

“Participation is Fun and Empowering”: A Participatory Approach to Co-design a Cultural Art Program for Older Chinese at Risk of Depression in Hong Kong

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ABSTRACT

Background and Objectives: Internalized ageism and stigma of mental illness may disempower older people and impede help-seeking among those at risk of depression. Arts are deemed enjoyable, stigma-free, and conducive to mental health, and a participatory approach can engage and empower potential service users. This study aimed to co-design a cultural art program and test its feasibility in empowering older Chinese people in Hong Kong and preventing depression.

Research Design and Methods: Adopting a participatory approach and guided by the Knowledge-to-Action (KTA) framework, we co-designed a 9-session group art program using Chinese calligraphy as the channel for gaining emotional awareness and facilitating expression. The iterative participatory co-design process engaged 10 older people, 3 researchers, 3 art therapists, and 2 social workers through multiple workshops and interviews. We tested the program's acceptability and feasibility in 15 community-dwelling older people at risk of depression (mean age = 71.6). Mixed methods were used, including pre- and post-intervention questionnaires, observation, and focus groups.

Results: Qualitative findings suggest the feasibility of the program, and quantitative findings indicated its effects in increasing empowerment ($t(14)=2.82, p < .05$), but not in other mental health-related measurements. Participants reflected that active participation and learning new art skills were fun and empowering, arts enabled them to gain insight into and express deeper feelings, and groups with peers made them feel relatable and accepted.

Discussion and Implications: Culturally appropriate participatory arts groups can effectively promote empowerment in older people, and future research should balance eliciting meaningful personal experiences and measurable changes.

Keywords: mental health, visual arts, creativity, self-stigma, arts-based intervention

TRANSLATIONAL SIGNIFICANCE

There is accumulating evidence that arts participation can enhance healthy aging. However, the majority of the interventions are professionally led. This research demonstrated how engaging professionals and service users in a participatory process could translate knowledge into an ecologically valid cultural art program in an Asian community for older people at risk of depression. The findings highlighted the value of active participation in the co-design process and the program evaluation. Despite a small sample size, the preliminary findings from mixed methods may inform a more rigorous research design and balance between eliciting meaningful personal experiences and measurable changes.

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INTRODUCTION

Depression is a common mental health problem experienced by older people, with a global prevalence of major depression disorder (MDD) among older people at 13.3% (95% CI 8.4-20.3%) (Abdoli et al., 2021). Depression is associated with suffering, functional impairment, and diminished health-related quality of life in older people (Unützer et al., 2000). Prevention and early intervention can effectively reduce suffering (van Zoonen et al., 2014), while if left untreated, a cohort study in Hong Kong among older people showed that even mild depressive symptoms could lead to an 80% increase in suicidal risk in women compared to those without depressive symptoms (Sun et al., 2012). In addition, subthreshold depression is at least 2-3 times more prevalent than MDD (Meeks et al., 2011); it is therefore of public health interest to prevent depression among those at risk or with mild depressive symptoms. However, depression in older people is largely under-recognized and under-treated, and mental health-related stigma plays an important role in delayed help-seeking (Clement et al., 2015; Gronholm et al., 2017).

Among the different kinds of stigma, self-stigma or internalized stigma, is associated with higher perceived help-seeking barriers and fewer help-seeking behaviours, especially seeking help from formal medical providers (Pattyn et al., 2014). Systematic reviews conclude that there are effective interventions to reduce internalized stigma, with psychoeducational interventions on stigma and multicomponent interventions showing the best results (Alonso et al., 2019). However, self-stigma has rarely been studied in older persons at risk of depression in a Chinese community, who may face challenges from multiple stigmas associated with mental illness, age, and a collective culture that values “*face*”, which means “dignity” or “prestige” in most Asian communities (Yang, 2007). Self-stigma refers to accepting and internalizing negative stereotypes the general public holds toward people with specific attributes and incorporating them into their self-identities

(Corrigan et al., 2006). Corrigan et al. (2009) integrated several aspects of self-stigma into a progressive model, which comprised awareness of negative stereotypes, agreement with them, and applying them to oneself. The application included prejudice and self-discrimination, which exceeded endorsement of the stereotypes, and it would eventually cause harm to self, such as reducing self-esteem and sense of hope (Corrigan & Rao, 2012).

Depression self-stigma, internalized ageism, and face-saving culture

Self-stigma is common among people with depression, obstructing help-seeking and recovery. Some common depression self-stigmas included: a sense of *shame and embarrassment*, feeling *guilty* about one's condition, being *weak* and an *undesirable person to be around* others, and equating it with *personal failure* (Barney et al., 2006; Dinos et al., 2004). Older people experiencing these negative stereotypes about depression could tolerate a greater severity of problems before presenting themselves to mental health services, leading to under-diagnosis of mental illness. In Hong Kong, people with mental illness reported that their most frequently used coping method was maintaining secrecy about the illness (Chung & Wong, 2004).

