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## Research Article

# Systematic Review of Arts-Based Interventions to Address Suicide Prevention and Survivorship in Australia, Canada, the United Kingdom, and the United States of America

Jill Sonke, MA<sup>1</sup> 

Kelley Sams, PhD<sup>1</sup> 

Jane Morgan-Daniel, MLIS<sup>1</sup> 

Andres Pumariega, MD<sup>1</sup>

Faryal Mallick, MD<sup>1</sup>

Virginia Pesata, DNP<sup>1</sup>

Nicola Olsen, MEd<sup>2</sup> 

**Study Objective.** *Suicide is a serious health problem that is shaped by a variety of social and mental health factors. A growing body of research connects the arts to positive health outcomes; however, no previous systematic reviews have examined the use of the arts in suicide prevention and survivorship. This review examined how the arts have been used to address suicide prevention and survivorship in nonclinical settings in Australia, Canada, the United Kingdom, and the United States of America.* **Design and Setting.** *Ten bibliographic databases, five research repositories, and reference sections of articles were searched to identify published studies. Articles presenting outcomes of interventions conducted between 2014 and 2019 and written in English, were included.* **Primary Results.** *Nine studies met inclusion criteria, including qualitative, quantitative randomized controlled trials, quantitative nonrandomized, quantitative descriptive, and mixed-methods studies. The programs studied used film and television (n = 3), mixed-arts (n = 3), theatre (n = 2), and quilting (n = 1). All nine interventions used the arts to elicit emotional involvement, while seven also used the arts to encourage engagement with themes of health. Study outcomes included increased self-effi-*

*cacy, awareness of mental health issues, and likelihood for taking action to prevent suicide, as well as decreases in suicidal risk and self-harming behaviors.* **Conclusions.** *Factors that influence suicide risk and survivorship may*

<sup>1</sup>University of Florida, Gainesville, FL, USA

<sup>2</sup>Arizona State University, Tempe, AZ, USA

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### Health Promotion Practice

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be effectively addressed through arts-based interventions. While the current evidence is promising with regard to the potential for arts programs to positively affect suicide prevention and survivorship, this evidence needs to be supplemented to inform recommendations for evidence-based arts interventions.

**Keywords:** *suicide prevention; survivorship; arts; mental health; public health; creative arts; arts in public health; community intervention; health promotion; health research; systematic review; arts-based interventions*

Suicide is a serious global public health problem. Worldwide, nearly 800,000 people die annually from suicide, and more than 20 times that number may attempt it (World Health Organization [WHO], 2019). Suicide is the second leading cause of death among those aged 15 to 29 years globally (WHO, 2014). In the United States, suicide rates have increased by more than 120% in ages 10 to 14 years since 1980, and by 30% in ages 12 to 17 years since 1999. From 1980 to 1995, suicide among African American youth increased more than 233% in ages 10 to 14 years and by 126% in ages 15 to 19 years, while suicide among Latinx teenagers increased by 145% (Sharma & Pumariega, 2018). A recent study found that Hispanic, Asian, and biracial young adults are more likely to report interpersonal precipitants of suicide attempts than Black young adults (Rosario-Williams et al., 2020).

Recent studies have also begun to highlight how increasing stress and social isolation related to COVID-19, including medical morbidity/mortality, quarantines, and social disparities, have been associated with rising levels of depression, anxiety, suicidality, and mental health emergency room visits, including for children and youth (Czeisler et al., 2020; Leeb et al., 2020). Increased rates of suicide have been documented in relation to the 1918 Spanish Flu pandemic, as well as the SARS outbreak in Hong Kong in 2003 (Standish, 2020; Yip et al., 2010). Given these historic patterns, and the higher prevalence of COVID-19 among Black, Indigenous, and other people of color, and the negative impacts of COVID-19 on mental health, it is anticipated that rates of suicide may increase following the pandemic, particular among COVID-19 survivors and those with psychiatric disorders (Sher, 2020).

