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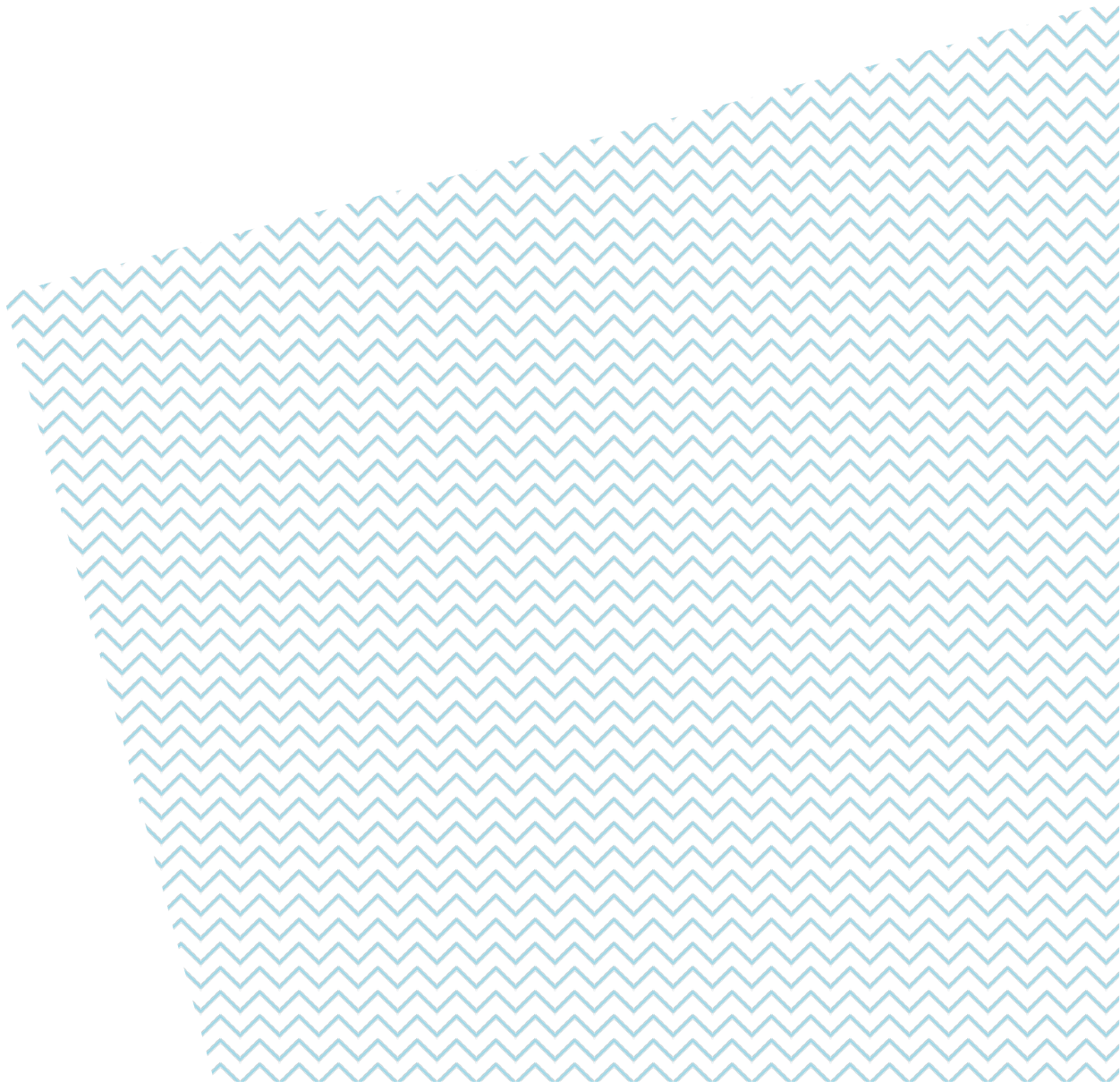
CAWRI

