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1 **Living in the mo(ve)ment: An ethnographic exploration of hospice patients' experiences**
2 **of participating in Tai Chi**

3 Patients with advanced, incurable disease often live with multiple symptoms and side
4 effects that negatively impact on physical (e.g., pain, fatigue, breathlessness), psychological
5 (e.g., anxiety, depression, fear), social (e.g., isolation), and existential (e.g., loss of meaning)
6 domains of well-being (Teunissen et al., 2007). The aim of palliative care is to help patients
7 manage the adverse consequences of their disease and improve quality of life by adopting a
8 holistic, patient-centred, and multi-disciplinary approach to healthcare (Twycross, 2003). As
9 part of this approach, non-pharmacological and complimentary therapies such as physical
10 activity are increasingly being used as a valuable adjunct to conventional medicine because
11 they are non-invasive, cost-effective, and can help patients self-manage multiple and complex
12 needs that change over time as their disease progresses (Javier & Montagnini, 2011).

13 Whilst physical activity is now generally accepted as a form of therapy for individuals
14 with advanced, incurable disease (Albrecht & Taylor, 2012), during the 1980s, it was met
15 with scepticism, with many doctors advocating rest as a more appropriate alternative (Jones
16 & Alfano, 2013). Today, with increasing evidence to show that physical activity is beneficial
17 and feasible in this population – and with many patients recognising the value of, and
18 demonstrating enthusiasm about, participation (Oechsle et al., 2011; Oldervoll et al., 2005) -
19 it is seen as an important adjunctive to standard therapy. One form of physical activity that is
20 commonly used in healthcare settings is mindfulness-based movement (MBM) therapy (e.g.,
21 Yoga, Pilates, and Tai Chi). MBM seeks to integrate the mind, body, and spirit through
22 movement-based exercises that involve a contemplative (i.e., inward and non-judgemental)
23 focus on the embodied, kinaesthetic, and proprioceptive qualities of movement (La Forge,
24 2005).

25 Tai Chi represents one type of MBM that combines slow body movements with
26 breath work and mental focus (Wayne & Fuerst, 2013). It is becoming increasingly popular
27 with professionals in routine hospice care because of its accessibility; it can be adapted to a
28 wide range of functional abilities and delivered safely to groups of patients with diverse
29 needs (Hui, Cheng, Cheng, & Lo, 2008). Moreover, Tai Chi has been shown to provide
30 physical and psychosocial benefits to those with a range of advanced diseases. Preliminary
31 evidence, including data from randomised control trials and systematic reviews, has
32 demonstrated the positive impact of Tai Chi on fatigue, balance, mobility, lung function, gait,
33 mood and reduced anxiety among patients with advanced cancer (Hui et al., 2008; Zhang,
34 Wang, Chen, & Yuan, 2016), chronic obstructive pulmonary disorder (COPD) (Guo et al.,
35 2016), Parkinson's disease (Song et al., 2017) and heart disease (Ng et al., 2012). Moreover,
36 data from mixed methods studies (Hägglund, Boman, & Brännström, 2018; Yeh, Chan,
37 Wayne, & Conboy, 2016) has demonstrated improvements in social well-being (e.g.,
38 community involvement, increased social support) among patients with chronic heart failure.

39 Whilst current evidence on the benefits of Tai Chi participation is promising,
40 empirical investigation on this topic has been dominated almost exclusively by quantitative
41 research designs that use standardised outcome measures to assess changes in health and
42 well-being variables. Consequently, little is known about Tai Chi from patients' perspective,
43 including what participation means to their experiences of living with an advanced, incurable
44 disease, and how these experiences are shaped by the environment of hospice day therapy.
45 This is an important omission considering that hospices present one of the few places in the
46 community where patients with advanced disease can access MBM therapies like Tai Chi.

47 In addressing this, qualitative methodologies are useful because they allow
48 researchers to better understand the complex and nuanced processes through which people
49 make sense of lived experiences in rich depth and detail (Sparkes & Smith, 2013). In

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50 particular, approaches such as ethnography – in which researchers immerse themselves in the
51 setting under investigation and collect multiple forms of data over prolonged periods of time
52 – are well suited for exploring palliative patients' experiences of participating in Tai Chi
53 within the context of hospice day therapy. One notable component of Tai Chi that may be
54 important for improving patients' experience of living with advanced disease is mindfulness
55 (La Forge, 2005; Wayne & Fuerst, 2013).

56 Mindfulness is the ability to deliberately pay close attention, without judgment, to
57 one's immediate experience (Brown & Ryan, 2003). It involves moment-to-moment
58 awareness of, and attention to, the quality of events and experiences that occur in the present
59 (Brown, Ryan, & Creswell, 2007). Whilst mindfulness is increasingly being taught in
60 palliative care to improve quality of life, there is a lack of evidence to support or refute its use
61 for patients with advanced and chronic diseases (Latoracca et al., 2017). It has been
62 suggested that mindfulness might be important for optimising well-being in patients who
63 experience unrelenting physical discomfort and/or fear of the dying process by 'encouraging
64 closer, moment-to-moment sensory contact with life, that is, without a dense filtering of
65 experience through discriminatory thought' (Brown et al., 2007, p. 219). In contrast, it has
66 also been suggested that its inward direction of attention toward physical discomfort can
67 heighten body awareness and increase physical distress (Brown et al., 2007). Against this
68 backdrop, more research is needed to better understand hospice patients' lived experiences of
69 mindfulness.

