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**Arts on prescription for community dwelling older people
with a range of health and wellness needs**

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Keywords:	Ageing, Health, Mental Health, Community Dwelling, Community Services for the Elderly, Art

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Manuscripts

Peer Review

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3 1 **Arts on prescription for community dwelling older people with a range of health and wellness**
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5 2 **needs**

6
7 3 **Abstract**

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10 5 Published evidence for the role of participatory art in supporting health and wellbeing is growing.
11 6 The Arts on Prescription model is one vehicle by which participatory art can be delivered. Much of
12 7 the focus of Arts on Prescription has been on the provision of creative activities for people with
13 8 mental health needs. This Arts on Prescription program however, targeted community dwelling
14 9 older people with a wide range of health and wellness needs.
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18 10
19 11 Older people were referred to the program by their health care practitioner. Professional artists led
20 12 courses in visual arts, photography, dance and movement, drama, singing or music. Classes were
21 13 held weekly for a period of eight to ten weeks, with six to eight participants per class, and
22 14 culminated with a showing of work, or a performance. Program evaluation involved pre- and post-
23 15 course questionnaires, and focus groups and individual interviews. Evaluation data on 127
24 16 participants aged 65 years and older were available for analysis.
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28 17
29 18 We found that Arts on Prescription had a positive impact on participants. Quantitative findings
30 19 revealed a statistically significant improvement in the Warwick-Edinburgh Mental Wellbeing Scale
31 20 (WEMWBS), as well as a statistically significant increase in the level of self-reported creativity and
32 21 frequency of creative activities. Qualitative findings indicated that the program provided challenging
33 22 artistic activities which created a sense of purpose and direction, enabled personal growth and
34 23 achievement, and empowered participants, in a setting which fostered the development of
35 24 meaningful relationships with others.
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39 25
40 26 This evaluation adds to the evidence base in support of Arts on Prescription by expanding the
41 27 application of the model to older people with a diverse range of health and wellness needs.
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45 28
46 29 **Key words:**

47 30 Ageing; Health; Mental health; Community dwelling; Community services for elderly, Art;
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3 34 **What is known about the topic:**
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- 5 35 • Evidence for the role of participatory art to support health and wellbeing is growing.
6
7 36 • *Arts on Prescription* (first delivered in the UK) is one model for delivering participatory art.
8
9 37 • There is limited peer-reviewed research on the benefits of *Arts on Prescription* for older
10 38 people with diverse health and wellness needs.
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17 40 **What this paper adds:**
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- 19 41 • *Arts on Prescription* has a positive impact on the mental wellbeing of older people with
20 42 diverse health and wellness needs.
21 43 • Purpose and direction, personal growth and achievement, empowerment and meaningful
22 44 relationships with others were reported by participants.
23 45 • The *Arts on Prescription* model can assist in an holistic approach to meeting the health and
24 46 wellness needs of older people.
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3 48 **Arts on prescription for community dwelling older people with a range of health and wellness**
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5 49 **needs**
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9 51 **1. Introduction**
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11 52 There is a growing body of evidence supporting the role of the arts in the enhancement of health
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13 53 and wellbeing (Clift 2012), (Clift and Camic 2016), (Cann 2017), (Boyce, Bungay et al. 2018). Arts on
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15 54 Prescription (AoP), first delivered in the United Kingdom in 1995 (Rigby 2004), is one vehicle by
16
17 55 which participatory art has been delivered to people with health and wellness needs. In such
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19 56 programs, health and social care practitioners refer people to a range of creative activities
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21 57 undertaken in a group setting within the community, facilitated by professional artists and as an
22
23 58 adjunct to conventional therapies, with the aim of aiding recovery and promoting health and
24
25 59 wellbeing (Bungay and Clift 2010). The 'prescription' is one way in which the activity is validated.
26
27 60 Much of the focus of AoP has been on the provision of creative activities for people with mental
28
29 61 health needs, and the evidence suggests positive benefits which include improvements in self-
30
31 62 esteem, confidence and mood, as well as greater social contact (Bungay and Clift 2010) (Jensen,
32
33 63 Stickley et al. 2017). Further, evidence finds that it is valued by referring health professionals
34
35 64 (Stickley and Hui 2012), and may be cost-effective (McDaid and Park 2013). More recently,
36
37 65 significant improvements in well-being following an arts-on-referral intervention have been reported
38
39 66 for primary care patients (mean age of 53.2 years) with self-reported multi-morbidities (e.g.
40
41 67 metabolic, neoplastic, cardiovascular) (Crone, Sumner et al. 2018). Scandinavian research suggests
42
43 68 that AoP may also assist participants' ability to cope with long-standing pain (Rydstad, Löfgren et al.
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45 69 no date) cited in (Jensen, Stickley et al. 2017).
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51 71 AoP reflects the international shift away from the biomedical model of health to a more holistic
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53 72 approach which sees health as complete physical, mental and social wellbeing (Rigby 2004). In
54
55 73 keeping with this holistic perspective, AoP programs are often delivered by the community,
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3 74 voluntary or social enterprise sector (Jensen, Stickley et al. 2017), utilising artists (rather than
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5 75 therapists) to work with small, community-based groups of participants (Bungay and Clift 2010).
6
7 76 Therefore, active participation in the creative activity operates not only at the individual level, but
8
9 77 also at the group level through social engagement and inclusion (Bungay and Clift 2010). Further, de-
10
11 78 medicalised settings make AoP programs potentially less stigmatising for participants (Jensen,
12
13 79 Stickley et al. 2017). Since creative activity is inherently flexible, it can be adapted to meet the skills
14
15 80 and limitations of participants, and thus there are likely to be few restrictions on the type of
16
17 81 participant who may attend. However, there continues to be limited published peer-reviewed
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19 82 evidence of the benefits of AoP outside its role for participants with mental distress; much of the
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21 83 research is qualitative with small sample sizes; and studies involving older populations are scarce.
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26 85 This paper reports the findings from an AoP program in Sydney, Australia, which targeted
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28 86 community-dwelling older people with a wide range of health and wellness needs. The program was
29
30 87 developed, implemented and evaluated through a unique collaborative partnership comprising a
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32 88 large aged care provider (expertise in service delivery), and a University Faculty of Medicine
33
34 89 (expertise in evaluation) and Faculty of Art and Design (expertise in arts education and practice). The
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36 90 program was funded for an 18-month period by the Australian Government as a new and innovative
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38 91 service delivery project to address healthy and active ageing, an identified aged care priority area.