Internalized ageism is a form of self-stigma that may directly or indirectly impact mental health by obscuring the cause of mental health problems. Some common ageist beliefs include older people being *burdensome*, *useless*, and *beyond help* (Ayalon & Tesch-Römer, 2018). Experiences of ageism and internalizing these beliefs can result in stress and mental health challenges, such as depression and anxiety (Meyer, 2003). Older people in Chinese communities may suffer more from ageism now than before. Societal values towards older people in Chinese societies seem to be changing due to the transformation of family structures and reform of social systems in the context of rapid economic growth and westernization (Chiu & Yu, 2001). In the era that emphasises productivity, technological advancement, and competitiveness, older age is no longer associated with greater wisdom but

with lower contribution and heavier burden (Bai, 2016). When older persons internalize ageist beliefs, they can begin to believe and behave as though they are no longer independent, healthy, or vibrant (Levy, 2009), thus, resulting in avoidance or delay in help-seeking.

Older people are also subject to cultural misconceptions and influences. In Chinese, *face* represents one's moral status in the local community; an individual may "have" and "receive" *face* for individual achievement, or "lose" *face* for socially undesirable conditions associated with them (Yang et al., 2007). Seeking professional mental health services is often associated with *losing face* and the *face of the family* (Yang, 2007). Internalized cultural beliefs of the *face* may result in a self-stereotype of being the cause of shame, and potentially lead to self-discriminatory behaviors among older people, such as avoiding help-seeking and withdrawing from family and society, which make them part of the "hidden older people" group.

Empowerment, Participatory Approach, and Cultural Arts

Growing awareness of the impact of mental illness self-stigma has increased interest in interventions aiming to combat self-stigma. The evidence so far suggests that there are effective interventions, although the results of some specific strategies are inconclusive. A recent systematic review of 14 studies identified four main approaches to interventions: (a) psychoeducational, (b) cognitive-behavioral, (c) self-disclosure, and (d) multicomponent interventions. Of these, (a) and (d) showed consistent evidence of effectiveness, whereas (b) and (c) were studied to a lesser extent and showed inconclusive results (Alonso et al., 2019). Another critical review identified empowerment as an effective approach and suggested that targeting high-risk groups to pre-empt self-stigma was promising (Patterson et al., 2011). An empowerment model prioritizes the participation of individuals in any intervention affecting their welfare (Fitzsimons & Fuller, 2002), and a participatory approach has been adopted in many health programs and recognized for its effectiveness in the design, implementation, and

sustainability of health interventions (MacDonald, 2012; Wallerstein & Duran, 2010). For older people, active participation in community activities is beneficial for achieving active aging and maintaining better mental health (Abdoli et al., 2021). However, studies engaging older people in the development of mental health programs are limited, especially in using art as a medium for intervention, despite its promising outcome in previous studies. For example, Noice et al. (2014) reviewed 31 studies on the healthy aging effects of arts participation, and the results suggested overwhelmingly positive cognitive/affective/quality-of-life outcomes of various participatory art forms. Stickley et al. (2018) conducted a two-phased study and found that for people with existing mental health conditions, participatory arts activities produce outcomes that support recovery, specifically enhancing connectedness and improving hope.

Cultural arts may offer an excellent platform to integrate active participation and psychoeducation and provide added benefits from creative expression and self-disclosure through arts. In group sessions that use cultural arts, facilitators strive to create a “*no-fail*” environment for participants to create since there is no right or wrong in art. The beneficial effects of creating artwork are not dependent on a person’s skill or talents, but reliant on the creative process, new learnings, and the interpretive value of the artwork (Ahmed & Siddiqi, 2006; Patterson et al., 2011). Chinese people, especially older people, tend to be less verbal about their emotions and internal processing than younger Chinese and people from individualistic cultures. In a study of psychiatric disorders, Kleinman (1986) concluded that emotional constraints characterized Chinese because of its traditional values of emotional control and moderation. A slightly different understanding was proposed by Potter (1988), suggesting that emotional expression by individuals is not suppressed but ignored in China due to its collectivist culture. In both views, verbal expression of emotions is considered culturally inappropriate or harmful to social harmony (Soto et al., 2005). Older people are more deeply rooted in the

traditional collectivist culture, therefore, are more likely to internalize these values than their younger peers or people from other cultures. Creating arts may provide valuable distance from the emotional process and enables externalization and visual communication of inner subjective experiences for interpretation (Ciasca et al., 2018; Im & Lee, 2014). Interest or hobby groups related to arts are part of the existing services in community aged care centres in Hong Kong, adding to the feasibility of conducting cultural arts activities in the local setting.

Research Aims

The aims of this paper were (1) to describe the participatory co-design process of the cultural art program for older adults at risk of depression; (2) to conduct a pilot test of the intervention to examine its feasibility, acceptability, and immediate post-intervention effects on increasing empowerment, reducing self-stigma about depression and aging, and reducing depressive symptoms among older adults in Hong Kong; and (3) to describe the final intervention program.

