



## Themed Paper – Review

## Arts activity and well-being for visually impaired military veterans: a narrative discussion of current knowledge

C.L. Castle<sup>a, b, \*</sup>, H. Engward<sup>c</sup>, T. Kersey<sup>c</sup><sup>a</sup> Research and Innovation Department, Blind Veterans UK, 12-14 Harcourt Street, W1H 4HD, London, UK<sup>b</sup> BRAVO VICTOR, Research, 12-14 Harcourt Street, W1H 4HD, London, UK<sup>c</sup> Veterans and Families Institute for Military Social Research, Anglia Ruskin University, Chelmsford, Essex, UK

## ARTICLE INFO

## Article history:

Received 30 September 2020

Received in revised form

10 February 2021

Accepted 12 March 2021

## Keywords:

Art activities

Visual arts

Arts participation

Well-being

Mental health

Veterans

Visual impairment

## ABSTRACT

**Objectives:** The objective of this study was to offer an overview of literature relating to the topic of arts as activity within the context of military and veteran health and to consider the implications of current knowledge on future research with visually impaired veterans.

**Study design:** A search for literature addressing the topic of visual art activities with visually impaired veterans was undertaken. No research addressing this topic was identified. A review of literature on the related topics of mental health and well-being in military veterans, visual impairment and mental health and well-being, and art therapy for veteran populations was carried out to offer an overview of current knowledge.

**Results:** While there is growing evidence of the benefits of arts engagement among both general and military populations, the role of the visual arts in the everyday lives of broader veteran samples, and the impact of these activities on holistic well-being, remains underexplored. The current article highlights the need for art as activity to be differentiated from art as therapy and argues that the former might offer a tool to positively impact the holistic well-being of visually impaired veterans.

**Conclusions:** Future research relating to the use of visual art activities in the context of veteran health and well-being should endeavour to explore the potential impacts of engagement on holistic well-being. Research is needed to build on anecdotal evidence of the positive impact of arts engagement on visually impaired veterans by systematically exploring if, and how, holistic well-being in this population may be impacted by engagement with visual art activities.

© 2021 The Author(s). Published by Elsevier Ltd on behalf of The Royal Society for Public Health. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Introduction and rationale

The impetus of this narrative review resides in the ongoing programme of art activities run for members by Blind Veterans UK (BVUK).<sup>1</sup> Creative activities have long formed a core element of the care offered to BVUK members, delivered by a team of specialist rehabilitative staff with training in the arts. Run from workshops at BVUK's centres in Brighton and Llandudno, in North Wales (see Fig. 1, supplementary online material), art and craft activities are offered to any interested member, regardless of prior experience. Some may engage with these activities as part of their 'Introduction week' at centres, or recreationally during ongoing visits, and others

may partake in specific training weeks or theme weeks, which provide opportunities for extended creative engagement and skills development. Among those activities offered are photography, painting, mosaic, ceramics, woodwork and textiles. Since the onset of the COVID-19 pandemic and the launch of remote services, members have continued to enjoy creative activities remotely. This has included the offer of ongoing online/telephone 'Creative Hobby Circles' for social and creative discussions, and a programme of short-term creative activities such as a 'Painting for Beginners and Improvers' and a 'Christmas Craft' project. Through art and craft, BVUK aim to meet a variety of member-focused goals, and anecdotal feedback from members confirms their enjoyment, and the positive impact, of these activities. Similarly, the BVUK arts teams observe the progress made in the veterans towards individual goals, and the opportunities provided to socialise with others who share similar experiences, both relating to military life and sight loss. After this anecdotal feedback, a systematic exploration of how

\* Corresponding author. Research and Innovation Department, Blind Veterans UK, 12-14 Harcourt Street, W1H 4HD, London, UK.

E-mail address: [claire.castle@blindveterans.org.uk](mailto:claire.castle@blindveterans.org.uk) (C.L. Castle).



Fig. 1. Blind Veterans UK members engaged in group art activities.

art as activity, that is to say art activities utilised in a non-clinical setting, might impact on different aspects of member well-being.