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40 92 This paper addresses some of the limitations of previous research and includes: a large sample size,
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42 93 evaluation using a before and after design with both quantitative and qualitative methodologies,
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44 94 and a broad target group comprising older people with a diverse range of needs.
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48 49 96 **2. Methods**

50 51 97 *2.1 Program Design*

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53 98 The AoP Program was publicised within the two local communities through visits by program staff to
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55 99 health practitioners, local councils, libraries, community groups, and local hospitals. Media coverage
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3 100 through local papers was also achieved. Referrals to the program were accepted from a wide range
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5 101 of health practitioners.

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9 103 Eligible participants were aged 65 years or older, living at home within the catchment areas, able to
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11 104 participate in a small group program, and independent or requiring only minimal assistance with
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13 105 self-care.

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16
17 107 Courses were available in the visual arts, photography, dance and movement, drama, singing and
18
19 108 music. Classes were held weekly for a period of eight to ten weeks, with six to eight participants per
20
21 109 class. A community care worker or volunteer was available during each class to assist participants
22
23 110 and artists; and to help with the preparation of morning or afternoon tea. Each course concluded
24
25 111 with a showing of work, or a performance. Participants could take up to three consecutive courses; a
26
27 112 fourth consecutive course was only possible under special circumstances. The ability to take
28
29 113 consecutive courses was limited by the program duration, and participants who were referred
30
31 114 towards the end of the program, were usually limited to a single course only. At the conclusion of
32
33 115 the AoP program a professionally curated exhibition with performances was held in the local
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35 116 community, and on the University campus.

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38 118 *2.2 Artist recruitment and training*

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41 119 Professional artists were recruited through advertisements. Eleven were selected at interview and
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43 120 subsequently attended two days of training which highlighted the role of art in health, the health
44
45 121 and wellness needs of older people, and ways of working with older people. While some art forms,
46
47 122 such as movement and dance, naturally required physical activity, all artists were instructed to
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49 123 encourage physical activity where possible, such as encouraging participants to get their own
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51 124 morning or afternoon tea from the tea room, to stand at an easel, or to walk outside to find objects.

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53 125 The training also allocated time for artists to work together to plan their first class activities.
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3 126 *2.3 Questionnaires and data collection*

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5 127 The referring health practitioner provided basic demographic details, and relevant health
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7 128 information from a tick box list, with additional written details if needed. Referrers also identified
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9 129 their health and wellness aims for each referral, selected from listed tick box responses (for
10
11 130 example, increased physical activity levels, improved mental health, cognitive stimulation, etc.). The
12
13 131 referred person provided an emergency contact, their preferred availability, any special
14
15 132 requirements (e.g. mobility needs), and written consent for their health and personal details to be
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17 133 shared with the AoP team to enable appropriate course placement.
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22 135 On enrolment, participants received a participant information statement explaining the planned
23
24 136 evaluation of the AoP program; those willing to participate in the evaluation provided written
25
26 137 informed consent.
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30 139 *2.3.1 Pre-course questionnaire*

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32 140 At the commencement of each course, participants completed a pre-course questionnaire which
33
34 141 contained open ended questions, statements to respond to using Likert scales, and validated
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36 142 measures of mental wellbeing and frailty.
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40 144 Open ended questions sought the ways in which participants hoped to benefit from the AoP
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42 145 program. Likert scales measured participants' perceived levels of level of creativity (ranging from 0 (I
43
44 146 don't feel that I am at all creative) to 10 (I am an extremely creative person)) and their frequency of
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46 147 engaging in creative activities (ranging from 0 (I stay away from creative activities) to 10 (I am always
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48 148 doing creative activities)).
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53 150 Mental wellbeing was measured using the Warwick-Edinburgh Mental Health and Well-Being Scale
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55 151 (WEMWBS), developed and validated by Tennant, Hiller et al. (2007). This self-administered scale
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3 152 containing 14 positively worded items (answered on a 1 to 5 Likert scale) relating to different
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5 153 aspects of positive mental health. Scores range from 14 to 70, with a higher level indicating a higher
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7 154 level of wellbeing. The WEMWBS has been shown to be sensitive to change at both the individual
8
9 155 and group level (National Health Scotland 2015).