METHODS

This study used a mixed-methods design and rode on a community-based holistic mental health support project for older adults at risk of or with subthreshold depression in Hong Kong (Liu et al., 2022). We utilized the Knowledge-to-Action (KTA) framework to guide the participatory co-design process (Graham et al., 2006). According to the KTA framework and previous studies adopting the framework in intervention design, translating the intervention program into practice requires the following parts: (a) identify the problem that the program needs to solve; (b) identify, review, and select the key components relevant to the problem; (c) tailor the program to the local settings and contexts; (d) assess and address barriers to implementation; (e) implement the program; (f) monitor the implementation and evaluate the

outcomes (Graham et al., 2006; Johannessen et al., 2019). We mapped our activities to the KTA framework (Table 1).

Data collection

Table 1 summarizes the data collection methods, data source, and data collection timeframe in different phases, namely program development, pilot testing, and finalizing of the program. The whole process lasted between October 2019 and December 2021.

Co-designing the intervention program

The co-design of the intervention program was a process of collective creativity applied across the entire design process, which involved active collaboration between researchers, art therapists, social workers, and older volunteers (service users) as “experts of their experiences” (Visser et al., 2005). First, three researchers performed a literature review on self-stigmas experienced by older Chinese with mental health needs, intervention programs for reducing self-stigma, and the utility of arts for this purpose. One researcher then interviewed 10 older volunteers recruited from community aged care centres via telephone with three questions: “What do you think are the self-stigma experienced by old Chinese people at risk for depression?” “Do you think art helps improve mental health?” “What is your preferred art activity in your free time?” Second, three researchers and two art therapists listed the key components of the self-stigma and art therapy intervention, respectively, and co-designed the program prototype through two workshops. Third, the researchers conducted a focused group interview with two social workers from aged care centres to understand barriers to implementation in the local context, conducted a workshop with 10 old volunteers for them to experience some of the proposed activities and collected their instant feedback, suggestions for modification, ideas of other activities, and how the facilitators could lead the group. Finally, the researchers and one art therapist refined the intervention program based on

social workers' and service users' feedback and new ideas, and there were several iterations before the intervention program was finalised. The co-design process lasted from October 2019 to February 2021.

Pilot test of the program

The pilot test evaluated the program's feasibility, acceptability, and effects through two groups of older adults at risk of depression. We used mixed methods in this phase: self-administered questionnaires, focus group interviews, and facilitators' observations. Fifteen older adults were recruited from a community aged care centre and formed two pilot groups. All of them completed the pre- and post-intervention questionnaires, and 11 participated in focus group interviews after completion of the program.

The inclusion criteria were: (a) aged 60 years or above; (b) at risk for depression, i.e., Patient Health Questionnaire (PHQ-9) score under 10 (Kroenke et al., 2001); (c) having at least one risk factor of depression, including frequent loneliness, lack of social interaction, lack of meaningful/enjoyable activities, chronic pain, more than four chronic diseases, or bereavement. The exclusion criteria were: (a) known history of autism, intellectual disability, schizophrenia-spectrum disorder, bipolar disorder, Parkinson's disease, or dementia; (b) illiterate; (c) physically frail; or (d) significant suicidal risk. The pilot test was approved by the Human Research Ethics Committee (HREC) of the University of Hong Kong, and all participants gave informed written consent.

The self-administered questionnaire

Depression was assessed by the Patient Health Questionnaire (PHQ-9), a 9-item instrument that incorporates depression diagnostic criteria with other leading significant depressive symptoms and rates the frequency of the symptoms. PHQ-9 scores of 5-9, 10-14, 15-19, 20 and above represent mild, moderate, moderately severe, and severe depression (Kroenke et

al., 2001). The scale was validated in Chinese and used in Hong Kong, with good internal consistency ($\alpha = 0.86$) and test-retest reliability ($r = 0.86$) (Wang et al., 2014).

Self-stigma of depression was assessed using the 16-item Self-Stigma of Depression Scale (SSDS) (Barney et al., 2006). Questions begin with the stem “If I were depressed, I would ...” and include items such as “feel inferior to others” (Shame), “think I should be able to cope with things” (Self-Blame), and “feel I could not contribute much socially” (Social Inadequacy). Participants responded using a 5-point Likert scale of 1 (strongly disagree) to 5 (strongly agree). A higher score indicates more self-stigma of depression, and the scale has good construct validity, internal consistency ($\alpha = 0.87$) and satisfactory test-retest reliability (Cohen’s $d = 0.17$) (Barney et al., 2006).

Self-stigma of age was assessed by the Internalized Stigma of old age scale (IS65+) (González-Domínguez et al., 2018). The IS65+ scale is a 9-item instrument comprised of five factors: alienation, discrimination experience, social withdrawal, stigma resistance, and stereotype endorsement. Participants responded to a 4-point Likert scale ranging from 1 (completely disagree) to 4 (completely agree), and a higher score indicates more internalized ageism. The original scale had good internal consistency ($\alpha = 0.89$) (González-Domínguez et al., 2018). Because there were no validated Chinese versions of the SSDS and IS65+, they were adapted for use in Hong Kong with standard forward-backward translation and consultation with mental health professionals and older adults.

