Community arts engagement supports perceptions of personal growth in older adults

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Abstract

Purpose: The effects of arts engagement on older adults have been well-documented. However, the ways older adults overcome common situational and dispositional barriers to enhance personal growth and well-being are less known.

Methods: Fifty-six community dwelling older adults (71.3±4.6 years) took part in dance, music, or a control workshop two times/week for ten weeks. Participants' personal growth was examined through focus groups and surveys in this mixed-methods study.

Results: Focus group and survey results revealed participants experienced personal growth through engaging in the dance and music arms of the experiment. Participants, especially those in arts workshops, described personal growth experiences aligning with four themes: increased social connections, developed new skills, utilized a growth mindset, and used creativity to overcome situational and dispositional barriers to participation. The barriers included musculoskeletal challenges, hearing impairments, and difficulty retaining new information.

Conclusions: The study yielded high adherence and retention rates, and participants reported increased engagement within their communities. Our observations provide avenues for future practitioners and facilitators to create programming that empowers older adults and utilizes participants' ongoing feedback to support access, inclusion, and sense of community.

Keywords: dance, music, health, ethnography, quality of life

Background

In 2020, 17% of the population, or 55.6 million Americans, were aged 65 or older and it is projected that by 2040, this proportion will grow to 22% (Administration on Aging, 2022). As a result, researchers have developed community-wide intervention programs to encourage older adults to engage in physical activity (Saito et al., 2018). The concept of "healthy aging" has morphed from simply the absence of illness to the ability of older adults to participate fully in and enjoy their lives, as well as support their well-being (Perkins & Williamon, 2014). The concept of "healthy aging" has been critiqued for its "theoretical assumptions around ideas of individual choice and lifestyle" and "inattention to intersecting issues of social inequality, health disparities, and age relations" (Katz & Calasanti, 2015). As researchers and clinicians considered community interventions to encourage older adults to remain engaged and socially connected, the arts emerged as a potential motivator for participation because studies found engagement with the arts enhances individual and social well-being (Fancourt & Finn, 2019). In addition to feeling encouraged to participate, it is also important that older adults are retained in on-going group activities. It is well documented that participant enjoyment promotes adherence (Jekauc, 2015).

Dance can promote physical functioning in older adults (Alpert et al., 2009). Older adults with metabolic syndrome improved their cognitive function after attending dance exercise sessions twice a week for six months (Kim et al., 2011). Likewise, musical training has been found to benefit cognitive function in older adults and support brain health (Chaddock-Heyman et. al., 2021).

Research examining personally meaningful activities in older adults suggests that activities resulting in emotional gratification are preferred over activities that result in only knowledge acquisition based on self-identification after participating in an activity (Hooker et al., 2020). A systematic review of intervention studies engaging older adults (≥80 years) who resided in assisted living and nursing homes noted that purposeful activities, particularly those where older adults took on a functional role improved well-being and quality of life (Owen et al., 2022). However, this review did not include community-dwelling adults, those who live independently in the local community who may have unique needs that are psychosocial in nature and not related to health-related tasks (Van Aerschot et al., 2022).

Regardless of activity, population-specific barriers to participation need to be understood

and addressed to successfully engage the specific community. Older adult learners have distinct

needs that require their own programmatic considerations and teaching techniques. There are

three common barriers to older adult participation: 1) institutional barriers—barriers "caused by

the learning institution that exclude certain people from participating"; 2) dispositional

barriers—barriers related to "psychological or attitudinal beliefs, perceptions, values that inhibit

participation in later life learning"; 3) situational barriers—"obstacles that are related to the

circumstances experienced by a person at a particular time" (Tam, 2014). What can often

complicate the process of designing programming for older adults is it may not be clear if the

barriers older adults experience are related to specific health ailments or life-related changes

(Janke et al., 2006). In the case of an arts intervention, instructors often frame learning as growth

over time, which minimizes the potential for risk. Additionally, the idea of learning as growth

becomes stronger if sustained within a supportive setting. The idea of having a "growth mindset"

is seeing challenges as opportunities for growth and not as setbacks (Dweck, 2008).