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13 157 **To determine decline in physiological reserve and function**, frailty was measured based on the
14
15 158 definition by Fried and colleagues (Fried, Tangen et al. 2001). Five recognised criteria which include
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17 159 unintentional weight loss, exhaustion, low physical activity level, slow walking speed and weakness
18
19 160 were used (Fairhall, Aggar et al. 2008). Participants meeting three, four or five criteria, as defined in
20
21 161 Table 1, were deemed as frail; participants meeting one or two criteria were considered as possibly
22
23 162 pre-frail (Fried, Tangen et al. 2001). Unintentional weight loss, exhaustion and low physical activity
24
25 163 levels were based on self-reported responses by participants on the pre-course questionnaire.
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27 164 Program staff took two measures of the time to walk four metres at usual pace (allowing a lead up of
28
29 165 two metres) and two measures of grip strength (in kilograms) in the right and left hands, using a
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31 166 dynamometer; these measures were added to the pre-course questionnaire. The first pre-course
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33 167 questionnaire completed by a participant was considered to provide the baseline data.
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38 169 Table 1: Frailty measures used. Adapted from Fairhall, Aggar et al. (2008).

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[Insert Table here]

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46 47 173 *2.3.2 Post-course questionnaire*

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49 174 At the conclusion of each course, participants completed a questionnaire similar to the pre-course
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51 175 questionnaire. Open ended responses asked participants to report the ways in which they had
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53 176 benefitted from the AoP program, and which aspects of the course they enjoyed the most and the
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55 177 least. Measures of creativity (level and frequency), the WEMWBS, and measures of the frailty criteria

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3 178 were repeated (with the exception of unintended weight loss since this question related to a 12
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5 179 month period); post-program data for these variables were drawn from the last post-course
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7 180 questionnaire completed by a participant.
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10 11 182 *2.3.3 Focus groups and interviews*

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13 183 Eight focus groups of participants (19 males, 29 females), and four individual interviews (two males
14
15 184 and two females) were undertaken over the program period. Each was guided by the same pre-
16
17 185 determined list of questions. Interviews were recorded and transcribed for analysis.
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20 21 22 187 *2.4 Data analysis*

23 24 188 *2.4.1. Quantitative data*

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26 189 Quantitative data analysis was undertaken using SPSS Version 24. Baseline and post-program
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28 190 comparisons were made using the paired t-test for paired numerical data and the McNemar test for
29
30 191 paired categorical data; an independent samples t-test was used to compare mean differences in
31
32 192 WEMWBS scores for participants who attended more (three or four) compared to less (one or two)
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34 193 courses. Assumptions of approximate normality were confirmed by graphical assessment (Q-Q plots)
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36 194 prior to the use of parametric tests.
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41 196 The management of missing data on the WEMWBS has not been tested and reported in the
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43 197 literature, but the estimation of more than three missing items is considered unlikely to be robust
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45 198 (National Health Scotland 2015). Where a score on one of the 14 items was missing on the
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47 199 WEMWBS, the missing value was imputed by giving it the average score derived from the 13
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49 200 completed items. Where two or more items were missing from the WEMWBS, the total score was
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51 201 considered missing and excluded from analysis, or, in the case of a pre-course WEMWBS, replaced
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53 202 with the subsequent pre-course WEMWBS, if available. Using the second or third pre-course
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3 203 questionnaire as the baseline score might be expected to minimise any difference between pre- and
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5 204 post-program scores, thus we considered our approaches to missing data to be conservative.

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8 9 206 *2.4.2 Qualitative data*

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11 207 After reading and re-reading the transcripts, focus group and interview data were coded inductively
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13 208 by the first author (RP), using NVIVO 11 (NVivo qualitative data analysis software, 2010). Initial codes
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15 209 were grouped into a number of themes, and extracts within the data which most typically illustrated
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17 210 each theme were selected and reviewed, with themes being refined as necessary (Braun and Clarke
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19 211 2006). Textual responses to the open ended questions on the pre- and post-course questionnaires
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21 212 were also read and coded thematically, and where data overlapped, responses were found to
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23 213 support existing themes. Thematic analysis was confirmed by a second author (DH) who reviewed
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25 214 the survey responses and transcripts.

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29 30 216 *2.5 Ethics*

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32 217 The AoP evaluation was approved by the UNSW Human Research Ethics Committee.

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35 36 219 **3. Findings**

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38 220 **Between August 2015 – April 2017,** 190 referrals were received, however, 31 of those referred did
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40 221 not commence (changed their mind, could not find a conveniently timed class, moved away). Also
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42 222 excluded from analysis are: 19 participants referred for special pilot courses (courses for non-English
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44 223 speakers, or residents living with dementia in an aged care home); 12 participants aged under 65
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46 224 years of age who were accepted onto the program at the special request of their health care
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48 225 practitioner; and one participant who could not provide informed consent. Thus data on 127
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50 226 participants, aged 65 years and over are available for analysis.

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3 229 *3.1 Referral source and courses attended*

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5 230 The majority of participant referrals (n=126, missing data=1) came from medical practitioners
6
7 231 (59.5%), followed by pharmacists (16.8%), allied health practitioners (15.1%), pastoral carers (7.1%)
8
9 232 and nurses (1.6%).

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13 234 Most participants attended between one and three courses (see Table 2). Enrolment in a fourth
14
15 235 course occurred because a participant had become unwell and was unable to complete a previous
16
17 236 course (n=7), or because a participant had expressed an interest in doing an additional course, and a
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19 237 place was available (n=6).

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23
24 239 Table 2: Number of art courses attended

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26 240 [Insert Table 2 here]

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31 243 *3.2 Demographics, health information and health aims for the program*

32
33 244 Most participants were female (n=94, 74.0%); the average age on enrolment was 78.1 years (S.D.
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35 245 7.99 years), with a range from 65.0 years to 96.2 years.

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38
39 247 Table 3 shows relevant health information provided by referring health care practitioners. Declining
40
41 248 physical function, social isolation and declining sense of overall wellbeing were the most commonly
42
43 249 identified issues. Almost two-thirds (62.4%) of participants had two or more issues identified.