To frame our ongoing discussion, it is important to first define the key terms ‘veteran’, ‘well-being’ and ‘art activity’. We use ‘veteran’ to encompass anyone who has served at least one day in the armed forces, either as full-time regular personnel or a reservist.<sup>2</sup> ‘Well-being’ refers to a holistic concept of health and happiness that is impacted by both physical abilities (e.g. one’s ability to attend and perform well at work) and subjective appraisal of one’s physical, cognitive and/or affective state.<sup>3,4</sup> As Vogt et al. (2018) propose in their work with US veterans, well-being is multidimensional, influenced by both life functioning and satisfaction. This holistic approach considers multiple factors as contributing to a person’s health and well-being, just as health and well-being may impact on objective life outcomes. This approach is especially important when considering the creative art engagement of veterans with a VI at BVUK, for whom functioning in some areas of life may be impacted by sight loss (e.g. independent mobility) but an active and fulfilling life is promoted through activity, training and rehabilitation. Finally, ‘art activity’ refers to person-centred activity rather than patient-centred treatment (art as therapy). Underlying this definition is the assumption that arts engagement within non-clinical populations is valuable and offers positive outcomes to the individual. There has been growing recognition of the potential role of non-clinical art activity in supporting health and well-being in general populations.<sup>5,6</sup> Engagement with art and craft activities such as textile-craft making and pottery, for example, has been found to provide individuals with opportunities to experience a sense of achievement and growth, to be creative and to feel uplifted, and to develop both physical and cognitive skills.<sup>7–10</sup> It should be noted that evidence relating to the impact of arts engagement is often viewed sceptically; claims of positive bias, the challenge of assessing outcomes and variation in the use of terms such as ‘art therapy’, ‘community arts’ and ‘art’ itself, raise questions within the field.<sup>11</sup> However, such scepticism might also prove beneficial, highlighting the importance of clear distinctions between therapist- and non-therapist facilitated practice, definitions of key concepts, and clear communication regarding the samples, methods and measures used. The need for a systematic and transparent approach to explorations of well-being in relation to arts activities is apparent. With this in mind, this article offers a cautious but optimistic discussion of the potential role of visual art engagement in the promotion of positive well-being outcomes for veterans who have a VI.

## Methods

To conduct this narrative discussion, a contextual overview of literature relating to the mental health and well-being needs of UK veterans and veterans with a VI was first collated. Next, information and evidence relating to the visual arts for visually impaired veterans was sought via online databases, focussing on the principal themes of the arts and well-being, mental health and visually impaired veterans. Key search terms included ‘military art therapy’, ‘(UK) veteran art therapy’, ‘arts activity veterans’, ‘arts (UK) veterans well-being’ and ‘visually impaired veterans art/s’. No research addressing the role or impact of visual arts in the lives of visually impaired UK veterans was identified. However, key literature relating to the use of the visual arts with military veterans in the United States, and with veterans with a diagnosed mental health condition, was reviewed. This offered opportunities to highlight limitations of current knowledge in the field of visual arts and veteran health, and the need to include visually impaired veterans in future research.

### *What do we know about the mental health and well-being needs of UK veterans?*

There are around 2.4 million armed forces veterans in the UK.<sup>12</sup> Recent wars (Iraq and Afghanistan) have seen a greater number of casualties surviving battlefield injuries, with younger injured veterans likely to live longer than in previous conflicts due to enhanced body armour and medical evacuation.<sup>13</sup> Many of these individuals experience severe injuries to areas not directly protected by body armour, and sensory loss is common among those who experience blast trauma.<sup>14–18</sup> In addition to physical injury, a decrease in mortality has seen a rise in the number of returning service personnel with mental health support needs, with those who experience combat found to be at greatest risk of negative mental health outcomes.<sup>19–21</sup> In general, research has indicated that veterans may be more likely to experience mental health difficulties than serving military personnel, including higher rates of self-harm and posttraumatic stress syndrome (PTSD).<sup>22,23</sup> Similarly, research has suggested that veterans may be at greater risk of mental health difficulties compared with the general population.<sup>24</sup> Prevalence of common mental health disorders (72%) and alcohol misuse (43%) among mental health treatment-seeking veterans is high.<sup>25</sup> The Royal British Legion (2014) found that 6% of veterans reported depression,<sup>26</sup> a rate higher than the 3.3% prevalence reported among adults in the general population,<sup>27</sup> although only 3% of veterans reported anxiety, compared with the 5.9% reported for UK adults.<sup>27</sup> Furthermore, Murphy et al.<sup>28</sup> found that alcohol misuse was no greater among UK veterans compared with members of the general public attending an NHS general hospital, and the Ministry of Defence<sup>29</sup> identified no differences between the self-reported health of veterans and non-veterans. Factors such as early service leaving, non-routine discharge, unemployment and physical health problems have, however, been associated with mental health difficulties and suicide in veterans.<sup>30–33</sup>

### *Veterans and VI*

Sensory impairment may be an additional factor impacting on the mental health of veterans. Research demonstrates associations between sensory loss (hearing, visual and dual) and the experience of mental health difficulties and emotional distress in non-veteran samples.<sup>34–37</sup> Both hearing loss and sight loss have been associated

with feelings of social isolation across the adult age range.<sup>38–41</sup> These findings are reflected in research with British veterans, for whom hearing loss and tinnitus have been associated with poor sleep, difficulties with communication and social functioning, and feelings of loneliness.<sup>26</sup>

