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How arts engagement supported social connectedness during the first year of the COVID-19 pandemic in the United Kingdom: findings from the HEartS Survey

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Abstract

Objectives: This study investigated how adults in the United Kingdom perceived their arts and cultural engagement to facilitate social connectedness over two phases in the first year of the COVID-19 pandemic.

Study design: The study used the HEartS Survey, a newly designed online survey tool to capture arts engagement in the United Kingdom and its associations with social and mental well-being, over two phases in 2020: March to May (Phase 1) and October (Phase 2).

Methods: Qualitative data were provided at both phases by 581 respondents, who identified which arts and cultural activity they felt most connected them to others and how during the last month.

Results: Thematic analysis revealed that, at both phases, arts and cultural engagement was perceived to facilitate social connectedness through four pathways that were also identified prepandemic: social opportunities, sharing, feelings of commonality and belonging and collective understanding. The sub-themes shed light on specific ways that respondents used the arts during the pandemic to connect with others, including using the arts: as a catalyst for conversations, to maintain, reinstate or strengthen relationships during social distancing and to facilitate social interactions (Theme 1); to bring people together through shared experiences and sharing of art (Theme 2); to elicit feelings of direct and indirect proximity to others, to connect people with common interests, to feel a sense of belonging to something and to feel part of a collective ‘COVID-19 experience’ or to feel collectively distracted from the pandemic (Theme 3); and to learn from and about other people and to relate to others (Theme 4). The activity most frequently cited as connecting was watching a film or drama, followed by listening to recorded music.

Conclusions: Engagement in arts and cultural activities supported feelings of social connection among adults in the United Kingdom over two phases in the first year of the COVID-19 pandemic, highlighting the importance of access to the arts and culture to support social connectedness.

Introduction

Social connectedness reflects how connected, or distant, people feel from other individuals and society. It encompasses caring for others, being cared for and feeling a sense of belonging and can be determined by social network and life satisfaction. During the COVID-19 pandemic, many channels for social connections—such as social events—became unavailable, with the reduction or loss of in-person interactions contributing to loneliness. Indeed, according to the Office for National Statistics, loneliness levels have increased in the United Kingdom since Spring 2020, with more than one-third of adults in the United Kingdom reporting sometimes or often feeling lonely during the pandemic.

It has been suggested that social connectedness is the ‘opposite of loneliness’, that it could potentially reduce loneliness, and that public health messaging should include approaches that promote social connection to address issues of loneliness. Our previous, prepandemic, research indicated that engagement with the arts...
and culture can support perceived social connectedness. Eighty-two percent of a sample of 5892 adults in the United Kingdom, closely matched to the national profile in terms of sociodemographic and economic characteristics, perceived their engagement with the arts to be linked with feelings of social connectedness at least some of the time, with the arts seen to facilitate social opportunities, sharing, feelings of commonality and belonging and collective understanding. Other prepandemic research also reports that participatory arts can support social connections, particularly among older adults.

Prepandemic, arts activities most cited as socially connecting were in-person activities at out-of-the-home venues: attending a live music performance, watching a live theatre performance and watching a film or drama at the cinema or other venue. The initial lockdown in the United Kingdom, however, led to the closure of venues, with access continuing to be restricted by social distancing through 2020. This leaves open the question of whether the arts continued to support feelings of social connectedness during the pandemic. Research has indicated that at-home arts activities, such as digital arts and writing, music, crafts and reading, were used to help cope with emotion and to support self-development during COVID-19, but less is known about how such activities might support social connectedness. This study therefore investigates how, if at all, arts and cultural engagement was perceived to facilitate feelings of social connectedness over two phases in the first year of the pandemic in the United Kingdom.

Methods

Data were collected via the HEarT Survey (Health, Economic and Social impacts of the ARTs), designed to capture current arts and cultural engagement in the United Kingdom and to explore its sociodemographic characteristics and correlations with mental and social well-being. The HEarT Survey consists of seven sections: (1) demographics; (2) frequency and nature of arts and cultural activities, widely defined to include informal, at-home activities; (3) open questions on arts and social connectedness; (4) mental well-being; (5) physical activity; (6) social well-being; and (7) household income and arts spending.