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45 250 Additional health information about participants considered relevant by referrers included the
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47 251 following conditions: lung disease (e.g. COPD, asthma, bronchiectasis), cardiac disease, diabetes,
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49 252 venous insufficiency, osteoporosis, stroke, Parkinson's disease, joint replacements, back pain and
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51 253 mobility issues. Special requirements impacting program participation identified by participants
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53 254 themselves focussed on mobility concerns (poor balance, fear of falling, limitations in walking
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3 255 distance, needing assistance to stand, and being unable to stand for long periods of time), poor
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5 256 vision and hearing loss.

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7 257
8 258 The most common health and wellness aims for the participants identified by their referring health
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10 259 care practitioners included increased social connections, the creation of new interests, and
11
12 260 improved mental health. Referrers identified multiple aims for most (91.2%) participants. See Table
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14 261 3.

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18
19 263 Table 3. Participant health information and health and wellness aims as indicated by referring health
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21 264 care practitioner, n= 127.

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23 265 [Insert Table 3 here]

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26 267 3.2 *Physical measures of frailty*

27
28 268 At baseline, unintentional weight loss was reported by 19 (17.3%, n=110) participants; self-reported
29
30 269 exhaustion by 29 (25.2%, n=115) participants, and low physical activity by 14 (12.2%, n=115)
31
32 270 participants. Slow walking speed was identified in 22 (21.4%, n=103) participants and weakness in 56
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34 271 (49.6%, n=113) participants.

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38 273 Nine (7.5%) participants scored three or more on the recognised criteria indicating frailty (n=120); 30
39
40 274 (25.0%) participants scored two and 48 (40.0%) scored one on the criteria, suggesting possible pre-
41
42 275 frailty. The number of participants with frailty and pre-frailty may be an underestimate, as data on
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44 276 all five criteria were available on only 91 (71.5%) participants.

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48 278 There were no statistically significant differences between baseline and post-program assessments
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50 279 in the proportion of participants scoring on the individual frailty criteria of self-reported exhaustion
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3 280 (determined from two items), low physical activity levels (determined from three items), slow
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5 281 walking speed or weakness.

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9 283 *3.4 Creativity measures*

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11 284 On a Likert scale ranging from 0 to 10, the average baseline level of creativity was 5.1 (S.D = 2.5) and
12
13 285 of frequency of creative activities was 4.4 (S.D. 2.7) (n=116). Post-program the mean levels had
14
15 286 increased to 6.9 (S.D. 2.1) and 6.2 (S.D 2.4) respectively (n=110). Paired samples t-tests found a
16
17 287 mean difference of 1.56 (95%CI 1.14-1.98) for level of creativity (t=7.35, df=99, p <0.001), and 1.60
18
19 288 (95%CI 1.06-2.14) for frequency of creativity (t=5.91, df=99, p<0.001).

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23 290 *3.5 WEMWBS*

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25 291 For four participants, an imputed score on a single missing item in the baseline WEMWBS was
26
27 292 required; and because multiple WEMWBS items were missing, pre-course WEMWBS scores from the
28
29 293 second (for four participants) and third (for three participants) courses were used as baseline scores.
30
31 294 This resulted in baseline WEMWBS scores for 123 participants. Scores ranged from 24 to 68, with the
32
33 295 mean baseline WEMWBS score being 49.8 (S.D. 9.4).

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35 296

36 297 An imputed score on a single item in the post program WEMWBS was required for six participants,
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38 298 giving post-program WEMWBS scores for 107 participants. Scores ranged from 33 to 70, with the
39
40 299 mean post-program WEMWBS score being 56.6 (S.D. 7.7).

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45 301 There was a statistically significant increase in WEMWBS scores between baseline and post-program.
46
47 302 The mean increase was 6.86 (95% CI 5.33 – 8.38) points on a paired samples t-test (t=8.91, df=104,
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49 303 p<0.001). Over two-thirds (69.5%) of participants had an increase of three or more points between
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51 304 the baseline and post-program.

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3 306 There was a statistically significant increase in scores for participants who attended one or two
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5 307 courses only (mean increase of 7.25, 95% CI 5.39-9.11, $t=7.78$, $df=63$, $p<0.001$); with 71.7% having an
6
7 308 increase of three points or more. For those who attended three or four courses, the mean increase
8
9 309 was 6.24 (95% CI 3.53-9.00), also a statistically significant increase ($t=4.65$, $df=40$, $p<0.001$); with
10
11 310 65.9% of participants having an increase of three points or more. The mean increase in WEMWBS
12
13 311 scores did not differ by number of courses attended (that is, one or two courses only versus three or
14
15 312 four courses; $t=0.636$, $df=103$, $p=0.526$).

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18 314 3.6 Qualitative data analysis

19 315 3.6.1 Ways in which participants hope to benefit from AoP (pre-course)

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22 317 Textual responses provided on pre-course questionnaires (Q-Id no.) about the ways in which the
23
24 318 participants hoped to benefit from the program suggested several different themes. The first theme
25
26 319 centres on participants hoping to '*learn something new*' (Q-w1), to develop a '*new skill*' (Q-e7) and
27
28 320 to do '*something different*' (Q-z3). Some participants were more specific such as wanting '*to be able*
29
30 321 '*to play guitar*' (Q-e9) or '*to use water colour paint*' (Q-a6); others hoped '*to stir my creativity*' (Q-z5),
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32 322 to be '*challenge[d] to try out new things*' (Q-a2) or to have '*help in finding out what little talent we*
33
34 323 '*have*' (Q-u4).