Dispositional and situational barriers may be simultaneously addressed at the program

level on an individual basis. By leveraging the arts to engage community members in social and

individual development concurrently, it may be possible to minimize the dispositional and

situational barriers and lead to higher perceptions of personal growth, which is the perception

that the individual is evolving and expanding (López et al., 2020; Sorrell, 2017). Furthermore,

although previous researchers have demonstrated the benefits of community arts engagement on

perceptions of personal growth (Poulos et al., 2019) there is a gap in the current literature about

how arts interventions, when compared to an active control, affect individuals' perception of

personal growth. Prior authors, who examined the effects of music therapy arts interventions in

older adults, advocated for further studies of their impact on quality of life and well-being

(Beard, 2012) to promote older adults' health (Galassi et al., 2022). Studies on community-

based, non-clinical interventions often highlight the social aspects of the interventions and the

associated positive benefits on social identity processes (Haslam et al., 2018).

The current study examines the qualitative data in a larger Randomized Controlled Trial

(<<Anonymized>>). The primary investigator published the overall results of the Trial

(<<Anonymized>>). A co-investigator studied the pedagogical approaches of how to retain

84   active control group participants who were participating during the same 10-week period as two

85   arts-based interventions through focus group analysis (<<Anonymized>>). Another co-

86   investigator studied determinants for successful engagement in the dance interventions through

87   an analysis of notes, dance instructor interviews, and focus group results with some

88   consideration of the surveys (<<Anonymized>>). The current study examines qualitative

89   responses to focus group questions and surveys that have not been previously analyzed and

90   provide novel information about participants' perceived growth after taking part in the

91   interventions. Thus, the purpose of the current study was to identify themes of how participation

92   in the arts (dance and music) and social conversation (control) affected perceptions of personal

93   growth in community-dwelling older adults based on focus group and survey responses.

94

95 **Research Approach and Methodology**

96 *Design Registration and Institutional Review Board (IRB) Approval*

97   We employed a mixed-methods design in this study (The study was registered on

98 ClinicalTrials.gov Identifier <<Anonymized>>). We obtained approval from the local

99 Institutional Review Board and all participants read and signed the informed consent.

100 Information was gathered from small focus groups and surveys to examine participants'

101 perceptions. The surveys were conducted twice: immediately following the last session of the

102 ten-week program, and one month after the completion of the program.

103 *Setting*

104   The institution where the community arts engagement program was situated understood

105 the needs and motivations of older adult participants. Since its inception, the mission of

106 <<Anonymized>> has been to ". . .strive to be the creative commons of this dynamic region,

107 inspiring the community to express its voice by participating in the Center's work as artists,

108 audiences, and lifelong learners" (*<<Anonymized>>: About*, 2023). By situating the

109 programming in the <<Anonymized>>, where a diverse community of learners was already

110 engaged, institutional barriers were minimized. For example, the <<Anonymized>> provides

111 regular programming for elementary school-aged children, teenagers, university students, as well

112 as community members including older adults, and people with accessibility needs for different

113 physical, mental, and emotional abilities, including neuro-diverse people. Based in a majority-

114 minority community, the <<Anonymized>> is accustomed to supporting people from different

115 ethnic, racial, and cultural backgrounds. Furthermore, the <<Anonymized>> is aware of the need

116 to continue improving accessibility and inclusion for all learners and is ready to accommodate

117 individuals and groups.

118 *Participants*

119   Participants were recruited through several methods: a flyer, in-person information

120 sessions, email marketing, social media marketing, and by contacting community organizations,

121 affinity groups, and residential communities in the surrounding area, including assisted living

122 and active adult communities (the latter being those who are above the age of 55 and live

123 independently). Inclusion criteria were participants had to be 65 years of age or older and living

124 in the community. The exclusion criteria were met when participants withdrew after being

125 informed of the study mechanics and possible interventions and felt they could not safely

126 participate.

127   Participants were assigned to a group (dance, music, control) using a randomized Excel

128 generator while taking into consideration the physical limitations and schedule conflicts of the

129 participants. Once assigned, each group took part in their intervention twice a week for forty-five

130 minutes per session over ten weeks. Although ninety-five adults expressed interest, sixty-four

131 were enrolled after fulfilling the inclusion criteria. Of the sixty-four initial enrollees, fifty-six

132 self-identified as typically functioning and were included in the final analyses (87.5% retention).