Data were drawn from two questions in section 3: Q1. ‘Of the arts and cultural activities you have told us about [earlier in the survey], which makes you feel most connected to other people?’ (Please select just one activity) (drop-down choice of all arts activities); Q2. ‘In view of the current public health situation, why has this activity made you feel connected to other people during the last month? Please write in as much detail as possible and include examples or stories where appropriate (open response)’. Using skip logic, respondents only answered these questions if they had previously indicated that their engagement with arts and cultural activities did help them to feel connected with other people (see ‘Respondents’). Data from sections 1 and 7 were used to report sample demographics, and prepandemic data on these questions are published elsewhere.

Respondents

Respondents were recruited to complete the HEarT Survey through an online data collection platform, Qualtrics, over two phases in the first year of the pandemic in the United Kingdom: March to May 2020 (Phase 1) and October 2020 (Phase 2). This study focuses on a subset of respondents who provided qualitative data in response to Q2 at both phases, allowing us to explore how, if at all, perceptions of how the arts support social connections changed over the course of 2020.

At Phase 1, a total of 10,513 respondents completed the survey. Data collection quotas were set for gender, age, geographical region, ethnicity and education following the overall distributions of these key sociodemographic variables in the UK 2011 Census. 3647 respondents completed the surveys at both Phase 1 and at Phase 2. Of these, 1291 had not engaged in arts or cultural activities at Phase 1. Of the remaining 2356 respondents who had engaged in arts or cultural activities, 1753 (74.4%) reported that these helped them to feel connected with other people at least a little (on a scale from ‘always’ to ‘not at all’). Of these 1753 respondents, 581 provided a usable response (nonsense or clearly off-topic responses were removed) to Q2 at both phases and therefore constitute the study sample (see Table 1).

Ethical approval was granted by the Conservatoires UK Research Ethics Committee on 22 March 2020. All respondents who completed the survey were paid a modest fee via the Qualtrics platform.

Analysis

Analysis of qualitative data was undertaken using a largely descriptive form of thematic analysis, closest to what Braun and Clarke describe as a ‘codebook’ approach. Our starting point was to use the codebook developed in our prepandemic analysis, with two authors (S.L.K. and B.B.Z.) deductively analysing the data across the two phases. Concurrently, and in discussion with a third author (R.P.), the two authors identified (1) new subthemes that were not covered in the existing codebook and (2) sub themes that were present in the codebook but that were nuanced in response to the pandemic and therefore required an updated description. Second, the two authors cross-checked and confirmed each other’s analysis across the two phases. Finally, R.P. cross-checked the full codebook. The final themes served as ‘topic summaries’ allowing us to describe how, if at all, arts and cultural engagement was perceived to facilitate feelings of social connectedness during the first year of the pandemic in the United Kingdom. Descriptive statistics were used to describe the sample and arts engagement using jamovi. Further analyses from the HEarT Survey are documented elsewhere.

Results

Of the Phase 1 respondents, 366 (63%) reported that arts engagement helped them to feel socially connected ‘a little’, 74 (12.7%) reported ‘around half the time’, 118 (20.3%) reported ‘often’ and 23 (4%) reported ‘always’. At Phase 2, 365 (62.8%) respondents reported ‘a little’, 57 (9.8%) reported ‘around half the time’, 131 (22.5%) reported ‘often’ and 28 (4.8%) reported ‘always’. Table 2 details the arts activities reported as most connecting across the two phases. Consistently, the activity most frequently cited was watching a film or drama, followed by listening to recorded music.

The qualitative analysis revealed the same main themes as reported prepandemic, indicating that the arts have continued to support feelings of social connectedness in the same broad ways during COVID-19. Ten subthemes reveal the COVID-specific nature of respondents’ experiences across both periods of data collection, as detailed in Table 3.

