**FULL STUDY TITLE**

**A controlled evaluation of an “arts in health” program designed to enhance psychosocial health in Mater Young Adults Health Centre patients**

**SHORT TITLE**

Mater Young Adults Arts In Health Trial

**LAY DESCRIPTION OF THE PROJECT**

Internationally, the evidence in support of arts programs for participants’ health and wellbeing is rapidly growing. The Mater Young Adults Health Centre (YAHC) arts in health program will offer participants four 6-session options: Vocal Group, *Tuned In* music program, Art Therapy group, and Podcast Making group. The aim of the project is to evaluate treatment as usual (TAU: individualised medical and allied health consultations) + arts health group; versus TAU; to evaluate the potential effect of the arts health groups on measures of participant wellbeing, identity, social connectedness, and engagement with the health service.

**COMPLIANCE WITH RELEVANT LEGISLATIONS**

This study will be conducted in a manner that fully complies with*The National Statement on Ethical Conduct in Human Research*, the *Australian Code for the Responsible Conduct of Research*, the Catholic Health *Code of Ethical Standards*, Mater Research *Responsible Conduct of Research,* Mater Research policy on *Ownership, Storage and Retention of Human Research Materials and Data*, *AHPRA Psychology Board of Australia and the Australian Association of Social Workers, the Australian and New Zealand Arts Therapy Association,* and the University of Queensland *Human Research Ethics Committee*.

**STUDY INVESTIGATORS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Phone | Email | Institution | Study Role |
| Dr. Genevieve Dingle | 0409483690 | g.dingle@psy.uq.edu.au | University of Queensland, School of Psychology | Principal  Investigator |
| Mr Joel Larwood | 0435578586 | joel.larwood@uq.net.au | University of Queensland, School of Psychology | Researcher, Graduate student |
| Ms Kate Palmer | 0403632287 | kate.palmer@mater.org.au | Mater Young Adults Health Centre Brisbane | Research Coordinator, Social Worker / Art therapist |

**1.0 INTRODUCTION AND BACKGROUND**

Young adults experiencing chronic ill-health are not only faced with physical challenges but also psychosocial ones, with Katon (2011) identifying a two to threefold increase in the risk of depression in those with a chronic illness. Similarly, reduced psychological wellbeing has been found in young adults with diabetes and those who have survived cancer (Bernstein et al., 2012; Kazak et al., 2010). Medical settings and procedures can be strange and upsetting - if not painful – for young patients. It has also been noted that concurrent emotional or affective difficulties have a negative impact on medical treatment (Katon, 2011).

Furthermore, due to their medical conditions and the rigors of treatment, these young adults may miss out on or lose social group memberships and identities related to usual development, such as ‘student’, ‘boyfriend / girlfriend’, ‘member of the soccer team’ (Zebrack, 2011). Given this, there is clearly a need for interventions that go beyond medical and allied health consultations (that are typically delivered in individualised format), to address these broader social and psychological needs.

The arts in health is a rapidly emerging field, and includes all forms of the creative arts - such as music listening, singing and music making, art therapy, drama, creative writing, and media design and technology – used by patients in health services and settings. Recently, the UK All-Party Parliamentary report on arts, health and wellbeing (APPGAHW, 2017) showed evidence that visual and performing arts in healthcare environments help to reduce sickness, anxiety and stress. One project summarised in this report found a social return on investment of between £4 and £11 for every £1 invested in the arts in health (Whelan, 2016).

The relevance of an arts based approach is further supported by the Australian Council for the Arts’ 2016 report. The large scale survey revealed that the majority of Australians recognized the positive impact engagement with the arts had, along with improving their ability to manage depression and anxiety and to develop social connections. Young adults with a medical condition have further endorsed art therapy as effective, with 41% of a cancer sample having accessed such services (Bakarat, Galtieri, Szalda, Schwartz, 2016).

**The aims** of the current project are to implement a new arts in health program at the Mater Young Adults Health Centre Brisbane (YAHC) and to evaluate its potential benefits to participants’ wellbeing and psychosocial functioning over and above their treatment as usual (individual medical and allied health appointments at the Young Adult Support Unit (YASU)). There will be four arts interventions aimed at supporting social, emotional, and psychological wellbeing: a Vocal group, an Art Therapy group, a Tuned In music group, and a Make Your Own Podcast group, all conducted in six session blocks. These options will mean that MYAHCB patients can select one or more arts interventions that are of interest to them, and can meet and develop friendships with other participants while they are participating. They will only be able to attend one arts program at a time, and the pre-program data will only be collected for the first arts program that each young person attends. (Post-program data will be collected for every arts program in order for the researchers to evaluate any effect of cumulative dose of arts programs on wellbeing outcomes). Further information about each of the arts programs follows:

1. **Art Therapy group**

**Educators: Kate Palmer and an intern psychologist or art therapist**

Kate Palmer, Social Worker and Art Therapist, runs art therapy groups: one as part of the Emotional Health Unit 6 week (one day a week) THRIVE program, and the other is a relatively new stand-alone Art Therapy group. As her CV attests, Kate is well qualified and experienced to be the lead educator of this group. Kate will be joined by a provisionally registered clinical psychology postgraduate student, or postgraduate art therapy student, as part of their supervised practice program (under the supervision of Kate and Dr Genevieve Dingle). These students will have already completed several courses in mental health and therapy and have completed about 100 hours of client contact so they are well prepared to work as co-facilitators of this group. They will comply with the requirements for students on placement at the Mater in terms of confidentiality agreements, vaccinations, and workplace orientations.