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38 325 Connecting with others and wanting to socialise was the second theme. This was often expressed as
39
40 326 a desire to '*meet*' (Q-t4) or '*talk*' (Q-t6) to people or '*making friends*' (Q-v4); others expressed a wish
41
42 327 to become '*a member of a group*' (Q-k9) and to '*enjoy being in group activities*' (Q-m0).

43 328

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45 329 The third theme identified was a hope to benefit by addressing some of the limitations, losses or
46
47 330 conditions associated with ageing. Some related to physical functioning, for example, to '*help with*
48
49 331 '*chronic pain*' (Q-w9), to '*get more movement in my hands*' (Q-a0), '*to keep me walking despite*

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2
3 332 *peripheral neuropathy*' (Q-u8) or to gain '*physical stamina and fitness*' (Q -j0). Others related to
4
5 333 mental wellbeing for example, participants were seeking '*motivation*' (Q-k4), '*confidence*' (Q-k7),
6
7 334 '*relaxation*' (Q-k8), to '*forget about worries*' (Q-t1), and to have '*a reason to get dressed and go*
8
9 335 *out*'(Q-z4). Maintaining brain health was also identified with participants wanting '*to stay positive*
10
11 336 *and slow memory loss*' (Q-o8) and '*to keep my brain active*' (Q-z8).

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16 17 339 3.6.2 *Benefits identified by participants of AoP (post-course)*

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19 340 Thematic analysis of focus group (FG) and interview (I) data, and textual questionnaire (Q) responses
20
21 341 on the benefits of AoP can be described under four main themes.

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24
25 343 a. A sense of purpose and direction

26
27 344 The first theme relates to participants finding a new interest to pursue, **feeling motivated and being**
28
29 345 **optimistic** about the next stage in their lives.

30
31 346

32
33 347 Some participants described a sense of loss associated with ageing,

34
35 348 *as you get older it's very easy to sit there and feel sorry for yourself and say there's nothing*
36
37 349 *out there for me, what can I do?* (FG-1)

38
39 350 In contrast, they described AoP as offering '*something constructive*' (FG-7), providing '*an interest*'
40
41 351 (FG-4) and of '*going somewhere with a particular purpose in mind*' (FG-4).

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45 353 For others, the program provided a new focus for the loss of direction which they experienced
46
47 354 specifically related to retirement,

48
49 355 *I think once we get a bit older and we retire, sometimes we wake up and say well what am I*
50
51 356 *going to do today apart from the washing and the ironing or whatever; what am I going to*

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3 357 *do today? ...But now we know okay Wednesday I'm going to [] class....I think it gives you*
4
5 358 *something to look forward to...you just get a bit of motivation in life. (FG-4)*
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8
9 360 Participants also spoke of their artistic endeavours as *'being a starting point' (FG5)* and *'the start of*
10
11 361 *really something opening up for [me]'* (FG-7).
12

13 362

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15 363 A number of participants pursued their new interest at home in conversations with family, by buying
16
17 364 their own paints and brushes, or *'finding songs that I want to put into my own repertoire'* (FG-4).
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22 366 b. Personal growth and achievement

23
24 367 This theme related to self-discovery gained by taking on a new challenge and finding success. This
25
26 368 was reflected in statements about *'a real sense of satisfaction'* (FG-1), and of *'surprise'* (FG-8) in
27
28 369 regard to their achievements. Participants invariably approached the program with the impression
29
30 370 that they were *'no good at art'* (FG7), did not have *'a musical bone in our body'* (FG-7) or were not
31
32 371 *'capable of doing that'* (FG-4).
33

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36 373 Participants spoke about being *'inspired'* (Q-n9), of realizing they had *'some sort of gift there'* (FG-7),
37
38 374 of being *'more creative than I thought'* (Q-n4) or of uncovering a *'latent talent'* (FG-3). Participants
39
40 375 shared how they had needed help to begin this journey of personal growth and achievement, with
41
42 376 one participant describing this as *'something else to actually pull that trigger. And for me this is what*
43
44 377 *it [AoP] has been'* (FG-7).
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49 379 The artistic activities challenged participants, and it was this sense of rising to meet the challenge
50
51 380 that enhanced their sense of achievement,
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3 381 *Basically my brain is getting dead and there is not much I can do about it because I can't*
4
5 382 *remember anything. So I am limited in what I can do. But [] I've made four things now [in*
6
7 383 *clay], and two of them came in very well. (FG-2)*
8

9 384
10 385 *I think it gave me a sort of sense of achievement because like [name] I mean I haven't*
11
12 386 *painted [] but when you're actually trying something and some aspect of it works [] there's*
13
14 387 *a real sense of satisfaction there. (FG-1)*
15

16 388
17 389 Praise which celebrated achievement provided participants with validation that they had succeeded.

18
19
20 390 *I've enjoyed every part of it and I suppose you know like all of us, we enjoy a bit of praise*
21
22 391 *when we do something that you know, you think oh I didn't think I'd ever be able to do that...*
23
24 392 *but I did it. (FG-4)*
25

26 393

27
28 394 c. Empowerment

29
30 395 Increased self-confidence and self-determination were evident among participants. They spoke
31
32 396 about the program building 'self-esteem' (Q-j2), and developing their confidence to tackle what they
33
34 397 did not have the confidence to take on previously.