Theme 1. Facilitating social opportunities

Across the two phases, respondents identified that arts engagement facilitated social opportunities. The first subtheme (1.1) captures the role of the arts in providing a catalyst for arts-related conversations:
Table 1
Sample characteristics.

| Sociodemographic and economic characteristics (N = 581) | n  | %    |
|-------------------------------------------------------|----|------|
| **Age**                                               |    |      |
| Total sample (mean, SD)                               | 47.60 | 15.8 |
| 18–25                                                 | 58 | 10.0 |
| 26–35                                                 | 104 | 17.9 |
| 36–45                                                 | 95 | 16.9 |
| 46–55                                                 | 129 | 22.2 |
| 56–65                                                 | 108 | 18.6 |
| 66–75                                                 | 80 | 13.8 |
| 76–94                                                 | 7 | 1.2 |
| **Gender**                                            |    |      |
| Women                                                 | 284 | 48.9 |
| Men                                                   | 297 | 51.1 |
| Would rather not say                                  | 0  | 0    |
| Other                                                 | 0  | 0    |
| **Region**                                            |    |      |
| Northern Scotland                                     | 10 | 1.7  |
| Southern Scotland                                     | 31 | 5.3  |
| North East                                            | 19 | 3.3  |
| North West                                            | 65 | 11.2 |
| Yorkshire and the Humber                               | 51 | 8.8  |
| East Midlands                                         | 42 | 7.2  |
| West Midlands                                         | 45 | 7.7  |
| East of England                                       | 65 | 11.2 |
| South East                                            | 78 | 13.4 |
| South West                                            | 55 | 9.5  |
| London                                                | 77 | 13.3 |
| North Wales                                           | 9  | 1.5  |
| South Wales                                           | 18 | 3.1  |
| Northern Ireland                                      | 16 | 2.8  |
| **Ethnicity**                                         |    |      |
| White British or Irish                                 | 515 | 88.6 |
| Any other White background                             | 18 | 3.1  |
| Mixed ethnic backgrounds                               | 15 | 2.6  |
| Asian ethnic backgrounds                               | 18 | 3.1  |
| Black ethnic backgrounds                               | 12 | 2.1  |
| Any other ethnic background                            | 3  | 0.5  |
| **Education**                                         |    |      |
| No formal qualification                                | 6  | 1.5  |
| Other vocational and foreign qualifications            | 37 | 6.4  |
| GCSE, O Level, AS Level – NVQ Level 1–2               | 118 | 20.3 |
| A level, baccalaureate – NVQ Level 3                   | 154 | 26.5 |
| University degree – NVQ Level 4-5                      | 266 | 45.8 |
| Would rather not say                                  | 0  | 0    |
| **Living status**                                     |    |      |
| Lone living                                           | 104 | 17.9 |
| With partner only                                     | 210 | 36.1 |
| With children, with or without partner/others          | 189 | 32.5 |
| With family, house share and other                    | 78  | 13.4 |
| Would rather not say                                  | 0  | 0    |
| **Household income**                                  |    |      |
| Up to £5199                                           | 10 | 1.7  |
| £5200 and up to £10,399                                | 25 | 4.3  |
| £10,400 and up to £15,599                              | 44 | 7.6  |
| £15,600 and up to £20,799                              | 39 | 6.7  |
| £20,800 and up to £25,999                              | 64 | 11.0 |
| £26,000 and up to £31,199                              | 74 | 12.7 |
| £31,200 and up to £36,399                              | 45 | 7.7  |
| £36,400 and up to £41,599                              | 50 | 8.6  |
| £41,600 and up to £46,799                              | 30 | 5.2  |
| £46,800 and up to £51,999                              | 43 | 7.4  |
| £52,000 and up to £57,199                              | 89 | 15.3 |
| £76,000 and above                                     | 62 | 10.7 |
| Would rather not say                                  | 6  | 1.0  |

* Ethnicity: any mixed background includes White and Black Caribbean, White and Black African, White and Asian and any other mixed background; any Asian background includes Indian, Pakistani, Bangladeshi, Chinese or any other Asian background; any Black background includes Caribbean, African and any other Black background.

I am able to take time out of my life and relax with others while watching a movie. I am then able to talk about the film with these people. [Phase 1, watched a film or drama].