Empowerment was measured by the self-empowerment subscale (SES, four items) from the Mental Health Recovery Measure (MHRM) (Young & Bullock, 2003). Items were rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree); higher scores indicate a higher self-reported level of self-empowerment. Example items include: “I believe in myself” and “I have control over my mental health problems”; a higher score indicates

more self-empowered. The MHRM scale had been validated in the Hong Kong population and demonstrated high internal consistency and reliability (0.92 to 0.26) (Ye et al., 2013).

Cognitive fusion was measured by the self-report Cognitive Fusion Questionnaire (CFQ) (Gillanders et al., 2014). It is a 7-item Likert-type scale ranging from 1 (never true) to 7 (always true). Example items include: “My thoughts cause me distress or emotional pain” and “I tend to get very entangled in my thoughts.” Higher scores indicated higher levels of cognitive fusion in participants, ranging from 7 to 49. The scale was validated in Chinese, with good internal consistency ($\alpha = 0.92$) and test-retest reliability ($r = 0.67$) (Zhang et al., 2014).

Focus group interviews

The purpose of the focus groups was to understand the experiences of the intervention group participants, including their perception of the stigma of depression in old age in Hong Kong, their perceptions of themselves, and whether and how participation in the group formed new narratives. Four open-ended questions guided the focus group:

1. What is your perception of how the public sees old and older persons with depression?
2. What is your perception of yourself?
3. Has participation in cultural art groups changed your self-perception? If so, how have they changed?
4. What is your most and least favorite part of the group? What can we do to improve it to suit your needs?

Observation

Two research assistants and one art therapist kept observational notes after each session.

Data analysis

Qualitative data analysis

Observational notes and feedback from participants in the pilot groups were organised and tagged for designing and improving the intervention. Focus group recordings were transcribed by a team of independent researchers unrelated to the current study and analysed by two researchers with extensive experience in mental health research using the thematic analysis. Codes and themes were derived from the data following an iterative process of familiarizing the data, generating codes, searching for and defining themes, and redefining the themes. NVIVO software was used for qualitative data analysis.

Quantitative data analysis

Descriptive analyses were used to analyze the quantitative data collected through self-administered questionnaires, and correlations were used to examine the associations between baseline clinical measures and demographic information. Paired sample t-test was to assess the within-subject changes. IBM SPSS software was used for all quantitative data analyses.

Patient and public involvement

Older adults at risk of depression as service users and social workers and art therapists as service providers were involved throughout all stages of the co-design and pilot testing of the program (Table 1). Enablers and barriers from service users' and service providers' perspectives were collected via focus group interviews and considered in finalising the protocol.

RESULTS

Phase 1: Co-design the cultural art program for older Chinese at risk of depression

Creative Chinese calligraphy as the core art form

For several reasons, Chinese calligraphy was chosen as the main art form for weaving in other therapeutic elements. First, out of the 10 older volunteers (mean age=71.5years, SD=6.7; 7 female), nine said that art activities were enjoyable and good for mental health, and five chose Chinese calligraphy or traditional ink drawing as preferred, the most popular participatory art form. Watching TV/Movies and listening to music received higher votes but were more passive forms.

Second, as suggested by the art therapists following the expressive therapies continuum (ETC) model, artistic creation consists of four dimensions: (a) Kinesthetic/Sensory (K/S level), expressing feelings through body movements; (b) Perceptual/Affective (P/A level), converting feelings into images to release suppressed emotions, (c) Cognitive/Symbolic (C/S level), identifying the meanings of symbols, and (d) Creativity, performing creative functions using the other three dimensions (Lusebrink, 2010). Art materials impact therapeutic functions, and fluid materials may facilitate affective, symbolic, and creativity levels (Ching-Teng et al., 2019). The typical materials for writing Chinese calligraphy, including Chinese ink and brushes, are both fluid materials that may fulfil these functions; there are also examples of using coins, sand, paper and scissors to write/make Chinese calligraphy, suggesting the opportunity to use creative materials for creating the visual representation of Chinese characters.

Third, Chinese is the only living logographic writing system in the world and has deep cultural meanings to Chinese people (Shu, 2003). The logographic nature of Chinese characters makes them an excellent candidate to be altered visually, and multiple meanings of one character in a different context make it suitable for personal meaning-making

(Supplementary Figure 1). Finally, Chinese calligraphic handwriting requires integrating mind and body in an interwoven dynamic process. It effectively enhances cognition in older people with mild cognitive decline (Kwok et al., 2011) and exerts a curative effect on neuropsychiatric symptoms (Chu et al., 2018).