Stigma surrounding mental health, which has been found to be greater among ethnic minority populations, keeps many people contemplating suicide from seeking timely help; and few countries have included suicide prevention among population health priorities or devel-

oped prevention strategies (DeFreitas et al., 2018; WHO, 2014). Although psychiatric disorders significantly increase suicide risk, interpersonal and social factors also play an important role. Sociologist Emile Durkheim (1951) posited that suicide is a result of social disorganization, pointing to four categories of suicide, two of which are especially relevant today: egoistic suicide, caused by weak social bounds and high levels of individualism, and anomic suicide, provoked by the breakdown of social equilibrium and increased alienation.

The integrated motivational volitional model proposes that suicidal behavior results from a complex interplay of factors, the proximal predictor being one's intention to engage in suicidal behavior (O'Connor, 2011). Intention, in turn, is determined by feelings of entrapment where suicidal behavior is seen as the solution to life circumstances. Feelings of entrapment are triggered by defeat/humiliation appraisals, often associated with chronic or acute stressors. Transitions from the defeat/humiliation stage to entrapment, from entrapment to suicidal ideation/intent, and from ideation/intent to suicidal behavior are determined by stage-specific moderators (i.e., impaired social problem solving, thwarted sense of belonging, social norms/attitudes, lack of social support). Background factors (e.g., economic/social deprivation, vulnerabilities) and life events (e.g., relationship crises, losses), which comprise the premotivational phase, provide the broader biopsychosocial context for suicide. Additionally, the RAND model for suicide prevention suggests interventions that address interpersonal and social risk factors, such as coping skills enhancement and stigma; training nonaffected individuals on identification of those around them who are at risk; and help seeking and improving access to mental health resources (Acosta et al., 2012).

A growing body of research connecting the arts to positive health outcomes suggests that arts-based interventions could help address suicide risk factors. A recent scoping review presents a logic model identifying components of the arts that produce positive psychological, physiological, social, and behavioral health responses (Fancourt & Finn, 2019; see Supplemental Materials).

Arts-based interventions are multimodal and function in layers with multiple components and compound health benefits operating at one time (Fancourt & Finn, 2019). For example, an acting class combines the benefits of five health promoting components—imagination, emotion, social interaction, physicality, and cognitive stimulation—each of which connect to different positive health responses and together may heighten impacts. There is clear evidence that arts interventions can support mental health (Fancourt et al., 2019; Gallant et al., 2019; Leckey, 2011; Perkins et al., 2016; Secker

et al., 2017). They facilitate dialogue, reduce stigma, and enhance expression, coping skills, empathy, and personal and cultural resonance, all of which address risk factors for suicide (Fancourt et al., 2019; Michalak et al., 2014; Sonke et al., 2020). They can also facilitate expression of emotions like entrapment, loneliness, and burdensomeness (Aguilar, 2017), cultivate belonging (Perkins et al., 2016), and protect against suicidal ideation (Kasahara-Kiritani et al., 2015). However, evidence regarding how the arts can support suicide prevention and survivorship is limited.

In response to this dearth of evidence, this review examined recent studies of arts-based interventions that addressed suicide-related outcomes. The guiding research question was, *How have the arts been used to address suicide prevention and survivorship in nonclinical settings in Australia, Canada, the United Kingdom, and the United States of America?*

## ► METHOD

### **Protocol and Registration**

This review's methodology was developed using the "MECIR Standards for the Conduct of New Cochrane Intervention Reviews" (Higgins et al., 2019) and the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (Moher et al., 2009). Searches for similar review protocols and published reviews occurred on May 24, 2019 (databases available by request). Of the 33 results retrieved, none related to use of the arts to address suicide prevention and survivorship in the four countries of interest. The protocol was approved and listed in PROSPERO as CRD42020142344.

### **Eligibility Criteria**

This investigation focused on English language research literature published between January 2014 and August 2019. A narrow time frame was selected to reflect the current socioeconomic climate and to allow the research team to work within a defined grant period. Conducted as a part of a U.S.-focused arts in public health initiative, the overarching goal was to identify evidence of interventions that may contribute to future arts in public health programs in the United States. The research team included work done in three other English-speaking similarly high-Human Development Index countries with similar health-system priorities around suicide prevention to identify a broader range of interventions (Anand & Sen, 1994). The search strategy was developed according to the following PICOS study characteristics.

