gained through the course translated into a sense of confidence in students' ability to affect their own happiness.

Another important result was that the change lasted the entire academic year. Intervention studies often find an impact, but those effects may fade over time. We attribute the lasting change in this case to the "Hear to Listen" program, which kept the intervention group students engaged in their communities, and allowed them multiple opportunities to implement the specific life skills prescribed by the course in an authentic setting. We cannot overstate the importance of the act of volunteering and the experience of contributing to the well-being of others. Additionally, the camaraderie that emerged among the volunteers could have been another key factor extending the positive impact of the experience. Several students provided feedback, both

personally to Dr. Cooke, and through the open-ended items on the final survey, that the experience of being able to support fellow students in need was life-changing. In their comments, many respondents drew attention to the importance of the relationships they had established through the program.

Conclusion

A short, asynchronous online course was able to affect various components of college students' psychological well-being. To make that impact "stick" required an ongoing series of experiences that allowed the students to develop meaningful relationships, care for others, and apply those scientific principles in daily practice. These aspects of the Hear to Listen program (volunteering, helping others, and developing relationships) are also key elements of the Pursuit of Happiness course.

We believe the Pursuit of Happiness course has real value in supporting psychological well-being, and the data appear to support that contention. We also believe that such a course is still more effective if integrated into a companion onsite program. This sort of hybrid intervention could provide a template for efforts to mitigate the psychological and academic impact of the "inner pandemic" on secondary and college students.

"being engaged in the project and building relationships within it and understanding it more has increased my motivation to be part of such an incredible project. I feel that I've discovered my passion for helping others and this project has been a great way to develop this."

– Student Listener.