A small pool of literature exists in relation to sight loss in veteran populations.<sup>42</sup> A qualitative study by Stevelink et al.<sup>43</sup> found that sight loss in younger veterans may lead to a loss of confidence and independence, loss of jobs, and relationship difficulties. However, it is notable that the literature surrounding sight loss in veteran samples has, thus far, been limited, despite nearly half of all ex-service personnel in the UK being over the age of 75 and as such, at increased risk of sight loss.<sup>29</sup> Sight loss in older adults has been associated with lower psychological well-being, poorer quality of life, functional impairment in daily life and higher rates of depression and anxiety.<sup>36,44–47</sup>

The above research indicates that an interaction between veteran status and factors such as sensory loss and age may impact mental health and well-being. However, military veteran status and/or the incidence of sight loss does not guarantee poor mental health and well-being outcomes. Factors such as social support and specific psychological programmes have been associated with positive well-being outcomes in those who experience sight loss.<sup>48–50</sup> Although, research relating to low-vision rehabilitation indicates that these services may have a limited impact on mental health and well-being, with a tendency towards addressing practical challenges rather than psychological need.<sup>50–52</sup> Literature indicates that programmes which go beyond visual-related functioning and adopt a more holistic view of health and well-being, may be most beneficial to those who experience sight loss.<sup>50</sup> Arts interventions may, therefore, offer a useful tool with which to address the health and well-being needs of the UK veteran population.

### *Visual arts in the lives of military veterans*

The non-therapeutic use of visual art activities with veterans has received limited attention in the UK. A US-based study by Kracker et al.<sup>53</sup> explored satisfaction with different types of activity for older US veterans at a care facility, finding that art activities were rated poorly, while activities such as watching a movie and listening to music were viewed more favourably. However, this quantitative study provided no insight into the lived experiences of veterans engaging with these activities, nor considered their potential impact on different aspects of well-being. By contrast, Hasio<sup>54</sup> found that arts and crafts provided veterans attending a veterans' hospital in the United States with valuable opportunities for self-expression, knowledge and skill-development and a chance to help newcomers to learn new techniques. It remains that the role of visual art activities and their impact on holistic well-being for UK veterans remains largely overlooked. This is despite increasing evidence of the impact that the arts have on the health and well-being of communities and individuals, and the growing use of art therapy for veterans with mental health trauma over the past 15 years.<sup>55,56</sup> A brief overview of literature relating to art therapy and its impacts on veterans within clinical contexts is provided below to frame our ongoing discussion of visual art activity in relation to veteran well-being.

### *Art as therapy for veterans with a clinically diagnosed mental health condition*

In 2012, the National Endowment for the Arts established a partnership with the Department of Defense to offer creative arts therapies to active-duty US service personnel, with the goal of

addressing the needs of injured service members with traumatic brain injury and PTSD. More recently, a 2019 special issue of *The Arts in Psychotherapy* offered an overview of current research being carried out in this field. The issue highlighted the psychological stigma that military groups often experience, the negative impact of this on the uptake of mental health treatments, and the role that art therapies may play in providing a non-invasive but intensive treatment programme to serving and ex-service personnel.<sup>57</sup> Creative arts interventions with these groups have included music therapy,<sup>58,59</sup> the performing arts,<sup>60,61</sup> art appreciation<sup>62</sup> and the visual arts.<sup>63,64</sup> The therapeutic success of interventions spanning these artistic mediums is widely recognised and there has been progress towards offering creative arts therapies via clinical video telehealth for service members and veterans in the United States.<sup>65–67</sup> Indeed, most research in this field has been carried out with US veterans and/or veterans with a diagnosis of PTSD.<sup>68–71</sup> Although, there has been increasing recognition of the role that the arts may play in the lives of UK veterans and their families impacted by trauma, to provide low-cost interventions which encourage community, develop understanding, and create high-quality artistic output.<sup>72</sup>

A range of artistic mediums and approaches have been used in visual art therapy with veterans; as Lobban<sup>73</sup> writes, 'Different contexts call for adaptive approaches with specific frameworks to meet particular needs. It is not a case of one size fits all' (p. 15). Ramirez et al.<sup>56</sup> list a plethora of activities which might be used, including drawing, photography, painting, quilting, crocheting and sculpting. Mask-making has also become popular in therapy contexts because it allows the individual to distance themselves from the psychological experience under exploration, giving opportunity for expression and externalisation, which may also help others to understand a patient's challenges and struggles.<sup>63,74</sup> Through a combination of movement, touch, vision, memory and imagery, the creative process helps veterans to address the non-verbal core of traumatic memories.<sup>75</sup> Reflecting this, multiple beneficial mechanisms have been identified in the art therapy literature relating to veteran mental health: self-awareness; the ability to safely express a range of emotions and traumatic experiences through art; improved interpersonal communication, self-regulation and cognition; an improved ability to manage stressors (by finding and applying new problem-solving approaches during art making and daily life); progression from non-verbal to verbal processing; and artistic pleasure.<sup>63,69</sup> The value of group environments in facilitating shared experience and conversations in the therapeutic art process has also been highlighted.<sup>69,76,77</sup>