Structure of the program

The researchers co-designed the intervention prototype with an art therapist through two days of workshops based on the progressive model proposed by Corrigan et al. (2009) and the key characteristics of art activities, including *externalizing internal processes*, providing a *no-fail environment*, allowing *creative expression*, and facilitating *self-disclosure*. Externalizing the internal feelings may promote awareness of the stereotypes people hold about themselves, and the latter three elements are aligned with the empowerment strategies to increase self-efficacy and confidence. A recent review of interventions for self-stigma reported the average number of sessions as 10 (Alonso et al., 2019), and considering the administrative limits of aged care centres in Hong Kong and older adults' physical constraints, the prototype consisted of eight weekly sessions of 1.5 hours. Art therapists suggested a higher level of structure within each session, i.e., routine, because it can lower the cognitive requirement and provide a relative sense of familiarity and a non-threatening environment for expression (Buchalter, 2011; Ching-Teng et al., 2019).

Modifications to the prototype

Further modifications and refinements were made after the focus group with two social workers, one trial group with 10 older volunteers, one art therapist, and two facilitators. Their personal experiences, suggestions, observations, and the corresponding modifications to the prototype are summarized in Table 2. The older volunteers suggested adding one introductory session to introduce the program's purpose and allow the participants to decide whether to join after this "taster" session, resulting in nine sessions in total. They also stressed the

importance of keeping the sessions simple and fun, suggesting one theme character each time but teaching new techniques and using new materials.

Phase 2: Pilot testing of the cultural art program

Quantitative data results

The attendance rate of the group was high (87.5%), and those who did not attend a session asked for leave beforehand, primarily because of time clash with hospital visits or other meaningful engagements. Table 3 summarizes the basic demographics of the participants: they had an average age of 71.6 years ($SD = 6.2$), 12.5 years of education ($SD = 3.2$), and 33.5 years of work ($SD = 5.3$). The majority (80%) were female, around half (46.7%) were married, and roughly a quarter (26.7%) lived alone. Supplementary Table 1 summarizes the correlations between baseline clinical measures and demographics. Work years were significantly correlated with SES ($r = 0.56, p < 0.05$), and CFQ scores were significantly correlated with PHQ-9 scores ($r = 0.72, p < 0.01$). Table 4 summarizes the pre- and post-intervention results on the clinical outcomes. Compared to the baseline, there was a significant increase in empowerment ($t(14) = 2.82, p < 0.05$) but no changes in other measures.

Qualitative data results

Two focus groups were conducted with participants via online video conferencing; such meeting format was due to venue scheduling and participants' preferences. The focus group interviews were audio-recorded (obtained written consent by the participants), transcribed, and analyzed by the research team. Among the 15 participants, 11 participated in the focus group interviews, and four did not come because of time clash with other arrangements. The semi-structured focus groups were guided by three main questions as aforementioned and

then free sharing. A codebook was co-developed by the art therapist, two facilitators of the group, and two independent researchers not involved in the design or implementation of the study. The two independent researchers later coded two transcripts independently following the codebook, Gwet's $AC_1 = 0.97$, suggesting high inter-coder reliability (Cohen, 1960). Supplementary Table 2 summarizes the organization and details of the codes and themes in the focus group discussion, including participants' statements as examples.

General Experience. The objective attendance rate of the program was high (90.8% in general). All of the 11 participants who joined the focus group interviews shared that the program was fun, engaging, or enjoyable. Two participants mentioned that they had new inspirations to use everyday materials for artistic creations.

Stigma about Older People. Participants were aware of the negative agism beliefs when asked about their perceptions of how the public saw older people, although they did not agree with all of them. The most common agism beliefs were that older age was associated with boredom, social isolation and physical decline.

Perceived Empowerment. Four participants shared that they were free to express themselves creatively in the group. Five said they felt encouraged to make art and try new art media. "In the first session, we were afraid to make art, worried that our artwork would be ugly. Slowly and gradually, we became open and brave in art-making, expressing ourselves. It was a fun and empowering experience." Three mentioned that the psychoeducation and group discussions facilitated self-disclosure or helped them become aware of the deeper meanings associated with their artwork.

Favorite Elements of the Program. Four participants indicated that using novel art media was most enjoyable. "I like playing with clay so much that I bought more of those to try at home; I had so much fun with my family members." Other participants' favorite elements included collaborative art-making (see Figure 1 as an example) and

psychoeducation about the theme characters. One participant mentioned that the warm-up stretching exercises helped her relax and prepared her to learn new things.

Therapeutic Relationship. One participant mentioned that the group dynamics were non-judgmental and accepting and that the facilitators were competent in maintaining the ambience. Five mentioned that they enjoyed the companionship of supportive peers and the cognitive stimulations rendered by their peers.

Suggestions for the Prototype. Four participants suggested introducing theme characters with a more energetic outlook when asked how the program could be improved. “Could we add a character that brings more hope after 暮 (dusk)?” One suggested using collaborative art activities more frequently and three-dimensional (3D) art media in later sessions rather than in the beginning because: “I enjoyed working with my peers, 3D material was hard to master, and I need more time to warm up and feel confident working with it.”