Creativity and Wellbeing Hallmark Research Initiative

# Fostering youth wellbeing using music.

Final report

1 November 2022



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## Project summary

This study took place between two of the longest 2021 COVID-19 lockdowns in Melbourne, with data being collected both in the lead up to assessments and in semester break. Students responded to recruitment materials that described using music playlists to manage anxiety and avoid negative thinking patterns during stressful times. They then participated in a 1-hour workshop that incorporated didactic teaching and practice activities, with active sharing in the chat. Pre and post measures of musical engagement and wellbeing were used, and additional qualitative data was collected post intervention regarding the workshop and application of ideas. Analysis of quantitative data did not reveal significant findings, but convergent analysis suggested patterns linking degree of life satisfaction and optimism with changes in uses of music for regulation for some students. These students described more intentional and informed uses of music that were less repetitive and more targeted. Based on the results, the intervention seems most helpful as a psychoeducational tool, but the 1-hour workshop did not result in measurable changes for highly anxious students.

The data collection for this project occurred between July and October 2021.

## Research team

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## Partners

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# Background

## Research context

Even prior to the COVID-19 pandemic, reports were emerging that suggested university students were experiencing higher levels of distress and anxiety than similar aged cohorts outside the university sector. An Australian report titled 'Under the Radar' (Browne, 2017) was fundamental in raising this concern. Initial data to support this proposal was based on a 2013 survey of 5000 University of Melbourne students (Larcombe et al., 2016) which found that both stress and anxiety were significantly higher in students compared to the general population. Sancu (2020) found a clear association between poorer mental health and lower academic results.

There is good evidence from other studies that music can be used to decrease anxiety (de Witte et al, 2020; Harney et al. 2022). Some research has been conducted to investigate what supports and interventions might be helpful for university students specifically. The field of psychology has a clear foundation for providing individual counselling both within and beyond the university sector. However, there is consensus that a broad mental health approach is required that addresses systemic and individual prevention of problems by removing structural barriers, alongside programs that support flourishing, resilience, and agency (Egan, O'Hara, Cook & Mantzios, 2022; Worsley, Pennington & Corcoran, 2022). As outlined in the 2020 *Australian University Mental Health Framework* (Orygen, 2020), an overarching focus on collaborating with students in the co-design and planning of inclusive mental health services, involving peer- support initiatives and emphasising the student experience to support healthy learning environments is needed. Evidence is not yet strong, but a meta-analysis of yoga, meditation and mindfulness programs examined 24 RCTs with 1373 participants in tertiary education and demonstrated a growing body of research (Breedvelt et al., 2019). Another small scale study (Stallman & Kavanagh, 2018) investigated novel programs such as internet based programs that utilise web-based activities to provide low-intensity interventions for students across the continuum of wellbeing, and these have proved popular, although not adequate for students with high needs.

Music listening for university student wellbeing has also been described in the literature, with one Australian study (Vidas, Nelson, & Dingle, 2022) investigating whether it was an effective coping strategy using an online cross-sectional survey of 475 first-year students. Results suggested that using music as a resource was complex, with mixed results. 72.6% of domestic students and 59.2% of international students found it helpful, but greater music listening was associated with decreased well-being when it was used for emotional reasons. This is consistent with other research of young people identifying both healthy and unhealthy uses of music (Saarikallio, McFerran, & Gold, 2015), and the risks of more ruminative use for highly anxious or distressed students (McFerran et al., 2018).

## Project aims

The study recognised both the popularity and the complexity of young people's relationship with music for emotional self-care and investigated a program designed to increase awareness of how music listening can both support and hinder stress management. It aimed to improve student's

capability to manage their stress using the construction of playlists that individual students intentionally designed to foster their own wellbeing using their preferred music.