In the UK, specialist NHS veteran mental health services have been available since 2011, although art therapy is not routinely offered.<sup>78,79</sup> UK-based charity *Combat Stress* deliver art therapy as one element of a six week residential Intensive PTSD Treatment Programme, which offers veterans access to a range of clinicians, and both individual and group therapeutic sessions.<sup>79</sup> A theme-based art therapy approach is used to enable veterans to make gradual progress towards the expression and processing of difficult material.<sup>73</sup> During sessions, art is made, followed by a reflection and discussion relating to the images created.<sup>77</sup> Figures reported by the All-Party Parliamentary Group on Arts suggest that 87% of veterans who completed the *Combat Stress* art therapy programme between 2012 and 2014 saw a reduction in PTSD symptoms and comorbid anxiety and depression, anger and alcohol use, which was maintained at their six-month follow-up.<sup>80</sup> It should be noted that no data regarding the number of participants in the programme was reported, and furthermore, it is difficult to establish the specific impact of art therapy when provided as just one facet of support by *Combat Stress*. This is indicative of the larger challenge of evidencing the efficacy of art therapy with adult clients due to

various limitations within the literature: a large number of studies lack comparison groups; some studies offer art therapy alongside other types of treatment methods, such as verbal therapy; and a range of indices are used to measure outcomes, making comparison difficult.<sup>81</sup>

#### *Limitations of current knowledge in the field of visual arts and veteran health*

The above discussion demonstrates that a range of visual arts have been used to meet therapeutic goals in both serving military personnel and veterans. Reflecting this, art therapy has been integrated as part of a standardised treatment protocol delivered to veterans to address the symptoms of PTSD, and other comorbid and interrelated mental health conditions. However, there are several limitations of the evidence base surrounding the therapeutic application of the arts within veteran populations. First, sample sizes have typically been small, often relying on case studies of programmes. This has provided opportunities for the gathering of valuable qualitative accounts, but a paucity of data relating to measurable mental health or well-being outcomes. For those that have used quantitative measures, there has been little consistency in the measure chosen. Instruments have varied from established therapeutic instruments such as the Core Outcome Measure (CORE-OM)<sup>64</sup> to a focus on one aspect of psychological well-being such as anxiety,<sup>82</sup> or changes in clinical symptomology of psychological conditions.<sup>58</sup> Second, most data addressing the use of art therapy with current and ex-service personnel relates to US samples; this raises questions regarding the role of visual arts in both the everyday lives, and therapeutic experiences, of British veterans. Finally, existing research has tended to focus primarily on the experiences of those who have clinically diagnosed mental health conditions such as PTSD. Thus, while the therapeutic application of the arts for military veterans has been considered, the role of the arts in providing leisure and social engagement, and its place in non-clinical community settings for UK veterans across the adult age-range, has largely been overlooked. Art as activity may offer benefits to the wider UK veteran population relating to holistic well-being needs, the promotion of good mental health, and the maintenance of active social and leisure lives, but this has not been explored. This is surprising given the cognitive, social, emotional and physical well-being benefits which have been associated with engagement with art activities in general populations.<sup>5,8,10</sup> Finally, there has been little consideration of the role of the visual arts in the lives of veterans who have a VI, and research has yet to systematically address the various aspects of well-being which may be impacted by art activities in this population. This is despite evidence from the fields of art therapy and fine art of visual art activities offering visually impaired people valuable opportunities for self-expression, a sense of joy and accomplishment, as well as opportunities for others to 'see' into the world of these individuals.<sup>83,84</sup> As Nelson<sup>85</sup> writes, responding to a visual stimulus with minimal sight can 'inspire remarkable associations that are visual, memorable, and useful' (p. 28), while the tactile aspects of art making may be of particular importance to those with limited functional vision.<sup>86</sup>