133 Reasons for missed attendance were most often external to the intervention; most participants

134 identified medical or personal issues. Assignments were: twenty-one (n=21) adults assigned to

135 the dance group, seventeen (n=17) to the music group, and eighteen (n=18) to the control group.

136 All interventions were conducted in English because all participants were English speaking. The

137 population of this study was homogeneous, with 71.4% being military-connected, 76.8% having

138 previous experience in the arts, and 69.6% having previous experience with the

139 <<Anonymized>>.

140   Participants received vouchers redeemable for tickets at the <<Anonymized>>. The first

141 set of vouchers was distributed after successfully attending all interventions through the fifth

142   week, and the second set of vouchers was distributed after successfully attending post-two

143   testing.

144   *Interventions*

145   Ballroom dance was chosen as the dance intervention because it is a form of partner

146   dancing that is enjoyed socially (Granacher et al., 2012). Additionally, dance cadences and step

147   sequence complexity were adapted based on participants' motor skill levels; therefore, adults

148   with a wide range of motor skills could dance successfully. We chose three dance styles –

149   Bachata, Rumba, and Waltz – because the researchers and instructors had prior experience

150   adapting these styles' complexity and timing to meet the participants' skill levels. Two

151   experienced dance instructors served as group leaders and led participants through the three

152   dance styles, spending approximately six sessions on each dance style. Each style of dance was

153   taught with three major considerations: mobility skills required to begin dancing, pedagogical

154   progression of skill acquisition, and popularity of the dances.

155   Ukulele was chosen for the music intervention, because pedagogical techniques can be

156   adapted for a wide range of motor skill levels (compared to guitar, keyboard, and other

157   instruments, where additional finger dexterity is needed). In addition, one of the investigators

158   and the instructor had successfully worked together on prior research projects. A well-

159   experienced music instructor had previously designed and used an adaptive pedagogy described

160   as "levelled learning" (also called layered learning) through which participants could self-select

161   the complexity of their approach. For example, a participant could choose to play a single note, a

162   simple construction of a chord, or a full chord. The instructor served as the group leader and

163   taught participants exercises and concepts about music and practical playing skills, such as,

164   playing individual notes and chord progressions. Participants practiced familiar songs in the

165   public domain like "Jingle Bells and "Mary Had a Little Lamb" along with popular tunes such as

166   "Eleanor Rigby."

167   The control group was guided by two social work group leaders who had prior experience

168   working with older adults. Participants engaged in weekly discussions on the broad theme of

169   "living well in our changing world," a topic the participants chose themselves. The social work

170   group leaders led participants through sub-group discussions on three self-elected topics of

171   interest: lifetime wellness, active retirement, and technology needs for older adults. Sub-group

172   members internally generated weekly topics. The two facilitators for this group were graduate-

173   level, social work students who met with the study investigators weekly to ensure that the session

174   content and delivery was consistent over the study period and across the subgroups. The

175   facilitators provided resources to spark conversations or provide information requested by sub-

176   groups.

177   Within all three groups (dance, music, and control), participants interacted with each

178   other. The interventions were structured so that participants worked individually and were also

179   partnered and/or grouped with other participants. Curriculum materials, especially for the arts

180   interventions, were chosen based on dances and music that would be of interest to older adults

181   (Lawton Harris et al., 2019; Moss & O'Neill, 2014).

182   *Procedure*

183   Qualitative data collection occurred several times. First, informational conversations

184   between researchers and the facilitators and/or instructors occurred three times during the

185   intervention period to determine program effectiveness and accessibility. Second, focus groups

186   were conducted using semi-structured questions during post-one testing with twenty-two

187   participants (dance = 8, ukulele = 6, social conversation = 8). The focus groups were used to

188   examine participants' perceptions of physical, mental, and social changes because of the

189   interventions; this was done by asking participants about self-perceived changes during multiple,

190   small focus groups, which were grouped by intervention and facilitated by two researchers.

191   Transcripts from the focus groups were coded for comparison, since multiple focus groups

192   occurred involving participants from each intervention group. The questions were based on the

193   work of Komatsu et al. (2017) and were asked in the following manner:

194   1. We are interested in hearing about any changes that you experienced as a result

195   of participating in the study. These might include changes in your daily activities,

196   social interactions, or physical changes (e.g., in your body or memory)?