I have spent more time talking to my daughters on the phone about crafts. They asked me to make them some decorative pumpkins for Halloween, which is something I would not otherwise have done. [Phase 2, any form of crafts].

Importantly, the arts also functioned as means of maintaining, reinstating and strengthening relationships during social distancing (subtheme 1.2). Data were only coded to this subtheme if they explicitly referenced the maintenance or enhancement of existing relationships:

I am a member of a semi-professional choir. Rehearsing in person is not possible and online is not practical. Staying in touch with others by pre learning new pieces at home helps us to stay in touch. [Phase 1, played a musical instrument or sang].

Drawing has allowed me to bond with my daughters, I feel like we connect as my daughters are spending time with me while having fun and learning. [Phase 2, painting, drawing, printmaking, sculpture, etc.]

Finally, arts activities also supported people in general socialising and interaction with others (subtheme 1.3):

[It] keeps you socially active even if just online. [Phase 1, any type of crafts].

I am learning to play the bagpipes, and every day unless it is absolutely pouring down, I walk my pipes, playing in the local woods and fields. I am well known in my area as “The Bagpipe Man” and normally I meet a number of people, mostly dog walkers, and we pass the time of day. [Phase 2, played a musical instrument or sang].

This general interaction, based on socialising, was differentiated analytically from specific arts-related conversations (1.1) and from maintaining or strengthening relationships (1.2), although in practice, there may of course be overlap in how the arts were used to support social opportunities.

Theme 2. Facilitating sharing

At both phases, respondents reported that the arts bring people together through shared experiences. Subtheme 2.1 captures the perception that the arts can facilitate quality time spent together through the medium of a shared activity: It’s just something that I get to share with my family; something we can do together without having to go out anywhere. [Phase 1, watched a film or drama].

I feel that it is a moment that is shared:

It’s something we enjoy doing together. It brings us together, and we make the most of the time and you feel a connection through the music. [Phase 2, listened to recorded music].

Importantly, this subtheme reflects connectedness through shared participation in an arts activity, rather than the more socially oriented interactions afforded by or around arts activities captured in Theme 1. For some respondents, the act of creating and then sharing art also created a sense of connection with others (subtheme 2.2):
I am making things for others to receive, and I know that they will be appreciated. [Phase 1, any form of crafts].

I ... sell my art online and feel connected to the people who buy regularly from me. [Phase 2, done painting, drawing, printmaking, sculpture, etc.]

The act of sharing, then, was seen as connecting for people engaging in the arts together but also for people who share their art with others who may not necessarily be present.

Theme 3. Facilitating commonality and belonging

At both phases, the arts were reported as eliciting feelings of proximity with others (subtheme 3.1), regardless of whether the activity itself was being shared directly with someone else:

Table 2
Forms of arts engagement most linked with feelings of social connectedness across two phases in 2020.

| Of the arts and cultural activities you have told us about, which makes you feel most connected to other people? (N = 581) | Phase 1, n | Phase 1, % | Phase 2, n | Phase 2, % |
|---------------------------------------------------------------|------------|-----------|------------|-----------|
| Watched a film or drama                                      | 151        | 26.0      | 153        | 26.3      |
| Listened to recorded music                                   | 85         | 14.6      | 88         | 15.1      |
| Played a musical instrument or song                          | 45         | 7.7       | 35         | 6.0       |
| Read as a past-time activity                                 | 41         | 7.1       | 40         | 6.9       |
| Attended live music                                          | 36         | 6.2       | 18         | 3.1       |
| Done any form of crafts                                      | 34         | 5.9       | 31         | 5.3       |
| Done photography, film, video making, etc.                   | 33         | 5.7       | 34         | 5.9       |
| Listened to audio books or podcasts                          | 31         | 5.3       | 34         | 5.9       |
| Done painting, drawing, printmaking, sculpture, etc.         | 30         | 5.2       | 21         | 3.6       |
| Written as a past-time activity                              | 17         | 2.9       | 17         | 2.9       |
| Practised, rehearsed or performed dance                      | 16         | 2.8       | 16         | 2.8       |
| Attended live theatre or circus                              | 16         | 2.8       | 8          | 1.4       |
| Attended an exhibition, museum, collection of art, etc.      | 12         | 2.1       | 31         | 5.3       |
| Attended a book club                                         | 10         | 1.7       | 10         | 1.7       |
| Other                                                         | 6          | 1.0       | 11         | 1.9       |
| Attended an event connected with books or reading            | 4          | 0.7       | 5          | 0.9       |
| Attended live dance                                          | 4          | 0.7       | 2          | 0.3       |
| Written or created music                                     | 3          | 0.5       | 4          | 0.7       |
| Attended a convention, show, fair relating to crafts etc.    | 3          | 0.5       | 3          | 0.5       |
| Seen street art, public art displays, etc.                   | 3          | 0.5       | 14         | 2.4       |
| Practised, rehearsed or performed a play, drama, etc.        | 1          | 0.2       | 6          | 1.0       |