*Participants.* Only studies with nonclinical interventions occurring outside of health care institutional

settings were included. Studies in clinical settings or outside the geographic area of focus were excluded. This geographical focus was based on similar challenges and assets in the four countries.

*Problem.* Studies that contributed to suicide prevention or survivorship, defined as support for individuals who have attempted suicide or for people who have been affected by suicide, were included. Studies centered on assisted suicide/dying or self-harm with no evident suicidal ideation were excluded.

*Intervention.* Only studies that included an arts-based intervention (broadly defined as any performing, visual, or musical arts) or art therapy were included. Interventions that use the arts solely as a research method were excluded.

*Outcomes.* Interventions that presented outcomes related to suicide prevention or survivorship, including process outcomes (i.e.,) changes in knowledge, stigma, attitudes, or clinical outcomes (i.e., improved mental health, reduced rates of suicidal behaviors), were included. Studies that did not discuss process or findings were excluded.

*Study Design.* Qualitative, quantitative, and mixed-methods studies published after January 2014 were included in this review. Studies not published in English or not conducted on humans were excluded.

### **Information Sources**

With the research team, a health sciences librarian developed a preliminary search strategy using the pearling technique and test searches in Web of Science. Following peer-review of the base search strategy by a second librarian, the final search was conducted between August 6 and 8, 2019. Ten bibliographic databases were searched to minimize selection bias. Relevant database subject headings were used in addition to truncated and phrase-searched keywords within the title and abstract fields. When possible, database filters were employed to limit the search results to English language, humans, publication date, and the countries of interest. Databases selected were EBSCOHost's Art and Architecture Source, CINAHL, PsycINFO, ProQuest's Applied Social Sciences Index and Abstracts, Performing Arts Periodicals Database, PTSDpubs, PubMed (NCBI), Web of Science, and Health Source Nursing/Academic Edition, Psychology and Behavioral Sciences Collection (see Supplemental Materials for Web of Science search strategy; others available on request). The 1,463 search results were exported into RefWorks and deduplicated. The 1,036 unique results

were then imported into Covidence for screening. Hand-searching of grey literature sources was undertaken; and backward and forward citation tracking was performed in Web of Science on February 6, 2020. An additional 16 references were then added to Covidence for consideration.

### **Study Selection**

Title and abstract screening were completed in Covidence by research team members working in blinded pairs. Screening questions based on the aforementioned PICOS criteria were used to determine which references proceeded to full-text review. Each included article required agreement between two reviewers, with disagreements resolved through discussion and arbitration led by a third reviewer. Two researchers independently used the McGill University Mixed Methods Appraisal Tool (MMAT; (Hong et al., 2018) to critically appraise each study.

### **Data Extraction**

Key data were extracted from included studies by three research team members. These data included geographical location, theoretical framework, study purpose, art form(s) used, involvement of artists, study design, and findings reported. Research team members grouped art forms into four categories: film/television, mixed arts, theatre, and quilting, then identified the key mechanistic components involved in each study.

### **Synthesis of Results**

The data extracted from the included studies were combined to present in narrative form. All authors examined the results to confirm agreement that the data presented addressed the review's research question and contributed to rigorous discussion.

## **► RESULTS**

After identifying 1,052 unique studies, 72 full-text articles were assessed for eligibility, and nine met the inclusion criteria for methodological quality (see Figure 1). The studies were classified according to MMAT's five study categories: qualitative, quantitative randomized controlled trials, quantitative nonrandomized, quantitative descriptive, and mixed methods. Two studies were included from each type with the exception of King et al. (2018), which was the only randomized control trial identified. Two of the studies investigated the same intervention, but because they examined different outcomes, they were not eliminated as duplicates. No studies analyzed population-level data (see Table 1).

### **Study Design and Purpose**

The studies included in this review varied in design and purpose. Five studies engaged quantitative methods, including a randomized control trial ( $n = 1$ ), nonrandomized investigations ( $n = 2$ ), and descriptive study designs ( $n = 2$ ). Four studies used qualitative ( $n = 2$ ) or mixed methods ( $n = 2$ ). The purpose of the interventions examined ranged from increasing uptake of mental health services, reducing suicidal intentions, increasing awareness about mental health, and supporting conversations about suicide.