**Content:** There is growing demand for Art Therapy within the Mater YAHC, and both groups have yet to be empirically evaluated. The art therapy component runs for approximately two hours each session, and encourages group members to explore sense of self, self-identity, independence and life goals through art. There is evidence to support art therapy decreasing social isolation in young people with medical conditions and creating an opportunity to meet others with similar experiences and learn from such experiences and works (Bitonte & Santa, 2014; Rubin, 2005). Positive group experiences are also related to a successful transition to adulthood from adolescence more generally (Riley, 2001). For young people with complex experiences like medical illness, art therapy is a powerful tool for emotional expression, processing and supports social, cognitive and physical development (Kline, 2016). Mallay (2002) and Kline (2016) propose that art therapy is ideal for working with young people when sensory, cognitive or physical capabilities are impaired as it does not rely on verbal output in the way that other psychotherapies do. In this field, it is common for the young person to have either one or more of the following impairments: speech, language, cognitive, physical, social and psychological. Art Therapy also supports physical and fine motor rehabilitation (Kline, 2016).

1. ***Tuned In* program – music listening for emotion regulation**

**Educators: Dr Genevieve Dingle and Kate Palmer or Joel Larwood**

Dr Genevieve Dingle developed the *Tuned In* program and has facilitated it in numerous settings including the UQ Psychology Clinic, Boystown, and in secondary schools. As per her CV (attached), Genevieve has over a decade of experience working as a clinical psychologist in mental health and substance use treatment services, and she has supervised dozens of provisionally registered psychologists through their clinical practicum work. Kate Palmer is an experienced Social Worker and Art Therapist who is familiar with the Mater YAHC through her existing work here (see above and her CV attached). Joel Larwood is a PhD student under the supervision of Genevieve and Dr Eric Vanman at the School of Psychology UQ. He has been a co-facilitator of the Tuned In program at a secondary school and also researches young people’s emotional responses to music.

**Content:** Music listening has been found to evoke a range of emotions and is the number one leisure activity among young people (Papinczak, Dingle, Stoyanov, Hides & Zelenko, 2015). *Tuned In* is a 6 session manualised program developed in 2012 by Dr Genevieve Dingle. It uses participant-selected music to evoke emotions in sessions, and to facilitate psychoeducation about emotions and emotion regulation skills. It involves listening to music in small groups, doing activities designed to increase emotional response to music (drawing music-evoked imagery, body sensations, and lyric analysis), identifying the physical and emotional experience of emotions, and identifying the types of music that can be useful to listen to when experiencing emotions such as sadness, anger, and anxiety. The program has been shown to improve emotion regulation in samples of adolescents and young adults in school and community settings (Dingle & Fay, 2017; Dingle, Hodges & Kunde, 2016). The program also uses scenarios to evoke participants’ emotional recognition and responses. In the current project, the emotion evoking scenarios in the sessions will focus on issues relevant to MYAHCB patients such as health anxiety, pain management, and relationship issues.

1. **Vocal Group**

**Educators: Malcolm Hume (Brisbane State High School teacher and choral director) and Kate Palmer.** Malcolm has degrees in both music and education, and he directs *Bella Voce*, the premier senior vocal ensemble at Brisbane State High School. He is familiar with musical repertoire and techniques suitable for working with young people. He will be joined in the group face-to-face sessions by Kate Palmer, in order to have a clinician on hand if the need arises. This six session program will be offered in both face-to-face or virtual modes so that young people who are able to attend the choir in person may do so, while young people who experience barriers in terms of their immunity level or location may attend online. After each session, Malcolm will post song conducting instructions online and the participants will record themselves singing and send their recording to Malcolm to merge into a soundtrack which all participants can hear. In this way we expect that group benefits will be experienced by all participants even if they are participating virtually.

**Content:** There is both quantitative and qualitative evidence to support the use of group singing interventions to increase emotion regulation, mental health, and wellbeing (Dingle, Brander, Ballantyne & Baker, 2013; Dingle, Williams, Jetten, Welch, 2017). When participants sing together they have an important role in creating the choral sound, and there is no reference being made to their psychological health status. It has been found that engagement in such choir groups increases social connection, social functioning, employment capacity, self-perception, emotion regulation and positive emotions (Dingle et al, 2013; 2017). Despite young adults with health problems reporting similar concerns around social functioning (Zebrack, 2011) the use of group choir singing has not yet been evaluated in a young adult health context.

1. **Make Your Own Podcast group**

**Educators: 2 MentalMusic team members and Kate Palmer and/or Alan Heady (Mater YAHC Health Psychologist)**

[www.MentalMusic.org](http://www.MentalMusic.org) is a group of Brisbane young people who make podcasts about mental health and social issues that affect young people (Hinchcliffe, 2017). They will be responsible for providing education in the sessions, while a clinician (Kate and/or Alan) will also be present at all sessions. The role of the educators from MentalMusic is focused on skills instruction – this is in keeping with the arts programs being more like ‘courses’ than ‘therapy’ groups per se. The educators have been given a 2-hour orientation session to the MYAHC, the nature of the participants and potential group dynamics by project staff Kate Palmer and Genevieve Dingle. They have discussed with the project researchers the content of their podcast making sessions and ideas on how best to manage the group process during sessions. The groups will be kept small in number (ie., 4-6 participants, with 2 MentalMusic educators and at least 1 clinical facilitator) so participant behaviour, emotions and interpersonal dynamics are expected to be readily managed.