Table 3
Summary of themes for how arts engagement was perceived to facilitate feelings of social connectedness during two phases in 2020.

| Themes and (sub)subthemes                                    | Description                                                                 | Instances Phase 1 | Instances Phase 2 |
|--------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------|-------------------|
| 1. Facilitating social opportunities                         | The arts facilitate social opportunities                                     |                   |                   |
| 1.1 Conversing about art                                     | The arts act as a catalyst for conversations                                 | 140               | 138               |
| 1.2 Maintaining/strengthening relationships                  | The arts allow people to maintain, reinstate and strengthen relationships during social distancing | 62                | 46                |
| 1.3 Socialising and interacting with others                  | The arts encourage and facilitate new and/or generalised social interactions | 56                | 81                |
| 2. Facilitating sharing                                     | The arts facilitate opportunities for shared experiences                     |                   |                   |
| 2.1 Sharing arts experiences                                | The arts bring people together through shared experiences                    | 124               | 148               |
| 2.2 Sharing art with others                                 | When people share their art, it creates a sense of connection between them and others | 71                | 62                |
| 3. Facilitating commonality and belonging                    | The arts facilitate feelings of closeness, similarity and belonging           |                   |                   |
| 3.1 Enabling proximity to others                             | The arts elicit feelings of direct and indirect proximity to others, sometimes via proxy | 148               | 127               |
| 3.2 Connecting through common interests                      | The arts connect likeminded people with common interests                      | 36                | 61                |
| 3.3 Being part of something                                  | The arts allow people to feel part of, and belonging to, something bigger than themselves | 29                | 22                |
| 3.3.1 Collective COVID experience                            | The arts allow people to feel part of a collective 'COVID-19 experience'     | 22                | 13                |
| 3.3.2 Grounding experience                                  | The arts provide collective distraction/escapism from, or a sense of normality, during COVID-19 | 22                | 40                |
| 4. Facilitating collective understanding                     | The arts facilitate learning from and about other people                     |                   |                   |
| 4.1 Knowledge exchange                                       | The arts allow people to teach, learn from and learn about other people, places and times | 20                | 30                |
| 4.2 Relating to others                                       | The arts allow people to relate to and/or empathise with other people and experiences | 24                | 21                |
It is some meaningful effort to join the online live gig at the right time, so those who attend have a genuine shared interest. [Phase 1, attended live music].

Feels good to be with others enjoying the same thing and connected via the pandemic. [Phase 2, attended live theatre or circus].

Linked with this, for a smaller group of respondents, the arts allowed people to feel part of, and belonging to, something bigger than themselves (subtheme 3.3):

Staying indoors as much as possible has significantly reduced human interaction. Music is helping to replicate the feeling of belonging. [Phase 1, listened to recorded music].

If you watch films together you have something to discuss and feel that you have a “community” experience. [Phase 2, Watched a film or drama].

As these examples illustrate, the arts replicated the feeling of belonging during COVID-19 that other research has observed prepandemic.16–20 Interestingly, the arts also supported people to feel part of a collective ‘COVID experience’ (sub-subtheme 3.3.1):

I listen to podcasts that are frequently mentioning the Coronavirus and how it is affecting them and how they are dealing with all issues related to it, including self-isolation. I feel like I can empathise and relate to the people on the podcast as I am in a similar situation. [Phase 1, listened to audio books or podcasts].