197   2. We are also interested in hearing about any changes you observed as a result of

198   participating in the group process. Did you notice any changes in the social

199   interactions within your group? Changes in your feelings or values?

200   Third, a survey was conducted during post-one and post-two and completed by all fifty-

201   six participants included in the final analyses. The semi-structured survey with open and close-

202   ended questions, developed by the lead author, asked about personal and interpersonal effects of

203   participation in the interventions, as well as the participant's background and previous

204   experience in the arts. The arts survey questions were asked in the following manner:

205   1. What led you to participate in this study? [open text box]

206   2. Had you been to the <<anonymized>> before participating in this study?

207   a. Yes

208   b. No

209   3. What is your hometown (if different from where you live currently)? [open text box]

210   4. What do you usually do in your spare time? (e.g., hobbies, activities, etc.) [open text

211   box]

212   5. Do you have prior experience in the arts?

213   a. Yes

214   b. No

215   5a. If yes, please describe [open text box]

216   6. Did you experience any social effects from the study? If yes, what were some of these?

217   [open text box]

218   7. Did you like the group aspect of the study? Why or why not? [open text box]

219   8. Do you have any future goals related to this study (e.g., sign up for more classes, go to

220   more performances, etc.)? [open text box]

221   9. What are some of the benefits that you experienced? [open text box]

222   10. What are some of the challenges that you experienced? [open text box]

223   11. Do you have comments on future directions for this study?

224   *Data Analyses*

225   Focus groups were recorded into an audio format and transcribed using a professional

226   transcription service (Rev.com LLC, San Francisco, CA). The investigators reviewed and

227   cleaned up all of the approximately 150 pages of transcribed data that was not intelligible nor

228   transcribed appropriately by the transcription service. Focus groups and the surveys were

229   analyzed inductively through thematic analysis (Patton, 2014) by two raters. First, two study

230   investigators (same as the ones analyzing qualitative data above) independently identified

231   themes. Then, they shared these identified themes with the primary author who independently

232   examined the data for identification and discussion of commonalities and differences between

233   the two coders. Inter-rater differences were resolved through discussion. Then, like the focus

234   group data analyses, the team identified and discussed themes and confirmed survey response

235   results with the larger group of study investigators. Descriptive statistical analyses were used to

236   analyze responses in the survey.

237

238   **Results**

239   From the focus group and surveys administered post-one and post-two, four themes emerged for

240   developing personal growth; 1) increased social connections, 2) skill development, 3) growth

241   mindset, 4) creativity to overcome situational and dispositional barriers. Each of these themes are

242   described below with supporting data excerpts.

243   *Increased Social Connections*

244   Increased social connections emerged as a major theme from the focus groups and survey

245   administered at post-one and post-two assessment times.

246   When asked, "Did you experience any social effects from the study? If yes, what were

247   some of these?", 84.31% reported receiving some social benefit from their intervention.

248   Participants noted aspects such as "established friendships with members of the group," and "met

249   some great people, made new friends, went to see *Cats*." Within the survey, participants were

250   asked, "What were some of the benefits that you experienced?" Participants reported the benefits

251   of being around similarly aged people. One participant wrote, "Being around people my age was

252   so positive."

When asked directly, "Did you experience any social effects from the study? If Yes, what were some of these?", participants from all groups mentioned meeting new people; "I enjoy meeting new people" (dance, participant 16); "'Met new people and able to talk about our class'" (music, participant 1); "'Yes, enjoyed meeting new people'" (control, participant 2).

When asked during the focus groups to reflect on changes to their social interactions, participants from the interventions mentioned making friends; "[I] met wonderful new friends and had the privilege to dance with them" (dance, participant 15); "[I] met new friends, we plan to continue to play in a group, we have recruited three new members for the study, thinking about forming a kitchen band" (music, participant 35).