*Quantitative Randomized Control Trial.* King et al. (2018) conducted a double-blinded randomized control trial to investigate a television documentary series based on the theory of planned behavior. With the purpose of increasing adult males' intentions to seek mental health services, the study randomly assigned 352 men to watch a documentary with personal stories in narrative form or an informational documentary presenting workings of the brain.

*Qualitative Studies.* Both qualitative studies engaged grounded theory to evaluate programs designed to reduce suicidal ideation and increase help-seeking behaviors in youth. Humensky et al. (2017) examined how the *Life is Precious* program met the perceived needs of Latina adolescents at-risk for suicide and their families through art, music, and dance therapy. Keller et al. (2017) used a theatre intervention, *Let's Talk*, to promote communication and disclosure of suicidal ideation among high school and university students. Participants devised a play from their own experiences and performed for peers. Outcomes were assessed through the analysis of perceived self-efficacy and susceptibility to suicide using an extended parallel process model framework.

*Quantitative Nonrandomized.* Burk et al. (2018) used a retrospective quantitative design to measure the effects of the *Out in Schools* program on sexual-orientation discrimination, bullying and suicidality among public school students. The program drew on the intergroup contact theory framework as well as theatre for social justice. Drawing from the Aboriginal and Torres Strait Islanders' perspective of social and emotional well-being, Rasmussen et al.'s (2018) retrospective cohort study investigated suicide and self-harm risk behaviors among Aboriginal prisoners after participating in Aboriginal art activities.

*Quantitative Descriptive.* Ross et al. (2018) and Keller and Wilkinson (2017) explored outcomes related to arts-based interventions designed to raise awareness