It should be noted that the MentalMusic educators will not be responsible for managing mental health issues (or health issues) experienced by participants during the podcast making program – instead the Mater clinical facilitator/s who will be present in all of the sessions will take on that role. These staff members are experienced group facilitators and able to manage any group dynamics or other issues arising, and for debriefing with the educators after each group session. The MentalMusic team members will comply with Mater client confidentiality agreement, vaccinations, and orientation, and they will be asked for parental consent to participate (as their average age is under 18 years).

**Content:** In the current project, we expect that participants will select topics related to their medical experiences and associated social and developmental issues. The topics and preparation for interviews will be conducted in the group sessions, and the educators will assist participants to select topics, and also the participants will conduct their interviews with each other (ie. other participants in the podcast making group) for the purpose of skills building during the program. This means that the topics, interview questions, and editing of recorded material for the podcasts can be carefully monitored by the project team. The MentalMusic.org members will show small groups of MYAHCB participants how to conduct research on the topic, microphone and interviewing technique, how to set up and conduct interviews, and how to edit the podcasts and make them available online. The MYAHCB Manager Greg McGahan and members of the project team will have editorial oversight of the podcasts before they are posted on the Mater YAHC website for public access.

There is a dearth of research specific to this medium of story sharing, however, the broader arts in health literature points towards narrative storytelling, in the way of writing, having positive impacts on identity (Neilsen, 2016). This is particularly relevant to young adults with medical conditions, with studies pointing to a relationship between identity negotiation and emotional health (Luyckx et al., 2008; Ravert & Crowell, 2008). Furthermore, the process of learning to create and share a podcast may lead to the formation of strength based identities, such as that of producer instead of patient, which can also be in line with advocacy and integration of illness identity (Bakarat et al., 2016; Ravert & Crowell, 2008). Engaging in the creative production of personal storytelling in a group setting may also be beneficial for interpersonal relations, with Bakarat et al. (2008) identifying social connection as the most important theme to wellbeing in the study of young adults with cancer.

**2.0 AIMS OF STUDY**

This research project (active for 18 months from execution of the research contract on 14 September 2017 until 14 March 2019) aims to implement and evaluate the arts in health program with Mater YAHC patients drawn from a range of inpatient and outpatient medical clinics and services. All participants will continue to receive their treatment as usual during the project, and the arts in health groups will be evaluated in terms of potentially adding benefits to their wellbeing and psychosocial outcomes.

**3.0 OBJECTIVES**

3.1 PRIMARY OBJECTIVES are to answer the following 5 questions:

1. Do arts in health groups enhance participants’ wellbeing and psychosocial variables (over and above treatment as usual)?
2. Are any arts programs more effective than others? (between group comparisons)
3. Are any participant variables (age, gender, medical condition, trait alexithymia, previous musical training or art training) related to response to the arts programs?
4. Is there a relationship between ‘dose’ of arts program (i.e. % of sessions attended during the project) and effects (change on wellbeing and other psychosocial outcomes)?
5. Does attendance at an arts program increase participants’ engagement with other health services at the MYAHCB?

3.2 SECONDARY OBJECTIVES

Secondary objectives are to examine the potential mechanisms of change in each arts program, such as effect on emotion regulation, social connection, alexithymia and other psychosocial constructs. We plan to collect data on participant experiences of each intervention in the post-program survey to assist in the further refinement and development of the project.

In addition, we plan to schedule one or more focus group sessions towards the end of 2018 and invite participants who have attended any of the arts programs to come along and give us feedback to a set of questions (see secondary measures below). This will be entirely voluntary for participants and we will provide refreshments and a small incentive (e.g. $20 gift voucher) for their participation.

**4.0 HYPOTHESES**

4.1 PRIMARY HYPOTHESES

H1) That, compared with treatment as usual (TAU), participants in the TAU + arts groups will experience an increase in measures of quality of life, social group connections, improved emotion regulation, and self-esteem from pre- to post-program. We expect a small effect size difference between groups, e.g., 15-20% greater improvement in measures to those in the arts group as well as treatment as usual.

H2) That there will be no significant difference between the various arts groups in terms of their psychosocial benefits to participants.

H3) That some participant variables will influence their response to the arts programs – for instance, participants with alexithymia may respond better to non-verbal processes in Art Therapy and Tuned In rather than the Podcast Making, whereas participants with musical training may respond better to the Vocal Group and *Tuned In* than those without previous musical training.

H4) That there will be a dose-response relationship such that participants who attend more sessions of art groups over the duration of the project will show a bigger improvement on wellbeing and psychosocial outcomes (compared to their pre-program assessment) measures than those who attend fewer sessions.

H4) That participants who attend an arts program will form a more positive connection with the Mater YAHC, group educators, and fellow patients that will increase their engagement with other health services available at Mater YAHC (measured in terms of failure to attend appointments and their feedback on post-program survey questions and focus group question).

**5.0 STUDY DESIGN**

This project takes a pre-post design (see Figure 1), such that prospective participants will be recruited on a rolling basis, and assessed (Time 1) then assigned (non-randomly) to an arts program based on expressed interest and availability of spaces, and they will complete a post-program assessment (Time 2). Those who are unable to be offered a place immediately will complete Time 1 assessment then be placed on a waiting list (still receiving their treatment as usual) and will be re-assessed six weeks later (Time 2). Pairwise comparisons between the TAU and the TAU+Arts Group will be conducted. This design was chosen in preference to a fully randomised controlled trial to maximise participant choice, as it is unlikely that they will complete a program that they are not interested in.