Skill Development

All participants showed ownership and dedication to their interventions as demonstrated by statements from the focus groups. Participants in the art groups took ownership of their skill development, often motivated by their peers. Participants in the music intervention group noted this through their individual practice between intervention sessions; "it was just a matter of me I think practicing more than anything. I have to keep practicing and practicing to get up to speed cause I don't think I'm up to a good speed yet, but I'm trying to get there" (music focus group 1, lines 62 - 64). Participants in the dance intervention group noted ownership of their skill development through their desire to participate in further ballroom dance workshops after the interventions ended: "Everybody in the group and the teachers and everybody connected. It's so, so nice. I really hate to see it end. If there was a way to sign a petition to keep it going...I would be there" (dance focus group 1, lines 53 – 55).

Participants in all groups reported increased engagement in activities within their respective communities. Members of all three groups began attending the <<Anonymized>> events and others noted they were seeking or had found music and dance classes in the area. One participant from the control group noted,

> After the first few meetings, I attended a town hall, and the way the town hall worked, and I'd never done this before, everyone was split into small groups. And the facilitators went from group to group. So, we stayed in our small groups and worked on different questions. And I was really enjoying this, whereas before, I don't think I would have sat there and been too afraid to say anything (control focus group, lines 344 – 349).

283   *Growth Mindset*

284   Through analyses of the focus groups and surveys, a growth mindset emerged as a major

285   theme. Although most participants experienced some sort of challenge during the interventions,

286   they also noted future goals related to their interventions. Ninety-six percent of participants in

287   the dance group, 100% of participants in the music group, and 75% of participants in the control

288   group indicated that they experienced some challenges while participating in this study.

289   Musculoskeletal challenges, such as "'Arthritis in fingers limits my ability to play" (music,

290   participant 37)', were reported as the most common challenge in the music group. Challenges

291   retaining information, such as "'much more...slow to learn than I used to be" (dance, participant

292   15)', were the most reported challenge in the dance group. The challenges reported by the

293   control group were varied and not united under a common theme.

294   Through the survey, participants reported future goals related to the study (e.g., sign-up

295   for more classes, go to more performances, etc.). Ninety-seven percent of participants in the

296   music group, 70% of participants in the control group, and 66% of participants in the dance

297   group answered yes. None of the participants in the music group, 18% of participants in the

298   control group, and 24% of participants in the dance group answered no.

299   During the dance focus group, challenges experienced by multiple participants were

300   identified as reasons for frustration and inability to develop personal abilities:

301

302   Two, three, or four of the [participants] had some hearing challenges, and they should
303   have been wearing hearing aids, and they weren't necessarily. And so, it was a little
304   harder for them. Because again, [the instructor] tried to do the voice thing, which she has
305   a naturally soft voice, and she would project. But again, they wouldn't always catch it.
306   And they would be frustrated because as the ladies have been debating, they wouldn't
307   catch all of it and then they would need to ask whoever they were dancing with what she
308   was saying and that was distracting in a different way, so… (dance focus group 1, lines
309   612 – 618)

310

311   See, that's the thing that I found kind of hard for me. Because I'm not a dancer, is I
312   haven't even got it down where I can know each step is right. Then I rotate. All right?
313   And then that person's like I am, still confused, so it takes you a while before you really
314   got it down and you feel comfortable, but if I'm not sure, do I start off on my left foot and

they're confused and we're both not going anywhere. (dance focus group 1, lines 280 – 284)

Dance participants noted that when partnered with someone who was proficient in the dances, they further developed their ability:

So there were a number of men that were very good and so when you got put with somebody like that, it's like, 'Oh good, now I can concentrate on what I'm doing because he knows what he's doing.' (dance focus group 1, lines 309 – 311)

But we had one gentleman in the class who was amazing. And I loved it whenever I got to dance with him. He knew all this. And he was so... He helped your self-esteem a lot. (dance focus group 1, lines 314 – 316)

During the music focus group, participants discussed their ability to play the ukulele developed during the ten weeks and could develop further; therefore, suggesting a growth mindset over time for the music group. These sentiments were widely agreed upon within the music group.