#### *Where next?*

Visual arts in therapy has been used with veteran populations and is well-documented as an important therapeutic tool for many members of this group. Similarly, research suggests that the visual arts may have a therapeutic role to play in the lives of individuals who have a VI, regardless of the barrier that a VI may appear to pose to visual art engagement. However, much of the research relating to

art therapy in veteran samples has been carried out with American veterans, and research exploring the use of the visual arts as a therapeutic intervention for civilians with a VI has been limited in scope, with a primary focus on the experiences of children with a VI. As such, British veterans in general, and visually impaired veterans in particular, are underrepresented in the literature surrounding art engagement for health and well-being. It is also apparent that while the use of art therapy is common in the literature surrounding veteran health, the non-therapeutic artistic experiences of British veterans, and the impact of engaging in art as activity on holistic well-being, has yet to be systematically explored. As such, current research fails to represent the wider veteran population which, as with the general population, spans those who have received a diagnosis of a mental health condition, those who are living with an undiagnosed condition, and those whose mental health is good and their satisfaction with life high. At present, there exists no knowledge regarding the functions and goals associated with engagement with art as activity for veterans with a VI, nor any tool with which potential well-being outcomes might be measured for this group. Exploration of the role of the visual arts in the lives of visually impaired UK veterans would bring an underrepresented population into the discourse surrounding arts in veteran health and well-being, and contribute to understandings of the life experiences of both the UK veteran population, and the wider visually impaired community.

## Conclusions

This article has discussed literature relating to the use of art activities with military and veteran samples in relation to health and well-being. Discussion has highlighted a distinct gap in the literature: the role of visual art activities in the lives of blind British military veterans. Anecdotal evidence from the art and craft activities currently run by BVUK, research from the broader field of arts and health, and evidence gathered with veterans in clinical contexts, suggest that these activities may offer a valuable tool for creativity, self-exploration and enjoyment for visually impaired veterans, and indeed, the wider visually impaired and UK veteran communities. The role of visual art activities in achieving positive well-being outcomes for blind British veterans may offer a rich source for future investigation.

## Author statements

### *Funding*

None declared.

### *Ethical approval*

None sought.

### *Competing interests*

The authors have no conflicts of interest to declare.

## References

1. BVUK. Art & craft. 2020. Available from: <https://www.blindveterans.org.uk/how-we-can-help/support-we-provide/art-craft/>.
2. Ministry of Defense. *Veterans: key facts*. 2017.
3. Vogt D, Taverna E, Nillni Y, Tyrell F. *Manual for the Well-Being Inventory (WBI): a multidimensional tool for assessing key components of well-being*. Boston, MA: National Center for PTSD; 2018.
4. Diener E, Suh EM, Lucas RE, Smith HL. Subjective well-being: three decades of progress. *Psychol Bull* 1999;**125**(2):276.