Although patients may volunteer to participate in more than one arts group during the duration of the project, they will only be able to participate in one arts program at a time, and pre-program data will only be collected for their first arts group for use in the main analysis. (Post-program data will be collected from each program they attend and used in the analysis of hypothesis 4, to assess whether there is a dose-response relationship between total number of arts group sessions a participant attends and their change on measures of quality of life, self-esteem, etc.)

**Figure 1. Flow of participants through the study**

Self-referred to the study

(target *n* = 105)

**Complete Time 1 Assessment**

Treatment as Usual + Arts group (Art Therapy, Vocal group, Podcast Making, or Tuned In)

(*n* = 35)

6 sessions

Treatment as Usual (wait listed control)

*(n* = 70)

6 weeks

**Complete Time 2 assessment**

**Complete T2 assessment**

Next available Arts group (6 sessions)

Follow up period 6 weeks

**Complete T3 assessment**

**Complete T3 assessment**

Data will be collected at three times from each consenting participant: Time 1 = baseline (prior to group allocation), Time 2 = 6 weeks later (immediately after the completion of the program or wait list period), and Time 3 = 6 weeks after intervention completion or post-program for the wait listed participants. Participants will complete a battery of measures online using the *Qualtrics* platform, licensed by The University of Queensland. Measures of program evaluation, both quantitative and qualitative, will only be taken at post-program (T2 for the intervention and T3 for the TAU wait listed condition).

**6.0 STUDY LOCATIONS**

The arts group interventions will take place at the Mater YAHC DOME, level 4 of the Salmon Building, Mater Hospital. The Vocal group will be offered in both face-to-face group sessions and online from the participants’ hospital ward or home.

**7.0 STUDY DURATION**

The intervention phase of the study will run for 18 months, with data collecting commencing as soon as ethics approvals are received (late 2017) and concluding in late 2018, ahead of project reporting by March 2019. A month by month breakdown can be seen below in Table 1.

**8.0 STUDY POPULATION**

The participants will be patients of the MYAHCB ranging in age from 18 to 25 and of all genders, as this is the age group of particular interest to the researchers. (Mater YAHC patients aged under 18 will be welcome to participate in the arts groups however, we will not ask them to join in the data collection aspect of the project and thus no parent/guardian consent will be sought for them to join. For instances when the data are collected during a group session, any 16-17 year olds will be offered refreshments and engaged in conversation by a facilitator while the older participants complete their surveys). The study is not diagnosis specific. Clinicians from the Mater YAHC clinics Thrive, YASU, IBD, Clarence Street Alcohol and Drug Service, and others will be made aware of the project and will identify patients who they think might benefit from the arts programs and be suitable for group work.

**8.1 INCLUSION CRITERIA**

* Aged 18-25 years
* Have a chronic medical condition associated with their referral to the Mater YAHC.
  1. **EXCLUSION CRITERA**
* An ability to attend (in person or virtually) five out of the six intervention sessions, as to derive benefit from the program it is expected that the majority of sessions need to be attended.
  1. **POTENTIAL FOR RISK, BURDENS AND BENEFITS TO PARTICIPANTS**

Participation in the project will add a small burden to participants due to the completion of online surveys at 3 times, however, efforts have been made to restrict the length of the surveys so they should not take participants longer than about 15 minutes each. The group sessions may evoke a range of emotions in participants, which indeed is part of their purpose. However, these sessions are not expected to add any physical or psychological risk to participants outside of treatment as usual interventions provided by the Mater YAHC. The Art Therapy and Thrive groups have been running for some time and no risks have been posed to participants.

There will be at least two facilitators in each group, including a fully accredited clinician who will manage difficulties in the group process as they arise. Should participants experience heightened psychological distress a clinician will provide support to them. If the case of any physical distress or, in the unlikely event, harm the participant will be taken to the Mater Emergency department. Non-clinically accredited facilitators (e.g. the Vocal Group educator and the Make Your Own Podcast educators) will be given Mater orientation and OHS induction and will be fully compliant with confidentiality agreements, vaccinations, and other requirements of the Mater Hospital.

All data collected using the Qualtrics surveys will be password protected and held on University of Queensland computers by the members of the research team. Confidentiality of participants will be maintained according to Mater Health guidelines, University of Queensland guidelines and AHPRA guidelines. All data collected will be linked only by unique participant codes, **comprised of the participants’ first two initials of their first name (e.g. for JO for John); the first two initials of the place they were born (e.g. IP for Ipswich); and the two digit day of their birthday (e.g. if born on 4th July, this would be 04).** Full names will not be directly attached to data. A separate file of participant codes, names and contact details will be stored in an excel file for the purpose of making contact for the time 3 (follow up) assessment and also for providing feedback to participants at the conclusion of the project. Group members will also be informed of the importance of maintaining confidentiality of what is said and who is present at each session. It is anticipated that participants will directly benefit from their participation in the study by way of increase psychosocial health.