It connects me with other people, and it doesn’t make me feel the distance between us as much as we all go through this common experience. [Phase 2, attended live music].

Closely linked, the arts were reported as providing a collective distraction from the pandemic (sub-subtheme 3.3.2):

The radio has been good company and a distraction from the current situation, bringing some normality … The camaraderie of the presenters has made me feel part of a larger family. [Phase 1, listened to recorded music].

It’s nice to compare books with others and escape to a world without COVID. [Phase 2, read as a pastime activity].

These sub-subthemes were new to this data set and demonstrate COVID-specific ways that the arts appeared to contribute to collective ways of coping during the pandemic.

Theme 4. Facilitating collective understanding

Theme 4 captured how the arts can facilitate collective understanding. Here, there was evidence that respondents used the arts to teach, learn from and learn about other people during the pandemic (subtheme 4.1):

[I] have made things and discussed design of them with my family. My wife and daughter make stained glass ornaments and they have taught me. [Phase 1, any form of crafts].

I have practised some songs on my guitar then helped other people learn them. [Phase 2, played a musical instrument or sang].

Alongside, respondents reported that the arts allowed them to relate to and/or empathise with other people (subtheme 4.2):

I’ve been playing music during the Thursday 8pm “noise for key workers” and have seen and related to many neighbours. [Phase 1, played a musical instrument or sang].

[Attending] allows me to share and understand people’s perceptions of a subject matter. [Phase 2, attended an event connected with books or reading].

Of note is that Theme 4 had substantially fewer instances than the other themes.

Discussion and conclusion

Arts and cultural engagement supported feelings of social connectedness over two phases in the first year of the pandemic through four pathways: facilitating social opportunities, facilitating sharing, facilitating commonality and belonging and facilitating collective understanding. These pathways replicate prepandemic findings and, while there were some small differences in subtheme instances, hold consistent for both phases of data collection, indicating sustainability and durability in the role of the arts to support social connections, including during times of crisis. This adds to a growing body of literature that points to the role of the arts in supporting social public health.9,10,21–26 The subthemes shed light on specific ways that respondents used the arts during the pandemic to connect with others; both within the household if applicable but also outside of the household via phone or technology. These included using the arts: as a catalyst for conversations, to maintain, restate or strengthen relationships during social distancing and to facilitate social interactions (Theme 1); to bring people together through shared experiences and sharing of art (Theme 2); to elicit feelings of direct and indirect proximity to others, to connect people with common interests, to feel a sense of belonging to something and to feel part of a collective ‘COVID-19 experience’ or to feel collectively distracted from the pandemic (Theme 3); to learn from and about other people and to relate to others (Theme 4). These findings complement other research suggesting that participating in creative activities during COVID-19 could be linked with reduced loneliness27 and that people coped with loneliness during the pandemic through, among other things, creative arts and writings.28

The arts and cultural activities most frequently cited as connecting, across both phases, were watching a film or drama and listening to recorded music. Interestingly, these activities are linked to those identified as most connecting prepandemic: attending a live music performance, watching a live theatre performance and watching a film or drama at the cinema or other venue. It seems that the activities were adapted to the pandemic; for example, films and dramas were likely watched at home rather than at a cinema — online streaming services had a rapid rise in viewers — and music was seemingly accessed through listening to recordings. Implied here is that people adapted their arts and cultural engagement to fit pandemic-related restrictions either to enable a continuation of prepandemic means of connection or to find new ways of connection in a time of social distancing.