## Methodology

This small-scale study used a convergent parallel mixed methods design. The convergence of data occurred at the point of analysis, after both types (QUAN and QUAL) had been collected simultaneously, and analysis placed equal weight on both components (Creswell & Pablo-Clark, 2011). This is sometimes referred to as concurrent triangulation design (Edmonds & Kennedy, 2017).

Musical engagement, life satisfaction, interest in life as well as anxiety and distress were all measured before and after the program and additional qualitative data was collected at post regarding the workshop, application of ideas, and quantitative data measuring uses of music for emotion regulation. This was intended to provide sufficient data points to determine if the program was considered helpful and whether it was effective in reducing anxiety or increasing wellbeing.

## Participants

Recruitment of participants for the program occurred through a range of social media channels within the university. However, the most successful avenue was through an announcement to students in a large elective subject that was coordinated by the senior researcher. More students signed up for the study (n=71) than participated in the workshops (n=36), and not all students who attended the workshop completed the qualitative questions immediately following the workshop (n=31) or the follow up questions at 4 weeks (n=17) (see Table 1 for details).

**Table 1: Participation rates**

2021	Workshop 1: 21 <sup>st</sup> May <sup>#</sup>	Workshop 2: 2 <sup>nd</sup> July	Workshop 3: 31 <sup>st</sup> August <sup>*</sup>	Workshop 4: 4 <sup>th</sup> October <sup>*#</sup>	Total
Completed any pre-test	11	7	8	45	71
Attendance at workshop	8	4	4	20	36
Completed qual survey	8	4	4	15	31
Completed any post-test	4	2	5	6	17
Agreed to interview	0	0	1	0	1

Notes: <sup>\*</sup>Proximity to Melbourne lockdown dates: 28<sup>th</sup> May - 10<sup>th</sup> June; 16<sup>th</sup>- 27<sup>th</sup> July; 5<sup>th</sup> August - 21<sup>st</sup> October; <sup>#</sup>Proximity to Assessment Week dates: 31<sup>st</sup> May – 25<sup>th</sup> June; 25<sup>th</sup> October – 19<sup>th</sup> November.

The four workshops were conducted online between July and October 2021. Workshop 1 occurred immediately before the assessment period and a lockdown. Workshops 2 & 3 were at less stressful times of the academic year, whereas the most heavily attended workshop was 2 weeks prior to the beginning of an assessment period and during a long lockdown, which may have motivated attendance.

Demographic data was collected across the cohort, but given the sporadic data collection, we chose only to analyse the details of those who had completed the qualitative data and the pre-test demographic data. In the whole cohort of students who participated in the workshops (n=36), the majority of students (69%) were female identifying (n=25) with 9 males and 2 not identifying within

the gender binary. The majority were local undergraduates (n=27/75%), with 9 postgraduate students, 9 internationals (of which 3 were located overseas) and spread across a range of faculties.

### **Measures and intervention**

The survey completed at pre-test and post-test included three sections. Section 1 included demographic data (reported in Table 2 above). Section 2 included 26 statements around their reasons for using music. Students were asked to select a response to each statement that best described them using a 5-point Likert scale from 'strongly disagree' to 'strongly agree'. These items were taken from the 'Music Use Motivations' module of the MUSEBAQ (Chin, Coutinho, Scherer, & Rickard, 2018) and were selected by the research team as being most in line with the workshop focus. The research team were cautious of overburdening students by using the full version of the MUSEBAQ which has 67 items. Section 3 included seven items assessing emotional wellbeing, anxiety and depression in the past month using a 10-point Likert scale from 'very strongly disagree' to 'very strongly agree'. The emotional wellbeing items were adapted from the Mental Health Continuum-Short Form (Lamers et al., 2011). A sample item was "During the past month, I often feel satisfied with life", with higher scores indicating higher levels of emotional wellbeing. The anxiety and depression survey items were adapted from the Patient Health Questionnaire-4 (Kroenke et al., 2009) and do not reflect a clinical diagnosis in this study. A sample item was "I often feel nervous, anxious or on edge", with higher scores indicating greater self-reported levels of distress.