Table 1: GNATT chart of Project Tasks

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project aspect | Aspect lead | Start | End | Cum duration | 2017 | | | | 2018 | | | | |  | | | | |  | | | | 2019 | |
|  |  |  |  |  | O | N | D | J | | F | M | A | M | | J | J | A | S | | O | N | D | | M |
| Project design | Dingle | July 2017 | Sept 2017 | 3 months |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  | |  |
| Recruit educators | Dingle | July 2017 | Sept 2017 | 3 months |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  | |  |
| Ethics application | Larwood, Dingle | July 2017 | Sept 2017 | 3 months | X | X |  |  | |  |  |  |  | |  |  |  |  | |  |  |  | |  |
| Orientation for educators | Palmer | Sept 2017 | Oct 2017 | 2-3 hours | X |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  | |  |
| Recruitment of participants | Palmer | Sept 2017 | ongoing | 18 months |  |  | X | X | | X | X | X | X | | X | X | X | X | | X | X |  | |  |
| Podcast Making | Palmer | Dec 2017 | ongoing |  |  |  |  | X | |  |  |  |  | | X |  |  | X | |  |  |  | |  |
| Tuned In group | Dingle | Jan 2018 | ongoing |  |  |  |  | X | |  |  | X | X | |  |  |  |  | | X |  |  | |  |
| Art Therapy group | Palmer | Feb 2018 |  |  |  |  |  |  | | X | X |  |  | | X | X |  |  | |  |  | X | |  |
| Vocal Group | Palmer | Dec 2017 | On |  |  |  |  |  | |  |  |  |  | |  | X |  |  | |  |  | X | |  |
| Showcase | Dingle | Sept 2018 |  |  |  |  |  |  | |  |  |  |  | |  |  |  | X | |  |  |  | |  |
| Data analysis | Dingle |  |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  | | X | X | X | |  |
| Report | Dingle |  |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  | X | | X |

In relation to the Make Your Own Podcast program, the educators and participants will be briefed in particular about the importance of maintaining privacy and confidentiality of the people they interview for the podcasts. W**e are aware of the link between choice of topics in the podcasts and the need for interviewee privacy and confidentiality. The topics and preparation for interviews will be conducted in the group sessions, and the educators will assist participants to select topics, and also the participants will conduct their interviews with each other (ie. the interviewees will be other participants in the podcast making group) for the purpose of skills building during the program. This means that the topics, interview questions, and editing of recorded material for the podcasts can be carefully monitored by the project team.**

**9.0 STUDY OUTCOMES**

9.1 PRIMARY OUTCOMES

The primary outcomes of this study will be the change in scores on social connectedness and on quality of life measured by the AQuOL from pre to post intervention. The AQuOL has 20 items and yields several subscales: Independent Living, Mental Health, Coping, Relationships, Pain, Senses. Other measures will be change in scores on measures of identity and emotion regulation from pre to post for each condition. This will highlight whether the intervention has any effect on the theoretical mechanisms of change. See Table 2 for the names and schedule of measures.

9.2 SECONDARY OUTCOMES

Secondary outcomes include participants’ ratings of engagement with each arts program in the post-program survey, and verbal feedback on each of the interventions given by participants in the end of project focus groups. The questions for the focus groups are below.

**Can you reflect on the following elements of the arts program/s you attended and comment on your experience of them?**

1. **The content of the program – what activities did you find helpful? (encourage discussion of the four programs separately)**
2. **The content of the program – what activities did you find unhelpful or difficult? (is there anything we could do to make it better?)**
3. **How did you find the format of the program – e.g. face to face vs online?**
4. **How was your experience of sharing your music, art or podcast recordings with others in the group?**
5. **Did you feel a sense of belonging and connectedness with others in the group?**
6. **Did your participation in the arts group/s affect your social connections with others outside of the group (e.g. family, friends, house-mates?)**
7. **Did you participation in the arts group affect your attendance and feelings about coming to the Mater Young Adults Health Centre for other aspects of health services here?**
8. **Did your participation in the arts group affect your physical health? (if yes, in what way?)**
9. **Did your participation in the arts group affect your mental health and wellbeing? (If yes, in what way?)**

***Table 2: Schedule of Measures***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Measure (key reference) | Items | T1 | T2 | T3 |
| Part A. Demographics | Unique identifier code | 1 | x | X | x |
|  | Program involved in | 1 | x | x | x |
|  | Gender, age, education, ethnicity, ATSI status | 5 | x |  |  |
| Part B. Emotion variables | Toronto Alexithymia Scale – 20 (Bagby, Taylor and Parker, 1994) | 20 | x | X | X |
|  | Difficulties in Emotion Regulation Scale 16  (Bjureberg et al., 2016) | 16 | x | X | X |
| Part C. Arts involvement | Measures of current music engagement i.e. frequency and amount of music listening; or art involvement i.e. Do you currently make your own art (Condition dependant) | 4 | X | X | x |
|  | Music Use Questionnaire (MUSE; Chin & Rickard, 2012). Cognitive and emotion regulation subscale and Social connection subscale | 10 | x | x | x |
| Part D. Wellbeing Measures | Assesment of Quality of Life (AQoL) Adolescent (Moodie, Richardson, Rankin, Iezzi, & Sinha, 2010) | 20 | x | X | x |
| Part E. Social Ties | Social Identification with arts group, and with family | 8 | x | x | x |
| Part F. Program engagement and satisfaction | Measures of program enjoyment and success | 4 | - | X |  |

**10.0 STUDY PROCEDURES**

10.1 RECRUITMENT AND CONSENT OF PARTICIPANTS

The research team members will present on the aims, nature, and procedures of the project to clinicians at the Mater YAHC at the multidisciplinary team meeting and other suitable meetings to raise awareness of the arts groups. All participants will be identified internally, through services such as Thrive, YASU, IBD and other Mater clinicians. Each potential participant’s suitability to participate in a group intervention and whether a group intervention will be of greater benefit to an individual intervention will be assessed by their clinician. After being provided with an information sheet by their clinician, participants will be able to contact Kate Palmer with which group they are interested in participating in.