The strengths of this article include the large qualitative sample, allowing for the representation of respondents with a range of sociodemographic characteristics. The longitudinal design captured perceptions at two different points during 2020, avoiding only one snapshot in a rapidly changing social context and demonstrating consistency in the findings. Furthermore, we included multiple subthemes to capture the nuanced and subtly different ways in which the arts were perceived to facilitate connections. Many responses were complex and therefore coded to multiple subthemes, indicating a degree of inherent overlap that we have retained to indicate the multifaceted and interlinking nature of the responses.
The limitations include an explicit focus on arts and culture, meaning that we are not able to conclude whether arts and culture support feelings of connectedness more than other activities. Indeed, our data are not intended to reveal any causal link between arts and cultural engagement and social connectedness. Finally, of our initial sample of 3647, a substantial 1291 reported not engaging in the arts, and a further 603 reported that the arts did not connect them to others. Therefore, our findings should be interpreted with caution, as they represent only those who do engage with the arts and who do report it to support their social connections.

Given the potential for arts and cultural activities to support social connectedness, the issue of who accessed the arts — during the pandemic and beyond — becomes important. Predictors of increased arts engagement during the first months of COVID-19 in the United Kingdom included younger people (aged 18–29 years), people who had lost work, those who were not keyworkers, people with greater social support and those who worried about catching COVID-19. We know there is a ‘social gradient’ in arts and cultural engagement and that barriers include poorer health, lower socioeconomic status, loneliness and living alone. The data reported here suggest that engagement with arts and culture has continued to support social connectedness during the pandemic, providing further evidence for the importance of future research and policy designed to inform equal access to the arts, particularly for those at risk of or experiencing loneliness.

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Competing interests
None declared.