70 The main aim of this study was to explore outpatients' lived experiences of
71 participating in hospice-based Tai Chi. In responding to the data as the project evolved, the
72 purpose of the study became refined to focus more closely on participants' lived experiences
73 of mindfulness during participation in Tai Chi.

74

Methods

75 Research Design

76 A focused ethnographic research design (Knoblauch, 2005; Wall, 2014) grounded in a
77 constructionist paradigm (Burr, 2015) was used to explore the aims of this study. Focused
78 ethnography differs from ethnography in its traditional sense. Rather than spending large
79 amounts of time (often years) permanently immersed in settings that researchers are
80 unfamiliar with, instead, researchers engage in relatively short-term field visits (i.e.,
81 occasional rather than permanent immersion) in familiar settings within which they intensely
82 collect and analyse data (Wall, 2014). This type of ethnography aligned well with this study
83 because the primary author's [name removed for peer review] volunteering role within the
84 day therapy unit (described in further detail below) enabled him to familiarise himself with
85 the field and interact with participants prior to data collection. Though less time was spent in
86 the field compared to traditional ethnography, this study still retained 'ethnographic intent'
87 (Wolcott, 1999) in that it remained committed to an in-depth focus on a specific socio-
88 cultural phenomenon as it occurred in everyday life (Knoblauch, 2005; Wall, 2014).

89 Participants

90 Participants were recruited using purposive maximum variation sampling (Etikan,
91 Musa, & Alkassim, 2016). 19 outpatients (i.e., day case) (Female: 15; Male: 4) aged between
92 50-91 years old (M=74.2) took part in this study (see table 1). Inclusion criteria included
93 patients who were: (a) diagnosed with advanced, incurable disease; (b) receiving care at
94 [name removed for peer review] hospice; (c) participating in Tai Chi sessions offered at
95 [name removed for peer review] hospice; (d) 18 years or older; (e) able to understand and
96 communicate in English; and (f) capacity to give consent. Exclusion criteria included patients
97 deemed too ill to participate in the study as determined by the hospice clinical team.

98 **Procedure**

99 Ethical approval was gained from the [name removed for peer review] (REC
100 reference: 16/SC/0133) and the Research Governance Group at [name removed for peer
101 review] (RGG reference: 2015-08). After approval was granted, the first author [initials
102 removed for peer review] and physiotherapists who worked within the hospice's day therapy
103 unit, initially approached patients face-to-face to enquire of their interest in participating in
104 this study. Interested patients were provided with a participant information sheet before
105 providing consent. Recruitment was an ongoing process and ceased once data saturation
106 (Saunders et al., 2018) was achieved. Data saturation was a gradual and iterative process in
107 which [initials removed for peer review] spent 6 months in the field continuously collecting
108 and assessing data until what was being heard and seen started to repeat itself, thus no new
109 understandings were being generated from data collection (O'reilly & Parker, 2013; Smith &
110 Sparkes, 2016). This is not to say that 'objective truths' had been achieved, rather, it was a
111 point where the research team was confident that they could richly represent participants'
112 experiences of hospice-based Tai Chi whereby any additional data collection would have
113 resulted in diminishing returns.

114 This study took place within the day therapy unit of [initials removed for peer review]
115 hospice in [location removed for peer review]. Adapted Tai Chi sessions were offered weekly
116 to patients and lasted for half an hour. Prior to entering the field for data collection, the first
117 author [initials removed for peer review] volunteered within the day therapy unit twice
118 weekly for a period of 2 months (April 2016-May 2016), which helped to legitimise his
119 presence in the field and foster trusting and respectful relationships with participants. The
120 first author [initials removed for peer review] maintained his role as a volunteer in the day
121 therapy unit throughout the 6-month period of data collection. During his role as a volunteer
122 [initials removed for peer review] spent time with patients in the communal room at the day

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123 therapy unit, engaging in activities (e.g., quizzes, arts and crafts, gardening) and assisting
124 with serving light refreshments and lunch. A considerable aspect of this volunteering role was
125 spent sitting and conversing with patients about everyday subjects and common interests.

126 **Fieldwork and Data Collection**

127 Guided by a pluralistic approach to data collection (Chamberlain, Cain, Sheridan, &
128 Dupuis, 2011), data was gathered using semi-structured interviews, participant observations,
129 and informal conversations. These multiple sources of data provided different and
130 complimentary perspectives on the phenomenon under investigation, resulting in a layered
131 and contextualised account of participants' experiences of Tai Chi (Chamberlain et al., 2011).
132 All data was collected by the first author [initials] during his immersion in the field.