The qualitative survey consisted of 7 questions (a mix of multiple choice and open ended) asking students to reflect on their experience in the workshop including whether the workshop met their expectations, made sense to them, how confident they felt about selecting music to listen to over the next 4 weeks and what they might do differently or more/less of in their music listening. It also asked students to write down the 3 most important things they learnt and would take away to implement from the workshop.

The one-hour online workshops were scripted and there was little variation between the four different interventions. The components of the program were presented didactically by the main speaker, with key points being typed in the chat and participants invited to respond to questions using the chat function. There was no verbal interaction between the speakers and the students. Stories that illustrated key points were used to help make the messages personal, and music was used in the main experiential activity to consolidate learning. The main purpose was to raise consciousness about music selection and listening, framed as 'Rookie Errors' to highlight the unconscious assumptions people have about how music affects them (Schäfer et al., 2013). The 3 rookie errors were: the effect of music changes over time and in different situations; don't be random when you're trying to achieve a specific outcome; and, become aware of how music *actually* affects you (not how it previously made you feel).

## Key findings

### Analysis of QUAN Wellbeing Data

Fifty-seven students completed the emotional wellbeing and distress measures at T1 (pre-workshop) with a total of 12 students providing both pre and post data. The only significant findings at T1 were inverse correlations between emotional wellbeing and distress measures of depression and anxiety. Students who reported lower levels of emotional wellbeing were more likely to report greater levels of distress, as measured by their experiences of anxious and depressive symptoms. There was not enough power to do a statistical analysis of pre to post changes in these measures and no sizeable differences were noted. Steps of one degree in five were present, but consistent changes were not identified across the cohort.

### Analysis of QUAL Workshop Data

Overall, the QUAL data from 31 students confirmed the learning outcomes of the psychoeducational intervention, with all respondents articulating 3 learnings that were relevant to the workshop content and described what they would do differently as a result. It is possible that the 5 people who attended the workshop but did not contribute the QUAL data found it less satisfactory, since data collection occurred in the final 12 minutes of the workshop. Therefore, this data can be assumed to represent those who did perceive value in the intervention.

The QUAL data was specific to students' learnings and any further analysis was focused on the nuanced ways in which they expressed their learning. After lengthy consideration of these qualities, two categories were constructed to capture the qualitative difference between types of answers – those that described how they intended to take action to do specific things differently; and those that articulated an enhanced awareness of how music might be helpful and unhelpful but did not describe what they were going to do differently.

### Convergent Analysis

Convergent analysis was then undertaken through a close examination of the QUAN data of those students that demonstrated increased intentionality. Since there were no significant changes from pre to post across the data set, we focused on the pre-test data to identify what might be the motivating factors that primed these students for more behaviour change. This involved extracting both the demographic, wellbeing, and music use data at pre-test. Analysis identified one primary pattern – 9 of the 11 students rated themselves as highly happy/interest/satisfied with life at pre-test (as seen by their average on these three scores rating 7/10 or above). Of these, 7 also rated themselves as high in stress and anxiety. This combination of satisfaction and stress was then used to expand the data set for convergent analysis by drawing in all students who self-rated as high in positivity at pre-test, which included a further 7 students, of which 6 also rated themselves as highly stressed. This combination represented approximately half (16 / 31) the students who had completed QUAL data. Further analysis for other common features across the 16 students revealed only one other pattern – very high ratings of music as a comforting friend (average of 4.75/5). This remained consistently high at post (average of 4.64). Using music to get through difficult times was also high scoring 4.5 for this sub-group of students.

## Project outcomes

### Vlogs – Highway Foundation

One part of our plan for this research was to develop a suite of online resources to be integrated into the intervention program. Due to the additional lockdown restrictions, we were not able to create those resources until after the project had been completed and the lockdowns had ceased.