5. Davies C, Knuiman M, Rosenberg M. The art of being mentally healthy: a study to quantify the relationship between recreational arts engagement and mental well-being in the general population. *BMC Publ Health* 2015;16(1):15.
6. Løkken B. Are playing instruments, singing or creating theatre good for health? Associations with self-related health and all-cause mortality in the HUNT3 Study (2006–08). *Eur J Publ Health* 2017;27(3):208–9.
7. Burt EL, Atkinson J. The relationship between quilting and wellbeing. *J Publ Health* 2012;34(1):54–9.
8. Pöllänen S. Elements of crafts that enhance well-being: textile craft makers' descriptions of their leisure activity. *J Leisure Res* 2015;47(1):58–78.
9. Lamont AR, N A. Knit one, play one: comparing the effects of amateur knitting and amateur music participation on happiness and wellbeing. *Appl Res Qual Life* 2019;1–20.
10. Genoe MR, Liechty T. Meanings of participation in a leisure arts pottery programme. *World Leis J* 2017;59(2):91–104.
11. Jaatinen P-M. *Rethinking visual art practice in relation to well-being: a conceptual analysis*. Jyväskylä University Printing House: Jyväskylä University; 2015.
12. Office for National Statistics. *Annual population survey*. 2017.
13. Fossey M, Hacker Hughes J. *Traumatic limb loss and the needs of the family*. London: Blesma; 2014.
14. Bulson R, Jun W. Visual symptomatology and referral patterns for Operation Iraqi Freedom and Operation Enduring Freedom veterans with traumatic brain injury. *J Rehabil Res Dev* 2012;49(7):1075.
15. Pogoda TK, Hendricks AM, Iverson KM, Stolzmann KL, Kregel MH, Baker E, et al. Multisensory impairment reported by veterans with and without mild traumatic brain injury history. *J Rehabil Res Dev* 2012;49(7).
16. Lew HL, Pogoda TK, Baker E, Stolzmann KL, Meterko M, Cifu DX, et al. Prevalence of dual sensory impairment and its association with traumatic brain injury and blast exposure in OEF/OIF veterans. *J Head Trauma Rehabil* 2011;26(6):489–96.
17. Oleksiak M, Smith BM, Andre JRS, Caughlan CM, Steiner M. Audiological issues and hearing loss among Veterans with mild traumatic brain injury. *J Rehabil Res Dev* 2012;49(7).
18. Swan A, Nelson J, Swiger B, Jaramillo C, Eapen B, Packer M, et al. Prevalence of hearing loss and tinnitus in Iraq and Afghanistan veterans: a chronic effects of neurotrauma consortium study. *Hear Res* 2017;349:4–12.
19. Godfrey KM, Mostoufi S, Rodgers C, Backhaus A, Floto E, Pittman J, et al. Associations of military sexual trauma, combat exposure, and number of deployments with physical and mental health indicators in Iraq and Afghanistan veterans. *Psychol Serv* 2015;12(4):366.
20. Stevelink S, Jones M, Hull L, Pernet D, MacCrimmon S, Goodwin L, et al. Mental health outcomes at the end of the British involvement in the Iraq and Afghanistan conflicts: a cohort study. *Br J Psychiatry* 2018;213(6):690–7.
21. Sundin J, Herrell RK, Hoge CW, Fear NT, Adler AB, Greenberg N, et al. Mental health outcomes in US and UK military personnel returning from Iraq. *Br J Psychiatry* 2014;204(3):200–7.
22. Jones N, Sharp ML, Phillips A, Stevelink SA. Suicidal ideation, suicidal attempts, and self-harm in the UK armed forces. *Suicide Life-Threatening Behav* 2019;49(6):1762–79.
23. Williamson AK, Riendeau RP, Stolzmann K, Silverman AF, Kim B, Miller CJ, et al. An exploratory analysis of self-reported protective factors against self-harm in an enrolled veteran general mental health population. *Mil Med* 2019;184(11–12):e738–44.
24. Bergman BP, Mackay DF, Smith DJ, Pell JP. Non-fatal self-harm in Scottish military veterans: a retrospective cohort study of 57,000 veterans and 173,000 matched non-veterans. *Soc Psychiatr Psychiatr Epidemiol* 2019;54(1):81–7.
25. Murphy D, Ashwick R, Palmer E, Busuttill W. Describing the profile of a population of UK veterans seeking support for mental health difficulties. *J Ment Health* 2019;28(6):654–61.
26. Royal British Legion. *A UK household. Survey of the Ex-service Community*; 2014. 2014.
27. NatCen. *Adult Psychiatric Morbidity Survey. Survey of mental health and well-being*. England; 2014. 2016.
28. Murphy D, Palmer E, Westwood G, Busuttill W, Greenberg N. Do alcohol misuse, service utilisation, and demographic characteristics differ between UK veterans and members of the general public attending an NHS general hospital? *J Clin Med* 2016;5(11):95.
29. Ministry of Defence. *Annual population survey: UK armed forces veterans residing in Great Britain*. 2017. 2019.
30. Brignone E, Fargo JD, Blais RK, Carter ME, Samore MH, Gundlapalli AV. Non-routine discharge from military service: mental illness, substance use disorders, and suicidality. *Am J Prev Med* 2017;52(5):557–65.
31. Barr N, Kintzle S, Alday E, Castro C. How does discharge status impact suicide risk in military veterans? *Soc Work Ment Health* 2019;17(1):48–58.
32. Smith NB, Mota N, Tsai J, Monteith L, Harpaz-Rotem I, Southwick SM, et al. Nature and determinants of suicidal ideation among US veterans: results from the national health and resilience in veterans study. *J Affect Disord* 2016;197:66–73.
33. Wood DS, Wood BM, Watson A, Sheffield D, Hauter H. Veteran suicide risk factors: a national sample of nonveteran and veteran men who died by suicide. *Health Soc Work* 2020;45(1):23–30.
34. Chen J, Liang J, Ou J, Cai W. Mental health in adults with sudden sensorineural hearing loss: an assessment of depressive symptoms and its correlates. *J Psychosom Res* 2013;75(1):72–4.