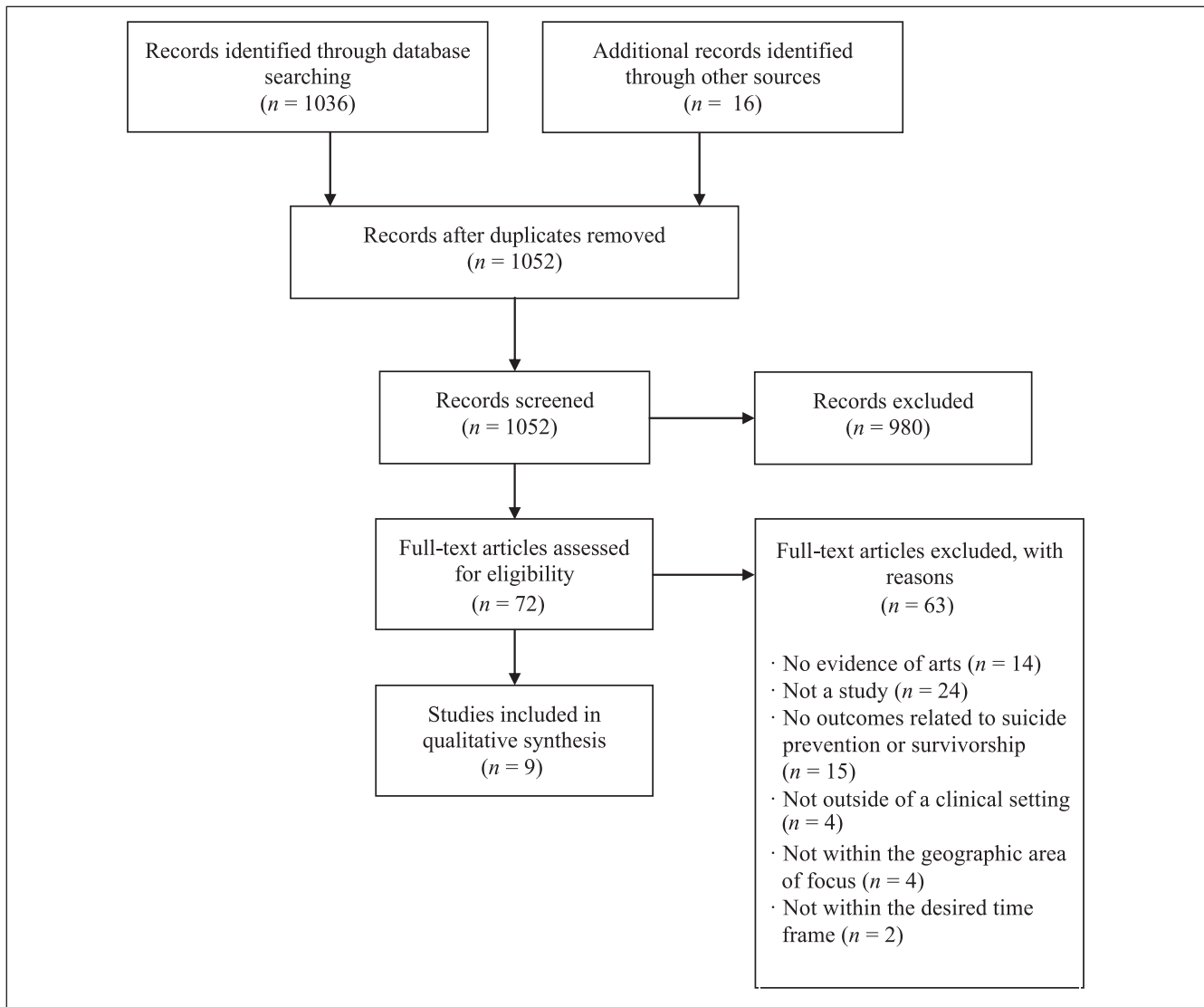


FIGURE 1 Study Selection

about mental health and increase help seeking. Ross et al. (2018) used a survey to evaluate how arts activities changed the environments of four railway stations (suicide hot spots) and raised awareness about mental health. Keller and Wilkinson (2017) used a comparative descriptive study to assess outcomes related to the *Let's Talk* theatre intervention, based on the narrative engagement framework and extended parallel process model.

*Mixed Methods.* Peters et al. (2015) study used data from a retrospective quantitative survey and qualitative interviews to evaluate satisfaction with the *Lifekeeper Memory Quilt Project*, which aimed to provide support for those bereaved by suicide and enhance public awareness of suicide through creation of memorial quilts.

Schlichthorst et al. (2018) conducted an analysis of a Twitter campaign accompanying the *Man Up* documentary to evaluate how the social media platform influenced conversation about masculinity and suicide.

### Art Forms and Their Components

The art forms used in the studies included in this review were grouped into four overarching forms: film and television ( $n = 3$ ), mixed arts ( $n = 3$ ), theatre ( $n = 2$ ), and quilting ( $n = 1$ ). Most (66%) studies did not specify if trained or professional artists or arts therapists were involved in the design or implementation of the interventions tested. Components of the arts forms used in the studies were articulated as follows.

**TABLE 1**  
**Studies Included in the Review**

Reference	Country	Study purpose	Study design	Art forms	Variables measured	Data collection instrument(s)/methods	Study population	Suicide related findings
Burk et al. (2018)	Canada	To investigate the association between the film based Out in Schools program and its association with mental health outcomes and bullying experienced by sexual minority adolescents.	Quantitative nonrandomized	Film and television	Homophobic discrimination and suicidality	British Columbia Adolescent Health Survey	Students in grades 5–12 ( $n = 21,075$ )	Odds of considering suicide: Lesbian and bisexual girls had 16% lower odds and heterosexual girls had 6% lower odds after each event
Humensky et al. (2017)	United States	To evaluate whether the Life is Precious program met the needs of Latina adolescents and their families.	Qualitative	Mixed arts	Changes in factors contributing to suicidal behavior and self-harm	Focus group discussions	Latina adolescents ( $n = 31$ ) and their mothers ( $n = 8$ )	Program provided skills through creative expression to address negative feelings that contribute to self-harm
King et al. (2018)	Australia	To examine if a documentary could increase help-seeking intentions for personal and emotional problems in men	Quantitative randomized controlled trial	Film and television	Likelihood of either help-seeking or recommending that a friend seek help	General Help Seeking Questionnaire and Personal Well-Being index	Adult males at low risk of suicide ( $n = 355$ )	Increase in intentions to seek help in the intervention group
Keller & Wilkinson (2017)	United States	To understand Montana students' perceptions in response to <i>Let's Talk</i> , aimed at reducing barriers to help-seeking and helping others	Quantitative descriptive	Theatre	Response efficacy for accessing interpersonal support and perceived susceptibility to suicide risk or depression	Pre- and postsurveys and Risk Behavior Diagnosis Scale	High school students ( $n = 224$ )	Increased self-efficacy and response efficacy in communicating with a teacher, school counselor or social worker
Keller et al. (2017)	United States	To study <i>Let's Talk</i> program participants' responses in relation to perceived self-efficacy, and susceptibility and severity of suicidal ideation	Qualitative	Theatre	Perceived susceptibility and threat of suicide; efficacy related to suicide prevention	Semistructured interviews	High school student actors ( $n = 20$ ) and audience members ( $n = 7$ )	Increased awareness of prevention resources and perceived susceptibility to threat of suicide, self-efficacy for obtaining help and assisting others