References
1. Lee RM, Robbins SB. Measuring belongingness: the social connectedness and the social assurances scales. J Counsel Psychol 1995;42(2):323–41.
2. O’Rourke HM, Sidani S. Definition, determinants, and outcomes of social connectedness for older adults: a scoping review. J Gerontol Nurs 2015;41(7):43–52.
3. McKenna-Plumley PE, Graham-Wisener L, Berry E, Groark JM. Connection, constraint, and coping: a qualitative study of experiences of loneliness during the COVID-19 lockdown in the UK. PLoS One 2021 Oct 13;16(10):e0258344.
4. Office for National Statistics. Mapping loneliness during the coronavirus pandemic [Internet]. Office for National Statistics; 2021 Apr (cited 2021 Dec 9). [www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/mappinglonelinessduringthecoronaviruspandemia/2021-04-07].
5. Li LZ, Wang S. Prevalence and predictors of general psychiatric disorders and loneliness during COVID-19 in the United Kingdom. Psychiatr Res 2020 Sep;291:113267.
6. Hare-Duke L, Dening T, de Oliveira D, Milner K, Slade M. Conceptual framework for social connectedness in mental disorders: systematic review and narrative synthesis. J Affect Disord 2010 Feb;118:88–96.
7. Wu B. Social isolation and loneliness among older adults in the context of COVID-19: a global challenge. Glob Health Res Policy 2020 Dec;5(1):27.
8. Perkins R, Mason-Bertrand A, Tymoszuk U, Spiro N, Gee K, Williamon A. Arts engagement supports social connectedness in adulthood: findings from the HEartS Survey. BMC Publ Health 2021 Dec;21(1):1208.
9. Dadswell A, Wilson C, Bungay H, Munn-Giddings C. The role of participatory arts in addressing the loneliness and social isolation of older people: a conceptual review of the literature. J Arts Communities 2017 Oct;2(2):109–28.
10. Wilson C, Dadswell A, Munn-Giddings C, Bungay H. The role of participatory arts in developing reciprocal relationships amongst older people: a conceptual review of the literature. J Aging Soc Change 2019;9(4):1–16.
11. Mak HW, Fluharty M, Fancourt D. Predictors and impact of arts engagement during the COVID-19 pandemic: analyses of data from 19,384 adults in the COVID-19 Social Study. Front Psychol 2021;12:662632.
12. Tymoszuk U, Spiro N, Perkins R, Mason-Bertrand A, Gee K, Williamon A. Arts engagement trends in the United Kingdom and their mental and social well-being implications: HEartS Survey. PLoS One 2021 Mar 12;16(3):e0246078.
13. Williamon A, Tymoszuk U, Spiro N, Gee K, Mason-Bertrand A, Perkins R. HEartS Survey 2019: charting the health, economic, and social impact of the arts. Dryad, Dataset: 2021 [Internet]. https://dryad.org/doi/stash/dataset/10.5061/diyad.3z28Og6d.
14. Tymoszuk U, Clarke V. Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic analytic approaches. Counsell Psychother Res J 2021 Mar;21(1):37–47.
15. The jamovi project. jamovi. (Version 1.6) [computer software]. [Internet]. https://www.jamovi.org; 2021.
16. Hiltunen KE, Saakkalhti NE, Vallius AS, Pyyhonen SH, Jantti SJ, Saresma TAM. Anchoring belonging through material practices in participatory arts-based research. Forum Qual Sozialforschung Forum Qual Soc Res 2020 May 26;21. No 2.
17. Stickley T. The arts, identity and belonging: a longitudinal study. Arts Health 2010 Mar;2(1):23–32.
18. Schafer K, Erola T. How listening to music and engagement with other media provide a sense of belonging: an exploratory study of social surrogacy. Psychol Music 2020 Mar;48(2):232–51.
19. Hall E. Making and gifting belonging: creative arts and people with learning disabilities. Environ Plan Econ Space 2013 Feb;45(2):244–62.
20. Anderson S, Bigby C. Community participation as identity and belonging: a case study of Arts Project Australia. “I am an artist!”. Res Pract Intellect Dev Disabil 2020 May 27:1–14.
21. Poscia A, Stojarovic J, La Milia Di, Duplaga M, Grysztar M, Moscato U, et al. Interventions targeting loneliness and social isolation among the older people: an update systematic review. Exp Gerontol 2018 Feb;102:133–44.
22. Cohen-Mansfield J, Perach R. Interventions for alleviating loneliness among older persons: a critical review. Am J Health Promot 2015 Jan;29(3):e195–205.
23. Overgaard I, Sørensen NB. Can an art museum help in combating loneliness? J Appl Arts Health 2015 Oct 1;6(2):187–201.
24. Todd C. Camic PM, Lockyer B, Thomson LJ, Chatterjee HJ. Museum-based programs for socially isolated older adults: understanding what works. Health Place 2017 Nov;48:47–55.
25. Schafer K, Saarkiloinen S, Erola T. Music may reduce loneliness and act as social surrogate for a friend: evidence from an experimental listening study. Music Sci 2020 Jan 13. 20592402093570.
26. Tymoszuk U, Perkins R, Fancourt D, Williamon A. Cross-sectional and longitudinal associations between receptive arts engagement and loneliness among older adults. Soc Psychiatr Psychiatr Epidemiol 2019 Sep 15;54(9):981–900.
27. Paulus T, Choi I, Zambrano E, Gerstorf D, Hopman CA. COVID-19: Time to oneself, and loneliness: creativity as a resource. J Gerontol Ser B 2021 Apr 30;77:e30–5 (final publication date 2022) ggb070.
28. Koh JK, Liew TM. How loneliness is talked about in social media during COVID-19 pandemic: text mining of 4,492 Twitter feeds. J Psychiatr Res 2020 Nov;145:317–24 (final publication date 2022) S0022395620310748.
29. Jeannotte MS. When the gigs are gone: valuing arts, culture and media in the COVID-19 pandemic. Soc Sci Humanit Open 2021;3(1):100097.
30. Mak H, Coulter R, Fancourt D. Patterns of social inequality in arts and cultural participation: findings from a nationally representative sample of adults living in the United Kingdom of Great Britain and Northern Ireland. Public Health Forum 2020;6(1).
31. Shaikh M, Tymoszuk U, Williamon A, Miraldo M. Socio-economic inequalities in arts engagement and depression among older adults in the United Kingdom: evidence from the English Longitudinal Study of Ageing. Publ Health 2021 Sep;198:307–14.
32. Fancourt D, Mak HW. What barriers do people experience in engaging to the arts? Structural equation modelling of the relationship between individual characteristics and capabilities, opportunities, and motivations to engage. Soundy A, editor. PLoS One 2020 Mar 25;15(3):e0230487.