We used Vlog style videos for dissemination of the key findings to youth via the Highway Foundation, who were our industry partners in this research. Diverse young people from within the foundation read the scripts we created on topics that were central to our intervention: Videos were titled:

- Your relationship with music
- Using music
- Choosing the right song
- Rethinking your music listening habits
- Building new connections with songs

These will be made available on the Highway Foundation webpage and on the CAWRI website, as appropriate.

### Journal article

Forthcoming: McFerran, K., Bibb, J. Cheong-Clinch, C. c2023. Fostering youth wellbeing using music. Student Success.

## Discussion, implications, and future directions

This project took place in the middle of a global pandemic that resulted in unprecedented lockdowns, diminishment of opportunities to socialise with peers, and high levels of anxiety across the community. In that community context, the students who agreed to participate in this one-hour workshop were seeking ways to manage their wellbeing, which was seriously challenged. There are several interesting discussion points that emerge from this conflation of phenomena, but it is difficult to know whether these findings bear any relevance to similar interventions conducted during more 'COVID-normal' times.

The most striking feature of the analysis was that the combination of high happiness / satisfaction / interest in life combined with high stress appeared to prime participants most effectively to make changes to their music listening habits. This statement is based on convergent analysis of qualitative and quantitative data but is primarily driven by our interpretation of the qualitative data.

It seems feasible that those participants who Keyes (2007) might describe as emotionally flourishing despite the lack of potential for social encounters would be more motivated to change their music listening habits. Our intervention focused on music listening strategies and did not address the cause of any existing challenges, beyond recognising the context of the global pandemic. This may have been particularly helpful for students who were seeking positive solutions to their immediate



problems. In a provocative article, Fiorella (2020) suggests that changing habits has received too little attention in the literature about student motivation, which has often fixated on the role of motivation and metacognition instead of the focusing on more helpful actions. Our focus on forming more positive relationships with music that support effective study may have been just what the doctor ordered for those who were already primed for change.

On the other hand, students who entered the study reporting less life satisfaction did not demonstrate the same inclination to change their patterns of music listening, even though they did show awareness of how this might be helpful. This may be a distinction between traits linked more closely to stress and/or anxiety (which were shared across both groups) and those more indicative of distress and/or depression. Consideration of anhedonia may be relevant in this distinction, since it is a diagnostic feature of depression, which has recently (Rizvi et al., 2016) been expanded to include effort and motivation, instead of a more limited conceptualisation that privileges pleasure in life. People struggling with motivation can recognise the value of an action, or habit, but find it much more difficult to transform their behaviour.

This finding does corroborate previous research linking ruminative thinking patterns to continued reliance on unhelpful music listening habits (Garrido, Eerola & McFerran, 2017; Garrido & Schubert 2013; Stewart et al., 2019). It offers a new distinction, by demonstrating that being stressed but satisfied is less likely to result in unhelpful listening habits but being stressed *and* distressed might suggest an increased likelihood of unhealthy listening habits. In line with previous research (McFerran et al., 2018), it may be that those who were more distressed might need an intervention that is even more individually tailored.

However, it is inappropriate to generalise from this research data and further studies are necessary. We recommend in-depth interviewing rather than gathering descriptions from pre-determined questions. In this study we were able to see whether the learning outcomes were achieved, but not to understand the processes behind that. We did attempt to solicit interview data, but students were not forthcoming when we invited them to participate in an interview. The study was limited by an array of data collection challenges, particularly missing data. This likely reflected the students' interest in the possible benefits of the intervention, but insufficient care for the quality of the research, which could have been emphasised more convincingly. However, we did not collect data about why people chose to join the project and recommend that this would be useful in future studies to obtain more nuanced understanding.

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## More information

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For more information about CAWRI, visit <https://research.unimelb.edu.au/creativityandwellbeing>