(continued)

**TABLE 1 (CONTINUED)**

<i>Reference</i>	<i>Country</i>	<i>Study purpose</i>	<i>Study design</i>	<i>Art forms</i>	<i>Variables measured</i>	<i>Data collection instrument(s)/methods</i>	<i>Study population</i>	<i>Suicide related findings</i>
Peters et al. (2015)	Australia	To examine participant satisfaction with the quilt project	Mixed methods	Quilting	Satisfaction with the intervention	Survey and in-depth interviews	Individuals who had lost a loved one to suicide (n = 82)	Project raised public awareness about suicide and assisted with bereavement
Rasmussen et al. (2018)	Australia	To investigate the effects of Aboriginal art activities on the suicide/self-harm risk behaviors of Aboriginal prisoners	Quantitative nonrandomized	Mixed arts	Number of times a prisoner was assessed as being at-risk for suicide or self-harm during their incarceration	Suicide/self-harm risk assessment	Aboriginal male prisoners (n = 335)	Each day of attendance = 19% reduction in the rate of suicide/self-harm risk
Ross et al. (2018)	Australia	To evaluate an intervention designed to prevent suicide through improving the environment of railway stations and raise awareness about poor mental health	Quantitative descriptive	Mixed arts	Likelihood of reaching out to someone who appeared to be at risk of suicide	Survey	Community members (n = 1,309)	Improved understanding of poor mental health, and a greater likelihood of reaching out to someone who might be at risk of poor mental health
Schlichthorst et al. (2018)	Australia	To examine the extent to which the Man Up Twitter campaign influenced the social media conversation about masculinity and suicide	Mixed methods	Film and television	reach of the social media campaign, the highest and lowest performing Tweets, and the main content themes of Tweets related to the show	Twitter activity	Twitter followers (n = 1,453)	Highest content was related to help-seeking, masculinity, and expressing emotions



*Film and Television.* Burk et al. (2018) used popular films to evoke emotions, stimulate cognition and imagination, and engage 8th- to 12th-grade public school students in lesbian, gay, bisexual, transgender and queer (LGBTQ+) perspectives on bullying, sexuality related discrimination, mental health, and social isolation. By layering emotional, cognitive and social arts components together with themes of health, the study sought to promote both social and behavioral health outcomes. Schlichthorst et al. (2018) and King et al. (2018) both examined *Man-Up*, a television documentary and social media campaign created through a partnership between health researchers and a film production company to encourage help-seeking among men as a form of suicide prevention.

*Mixed-Arts Studies.* Rasmussen et al. (2018) examined an arts program for suicide prevention among Aboriginal Australian prisoners. The intervention utilized aesthetic engagement, imagination, and emotion to cultivate social and cultural connection and autonomy. In Ross et al.'s (2018) study, aesthetic engagement, sensory, and emotional activation and social engagement were interwoven with health themes in a range of arts-based activities including mural making and music and dramatic performances to promote behavioral and social health outcomes. Humensky et al. (2017) examined an intervention that provided opportunities for at-risk Latina adolescents in urban locations to engage in art, music, or dance therapy. Aesthetic engagement, imagination, and sensory and emotional engagement encouraged participants to attend to negative emotions and promoted positive behavioral outcomes.