133 One semi-structured interview was conducted with 11 participants. 6 out of the 11
134 participants were interviewed a second time approximately 4-5 weeks later. The initial
135 interview guide was developed by [initials removed for peer review] who used his first 2
136 months in the field as a 'survey period' (Fetterman, 2010) to inductively generate relevant
137 and appropriate questions that pertained to participants' physical, psychological and social
138 experiences of Tai Chi participation within the context of hospice day therapy. For the 6
139 participants who took part in a second interview, clarification questions were mostly used to
140 allow them to expand on the accounts that they had provided in their initial interview. All
141 interviews were conducted at a convenient time for participants and lasted on average 40
142 minutes. They were digitally recorded and transcribed verbatim. Participant observations
143 entailed actively engaging in 33 Tai Chi sessions to observe verbal (e.g., spoken interactions
144 between participants) and non-verbal (e.g., facial expressions and body postures/movements)
145 behaviours related to the purpose of the study. Observations were used to layer what was said
146 during interviews with what was seen in the field (Kawulich, 2005). Informal conversations

147 with participants were used to tap into the everyday (and often overlooked) features of
148 participants' experiences of Tai Chi that were sometimes missed within the formal setting of
149 a semi-structured interview (Sparkes & Smith, 2013). Conversations took place whilst
150 engaging in everyday hospice activities (e.g., arts and crafts, board games, casual
151 conversations). Participant observations and informal conversations were recorded in the
152 form of field notes. Fieldwork took place twice weekly over a period of 6 months (July 2016-
153 January 2017). A total of 200 hours was spent at the day therapy unit collecting data.

154 **Data Analysis**

155 Data was analysed using a thematic framework approach (Ritchie, Lewis, Nicholls, &
156 Ormston, 2013). This approach was chosen for numerous reasons. It offered a structured
157 method that made it easier to deal with the voluminous data-set that was collected, was
158 compatible with the underlying epistemology of the study, and allowed the context of
159 participants' experiences to be preserved during the analytic process through an explicit and
160 continuous movement between analysis and raw data (Smith & Firth, 2011).

161 Data analysis comprised of the following interconnected steps. First, interviews were
162 transcribed verbatim and read multiple times to become familiar with the data. Second,
163 transcripts and field notes were openly coded by labelling segments of text that related to
164 participants' experiences of participating in Tai Chi. Third, an initial analytic framework was
165 constructed by grouping similar codes and categories into themes and sub-themes. Themes
166 and subthemes were then entered into a matrix and charted by moving raw data from
167 transcripts and field notes into corresponding themes in the analytic framework. Fourth, a
168 process of indexing occurred whereby the analytic framework was applied back to field notes
169 and transcripts by highlighting parts of the text that aligned with the relevant theme within
170 the framework. Finally, a collaborative process of interpretation took place, in which authors

171 [initials removed for peer review] acted as critical friends (Smith & Sparkes, 2016), drawing
172 on theory and concepts to offer alternative explanations for findings. Thus, data analysis was
173 'abductive', involving a process of moving between induction (e.g., explanations and ideas
174 stemming from the data) and deduction (e.g., using priori theory and concepts to understand
175 patterns in the data) (Blaikie, 2018).

176 Throughout data collection and analysis, [initials removed for peer review] kept a
177 reflexive journal as a way capture introspective (i.e., the personal impact of the research
178 process) and intersubjective (i.e., the inter-relational factors that affected the research
179 process) reflections (Finlay, 2002). In doing so, his experiential and intersubjective
180 experiences in the field were used as a 'springboard for interpretations and more general
181 insight' of the ways through which knowledge and interpretations of data were co-
182 constructed (Finlay, 2002, p. 215).

183 **Rigor**

184 This study adopted a relativist approach to judging quality (Sparkes & Smith, 2009).
185 A list of criteria based on the work of other scholars (Smith & Caddick, 2012; Sparkes &
186 Smith, 2013; Tracy, 2010) was used as a starting point to guide the quality of this study. The
187 list included: (1) rich rigor, which involved intense periods of time spent in the field (2
188 weekly hospice visits over 6 months) collecting multiple sources of data, resulting in deep
189 and layered accounts; (2) sincerity, which was achieved by using a reflexive journal
190 throughout fieldwork and consulting with 'critical friends' [initials removed for peer review]
191 throughout data collection and analysis; (3) credibility, which occurred through triangulating
192 data from interviews, observations, and informal conversations as a means to construct
193 contextualised and thick descriptions of each theme; (4) resonance, which was achieved by
194 providing thick, contextualised descriptions of each theme so that data may be transferable to

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195 other (similar) settings; and (5) exploiting exceptional data (Phoenix & Orr, 2017), whereby
 196 the researchers attended to, and incorporated, outliers (i.e., contradictory data) during the
 197 construction of themes.