They will be assigned (non-randomly, on the basis of their interest and the availability of spaces in each arts group) to either an arts group or wait-list control, and information about the waitlist control process will be explained. Participants will then be contacted by their clinician to complete information and consent forms. As part of this, consent will be sought to have limited access to their medical diagnosis from the participants’ medical charts, however participation in the study will not be contingent on this consent being granted.

Once consent has been passed on to the research team, they will contact the participant by email to confirm group details and with a link to the Time 1 survey. These are expected to be completed online on the participants’ phone or tablet using an online link to a Qualtrics survey (hosted by UQ), however, paper copies will be available for participants who require them. At the completion of the project, participants will be provided with a summary of the findings either in person when they attend an appointment at the Mater YAHC or by email.

10.2 WITHDRAWAL OF PARTICIPANTS FROM A STUDY

**10.2.1 PARTICIPANT WITHDRAWAL FROM STUDY PROCEDURES**

**Participants who wish to withdraw the procedure of the study, i.e. cease completing the online surveys, they will be free to do so without any negative effects.**

**10.2.2 PARTICIPANT WITHDRAWAL FROM A STUDY**

**Any participant who wishes to withdraw from the project (i.e. cease completing the surveys and attending the arts program) may do so by completing the withdrawal of participation form (see at the end of the Information and Consent forms). These participants will be aware that any data collected up until that point will be retained for analysis unless they ask to remove it (in which case, this will be done). Participants withdrawing from the study entirely will not have additional data collected from them.**

10.3 ALLOCATION OF PARTICIPANTS TO ARTS GROUPS

Participants will be allocated to their chosen arts group on a first come first served basis, and according to availability of places in each group. Some groups (e.g. Tuned In, Art Therapy) can take around 8 participants, the Vocal group can take a larger number (e.g. 15-20), and the Podcast Making will be limited to 4-6 participants due to the resource requirements. When the quota for one group is filled additionally interested patients will be placed into the wait-list for the next available group. All participants will continue to receive treatment as usual (medical appointments and allied health appointments, such as at YASU). Participants will not be blinded to their intervention condition, nor will facilitators. Condition will be known to the researchers based on responses to items on the questionnaire.

10.4 MEASUREMENT TOOLS USED

The self-report measures and references are listed in Table 1. A complete list of the measures, their items, their points of collection and relevance to each outcome can be seen in the uploaded Questionnaire. All measures have been validated within the literature, except for measures of music and artistic involvement that have been custom made for this research area.

10.5 STUDY INVOLVEMENT BY PARTICIPANTS

Participants will be provided with information and consent forms prior to beginning participation in the study and will be consequently contacted at a later date prior to commencement of their intervention. The active portion of the study will involve 6 sessions of 90 minutes each, typically spaced one week apart, or an intensive version (e.g. 3 sessions x 3 hours). Participants will be contacted for a 6 week follow up after the completion of the intervention. Upon beginning the first session of each intervention participants will again be given information about the study and complete the first online survey. Tables 3 to 6 below give a brief protocol for each intervention session. At the completion of the sixth and final session participants will be asked to complete the post-intervention battery, with the follow questionnaire to be competed in their own time. Except for the final focus group (for which participants will receive a gift voucher of $20 for their participation), participants will not be compensated for their participation and will be made aware of this in the information sheet.

**Table 3: Art Therapy Session breakdown**

|  |  |  |
| --- | --- | --- |
| **Session** | **Session Plan** | **Theory & Rationale** |
| 1 | Fluid Art (introduction activity);  Journal Making | Fluid art can be done individually or in a group setting and is a calming process of moving paint around to make unique patterns/shapes. Can be verbal or non-verbal, depending on participants comfort and preference. Perfect introductory activity that puts no pressure on participants to engage more than what they are comfortable doing. According to Malchiodi (2007), creative journaling is an art therapy method, which can assist in expressing an artistic self-dialogue. There is evidence to suggest creative journaling can reduce anxiety, stress and improve functioning (Mercer, et al, 2010; Tokolahi, 2010; Wright, 2009; Deaver & McAuliffe, 2009). |
| 2 | Bridge Drawing | Drawing a bridge can help people make connections, assist in problem solving or unpacking and overcoming obstacles and can assist in communication (Malchiodi 2012). The creators of “The Bridge Drawing”, Lyon and Hayes (1981) suggest that drawing a bridge going from one place to another and placing oneself on the bridge can evoke useful insight into the creator’s perception of their current situation and their goals and expectations for the future (Malchiodi 2007. Malchiodi (2012) & Rubin (2001) state that this intervention is particularly relevant in the hospital setting where patients are facing life threatening illnesses or making significant transitions after an injury or illness. |
| 3 | Values Beads | Bitone & Santo (2014) and Kline (2016) talk about Art Therapy being particularly relevant for adolescents who are development their sense of self, self-identity and self-image. Alongside this theme, Lusebrink (2004) states that Art Therapy assists with forming a stronger mind body connection, thus allowing for heightened emotional awareness and connection. Using a blend of ACT Therapy principles (Harris, 2006) around value identification and awareness and creative ways of exploring this. The young people will have an opportunity to explore their own values, who they want to be and how they are going to achieve this very personal goal. |
| 4 | Mask Making | A mask-making session can allow for significant therapeutic work and growth within Art Therapy for both client and therapist. Making a mask invites the creator to explore various aspects of his or her own persona (Malchiodi, 2007; Kline, 2016). The activity can be revealing because it takes the mask maker out of the realm of words and employs imagination and nonverbal action (Rubin, 2001). |
| 5 | Inside/Outside Self | Using the masks created in the week prior, participants will be asked to think about their inside self (what is important to them, what makes them who they are, and the self they don’t necessarily show everyone) and then the outside self (the self that others see). During the process, through verbal or nonverbal [communication](http://www.goodtherapy.org/learn-about-therapy/issues/communication-issues), the therapist may help the client to experience and consciously come to terms with these previously locked up and hidden memories/feelings and thoughts (Rubin, 2010). |
| 6 | Anchor Art - what anchors and supports you in life?  Discussion around support planning and end group | This intervention is aiming to ground the participant, giving them a sense of feeling settled and supported as the group is ending. Anchors have been used as a metaphor in ACT Therapy and other mindfulness frameworks and this intervention is using the metaphor of anchors and grounding however using it creatively and asking young people to create their anchors. This will help forge the mind body connection even more so and help tap into non-verbal processes and thus increasing mindfulness, feelings of connection and clarity around support needs (Malchiodi, 2012). |