Phase 3: Final intervention design

Group Rules Co-developed by Group Members

The group leader, facilitators, and members co-developed group rules, including confidentiality, openness to sharing emotions, respecting one another, and active listening. Reviewing and revising the group rules was a routine in each session, and a participant and a facilitator suggested using the *five fingers* analogy they read about in a book to organize the group rules (Kong, 2016). After discussion, the group agreed on the following group rules to be organized as the *Five Fingers Agreement* (see Supplementary Figure 2):

1. Thumb: Appreciate one another and yourself, and give yourself a big “like”;
2. Index finger: Respect one another, do not criticize or point to others;
3. Middle finger: Be mindful of your language, do not use any foul language;
4. Ring finger: Open your heart when sharing your feelings and keep others’ sharing confidential;

5. Pinkie: Accepting your “shortcomings” and embracing your uniqueness.

Based on the *Five Fingers Agreement*, participants came up with different hand gestures in each session to signal the areas they wanted to focus on working, e.g., the “Pinky Promise” gesture to remind themselves about abiding by the rules. The emergence of these self-initiated creative expressions indicated the positive impact of the group, especially in stimulating creativity and generalizing the insights to activities beyond art-making.

Outline of the Intervention Program

Table 5 summarizes the final intervention program modified after the pilot testing phase. We further adjusted the choices of the theme characters, the matching of materials with the characters, and the characters’ sequence. For example, two-dimensional art media were used in the earlier sessions before introducing three-dimensional media such as clay, as the latter were more challenging kinesthetically. More collaboration was introduced as warm-up art activities to allow exploration of the art media in a “no-fail” environment.

DISCUSSION

Through an iterative and participatory process, including a mixed-method pilot, we developed a cultural art program for older people at risk of depression in a community setting. Our study demonstrated the importance of stakeholder involvement in developing an innovative cultural art program for older people at risk of depression and gathered preliminary evidence of the effects of cultural art on older people’s mental health. “It was a fun and empowering experience.” These findings may inspire the development of other innovative programs utilizing cultural arts for people’s mental health and inform a rigorous assessment of the program in the future.

To our knowledge, this is the first study that uses a participatory process guided by the KTA framework in co-designing a cultural art program for older people in a Chinese community. The co-design of the program involved different stakeholders, including

researchers, art therapists, frontline social workers, and older people who were service users. The active participation of all stakeholders played a crucial role in translating research findings and art therapy principles into an enjoyable and effective cultural art program that suits the local community's needs and is feasible for implementation. Compared to the conventional top-down development of mental health services, i.e., professionally led by social workers or therapists, the participatory process challenged the authority-directed orientation, and the KTA framework promoted integrating theories, practices, and research findings from service users with intervention design.

On the one hand, the active engagement by different service providers encapsulated the essence of knowledge transfer. The expertise of different mental health professionals complemented each other for the common goal of developing a program that reduces self-stigma and depression risk. For example, social workers in the local setting have extensive experience in conducting psychoeducation groups for older people, and can map out the existing resources; art therapists know the nature of art materials and how to utilize arts as a vehicle for mental health interventions; and mental health researchers have the skills in conceptualization and summarizing findings through series of research. The co-design process enhanced communication between professionals and filled in the "blind spots". On the other hand, the participatory process encouraged the bottom-up development of a program with older people and for older people. Certain elements, for example, adding an introductory session, introducing new materials for each session, modification to the theme character selection, "five-finger" agreement, were proposed by older people. The participants of the co-design process experienced the value of participation themselves and suggested having more participatory elements in the cultural art program. Furthermore, valuing older people's views/feedback and integrating them into the program was a "renaissance" of some traditional Chinese virtue of respecting and honoring older people's wisdom. The KTA

framework offered a structure for the participatory process, and empowered all participants by making their voices heard, learning new knowledge, and creative problem-solving.

The innovative use of cultural arts for mental health aligns with the World Health Organization (WHO)'s initiative on calling for more research to test the effects of arts interventions to advance specific health goals, including mental health (WHO, 2020). Engagement in arts seems to be growing in popularity to improve mental wellbeing (Fancourt et al., 2016). Art-based activities may help the clients enhance perceived control, build a sense of self-mastery and autonomy, transform the illness experience and gain a sense of purpose (Perruzza & Kinsella, 2010). Pilot testing of the present cultural art program revealed it could be implemented in local aged care centres and was well accepted by frontline social workers. The quantitative and qualitative data analyses revealed that the program effectively empowered the participants. However, there were no significant changes in measurements of depressive symptoms and self-stigma of depression or age, presumably because the pilot group participants were at the low-end risk for depression and self-stigma, and the room for improvement was limited. Future studies need to recruit older adults with more severe depressive symptoms and higher self-stigma, and compare the changes to a control group to test the effectiveness of the program. Alternatively, it could be because a nine-week program was not long enough to disarm the ingrained self-stigmas, or the measurement tools were not sensitive enough to capture the changes. These findings could be used for a future revision of the program through another round of the co-design process. Pilot study participants may be invited to have a more focused discussion on whether and how the questionnaire could be modified, a longer follow-up study could be done among the participants with “refresher sessions” to test if the intervention dose matters, and arts-based research method may be used to elicit other meaningful changes. Nevertheless, we gathered preliminary data on the outcomes to inform a rigorous assessment of the program in the future. So far, little has been

done for older people at risk of depression in an Asian community, and this study may inspire future programs utilizing other forms of art to improve mental health in the community.