35. Feller J, Holzinger D, Pollard R. Mental health of deaf people. *Lancet* 2012;379(9820):1037–44.
36. Kempen GI, Ballemans J, Ranchor AV, van Rens GH, Zijlstra GR. The impact of low vision on activities of daily living, symptoms of depression, feelings of anxiety and social support in community-living older adults seeking vision rehabilitation services. *Qual Life Res* 2012;21(8):1405–11.
37. Nyman SR, Gosney MA, Victor CR. Emotional well-being in people with sight loss: lessons from the grey literature. *Br J Vis Impair* 2010;28(3):175–203.
38. Ciorba A, Bianchini C, Pelucchi S, Pastore A. The impact of hearing loss on the quality of life of elderly adults. *Clin Interv Aging* 2012;7:159.
39. Heffernan E, Coulson NS, Henshaw H, Barry JG, Ferguson MA. Understanding the psychosocial experiences of adults with mild-moderate hearing loss: an application of Leventhal's self-regulatory model. *Int J Audiol* 2016;55(sup3):S3–12.
40. Brunes A, Hansen MB, Heir T. Loneliness among adults with visual impairment: prevalence, associated factors, and relationship to life satisfaction. *Health Qual Life Outcome* 2019;17(1):24.
41. Grow SJL, Towers A, Yeung P, Alpess F, Stephens C. The relationship between loneliness and perceived quality of life among older persons with visual impairments. *J Vis Impair Blind (JVIB)* 2015;109(6):487–99.
42. Stevelink SA, Fear N. Psychosocial impact of visual impairment and coping strategies in female ex-service personnel. *BMJ Milit Health* 2016;162(2):129–33.
43. Stevelink SA, Malcolm EM, Fear NT. Visual impairment, coping strategies and impact on daily life: a qualitative study among working-age UK ex-service personnel. *BMC Publ Health* 2015;15(1):1–7.
44. Han J, Lee H, Jung J, Park E-C. Effects of self-reported hearing or vision impairment on depressive symptoms: a population-based longitudinal study. *Epidemiol Psychiatr Sci* 2019;28(3):343.
45. Pinquart M, Pfeiffer JP. Psychological well-being in visually impaired and unimpaired individuals: a meta-analysis. *Br J Vis Impair* 2011;29(1):27–45.
46. van der Aa HP, Comijs HC, Penninx BW, van Rens GH, van Nispen RM. Major depressive and anxiety disorders in visually impaired older adults. *Investig Ophthalmol Vis Sci* 2015;56(2):849–54.
47. Zheng Y, Wu X, Lin X, Lin H. The prevalence of depression and depressive symptoms among eye disease patients: a systematic review and meta-analysis. *Sci Rep* 2017;7:46453.
48. Guerette AR, Smedema SM. The relationship of perceived social support with well-being in adults with visual impairments. *J Vis Impair Blind (JVIB)* 2011;105(7):425–39.
49. Nyman SR, Dibb B, Victor CR, Gosney MA. Emotional well-being and adjustment to vision loss in later life: a meta-synthesis of qualitative studies. *Disabil Rehabil* 2012;34(12):971–81.
50. Rees G, Ponczek E, Hassell J, Keeffe JE, Lamoureux EL. Psychological outcomes following interventions for people with low vision: a systematic review. *Expet Rev Ophthalmol* 2010;5(3):385–403.
51. Siira HJ, Falck AA, Kyngäs HA. Low vision rehabilitation over the course of a year: the experiences and feelings of elderly people with visual impairments. *J Nurs Educ Pract* 2019;9(8).
52. Binns AM, Bunce C, Dickinson C, Harper R, Tudor-Edwards R, Woodhouse M, et al. How effective is low vision service provision? A systematic review. *Surv Ophthalmol* 2012;57(1):34–65.
53. Kracker J, Kearns K, Kier FJ, Christensen KA. Activity preferences and satisfaction among older adults in a veterans administration long-term care facility. *Clin Gerontol* 2011;34(2):103–16.
54. Hasio C. Veterans and an arts and crafts programme: a community of understanding and hope. *Int J Educ Through Art* 2010;6(1):75–84.
55. Clift S, Camic PM. *Oxford textbook of creative arts, health, and wellbeing: international perspectives on practice, policy, and research*. USA: Oxford University Press; 2016.
56. Ramirez J, Erlyana E, Guillaum M. A review of art therapy among military service members and veterans with post-traumatic stress disorder. *J Milit Veter Health* 2016;24(2):40.
57. Edwards J. Creative arts therapies provide effective support in the aftermath of trauma. *Arts Psychother* 2019;62:1.
58. Story KM, Beck BD. Guided Imagery and Music with female military veterans: an intervention development study. *Arts Psychother* 2017;55:93–102.
59. Wellman R, Pinkerton J. The development of a music therapy protocol: a Music 4 Life® Case Report of a veteran with PTSD. *Music Med* 2015;7(3):24–39.
60. Wasmuth S, Pritchard K. Theater-based community engagement project for veterans recovering from substance use disorders. *Am J Occup Ther* 2016;70(4):7004250020p1-p.11.
61. Wilbur S, Meyer HB, Baker MR, Smiarowski K, Suarez CA, Ames D, et al. Dance for Veterans: a complementary health program for veterans with serious mental illness. *Arts Health* 2015;7(2):96–108.
62. Ketch RA, Rubin RT, Baker MR, Sones AC, Ames D. Art appreciation for veterans with severe mental illness in a VA Psychosocial Rehabilitation and Recovery Center. *Arts Health* 2015;7(2):172–81.
63. Jones JP, Drass JM, Kaimal G. Art therapy for military service members with post-traumatic stress and traumatic brain injury: three case reports highlighting trajectories of treatment and recovery. *Arts Psychother* 2019;63:18–30.
64. Mims R. Military veteran use of visual journaling during recovery. *J Poetry Ther* 2015;28(2):99–111.