**Table 4: Session plan for Tuned In Program**

|  |  |
| --- | --- |
| **Session** | **Session plan** |
| 1 | Feelings are your friends – orientation to the Tuned In program and general education about emotions and their functions |
| 2 | Music to make you happy – introduction of the 2 dimensional model of emotion, how different music affects these emotion dimensions, and sharing of happy music. |
| 3 | Music to calm you down – focus on high arousal states such as anxiety and worry, hospital and medical contexts. |
| 4 | Music to power you up – focus on fatigue and low motivation, using music and other ways to increase energy. |
| 5 | Music for sadness and loss – focus on immersing in sadness to process it; when is enough enough, music and other strategies for improving emotional valence. |
| 6 | Music for wellbeing and keep on grooving – planning to continue using the strategies learned after group finishes; building playlists. |

***Table 5. Session plan for Make Your Own Podcast program***

|  |  |
| --- | --- |
| **Session** | **Session plan** |
| 1 | Introductions to the facilitators and participants; orientation to the program, brainstorming ideas for the podcasts |
| 2 | How to research for the interview, how to conduct an interview |
| 3 | Recording, mic, sound, and practice interviews |
| 4 | Editing recorded interviews using laptop software |
| 5 | Make Your Own Podcast |
| 6 | Make Your Own Podcast |

***Table 6. Session plan for Vocal Group program***

|  |  |
| --- | --- |
| **Session** | **Session plan** |
| 1 | Introductions, discussion of favourite music, vocal warm up, singing song #1 |
| 2 | Vocal warm up, finding your vocal range, singing in simple harmony, song #2 |
| 3 | Vocal warm up, singing, body percussion, song #3 |
| 4 | Vocal warm up, singing, some solo work, percussion, song #4 |
| 5 | Vocal warm up, singing, preparation of songs for showcase, song #5 |
| 6 | Vocal warm up, singing song #6, preparation for showcase |

**10.6 DATA MANAGEMENT AND STORAGE**

The preferred method of data collection will be online using *Qualtrics* survey software, accessed on participants’ smart phones, tablet, or computer. If completed on paper, the hard copies will be returned directly to one of the three identified researchers at the time of collection and placed in a locked filing cabinet in Dr Dingle’s office. Data will be entered into statistical software package SPSS in Genevieve Dingle and Joel Larwood’s University of Queensland password protected computer accounts. **All data will only be identified by the participant’s unique code made up of the first 2 initials of their first name, the first two initials of their place of birth, and the day of the month of their birthday in two digits (e.g. John Smith born in Ipswich on 13th November 1998 would have the code JOIP13).** The participant’s full name and contact details will be kept on a separate file, and will not be directly linked to the data in anyway.

**10.7 SAFETY CONSIDERATION/PATIENT SAFETY**

All young people attending Art Group have been referred by YASU, OT or AT and thus have key workers actively involved. All therapists and referrers are aware of the young person’s attendance and relevant handover is provided back to referrer if necessary. Participants will be encouraged to book an appointment with their key worker if needing additional support, often they book an appointment on the same day while they are at the hospital. This helps them to debrief and unwind after the group and process any feelings/thoughts that have arisen in the group.

All interventions are selected with the purpose of maximising personal growth, personal/emotional safety and to work towards group aims. The Art Therapy group within the Thrive program has been running for 6 months and has strong clinical supports in place to ensure the risk to participants is low and there will be no change to the existing procedures to optimise data collection. The *Tuned In* and Vocal interventions have previously been run in samples of people with increased psychological distress (Dingle & Harris, *in progress*; Dingle, Hodges & Kunde, 2016; Dingle, Williams, Jetten and Welch, 2017). The same supports available to art group members will be available to Tuned In, Vocal group and Podcast group participants. While the Make Your Own Podcast session information will be delivered by MentalMusic.org members (aged 15-16 years), a clinician will always be present, managing group dynamics and ensuring safety of discussions. Kate Palmer and Genevieve Dingle have also provided training to the educators prior to beginning the sessions to prepare them and make them aware of issues surrounding working with a vulnerable population.