35
36 398 *I've always wanted to do artwork, but I never had the confidence. (FG-7)*
37

38 399

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40
41 400 *I thought, you are useless, you are really bad, and I had no confidence but now I feel, 'Oh.' So*
42
43 401 *it's been like an awakening. (FG-7)*
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47 403 Several spoke of being inspired by others in their class, and thus empowered,

48
49 404 *I thought to myself, if they can do it, I can do it. (I-2)*
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53 406 Given their recent successes, some participants voiced plans to challenge themselves with new
54
55 407 and different artistic endeavours.
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3 408 *I am now going to the next course and I am going to learn to play ukulele because I spoke up*
4
5 409 *and said I would really like to learn the ukulele, done, right so that's what's happening next*
6
7 410 *time, I hope. (FG-5)*
8

9 411

10
11 412 A number of participants implied a new sense of assurance, empowered to meet broader
12
13 413 challenges in their lives, and even to seek challenges.

14
15 414 *[I] have gained confidence and belief in myself and new challenges. (Q-b8)*
16

17 415

18
19 416 *I have learnt to see beyond my expectations of myself. (Q-a2)*
20

21 417

22
23 418 *This course is....a stepping stone for all of us to go on to something bigger and greater in our*
24
25 419 *own lives. (FG-7)*
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30 421 d. Relationships with others

31
32 422 The fourth theme relates to meaningful companionship - interactions where people shared their

33
34 423 experiences, listened to each other, encouraged one another and displayed empathy. The

35
36 424 program provided '*company because I'm very lonely at home*' (Q-b6) as well as interactions

37
38 425 which were described as '*enriching*' (Q-t9), '*invigorating*' (FG-7) and '*terribly important*' (FG-3).

39
40 426 Participants described their group interactions as comprising '*in-depth talks*' as well as '*laughs*'

41
42 427 and '*chatter, chatter work, work, chatter, chatter*' (FG-7).
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47 429 Participants indicated that art created a shared interest which facilitated connection between

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49 430 people and the development of friendships; and one group (unprompted) reported meeting

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51 431 outside the program for coffee.
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3 432 *I think when people who are of a similar age or a similar outlook on things, it creates that*
4
5 433 *little safety zone and we're okay to share some deep personal things along with the*
6
7 434 *enjoyment of doing something as a collective. (FG-7)*
8

9 435

10
11 436 Sentiments that the group was about more than just the art were expressed by a number of
12
13 437 participants:

14
15 438 *Whether we did a good job or not a good job, that was not important [] it was just having an*
16
17 439 *opportunity to spend time with one another, enjoying one another. (FG-5)*
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19 440

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21 442 3.6.3 The role of the artists

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23
24 443 Focus group interviews suggested that the artists played an important role in creating and
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26 444 supporting participant autonomy, through working in partnership with participants, and supporting
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28 445 the artistic process with constructive encouragement, and 'formal' recognition.
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33 447 Participants described artists as coming alongside them to provide guidance rather than strict
34
35 448 instruction or direction.

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37
38 449 *They let us find our own way. They kind of guide us but they tell us you know, you try and see*
39
40 450 *what you can do. (FG-1)*
41

42 451

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45 452 *She was a marvellous tutor and she didn't sort of take on just the brilliant people you know,*
46
47 453 *she actually helped people to really do it without taking over, brilliant. (FG-5)*
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51 455 *She seems to work in a way wherever people feel a bit restricted. She seems to open things*
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53 456 *up and make it work. (FG-3)*
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3 458 Artists drew out participant ideas and supported their development into creative works which
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5 459 participants owned, as opposed to artists stipulating an idea or leading the work.

6
7 460 *We actually hadn't been taught anything but it's worked out well – [the artist] sits there and*
8
9 461 *says "Okay, recommend some songs, tell me songs that you like" ... and [he's] taken them*
10
11 462 *away and the next week he's come back with the words and all that, the chords, and we've*
12
13 463 *had to almost do it ourselves, he's thrown it back on us, and it's great. (FG-4)*

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15 464

16
17 465 Participants described artists as 'very supportive' (FG-4) and 'very encouraging and complimentary'
18
19 466 (FG-2) which provided participants with the confidence to proceed with their artistic challenges.

20
21 467 *Well she encourages no matter what you do. The encouragement that you're doing well. Oh*
22
23 468 *yes...she'll come beside you and say, well how about, have you thought of this? And it was just*
24
25 469 *the gentle way she interacted with me. (FG-2)*

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27 470

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29
30 471 Artists provided validation and celebration of participants' artistic achievements through exhibition
31
32 472 or performance at the conclusion of a course.

33
34 473 *when we got to the end, we were given the chance to perform, okay, to show-off what we*
35
36 474 *had actually been doing. (FG-5)*

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41 42 477 **4. DISCUSSION**

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47 479 This paper presents the findings from a large AoP program targeting older people with diverse
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49 480 health and wellness needs. Referrals to the program were sought from a range of community based
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51 481 health professionals. As AoP is not an established program in Australia (to our knowledge this is the
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53 482 first program under this banner), considerable effort by the project manager and team was required
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55 483 in the initial stages, to raise awareness within the community and to educate local health