The study has several limitations. First, the choice of one cultural art form as the focal point for developing the program was constrained by limited resources. In the initial survey among older volunteers about their preferred art activities, music was a popular choice other than Chinese calligraphy. However, we chose to focus on visual art in this study because of the easier accessibility of art material and considerations for training potential interventionists (i.e., frontline social workers) in the future. Second, the pilot sample was small, and there was no control group. A more rigorous research design, such as quasi-experimental or, if possible, a randomized controlled trial, is needed to demonstrate the program's effectiveness. The pilot group participants could be biased because they were openly recruited from community centres, already actively participating in the community, and presented themselves as favoring one or more art-related activities. Future studies need to recruit less active community members at higher risk for depression and recruit control groups to test the effectiveness of cultural art programs. Third, the artworks created by the participants in the pilot groups have not been systematically analyzed and compared with the quantitative and focus group results. Since the intervention is art-based, art-based research and evaluations are needed to elicit the effects of the program, some of which might not have been captured by the current analysis methods.

CONCLUSION

The findings of this study highlighted the values and benefits of a participatory process in engaging different stakeholders to co-design an innovative preventive care program for community-dwelling older people with depression risk. The findings also supported the role of art in mental health, especially in empowering individuals through new learnings, creative expressions, and fun activities. Cultural arts can be an avenue to integrate mental health

service principles, offer enjoyable and creative outlets for community members, and boost empowerment. It is inconclusive whether an integrated cultural arts program can effectively reduce self-stigma and depression risk; more research is needed, and creative research methods may be incorporated to elicit participants' experiences and meaningful changes, to complement traditional research methods.

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Conflict of Interest

None.

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Table 1. Overview of the multiphase in co-designing and pilot testing the program

Phase	KTA framework	Method	Participant(s)/Data source	Time/duration
Program development	Identify the problem	Literature review, interview with potential service users	- Three researchers - 10 older volunteers	October 2019 to April 2020/6 months
	Identify key components of arts relevant for solving the problem	Literature review, interview with professionals, map the activities on the concept framework Two workshops to co-design the prototype	- Three researchers - Two art therapists	May 2020 to July 2020/3 months
	Tailor the programme and assess and address barriers	One focus group with frontline service providers One workshop (trial run) with potential service users, a post-workshop questionnaire and researchers' observation Refinement of the programme	- One researcher - Two social workers - 10 older volunteers, two researchers - One art therapist - One social worker	August 2020/2 x 4 hours = 8 hours October 2020/2 hours
			- Participants' questionnaire responses - Researchers' observational notes - Art therapist's notes	November 2020/3.5 hours
				December 2020 – February 2021/3 months
Pilot test of the program	Implementation, monitoring, and outcome evaluation	Two pilot groups with older adults at risk for depression, a pre-post intervention questionnaire, researchers' observation Focus group interviews with participants for evaluation and feedback	- 15 older adults with PHQ-9 total scores below 10 - Three researchers - One art therapist - One social worker	Group 1: March 2021 – May 2021/9 weeks, 2 x 9 = 18 hours; Group 2: June – August 2021/18 hours Group 1: May 2021/1.5 hours; Group 2: August 2021/ 1.5 hours
Finalizing		Interviews with social workers and art therapists	- Pretest-posttest results of the participants - Researchers' observational notes - Feedback from participants and therapist	October 2021 – December 2021/2 months

Notes. KTA = Knowledge-to-Action; **PHQ-9** = **Patient Health Questionnaire**.

Table 2. Suggestions from different stakeholders and modifications to the protocol

Stakeholders	Personal experiences/ Suggestions/ Observations	Modifications/Refinement
Social workers	<ul style="list-style-type: none"> • Variations in functional abilities of older persons, for example, shaking hands or listening difficulties; • The balance between individual vs group art making and more collaboration can build new social ties, but upward comparison can harm mental wellness • Sustainability: whether the aged care centers have the resources (space, material, trained human resources) to run a similar programme in the future if it is proven effective. 	<ul style="list-style-type: none"> • Use universal design principles to promote equity, and allow people with different functional abilities to engage, e.g., education videos with larger font subtitles, louder volume, and also printed out • Choose easy-to-get art material, even household objects, to promote sustainability • Develop a standardized protocol to train other mental health professionals who may incorporate art-based activities in their setting
Older volunteers	<ul style="list-style-type: none"> • Enjoy learning new art-making skills and trying new materials • Too many characters in a session made it hard to focus • Unsure about the purpose of the group did not align with someone's expectation to learn Chinese calligraphy 	<ul style="list-style-type: none"> • Add an introductory session to introduce the purpose of the programme and let participants have a taste before deciding to join or not • Choose only one theme character for each session • Teach new techniques/material in each session to keep the sessions fresh and fun
Art therapist	<ul style="list-style-type: none"> • Acknowledge efforts, not the product • Engage with more probing questions, and fewer comments • Warm up with art materials • Group ritual – routines, group consent, warm-up, closing • Safe space to share and contain • Continuation: Are the materials readily available if the clients want to make art after the sessions? • Personal reflection & whether the clients can generalize the learnings to life 	<ul style="list-style-type: none"> • Principles in giving comments - empowering, validating, normalizing • Co-establish group rituals with participants, especially group rules • Warm-up as a routine, encourage participants to lead the warm-up • Bind an art journal in the first session for clients to record their journal and write personal reflections
Facilitators	<ul style="list-style-type: none"> • Be mindful of group dynamics • Pacing, clients were on different paces in art making, be mindful of the time • Some participants seemed to want to share something more 	<ul style="list-style-type: none"> • Let participants know about the agenda beforehand, follow the same structure in all sessions • Reassure participants that they can carry on with art making after the session • Timely intervention after the session with individual participants if needed