Pseudonym	Age	Gender	Primary Diagnosis	Co-Morbidities
Gloria	89	F	Pulmonary Fibrosis	n/a
Georgia	82	F	Cancer (unknown primary location w/ lung and liver metastases)	Arthritis, COPD
Doreen	86	F	Lymphoma	Type 2 diabetes, Dementia
Mary	71	F	Breast cancer	COPD
Lisa	74	F	Pulmonary fibrosis	Low mood
Elizabeth	91	F	Lung cancer (w/ choroidal metastases)	n/a
Jane	88	F	Gastrointestinal cancer	Low mood, anxiety
Shannon	71	F	Pulmonary arterial hypertension	Intestinal lung disease
Rachel	50	F	COPD	Low mood, anxiety
Leanne	85	F	Esophageal cancer	Bronchitis
Christie	68	F	Breast cancer (w/ lung and liver metastases)	Anxiety, depression

Karen	43	F	Carcinoma of stomach	Low mood
Debbie	63	F	Breast cancer (w/ bone metastases)	Paralysis from level T2
Judy	65	F	Lung cancer (w/ brain metastases)	Low mood, depression
Janine	73	F	Esophageal cancer	n/a
Roy	73	M	Lung cancer	n/a
Lee	84	M	Prostate cancer	n/a
Michael	87	M	Prostate and bladder cancer	n/a
Stan	68	M	Prostate cancer	n/a

198 *Table 1: Participant Characteristics*

199 **Results**

200 The following results section demonstrates participants' lived experiences of
 201 mindfulness during participation in Tai Chi. Study results include 4 themes and 2 sub-themes:
 202 (1) mind-body respite (including two sub-themes: (i) being present in the moment, and (ii)
 203 embodied peace); (2) being present with others; (3) tranquil and therapeutic atmosphere; and
 204 (4) physical limitations. Verbatim quotes are included in the main text below to provide
 205 supporting evidence.

206 **Mind-body respite.**

207 'Mind-body respite' characterised the ways in which Tai Chi helped participants to
 208 experience relief from the physical and psychological distress associated with living with

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209 advanced, incurable disease by helping them to live in the present moment and experience
210 their minds and bodies in pleasurable and peaceful ways.

211 *Being present in the moment*

212 Participants commonly reported how living with advanced disease caused them to
213 experience intense feelings of anxiety and worry. This was because their minds were often
214 preoccupied by distressing illness-related worries over pain progression, the impact of their
215 illness on friends and family, and fear of dying. One participant described how this left her
216 feeling mentally 'all over the place' [Rachel, interview 1]. Tai Chi was an opportunity for
217 participants to re-direct attention and awareness away from disease-related thoughts, and onto
218 present moment-to-moment sensory and mental experiences. For example, focusing attention
219 on breath-work, bodily sensations, guided visualisations, and the background music during
220 Tai Chi helped participants to gain temporary respite from illness-related worries:

221 I don't think [during Tai Chi] which sounds silly. I don't think because I'm
222 concentrating on what I'm supposed to be doing. The music is a sedative sort of
223 music, which stops you – no, it doesn't stop you thinking – you don't need to think.
224 And listening to the voices which is calming helps you to not think about your
225 condition and where you are. You just know you're safe and you don't have to think
226 about anything else... not having to think makes such a big difference to my life.

227 [Christie, interview 1]

228 Rather than ruminating over the past or dwelling on worries concerning the future, Tai
229 Chi helped participants anchor their awareness in the present moment, leading to feelings of
230 mental relaxation. Mental relaxation was characterised by states of tranquillity and
231 contentment, fostering meditative states which helped to lodge participants' minds onto the
232 present moment, thus helping to alleviate anxieties and feel mentally at ease:

233 When I'm sitting sometimes my breathing starts getting bad because I'm anxious and
234 it's about doing something to stop that anxiousness... and that is what it [Tai Chi]
235 does for me, it relaxes it me...it just relaxes your mind. I suffer from anxiety, so for
236 something to make me relax it's got to be good, and that what it does for me ... when
237 I'm relaxed like that, I'm not panicking, I'm not anxious ... because once I start
238 thinking, I start stressing. [Rachel, interview 2]

239 You're just focused all the time and it's like you're removed from where you are even
240 though you know you're there. You're just in the motion of Tai Chi because it never
241 stops. So I think it is a mindful exercise, because you are focused on the motion of the
242 whole thing... it is meditative to me. I feel totally relaxed at the end of It [Debbie,
243 interview 2]

244 *Embodied Peace*

245 Many participants encountered illness and treatment-related physical symptoms,
246 including pain, fatigue, muscle tightness, nausea, and body tremors. These symptoms led to
247 experiences of embodied suffering and discomfort. Our analysis showed how engaging in Tai
248 Chi provided participants with a sense of embodied peace by helping them to experience the
249 present moment in physically pleasurable ways. For example, engaging in the slow and
250 gentle movements accompanied by soft music fostered a sense of respite from feelings of
251 bodily tensions and restlessness:

252 I enjoy the music, and the part where you have to pretend to put water over your face.
253 The last part is quite relaxing, which is really nice for me. I haven't been sleeping
254 very well. I get about 1 or 2 hours sleep every night – I'm all tense and restless – I try
255 to put the Tai Chi music CD on, along with other relaxation CD's but sometimes I am

256 just too tense to sleep. So doing it here helps to give me some respite. [Stan, interview
257 1]