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3 484 practitioners on its potential uses and benefits. While the role of arts and health through creative,
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5 485 participatory or receptive interventions has recently been acknowledged by the Australian
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7 486 Government through its National Arts and Health Framework indicating a supportive policy climate
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9 487 (Australian Government 2014), it was our experience that health practitioner knowledge of
10
11 488 participatory art as a non-medical intervention alongside existing treatments for patients, is limited.
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13 489
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15 490 Making art has always been an intrinsic part of what it means to be human (Langer 1966)
16
17 491 (MacGregor 2011), but a constant creative practice is not a given; its development can be either
18
19 492 stifled or cultivated by a whole range of cultural and societal factors (Pinker 2003) (Hickman 2010).
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21 493 Baseline questionnaire responses indicated that in general, our older participants did not see
22
23 494 themselves as 'creative'; this finding was supported in focus groups and individual interviews.
24
25 495 Increases in the level of self-reported creativity and self-reported frequency of creative activities
26
27 496 suggests that AoP was both nurturing participants' sense of creativity and authorising its practice.
28
29 497 Further, facilitation by professional artists enabled the production of creative works which were
30
31 498 worthy of celebration and acknowledgement through exhibition or performance, affirming
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33 499 'creativity' to the participants themselves, their family and their community. Some work,
34
35 500 professionally framed, remains on display in facilities frequented by participants.
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40 502 Baseline data indicates that the program was delivered to participants within the target group.
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42 503 Issues relating to mental wellbeing were common indications for referral. Limitations in reported
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44 504 physical capacity (such as declining physical function, chronic pain, frailty or pre-frailty, and limited
45
46 505 mobility) suggest that opportunities for active engagement within the broader community may have
47
48 506 been restricted for many participants; this would appear to be supported with the identification by
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50 507 referrers of 'increased social connections' as the most frequently reported health and wellness aim
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52 508 for participants.
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3 510 We found evidence in support of the positive impact of participatory arts on the mental wellbeing of
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5 511 participants, as measured by the WEMWBS. Over two-thirds of participants in the AoP program
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7 512 showed an increase of three or more points on the WEMWBS. The mean improvement of almost
8
9 513 seven (6.86) points from baseline to post-program was statistically significant, with other research
10
11 514 suggesting it may also represent clinical improvement. Data gathered from a University Staff
12
13 515 Counselling Service found a statistically significant correlation between level of improvement on the
14
15 516 WEMWBS and level of clinical improvement observed by counselors (Ragonesi, Parsons et al. 2013).
16
17 517 Other work reported suggests that a change of three or more points is likely to be recognisable as an
18
19 518 important change to an individual (National Health Scotland 2015).
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24 520 Our thematic analysis of qualitative data from focus groups, individual interviews and textual
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26 521 questionnaire responses on the benefits of participatory art, resonates with theoretical dimensions
27
28 522 of eudaimonic wellbeing from other research. Eudaimonia refers to living life to its fullest potential,
29
30 523 gained through engagement in meaningful endeavours (Ryan and Deci 2001), (Steger, Kashdan et al.
31
32 524 2008). Ryff (1989) described six theory-guided constructs that are associated with psychological
33
34 525 wellbeing. These include self-acceptance (defined for example, by a positive attitude toward self),
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36 526 positive relations with others (defined for example by, warm, satisfying, trusting relationships with
37
38 527 others), autonomy (defined for example by, self-determination and independence), environmental
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40 528 mastery (defined for example, by a sense of mastery and competence in managing the
41
42 529 environment), purpose in life (defined for example, by having goals in life, a sense of directedness,
43
44 530 belief that life has purpose) and personal growth (defined for example, by a feeling of continued
45
46 531 development, of realising one's potential, and changes that reflect more self-knowledge and
47
48 532 effectiveness). Activities which are meaningful, worthwhile and enable one's potential to be
49
50 533 fulfilled, foster the achievement of these constructs and the development of enduring wellbeing
51
52 534 (Steger, Kashdan et al. 2008). This is in contrast to activities which focus only on achieving simple
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54 535 pleasure or happiness (hedonia), which are more fleeting (Steger, Kashdan et al. 2008).
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5 537 Some of Ryff's dimensions of psychological wellbeing, specifically, purpose in life and personal
6
7 538 growth, show declines in older age, from middle age (Ryff 1989). Ryff and Singer (2008) propose
8
9 539 that sharp downward trends in purpose in life and personal growth particularly, may reflect the
10
11 540 current challenges faced by society in offering older people roles which are meaningful and in
12
13 541 providing opportunities for sustained growth. Given that three of the four themes identified in this
14
15 542 current research (which we labelled personal growth and achievement, a sense of purpose and
16
17 543 direction, and empowerment) overlap aspects of these constructs shown by Ryff (1989) to decline in
18
19 544 older age, suggests that programs such as AoP are helpful in addressing this societal void
20
21 545 experienced by older people.
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26 547 For some participants, the AoP program also addressed loneliness, by encouraging the development
27
28 548 of relationships with others. Australian research indicates that around one third of older people
29
30 549 report feeling lonely at least sometimes which is comparable to samples in other countries (Steed,
31
32 550 Boldy et al. 2007). Steed, Boldy et al. (2007) found that having friends and a confidant were
33
34 551 important in protecting against loneliness. The common point of interest created by the art-making
35
36 552 process was reported by participants to facilitate relationship building which enabled participants to
37
38 553 share personal matters within their group. This finding is supported by other research which
39
40 554 suggests that friendships emerge more readily from shared activities than in settings which are more
41
42 555 overtly focused on friendship formation (Cattan 2005).
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47 557 We suggest that the manner in which the professional artists worked with participants also
48
49 558 facilitated the gains in mental wellbeing attained. Participants reported that they were challenged by
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51 559 their artistic endeavours, and met these challenges in partnership with the artists who provided
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53 560 constructive encouragement. Importantly, artists avoided activities which were prescriptive and
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3 561 directive, focussing on empowering participants and maximising opportunities for personal growth
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5 562 and achievement.
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7 563
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9 564 The WEMWBS provides a single quantitative measure combining both hedonic and eudaimonic
10
11 565 perspectives on mental wellbeing (National Health Scotland 2015). The qualitative findings from
12
13 566 focus groups and individual interviews were valuable as a means of triangulating the program
14
15 567 outcomes as determined by the WEMWBS; and in providing a deeper understanding of how and why
16
17 568 AoP may enhance positive mental health in older people.
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21 570 The proportion of participants with frailty at baseline was somewhat similar to reported estimates of
22
23 571 frailty for community dwelling older Americans (65 years and older), which range from 7-12% (Xue
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25 572 2011). Frailty puts older adults at greater risk of poor health outcomes, and pre-frailty puts older
26
27 573 adults at risk of progression to frailty (Xue 2011). Therefore, calls have been made to prioritise
28
29 574 research into interventions to prevent or reduce frailty (Xue 2011). We were unable to demonstrate
30
31 575 statistically significant reductions in the number of participants scoring on individual frailty criteria.
32
33 576 Given that specific and intensive interventions are generally required to address frailty (Fairhall,
34
35 577 Aggar et al. 2008) these findings are not unexpected. We had insufficient data to examine the impact
36
37 578 of individual art forms, such as movement and dance, on frailty; and all courses were offered only on
38
39 579 a weekly basis. However, other research on arts and health has found effects on physical health
40
41 580 more generally. For example, Clift, Morrison et al. (2013) found that singing reduced chronic
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43 581 respiratory symptoms and Heiberger, Maurer et al. (2011) found that dancing improved functional
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45 582 mobility.
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50 51 584 *Limitations*