All measures being used are high in face validity and many are commonly used by health professionals and researchers (i.e. PROMIS measures and AQoL-A). If completion of any of the measures is distressing to any participant clinical support will be made available to them.

10.8 DATA MONITORING

Data will be checked for validity of responses (in terms of plausible score ranges and internal consistency reliability on published measures) before being analysed.

**11.0 SAMPLE SIZE AND DATA ANALYSIS**

11.1 SAMPLE SIZE AND STATISTICAL POWER

Group sizes will vary, as some are able to manage larger numbers (e.g. vocal group could have 15-20), Tuned In and Art Therapy would ideally have around 8 participants per group; while the Podcast Marking will only be able to manage around 4-6 participants. It is anticipated that each arts group will be offered three times over the course of the project, resulting in approximately 35 places for immediate entry, and a further 70 places for those who have been wait listed for the next two times the group is offered (see flow chart in Figure 1). We will check for any Time 1 differences between arts groups (which we are not expecting), and assuming there aren’t any, the data will be pooled across arts groups to form a single “intervention” sample for statistical comparison with the control sample. An a priori power analysis for a 2 groups (TAU wait list; TAU + arts group intervention) pre- , post-, paired analysis with a small effect size (0.25), an alpha of 0.05, a power of 0.80 requires a total sample of N = 101. We will recruit 105 to ensure there is sufficient power to detect any differences between groups.

11.2 DATA ANALYSIS PLAN

* To answer H1, data will be analysed using a 2 group pre-post paired t-test analysis.
* To answer H2, pre- to post-program changes on the dependent measures will be analysed between the four arts groups (i.e. a 4 group paired t-test analysis).
* To answer H3, individual variables such as alexithymia scores and background arts training will be analysed as potential moderators of participants’ pre to post change on dependent measures.
* To answer H4, the total number of sessions each participant attends over the whole project will be correlated with their pre to post change on dependent measures.
* To answer H5, participants’ days of attendance at other Mater YAHC clinics during the project will be compared between the TAU sample and the TAU+Arts group sample (2 group t-test).

**12.0 ETHICAL CONSIDERATIONS**

To summarise the ethical considerations of this project:

* There are no invasive procedures and no safety concerns for participants.
* Referrals to the project will be made by the participants’ key workers who know them well, and deem them suitable for group work.
* There is a risk of emotional discomfort from participation in the arts groups due to their exploration of issues of self and identity, relationships, transition to adulthood and other challenging topics.
* The emotional and psychological wellbeing of participants will be managed by clinically trained group facilitators and/or the support of the participants’ referring key health worker within the Mater YAHC as appropriate.
* Although several group educators will be contracted to conduct the arts programs, including one program in which the educators will be aged less than 18 years, there will be an accredited clinician present at every session.
* The potential benefits to participants are greater than the risks.
* Data will be collected in a de-identified manner, using unique identifier codes to allow for data to be matched across time points.
* Data will be collected and stored securely in password protected computer accounts at the University of QLD, and only accessible to members of the research team.
* The findings will be reported using group aggregate data so no individual will be identifiable.
* Podcast recordings will be checked by the researchers and the Manager of the Mater YAHC to ensure privacy of the people whose stories are told in the podcasts (e.g. first names or changed names; only focus on health conditions that are relatively prevalent).
* A plain language summary of the project findings will be offered to participants either in a presentation or by email as suitable.

**13.0 DISSEMINATION OF RESULTS AND PUBLICATIONS**

It is intended that findings will be summarised in a project report to be provided to the Mater YAHC and the finding body, BICARE Inc. A summary of the findings will be given to educators and the participants, either in a face-to-face session or emailed. The findings are also expected to be published in suitable peer reviewed journals, with members of the research team negotiating authorship reflecting their contributions. Data relating to the musical use of all participants at baseline and their wellbeing is also intended to be used by Joel Larwood as part of his PhD candidature at the University of Queensland, including as part of his thesis.

**14.0 OUTCOMES AND SIGNIFICANCE**

The findings of this study will add further clarity to the role engagement with the arts can play in a health context, particularly expanding it to a broad, cross-diagnostic, medical sample of young adults. This would represent a novel contribution to existing arts in health literature that tends to focus on specific diagnostic groups, which is not fully representative of the services provided by the MYAHC. Furthermore, as mechanisms of change are being investigated, the study will shed light on what interventions best target particular areas of functioning. Subsequently, in future practice, medical professionals will be able to refer onto arts based programs specifically targeted to fostering the improvement on a specific domain, such as social functioning or emotion regulation.

The secondary objective of evaluating the experiences of participants and facilitators of the program will serve to help refine and improve the programs offered, furthering their development. This will come as a benefit to future consumers of the program, offering the best possible service for facilitating improved emotional health in a non-invasive and novel way.

**15.0 BUDGET**

Costs of the project will be met by a charitable donation from BICARE to Dr Dingle ($57,432 excl GST; Grant Record number to be determined), and in kind support from Dr Dingle, UQ resources (HREA review, library and computer, analytic software, intern psychologists to co-facilitate some arts groups), and Mater Hospital resources (HREA review, office space and computers for Kate and Joel, DOME space for groups).

**16.0 GLOSSARY OF ABBREVIATIONS**

MYAHC: Mater Young Adults Health Centre

**17.0 REFERENCES**

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