258 Well I think just the movements because you've got like that pull of physicality,
259 where you pull and that's quite relaxing to be tensing muscles and using them and
260 then to relax them. You feel within your muscles the relaxation of contraction, and
261 when you relax it feels greater relaxed because you've had the opposite of being
262 contracted and then you relax it down, the relaxation comes out more as a physical
263 thing ... just in this relaxed state of being in a cocoon... it's like I'm wrapped in a
264 relaxed state if that makes sense. ... that half an hour makes you feel different for the
265 rest of the day because all your tensions have gone. Even though you might be doing
266 a quiz and you might not know the answers, you're still physically relaxed. [Debbie,
267 interview 2]

268 Experiences of embodied peace were transformative in that they seemed to enable
269 participants to feel physically *different*. Taking part in Tai Chi provided participants with a
270 temporary escape from the physical discomfort of their disease by allowing them to enjoy the
271 sensuality, pleasure and peacefulness that they were experiencing in the present moment.
272 This sense of embodied peace involved feelings of physical relaxation that helped to 'calm
273 the whole body from the top to the bottom' [Christie, interview 1]. For some participants,
274 feelings of physical relaxation resulted in a peaceful 'high' that extended beyond Tai Chi
275 sessions:

276 I love it [Tai Chi] ... it's so relaxing... when I've been here [day therapy unit], I feel
277 different again when I go home, it's lovely. I can really go with Tai Chi. It's
278 peaceful... It's worth doing. That first time I did it, ooh, I was so tired but not in a
279 nasty way, it was a lovely feeling. I would imagine it's the feeling like you get if

280 you're on heroin [laughs] which I don't know, never been on it, not yet anyway ... it
281 gives you a bit of a high but not in a nasty way, in a peaceful way... I don't know
282 what it does to your body that makes you so peaceful. [Janine, interview 2]

283 By helping participants to feel physically relaxed, Tai Chi enabled them to experience
284 the present moment in physically better and brighter ways through fostering sensations of
285 physical renewal and restoration. Participants used words like 'cleansing', 'pleasant
286 tiredness', 're-energised', 'reinvigorated', and 'rejuvenated' to describe these experiences:

287 When you're sitting on the chair, or laying down, it's almost as though something's
288 washing through you and you rest... Almost like washing, cleansing ... It's like being
289 renewed. Like when you get out of bed in the morning, you feel groggy and then
290 when you've washed your face, especially if you wash your face in cold water, it's re-
291 invigorating... you feel better afterwards, I say refreshed. [Stan, interview 1]

292 **Being present with others.**

293 Practicing Tai Chi within a group comprised of fellow patients with advanced,
294 incurable disease facilitated meaningful moment-to-moment peer interactions. It brought
295 participants together under a shared activity and cultivated a sense of closeness through
296 verbal (e.g., laughing, joking, and talking) and non-verbal (e.g., smiling and physical touch)
297 interactions that facilitated the formation of, and reinforced already existing, relationships:

298 I think it's nice that they gather us...because when we come here [Tai Chi sessions],
299 we're all doing different things. Everybody's doing different things. I think it [Tai
300 Chi] brings us back together as a group ... I think that a circle of friends is a good
301 way to describe us, because we only meet once a week for a few hours so we know
302 people more than others but we are all part of a group and I think the Tai Chi sort of

303 reiterates that because we come together as a group to do it ...I think we are
304 connected. [Debbie, interview 2]

305 The social interactions shared during Tai Chi were integral to creating a calm and
306 relaxing environment which enriched Tai Chi practice. The collective participation in Tai Chi
307 helped participants to develop a soothing 'energy' that facilitated mindful movement:

308 I think a group working together builds up an energy and it builds up the healing
309 energy that then benefits everyone in the room, because Tai Chi is a healing process
310 and as you build the energy, the healing goes around and everybody gets a share of it
311 ... I just feel that warmth of healing. [Judy, interview 1]

312 Some participants found that observing others during the sessions helped them to
313 (re)connect to bodily sensations of physical calm and peacefulness. For example, Rachel
314 spoke about how seeing other people in a relaxed state helped her to also feel calm and
315 grounded:

316 [you] can see other people and they're all doing the same thing and it's calming to
317 see that other people look calm as well, you know. [Rachel, interview 2]

318 Other participants commented on how being present with others during Tai Chi was
319 important in helping them to experience mindful states and thus reap the associated benefits.
320 For example, Judy emphasised the uniqueness of participating in Tai Chi with others at the
321 hospice because it helped her to experience a mode of introspection and meditation in ways
322 that were not possible when alone:

323 What I find very, very difficult to do at home on my own is meditate. To take myself
324 out and zone everything else out and just go into that sort of quiet calm state I find
325 very, very difficult if I'm on my own. If I'm in a group and were all doing it then I
326 can do it. [Judy, interview 1]

327 Whilst being present with others was experienced as beneficial for most participants,
328 there were instances when it was seen as disruptive. For some participants, the group aspect
329 associated with Tai Chi was viewed as a safe environment that allowed them to experience a
330 quiet, inward connection with the self as opposed to a social occasion in which they
331 interacted with others. At times, therefore, social interactions such as laughing and joking
332 during sessions were experienced negatively because they interrupted participants'
333 connection with the present moment:

334 It annoys me when people laugh... I suppose I do think of it in the purest term, they
335 should be more mindful and do it in a more mindful way, but that's just me being
336 purist. But then I think there's times that I don't like it, it is disruptive in a way, I find
337 then I have to focus back, but then I do say to myself, 'that's fine because that's what
338 they do' and you know, you just accept it, they're part of the group and you have the
339 generosity of partly accepting, don't you? ... [I] just think that sometimes it's a
340 nervousness of people, because they're not sure if they want to sometimes go into that
341 mindful place, or they don't know how to, or some people don't want to, or some
342 people are embarrassed by doing the movements. [Debbie, interview 2]

343 **Tranquil and therapeutic atmosphere.**

344 The environment in which Tai Chi took place was integral for cultivating a tranquil
345 and therapeutic atmosphere that was conducive to experiences of mindfulness. It was
346 important that when participants were taking part in Tai Chi that the day therapy unit was
347 calm, quiet, and free from distractions (e.g., slamming doors and people walking through the
348 middle of sessions). This was so that participants were able to maintain their focus and
349 attention on the gentle movements, music, and visualisations that were necessary for
350 grounding their minds and bodies in the present:

351 It's got to have the right atmosphere. I mean one week, the lady that I like did it, the
352 other lady that did it last week, she were getting giddy and it weren't the same. It has
353 to be in a special atmosphere ... the atmosphere [has] to go with the voice and the
354 movements ... you couldn't just sit on the bus [and do Tai Chi] ... that other lady
355 turned the lights low, that helped, it certainly did, yeah. [Jane, interview 2]

356 There were various sensory cues (real and imagined) that were integral in creating the
357 type of calming and tranquil ambiance that allowed participants to reap the aforementioned
358 benefits that were associated with mindful movement. For example, many participants
359 referred to the importance of the *sound* of soft music taking a central role in the room's
360 soundscape, the *touch* of cold water as they imagined being under a waterfall, and *lights*
361 being dimmed. These aspects of the environment were important because they acted on
362 participants in and through their senses and determined the extent to which many participants
363 felt capable of experiencing physical and mental states of peacefulness. For example, Jane
364 recounted:

365 The type of music is just so pleasant ... it's so calm and so beautiful that it sort of
366 goes inside of you, do you know what I mean? Your feelings when you're listening to
367 it, not even doing the Tai Chi, just listening to the music I find is very restful ...
368 people moving around you isn't good, it needs to be in a calm, still atmosphere
369 because then you get the benefit of lack of sound around you and just the music.
370 [interview 1]

371 Those who led Tai Chi sessions also played a crucial role in contributing to the
372 formation of a tranquil and therapeutic atmosphere. This was because they guided
373 participants through the physicality of movements and mental imagery associated with Tai
374 Chi. This allowed participants to ground themselves in the present moment through enabling

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375 them to focus inwardly on the kinaesthetic qualities of movements and connect with
376 visualisations of nature, as opposed to trying to remember the routine of Tai Chi:

377 I think the [physio's] voice is important to listen to know what movement you're
378 doing next really... I couldn't possibly remember it without the physio being there. I
379 might remember a few. I might sit at home and think 'punching', 'sea.' I think the
380 physio's guide us through the full half hour of the physicality of it, you know, they
381 can't talk to us about being mindful but for the physicality I think it's important that
382 they're there telling us... I like that because if I tried to do it at home I wouldn't
383 remember so I'd have to ask [physio's name] to write it down and then you'd have to
384 keep looking at the piece of paper because you won't remember, so it wouldn't be the
385 same experience at all. [Debbie, interview 2]

386 Some participants also commented on how those leading Tai Chi sessions were able
387 to contribute to the creation of a therapeutic environment in which they could reach
388 physically and mentally mindful states through delivering instructions in a soothing and calm
389 voice:

390 She's [the physiotherapist] got a very calming voice. It can't be anybody with a
391 shrewd voice doing it because that's a waste of time - a calming voice. Even then, the
392 lady and I said to each other, 'we could've fallen asleep there', and it was genuine, we
393 could've both fallen asleep. And that's not boredom – that's restfulness, you know
394 what I mean? That's why. [Jane, interview 2]

395 **Physical limitations.**

396 Participants struggled to perform some of the Tai Chi movements due to physical
397 limitations (e.g., reduced mobility) that were associated with their disease and co-morbidities.
398 Moreover, certain movements exacerbated physical symptoms (e.g., pain, fatigue,

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399 breathlessness, and oedema), disrupting participants' ability to fully participate in each
400 session:

401 It's [Tai Chi] very good but there are things you can't do. I can't do the leg
402 movements with this leg at all, because it hurts too much, and it will stay hurt for ages
403 ... You have pains in most places. I mean even the shoulder roll causes me pain and
404 I've got osteoporosis of the back, so you know, movements aren't always good. I
405 know they're gentle movements and everything, some I can do quite easily, no
406 problem. But anything where my body is being used to move, or to do anything, it
407 usually affects some part of me, you see. [Jane, interview 1]

408 Some participants (especially those who suffered from COPD and lung cancer)
409 required constant oxygen to aid their breathing. The continuous bodily movements during Tai
410 Chi sometimes caused them to feel breathless, resulting in bodily anxieties that caused panic
411 and distress:

412 I am used to doing things at 50mph all the time, but I can't do that so much anymore.
413 But that doesn't stop me from trying. Like with the Tai Chi today, I started out with
414 all of my best intentions to do it as well as I could, but my body isn't the same as what
415 it was before. I struggle with my breathing and at times when I get breathless, I can
416 panic. And I think that's what happened with Tai Chi today. I tried too much at the
417 start and just got out of puff. [Shannon, informal conversation]

418 As well as exacerbating disease-related symptoms, the inward focus on the body that
419 was cultivated during Tai Chi sessions was sometimes experienced negatively. This is
420 because it focused participants' attention on, and reminded them of, their deteriorating
421 bodies:

422 I did have a negative moment in Tai Chi this morning. When we were doing the light
423 and following your hand, it was the state of my hands. It made me focus on my hands
424 and I didn't like it because they looked all pale and I do have a bit of arthritis in them.
425 But it just seemed to accentuate how pale they were and I don't have full grip and
426 they do shake when I don't mean to and I had this really negative sort of millisecond
427 of 'I don't like doing this, its accentuating how horrible my hands look'. [Debbie,
428 interview 1]

429 The exacerbation and reminder of physical limitations sometimes undermined
430 participants' ability to experience the aforementioned benefits that were associated with Tai
431 Chi. This was because they interrupted the pleasant bodily rhythms that were integral in
432 grounding their minds and bodies in the present moment and, at times, resulted in participants
433 experiencing their minds and bodies in unpleasant ways.

434 Despite the difficulties associated with participating in Tai Chi, physical limitations
435 did not entirely preclude participants from taking part. This was because Tai Chi is a
436 multifaceted activity involving more than gentle movements (e.g., guided imagery and
437 music). Thus, despite physical limitations disrupting some aspects of their participation (e.g.,
438 gentle movements), participants were still able to take part in, and reap benefits from, other
439 aspects of sessions (e.g., visualisations and listening to music). For example, Debbie, a
440 participant paralysed from the waist down, shared:

441 Obviously, it's difficult because I can't do legs, but I don't feel left out because I can't
442 do legs because I just try and visualise my legs doing it. I don't sit there going 'I can't
443 do this', I keep the mindfulness going by imagination and vision. [interview 2]

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445

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Discussion

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To date, few studies have examined palliative patients' lived experiences of mindfulness during participation in hospice-based Tai Chi using qualitative methods.

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Through adopting a focused ethnography in which [initials removed for peer review] spent intense periods of time immersed in the cultural context of a hospice day therapy unit

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collecting multiple forms of qualitative data, we were able to produce a rich and

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contextualised account of participants' lived experiences of hospice-based Tai Chi.

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Accordingly, this study has the potential to lead to a comprehensive understanding of the

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benefits and challenges of participating in Tai Chi for patients with advanced disease and

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illustrates the importance of experiencing mindfulness during participation. The discussion

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below will consider the findings of this paper and how they relate to the literature

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surrounding Tai Chi, and physical activity more generally, in the context of advanced,

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incurable disease.

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The theme 'mind-body respite' demonstrated how Tai Chi was a transformative

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experience in which participants were able to gain temporary relief from the physical and

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psychological distress that their illness caused them. These findings are consistent with those

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of previous studies that demonstrate the efficacy of Tai Chi in improving physical and

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psychological outcomes in this population (Hägglund et al., 2018; Hui et al., 2008; Song et

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al., 2017; Zhang et al., 2016). Moreover, the two sub-themes within mind-body respite

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extends these findings by adding novel insight into *how* and *why* Tai Chi led to such

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improvements.

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'Being present in the moment' demonstrates how the various facets of Tai Chi (e.g.,

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gentle movements, visualisations, and soothing music) helped participants to anchor their

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attention and awareness onto the present moment, as opposed to focusing on things that

470 worried them. In these ways, Tai Chi seemed to be an activity in which participants were able
471 to experience 'immersive pleasures' through a concurrent process of detachment and
472 attachment (Phoenix & Orr, 2014). That is, they were able to consciously focus on (thus
473 attach their minds to) peaceful and pleasurable sensations that were occurring in the present
474 whilst simultaneously detaching themselves from thinking about, and being consumed by,
475 illness-related thoughts. Because this process facilitated experiences of mental relaxation and
476 tranquillity, Tai Chi could be seen as an 'affectively transformative' experience (Throsby,
477 2013, p.15) that enabled participants to learn how to connect with their minds in pleasurable
478 ways and experience an improved sense of well-being. This finding is particularly
479 noteworthy, especially given that distressing psychological symptoms (e.g., worries and fears
480 of the future/death, pain) can be persistent and unrelenting for patients (Teunissen et al.,
481 2007) and that patients who experience these types of distress are up to four times more likely
482 to have a desire for hastened death (Breitbart et al., 2000).