Table 3. Characteristics of the participants (N = 15)

Variable		Mean (SD)	N (%)
Age, years		71.58 (6.18)	
Gender, female			12 (80%)
Education, years		12.53 (3.20)	
Work, years		33.53 (5.26)	
Live alone, n			4 (26.7%)
Income Source (multiple)			
	Salary/family support		4 (26.7%)
	Government subsidy		9 (60.0%)
	Pension/Saving/Investment		8 (53.3%)
Marital Status			
	Single		1 (6.7%)
	Married		7 (46.7%)
	Widowed		5 (33.3%)
	Divorced		2 (13.3%)
Number of chronic diseases (range 0-13)		1.33 (0.96)	

Table 4. Pre- and post-intervention questionnaire responses (N = 15)

Outcome measure	Range	T0 Mean (SD)	T1 Mean (SD)	Compare (<i>p</i>)
SSDS total score	16-80	44.87 (11.72)	43.27 (7.91)	0.47
IS65+ total score	9-36	17.00 (3.54)	17.73 (3.10)	0.24
SES total score	4-20	15.93 (1.22)	16.40 (1.12)	0.01
CFQ total score	7-35	18.80 (7.64)	17.47 (7.91)	0.29
PHQ-9 scores	0-27	3.47 (2.72)	2.80 (2.04)	0.24

Note: CFQ = Cognitive Fusion Questionnaire; IS65+ = Internalized Stigma of Old Age Scale; PHQ-9 = Patient Health Questionnaire; SD = Standard deviation; SES = Self-Empowerment Subscale; SSDS = Self-Stigma of Depression Scale; T0 = pre-intervention, T1 = post-intervention.

Table 5. Outline of the nine-week cultural art program and key therapeutic components

Theme character	Targeted self-stigma	Key ingredients of the cultural art program			Expressive therapies continuum
		Psychoeducation & Group Discussion	Empowerment	Art medias	
0. Participants' names	Raise awareness of stereotypes	The benefits of growing older	No-fail environment	Art appreciation; "Magic Calligraphy Cloth" (reusable writing cloth)	P/A
Participants decide to join the following program or not					
1. 樂 (happy, music)	Challenge stereotype agreement	Recall happy memories, my own "safe place" to go to	No-fail environment	Scratch card, wooden stick	P/A
2. 長 (long, grow)	Challenge stigma self-concurrence & increase self-efficacy	How society perceives old age and how I see myself	Learn new skills	White crayon on white paper, and then apply watercolor with brushes	C/S
3. 耆 (old)		Benefits of staying active in old age and what do I do to stay active and engaged	Learn new skills & creative expression	Various collage materials	K/S, creativity
4. 福 (fortune)		My definition of good fortune and brainstorming ways to achieve that	Learn new skills & self-disclosure	Air-dry clay	K/S, creativity
5. 孝 (filial piety)		My relationship with family members, esp. different generations	Creative expression & self-disclosure	Individual work: special "brushes", e.g., tree leaves, dishwasher. Group work: tear up the drawing and share it with members, re-create images with pieces from others	K/S, C/S, creativity
6. 暮/朝 (dusk/dawn)	Increase self-esteem & self-efficacy	Benefits of social interaction	Creative expression & self-disclosure	Collaborative teamwork, various drawing and painting materials	P/A, C/S, creativity
7. 命 (life, destiny)		Values of unfavorable experiences	Self-disclosure & sense of mastery	Stone, oil-based color	K/S, C/S, creativity
8. 壽 (longevity)		Redefine my own "golden age"	Self-disclosure & validation of achievements	One long roll of Xuan paper, watercolor, Chinese ink, brushes of various sizes, and crayons	K/S, P/A, C/S, creativity

Note: C/S = Cognitive/Symbolic level; K/S = Kinesthetic/Sensory level; P/A = Perceptual/Affective level.

Figure 1. Collective Artwork by Eight Participants Depicting the Characters 暮/朝 (Dusk/Dawn)

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Figure 1