*Theatre.* While Keller and Wilkinson (2017) and Keller et al. (2017) focused on *Let's Talk*, a 12-week theatre and writing program for high school and university students, assessing behavioral health outcomes for different groups. This community-based suicide prevention performance was created by community and university theatre directors in collaboration with a health research team and student performers. Using aesthetic engagement, imagination, personal experience, and sensory and emotional engagement, the play was also designed to elicit emotional and cognitive engagement in audience members.

*Quilting.* Peters et al. (2015) studied memorial quilts created by volunteer quilters based on tributes and photos shared by families of individuals who had died from suicide. The quilts reduced the social judgements and stigma that often limit family members' opportunity to

grieve. This study used emotion, imagination, and social interaction to promote positive social and psychological health.

### **Outcomes**

The three studies that examined changes in self-harm risk or suicidality following arts-based interventions showed decreases in suicidal behaviors. Burk et al. (2018) documented lower odds of suicidality in lesbian, gay, or bisexual students who had participated in the film-based *Out in Schools* program. Rasmussen et al. (2018) presented strong evidence that increased participation in the art program was associated with reduced incidence of suicide or self-harm risk. Humensky et al. (2017) also reported a decrease in suicidal risk and self-harming behaviors.

Four studies reported increased knowledge and awareness of mental health issues and options for care. Schlichthorst et al. (2018) reported that a documentary film triggered conversations about masculinity and suicide and was effective in disseminating information and promoting conversation. King et al. (2018) documented an increase in perceived likelihood to seek help or recommend help to friends after watching the documentary.

Keller and Wilkinson (2017) documented an increase in self-efficacy related to communicating with teachers, high school counselors, and social workers following participation in a theatre program. In addition, Keller et al. (2017) documented increased perceived self-efficacy and response efficacy after the same program.

The Ross et al. (2018) study of arts interventions at train stations found that noticing arts events at the stations was associated improved understanding of poor mental health and likelihood of reaching out to someone who might be at risk for suicide. Finally, Peters et al. (2015) found that a quilt project played an essential role in bereavement support and improved public awareness.

Four of the nine studies presented results related specifically to youth (Burk et al., 2018; Humensky et al., 2017; Keller et al., 2017; Keller & Wilkinson, 2017). All these studies presented positive outcomes, including reduced odds of considering suicide, increased skills and self-efficacy, and increased awareness of prevention resources.

## **► DISCUSSION**

This systematic review highlights the unique contribution of the arts within programs addressing suicide prevention and survivorship. The results suggest that the arts can be useful in programs designed to decrease

suicidal risk and self-harming behaviors, increase self-efficacy among those at risk for suicide, increase knowledge and awareness of mental health issues, and increase the likelihood of action taken by others to prevent suicide.

The studies exemplify how the arts can be used to address the complex interplay of factors presented in the integrated motivational volitional model for suicide risk (O'Connor, 2011). Specifically, that they can address the motivational phase by moderating factors (e.g., lack of coping skills, social support) that lead to defeat, entrapment, and suicidal ideation. They also show evidence of the precepts of The RAND Model, as they affect interpersonal and social risk factors such as coping, skills enhancement, and stigma, training nonaffected individuals on identification of those around them who are at risk, help seeking, and improving access to mental health resources (Acosta et al., 2012).

The complex factors that shape suicide risk and survivorship may be well served by the multimodal nature of the arts. Arts engagement is multimodal and multifaceted, so that participating in one art activity can provide multiple health benefits and address more than one suicide risk factor. The studies included in this review addressed suicide prevention and survivorship through a variety of the nine components of arts interventions identified by Fancourt and Finn (2019), including aesthetic engagement, involvement of the imagination, evocation of emotion, cognitive stimulation, social interaction, and engagement with themes of health. All the interventions used the arts to elicit emotion, and seven used them to encourage engagement with health themes.