65. Levy CE, Spooner H, Lee JB, Sonke J, Myers K, Snow E. Telehealth-based creative arts therapy: transforming mental health and rehabilitation care for rural veterans. *Arts Psychother* 2018;**57**:20–6.
66. Lightstone AJ, Bailey SK, Voros P. Collaborative music therapy via remote video technology to reduce a veteran's symptoms of severe, chronic PTSD. *Arts Health* 2015;**7**(2):123–36.
67. Spooner H, Lee JB, Langston DG, Sonke J, Myers KJ, Levy CE. Using distance technology to deliver the creative arts therapies to veterans: case studies in art, dance/movement and music therapy. *Arts Psychother* 2019;**62**:12–8.
68. Campbell M, Decker KP, Kruk K, Deaver SP. Art therapy and cognitive processing therapy for combat-related PTSD: a randomized controlled trial. *Art Therapy* 2016;**33**(4):169–77.
69. Smith A. A literature review of the therapeutic mechanisms of art therapy for veterans with post-traumatic stress disorder. *Int J Art Ther* 2016;**21**(2):66–74.
70. Lobban J, Murphy D. Understanding the role art therapy can take in treating veterans with chronic post-traumatic stress disorder. *Arts Psychother* 2019;**62**: 37–44.
71. Strouse S, Hass-Cohen N, Bokoch R. Benefits of an open art studio to military suicide survivors. *Arts Psychother* 2021;**72**:101722.
72. O'Connor A. *Transforming trauma: moral injury and arts with military veterans, families and communities*. London: Winston Churchill Memorial Trust; 2018.
73. Lobban J. Factors that influence engagement in an inpatient art therapy group for veterans with post traumatic stress disorder. *Int J Art Ther* 2016;**21**(1): 15–22.
74. Walker MS, Kaimal G, Gonzaga AM, Myers-Coffman KA, DeGraba TJ. Active-duty military service members' visual representations of PTSD and TBI in masks. *Int J Qual Stud Health Well-Being* 2017;**12**(1):1267317.
75. Lobban J. The invisible wound: veterans' art therapy. *Int J Art Ther* 2014;**19**(1): 3–18.
76. Kopytin A, Lebedev A. Humor, self-attitude, emotions, and cognitions in group art therapy with war veterans. *Art Therapy* 2013;**30**(1):20–9.
77. Lobban J. *The development and practice of art therapy with military veterans. Art therapy with military veterans: trauma and the Image*. Abingdon: Routledge; 2017. p. 9–25.
78. Lobban J. *Art therapy for military veterans with PTSD: a transatlantic study*. Winston Churchill Memorial Trust; 2016.
79. Preston R. Assessing the potential use of art therapy in the United Kingdom Ministry of defence department of community mental health. *Int J Art Ther* 2019;**24**(4):151–7.
80. All-Party Parliamentary Group on Arts HaW. *PTSD intensive treatment programme: an adaptive model of art therapy*. 2017.
81. Regev D, Cohen-Yatziv L. Effectiveness of art therapy with adult clients in 2018—what progress has been made? *Front Psychol* 2018;**9**:1531.
82. Steinberg-Oren SL, Krasnova M, Krasnov IS, Baker MR, Ames D, Dance Let's. A holistic approach to treating veterans with posttraumatic stress disorder. *Fed Pract* 2016;**33**(7):44.
83. DiGiulio D. *The use of art therapy with the blind to impact a sense of capability*. Long Island University [undergraduate thesis; 2017.
84. Szubielska M. People with sight impairment in the world of visual arts: does it make any sense? *Disabil Soc* 2018;**33**(9):1533–8.
85. Nelson S. A professional artist and curator who is blind. In: Axel ES, Levent NS, editors. *Art beyond sight: a resource guide to art, creativity, and visual impairment*. New York: American Foundation for the Blind; 2003. p. 28–31.
86. Bingley A. Touching space in hurt and healing: exploring experiences of illness and recovery through tactile art. In: Paterson M, Dodge M, editors. *Touching space, placing touch*. Oxford: Ashgate; 2012. p. 71–88.