It's healthy for the soul. I mean we laugh; I think that's the thing that even in class it may not be outright laughter, but I find I make mistakes and I just laugh. It's just funny, you know, 'Come on, you can get this.' (music focus group 1, lines 115 – 117)

That was probably the most challenging part and still is for me is the chord progression. It's just a tough concept for me, I guess because I don't have the confidence to reach for the right position on the neck to play the keys yet. It'll come, but it's just not there yet. (music focus group 1, lines 178 – 180)

I think I was a little frustrated, as I said earlier with myself because I didn't feel as though I was learning quickly enough. But now, I look back and I think, wow, we've come a long way. Some of the things we've done recently, and I think that's kind of like, yeah, I think I can do this. (music focus group 1, lines 200 – 203)

Creativity to overcome situational and dispositional barriers

Thirty-seven percent of participants in the dance group and 83% of participants in the music group experienced situational barriers during the intervention period. Reported situational

349 barriers included musculoskeletal difficulties, hearing difficulties, and cognitive challenges.

350 Fourteen percent of participants in the dance group and 9% of participants in the music group

351 experienced dispositional barriers during the intervention period. Reported dispositional barriers

352 included lack of confidence and negative previous experiences.

353   The overall tone of the dance focus group was positive and empathetic. There were two

354 instances where participants reported using the creativity and creative processes that they

355 discovered through the dance class to self-facilitate dance outside of the intervention. A

356 participant who reported musculoskeletal challenges stated, "I stay home, and I turn the radio on

357 and I can dance the Blue Danube Waltz by myself in my living room" (dance focus group 2,

358 lines 64 – 65). A participant who reported previous cultural barriers to dance stated, "So it's been

359 an interesting expansion, I guess I would say, experience for me. Plus...as soon as you just put

360 music on at home and you just feel like moving. And it's a break from your routine, it's an artistic

361 outlet" (dance focus group 2, lines 75 – 78).

362   The overall tone of the music focus group was jovial. Challenges were noted, but always

363 framed with positivity. One participant mentioned the creative process of combining notes in

364 different sequences to play songs:

365   They are, and that's been a challenge, a different kind of challenge and I've had it a long
366   time. This year has been a new beginning for me for a lot of things, and I've tried a lot of
367   things, and some of them I really enjoyed and I kept after and some of them I really
368   enjoyed, but I have no interest in keeping after. This is one I enjoy and will continue to
369   do. It's just, I don't know, there's a lighthearted feeling about playing a series of notes and
370   say, 'Ah, I played Jingle Bells, or I played Mary Had a Little Lamb, or You Are My
371   Sunshine.' (music focus group 1, lines 103 – 109)

372

373 **Discussion**

374   In the current study, we examined the effects of community arts engagement in older

375 adults. The primary findings were that most participants described developing personal growth

376 through four themes including 1) increasing social connections, 2) beginning skill development,

377 utilizing a growth mindset, and 4) using creativity to overcome situational and dispositional

378 barriers to participation. In the sections below, we discuss potential reasons for these emergent

379 themes and possible implications for community engaged arts programs.

Increased Social Connections

381   All groups felt they received social benefits from participating in the study, despite the

382   challenges faced. However, the depth and longevity of these benefits differed between the dance,

383   music, and control groups. Participants in all groups experienced positive social effects because

384   of their involvement. No differences were observed between the groups. Further comparison

385   between the post-one and post-two surveys suggested differences between how the social effects

386   were maintained post-intervention for the intervention groups. We recommend this as an area for

387   future study with capacity to study differences among intervention groups six and twelve months

388   past the interventions.

389   All three groups reported an increase in social connections, which is expected because

390   they met for ten weeks, and there was a high rate of retention and adherence. When asked during

391   the focus groups to reflect on changes to their social interactions, only participants in the control

392   group discussed meeting new people. The participants in the control group benefited from the

393   cognitive exercise of talking to new people but were not necessarily bonded with specific people.

394   Participants from the music and dance groups mentioned making friends – a nuanced but

395   meaningful difference. This difference suggests that the participants in the music and dance

396   groups were more invested in the specific people within their group. The participants in the

397   music and dance groups benefited from the cognitive exercise of learning new skills with new

398   people. A possible reason for the connections made during the music and dance interventions is

399   bonding with others over a creative endeavor. The arts interventions, in this way, gave the

400   participants a vehicle for continued engagement with each other through the skills that they

401   learned.

Skill Development

403   The survey and focus groups show that despite various barriers, participants successfully

404   engaged with the interventions. In addition, despite traveling, illness, and more, the participants

405   achieved an 87.8% attendance rate. Participants took ownership of their skill development and of

406   their time. Furthermore, participants from all groups brought skills acquired during the study into

407   their previously established communities. This finding demonstrates that any social intervention

408   may not only benefit individuals but potentially their communities through the newfound sense

409   of purpose that the older adult will have through their skills (Singh & Kiran, 2014).