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53 585 The AoP program was only offered to older people from two geographic areas in metropolitan
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55 586 Sydney. These areas represent people from diverse cultural backgrounds, and areas of higher and
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3 587 lower socioeconomic status. However, caution should be applied in generalising our findings to a
4
5 588 broader population. As focus group transcripts were de-identified, it is possible that focus group
6
7 589 findings may include some participants aged less than 65 years of age. Given the small number of
8
9 590 younger participants in the AoP program this is unlikely to have had a marked impact on our
10
11 591 qualitative results. Since our AoP program was a funded service, rather than a research project, we
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13 592 deliberately limited the number of measures at baseline and outcome so as not to burden
14
15 593 participants. Anecdotal accounts of improvements in physical health were shared with artists, but
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17 594 these were not objectively measured. We suggest future researchers consider the inclusion of
18
19 595 measures to capture changes in chronic respiratory symptoms and functional ability.
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23 24 597 **CONCLUSION**

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26 598 This evaluation adds to the limited evidence base in support of AoP for older people, and presents,
27
28 599 to our knowledge, the first evaluation of AoP in Australia. Our results suggest a positive impact on
29
30 600 mental wellbeing for participants with a diverse range of health and wellness needs. This may be due
31
32 601 to the program's ability to foster eudaimonic wellbeing through the provision of challenging artistic
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34 602 activities which create a sense of purpose and direction, enable personal growth and achievement,
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36 603 and empower participants, in a setting which fosters the development of meaningful relationships
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38 604 with others. The Australian Government is currently pursuing a wellness and reablement agenda in
39
40 605 the delivery of funded support services in the community to eligible older people (Department of
41
42 606 Health 2018). The group based nature of AoP presents an efficient model of service delivery in
43
44 607 comparison to services delivered on an individual basis; and the outcomes from AoP align closely
45
46 608 with the intended outcomes of the Commonwealth Home Support Programme (Department of
47
48 609 Health 2018). These elements may support the wider adoption of AoP programs for older people, in
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51 610 Australia.

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Table 1: Frailty measures used. Adapted from Fairhall, Aggar et al. (2008).

- a. Unintentional weight loss defined as a loss of more than 4.5 kg unintentionally in the past 12 months.
- b. Self- reported exhaustion – this criterion was met if, for the last seven days, the response to both the following questions was ‘occasionally or a moderate amount of time (3-4 days)’ or ‘most or all of the time (5-7 days)’: ‘How often did you feel that everything you did was an effort in the last week’ and ‘How often did you feel that you could not get going in the last week?’
- c. Low physical activity – this criterion was met if, in the past three months, participants did not perform weight-bearing physical activity (e.g. housework, outside chores, gardening), spent most of their time sitting, and only went for a short walk once per month or less.
- d. Slow walking speed was defined as a walking time of six seconds or more over four metres (average of two measures).
- e. Weakness – defined as grip strength of 30kg or less for male participants; 18kg or less for female participants. The best of attempt achieved from either the left or right hand was used as the maximum handgrip strength measure.

Table 2: Number of art courses attended

Number of courses attended	Count	Percentage
One	52	40.9
Two	33	26.0
Three	29	22.8
Four	13	10.2
Total	127	100

For Peer Review

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Table 3. Participant health information and health and wellness aims as indicated by referring health care practitioner, n= 127.

Relevant health information (one or more may apply from defined list)	Count	Percent
Declining physical function	52	40.9
Socially isolated/declining social interaction	41	32.3
Declining sense of overall wellbeing	38	29.9
Chronic pain and illness affecting wellness	30	23.6
Frail or pre-frail	30	23.6
Anxiety	28	22.0
Depression	28	22.0
Mild cognitive impairment, early or moderate dementia	24	18.9
Carer burden	10	7.9
Recent bereavement or loss	9	7.1
Health and wellness aim (one or more may apply from defined list)		
Increased social connections	79	62.2
Create new interests	73	57.5
Improved mental health	69	54.3
Cognitive stimulation	65	51.2
Increased physical activity levels	63	49.6
Help find contentment/spiritual wellbeing	34	26.8
Help manage loss/bereavement	10	7.9
Enrich relationship with caregiver	9	7.1