These studies highlight the importance of the arts in transcending barriers to providing support for those at risk for suicide, including social isolation, stigma and lack of suicide awareness. Arts-based interventions can mitigate these barriers by crossing boundaries of place, culture, and stigma. With their appeal both within and across cultural and social groups, arts interventions are effective in reducing social isolation (Pearce & Lillyman, 2015; Poscia et al., 2018) and thereby may be most useful as an intervention for the motivation phase of suicidal behavior, wherein ideation and intention around suicide can be mediated or moderated (O'Connor, 2011).

The articles also highlight the usefulness of the arts for enhancing health communication, which is critical to awareness and mitigation of stigma. Previous studies have found that arts-based health communication approaches make information clearer and more actionable, build knowledge and awareness, and reduce stigma (Canzona et al., 2019; Sonke et al., 2017; Sonke et al., 2020). The arts allow groups of people to build shared meaning

that can directly affect individual and collective behaviors, and in turn begin to influence social norms.

Collective awareness of suicide and social norms that limit stigma and inaction are critical to reducing the incidence of suicide and to improving the experience of survivorship. There is a clear need for culturally responsive community-based suicide prevention programs that can address the heightened risk for suicidality among BIPOC populations, particularly in the times of COVID-19 and after. As they are rooted in culture and exist already in communities, the arts offer promise in this regard. Additionally, collaboration between the arts and public health sectors is needed to ensure arts-based approaches to suicide prevention and survivorship that utilize the professional expertise and skills of each discipline to optimize impacts (Sonke et al., 2019).

### **Limitations**

This review was limited by its inclusion of only four countries. While they have similarities, the United States is the only country without universal health care. This structural barrier influences the country's public health system and the potential replicability of interventions that rely on government support.

Another limitation is inclusion of only interventions studied through rigorous published research. Undoubtedly, other successful interventions exist but have not been studied with such rigor. Additionally, several studies were excluded because they lacked reported outcome measures or lacked detail about the use of the arts. This is consistent with other reviews of arts in public health literature that show a lack of consistent outcome measures and details in reporting (Sonke et al., 2020; Springs, 2019). The study is also limited by the short span of time studied. A longer review timeframe would include more studies and could enhance meaningfulness of findings. Like others, this review is limited by publication bias, as studies with positive outcomes are more likely to be published.

### **Conclusion**

The arts may be a useful component in programs designed to decrease suicidal risk and self-harming behaviors, increase self-efficacy among those at risk for suicide, increase knowledge and awareness of mental health issues, and increase the likelihood for action taken by others to prevent suicide. The multimodal nature of the arts makes them uniquely useful in addressing multiple suicide risk factors. As they provide aesthetic and emotional engagement, cognitive stimulation, social interaction, and engagement with health concepts, the arts can

elicit social and behavioral responses that transcend typical barriers to providing support for those at risk. Arts-based interventions can mitigate stigma, social isolation and lack of suicide awareness by crossing boundaries of place and culture.


By enhancing self-efficacy, arts-based interventions may be useful in moderating factors that can motivate suicidal intentions, including defeat, entrapment, and suicidal ideation, and in mediating interpersonal and social risk factors, such as coping, skills enhancement, help-seeking, and improving access to mental health resources. Additionally, arts-based interventions can be uniquely effective in suicide prevention and survivorship programs, as they can be deployed in nonstigmatizing and culturally congruent community settings.


The review highlights the need for cross-sector collaboration between the public health and arts and culture sectors, further development of arts-based interventions, and the evaluation of their effectiveness in addressing suicide prevention and survivorship. Further studies should be designed with clear descriptions of the interventions and the underlying theoretical frames or logic models utilized. There is potential for these interventions to be strengthened through the use of clear theoretical frames and through an understanding of the specific components of the arts and the responses they can cultivate (Fancourt & Finn, 2019).

#### ORCID iDs

Jill Sonke  <https://orcid.org/0000-0001-9232-793X>

Kelley Sams  <https://orcid.org/0000-0001-7315-4818>

Jane Morgan-Daniel  <https://orcid.org/0000-0003-4047-8669>

Nicola Olsen  <https://orcid.org/0000-0002-8893-008X>

#### SUPPLEMENTAL MATERIAL

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