Growth Mindset

410

411 The experience of growth mindset trended differently for participants in the music and

412 dance intervention groups. "Growth mindset" can increase the possibility that individuals can

413 identify and engage with different rituals that foster resources that support aging (Heslin et al.,

414 2021). The experience of the music group was similar for each of the participants. At the

415 beginning of the intervention, many participants noted frustrations and challenges with the

416 feeling of not being able to learn the material. However, as time progressed, participants

417 reflected on their progress and allowed themselves to laugh at their mistakes. Their focus shifted

418 from playing the correct notes, to learning the notes, chords, and strumming patterns.

419 The music group also had the highest number of participants who had a future goal

420 related to the intervention. A possible reason for this is that the music group had the most

421 individual agency to choose notes, chords, and patterns that worked best for them; playing within

422 a larger group provided camaraderie and additional support. Therefore, participants were able to

423 focus on their own growth and receive support from the group, which possibly promoted a

424 growth mindset.

425 The experience of the dance group was more varied. During the dance focus group,

426 participants described two different experiences. The first scenario occurred when participants

427 partnered with an individual who experienced difficulty with the material because of a hearing

428 impairment or lack of previous experience. The second scenario occurred when participants

429 partnered with an individual who was proficient in the specific dances. During the former,

430 participants noted they were unable to focus on their own growth as a result of their partner's

431 inability to perform their respective role. During this experience, participants felt like neither

432 partner could complete any moves while coupled. By contrast, the latter scenario offered

433 participants the ability to focus on their own growth.

Creativity to overcome situational and dispositional barriers

434

435 Older adult learners are a distinct group of learners who require programs that cater to

436 their specific needs and interests. Research suggests that older adults value emotional

437 gratification over activities that only result in knowledge acquisition (Hooker et al., 2020). Arts

438 engagement is unique in that it can provide both knowledge acquisition and emotional

439   gratification (Vanderark et al., 1983). Pedagogical techniques for adult learners must facilitate

440   strategies for the learners to overcome the barriers that they are most likely to experience, while

441   also addressing the individual needs and interests of the learners to ensure the program is

442   emotionally gratifying.

443   At the end of the ten-week program, 97% participants reported experiencing challenges.

444   Consistent with previous research, these challenges were mostly situational and dispositional.

445   Despite the high rates of reported challenges, when asked about future goals related to the study,

446   the music group reported the highest rates of plans to continue after the intervention. This finding

447   suggests that some aspects of the music group allowed participants to transcend their challenges

448   to not only enjoy their time in the intervention, but to also have the desire to continue after the

449   ten-week intervention. The music group learning process included many achievements, such as

450   playing a single note to playing a chord, strumming once to strumming multiple times, and

451   playing several notes or chords to playing full songs. With this knowledge, the participants made

452   creative decisions about how to approach each song based on the challenges they faced in the

453   moment, allowing them to feel success and progress regardless of any challenges.

454   Playing the ukulele in a group setting has a solo component, which includes determining

455   how to play different notes and variations of chords; thus, one participant's creative choices did

456   not directly affect another participant, although it would have affected the overall sound of the

457   group playing ukulele together. This was not true of ballroom dance, as the creative choices of

458   one participant, such as the timing of a step or proficiency with a specific movement, directly

459   affected their partner. This interdependence was clearly described in the dance focus group as

460   both a positive and a frustration. It was more difficult for the dance group to transcend

461   challenges within the workshop when both partners experienced obstacles because transcending

462   personal challenges affected the partner's creative experience as well.

463   *Replicability and Scalability*

464   The common culture shared between participants who were mostly military-connected

465   with previous experience in the arts allowed participants to connect with each other through a

466   shared understanding of language and experiences that may have contributed to the high levels of

467   perceived social engagement. It is important to replicate these study procedures with different

468   populations (and with a better understanding of differences or similarities in gender, educational

469   level, income level, and other factors) to refine our understanding on the effects of community

470   arts engagement. Additionally, it would be good to know in different replications of this study

471   what motivates initial participation and continued participation. For example, a question to be

472   explored is if the self-selection of a community arts program, such as a dance class or music

473   class, could be a good indicator of a growth mindset from the outset. Finally, it would be

474   interesting to note in future studies if a product-based approach could yield different motivators

475   than a process-based approach.

476   In addition to replicability, it is important to explore how this program would scale

477   elsewhere. <<Anonymized>> can accommodate the needs of many, especially with regard to

478   inclusion, access, and building community in arts spaces. The staff at the performing arts center

479   took a strong interest in the project and two of the co-investigators are senior staff members who

480   are experienced arts facilitators at the performing arts center – which helped optimize the setting

481   and staffing.

482   Consistent with existing literature, the most common barriers to participation in this study

483   were dispositional and situational barriers (Tam, 2014). The situational barriers experienced

484   were musculoskeletal challenges, hearing impairments, and challenges retaining new

485   information. When the dance instructors and intervention facilitators reported that some

486   participants were unable to hear the lessons despite the instructors having microphones,

487   participants were given access to mirrors, so that they could rely on visual and auditory cues.

488   Similarly, the seating formation of the music group was adjusted to maximize the visual cues

489   received and auditory instructions heard by the participants. The control group was given access

490   to microphones, projectors, and photocopies. These decisions were made by experienced arts

491   facilitators, who were also researchers, based on instructor and researcher conversations. To

492   effectively implement a program like this on a different scale, the role of the facilitator needs to

493   be researched because effective implementation of programming can empower older adults and

494   support access, inclusion, and a sense of community <<Anonymized>>.

495   *Practical Applications to Transcend Limitations*

496   These findings give insight for practitioners to successfully engage community dwelling

497   older adults in a community arts program. Encouraging participants to check in with and support

498   each other showed the development of meaningful bonds between members. Giving the

499   participants options of how to participate, especially by encouraging creativity either as

500   individuals or as part of a group, allowed the participants to feel success and progress regardless

501   of any challenges.

502   To provide participants the opportunity to explore such options, ballroom dance

503   instructors should explore different ways of partnering participants within a class of older adult

504   beginners. In a traditional ballroom class, partners will rotate throughout the class. However,

505   based on the current observations, it may be beneficial for partners to be paired according to

506   complementary skill levels and consider the effect that pairing has on the participants' growth

507   mindset. While ballroom dance is a frequently used intervention for the older adult population,

508   the process of partnering participants needs further study.

509   More research also needs to be conducted about the specific role of the instructor and the

510   impact of the pedagogy within arts classes to form a more well-rounded understanding of

511   successful arts engagement. A facilitator has the potential to mediate between the instructor and

512   participants to support empowerment. Alternately, a facilitator can determine strategies for

513   encouraging peer-to-peer empowerment, which has the potential to support greater programmatic

514   adherence and retention. Arts program managers and administrators can use these models to

515   develop sustainable programming structures for community dwelling older adults. Taken as a

516   whole, these findings begin to address the gap in the literature of comparing the effects of

517   different arts interventions in improving health outcomes in older adults.

518

519   **Conclusions**

520   In summary, the current study findings show that participating in arts programs that

521   increase social connections and support skill development can improve perceptions of personal

522   growth in community dwelling older adults. Program administrators can use our findings to

523   create programs that actively engage participants, utilize evaluations to support participant-

524   empowered adaptations to support skill development in longitudinal programs, and foster a

525   growth mindset. Additionally, these findings can be scaled and replicated elsewhere by

526   modifying elements of our findings to develop arts programs that are sustainable within

527   communities in different settings. Initial motivation may encourage an older adult to enroll and

528   participate in an arts program. Adherence and retention, and the resulting perception of growth

529   mindset from successful participation, is affected by arts programming that fosters social

530   connection and skill development. Community-based art engagement, through program design

531   and implementation that considers the institutional, dispositional, and situational barriers unique

532   to older adult learners, will help them transcend these obstacles and create a supportive

533   environment that can lead to increased well-being. Overall, these efforts can help older adults

534   taking part in community arts programs to transcend their barriers and limitations through

535   creative methods that support inclusion, increase access, and a help them generate an

536   empowering sense of community through creative skill-building.

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