483 'Embodied peace' represented the ways in which Tai Chi helped participants to enjoy
484 the present moment through providing them with temporary relief from the physical distress
485 that their illness caused them. The progressive and uncontrollable nature of their illness,
486 alongside disease and treatment-related symptoms and side-effects, were often at the
487 forefront of participants' 'bodily intentionality' (aspects of lived experiences that the body is
488 conscious of) (Allen-Collinson, 2009). In these ways, some participants seemed to experience
489 'chaotic bod[ies]' (Sparkes & Smith, 2005, p.84), which affected them in unrelenting and
490 uncompromising ways. The gentle movements, calming music, and visualisations of Tai Chi
491 were able to provide participants with relief from these forms of physical distress by re-
492 directing their bodily intentions away from physical distress and onto sensory pleasures
493 (Phoenix & Orr, 2014) such as physical relaxation, restfulness, and renewal. As such, Tai Chi
494 participation was 'sensorially transformative' (Throsby, 2013, p.13) in that it enabled

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495 participants to learn how to feel differently within their bodies through experiencing the
496 present moment in physically peaceful and relaxing – as opposed to chaotic – ways. This is
497 an important finding considering that physical symptoms such as pain, fatigue, and general
498 weakness are commonly reported to be the most debilitating symptoms for patients with
499 advanced disease (Teunissen et al., 2007).

500 'Being present with others' demonstrated the importance of group practice in
501 facilitating mindfulness during Tai Chi. These findings support the work of others
502 underscoring the importance of group participation in Tai Chi (e.g., Hägglund et al., 2018;
503 Yeh et al., 2016) and physical activity more generally (e.g., Malcolm et al., 2016; Paltiel,
504 Solvoll, Loge, Kaasa, & Oldervoll, 2009) in patients with advanced, incurable diseases. They
505 also extend these findings by demonstrating the mechanisms through which the group
506 contributed to mindful practices during Tai Chi participation. Accordingly, they provide
507 support for, and may be explained by, Cormack, Jones, and Maltby's (2018) grounded theory
508 of group processes during mindfulness-based interventions. Participants' experiences of
509 mindfulness during Tai Chi seemed to resonate with the concept of a 'community in
510 meditation'. Mindfulness was experienced as an interdependent and relational process in
511 which participants seemed able to generate and share their experiences of mindfulness
512 between one another through meaningful social interactions that fostered a 'collective energy,
513 warmth, calmness and tranquility' (Cormack et al., 2018, p.10). These interactions were seen
514 as important for facilitating feelings of connectedness within the group and helped
515 participants to create a culture in which mindfulness was valued (Langdon, Jones, Hutton, &
516 Holtumm, 2011). Furthermore, it was important that the physiotherapists who led Tai Chi
517 sessions maintained a non-judgmental attitude and guided participants (verbally and non-
518 verbally) through the gentle movements and visualisations. Together, these group processes
519 were able to enrich the communal experiences of Tai Chi and help participants to enter

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520 deeper states of mindfulness than would have been possible compared to if they had engaged
521 in Tai Chi at home or on their own (Cormack et al., 2018).

522 'Tranquil and therapeutic atmosphere' demonstrated the importance of the
523 environment in which Tai Chi was conducted. In order to reap the benefits that were
524 experienced through the mindful aspects of Tai Chi, participants' noted that it was paramount
525 that the room in which it was conducted was calm, free from distractions, and quiet so that
526 they could fully focus on, and immerse themselves in, the soothing music and imagery during
527 sessions. This is a novel contribution to the literature because it provides a situated account
528 that highlights the ways participants' experiences of Tai Chi are located in, and affected by,
529 the setting (i.e., hospice day therapy) in which it is conducted. The importance of the
530 surrounding hospice environment during Tai Chi sessions may be understood through the
531 concept of 'therapeutic landscapes' (Gesler, 1992). These are described as 'places, settings,
532 situation, locales, and milieus that encompass the physical, psychological and social
533 environments associated with treatment or healing' (Williams, 1999, p. 2). The hospice
534 environment in which Tai Chi was conducted seemed to consist of a variety of real and
535 imagined therapeutic structures (e.g., calm music, dimmed lights, and visualisations of
536 nature) that were able to foster states of mindfulness, thus contribute positively to
537 participants' experiences of Tai Chi by helping them to immerse their minds and bodies in
538 the present moment.

539 'Physical limitations' highlighted how some participants struggled to engage in
540 certain Tai Chi movements due to disease- and treatment-related physical limitations, and
541 how the introspective focus that it fostered sometimes made participants feel uncomfortable
542 because it highlighted the deterioration of their bodies. The manner in which participants'
543 physical limitations precluded participation in Tai Chi, and undermined their ability to
544 experience the benefits of mindfulness, may be understood through the concept of

545 'interrupted and apprehended motion' (Phoenix & Bell, 2019, p.50). That is, physical
546 symptoms felt/exacerbated during Tai Chi appeared to unexpectedly and unwantedly remind
547 participants of the contingencies of their deteriorating bodies and interrupt the pleasant bodily
548 rhythms that were associated with mind-body respite (Phoenix & Bell, 2019). This finding is
549 at odds with much of the literature surrounding the impact of Tai Chi (and physical activity
550 more generally) on patients with advanced, incurable diseases whereby much of the research
551 has conformed to the 'exercise is medicine' narrative. Such studies have (often uncritically)
552 advocated exclusively for the positive outcomes and accessibility of Tai Chi as an
553 intervention for patients with a variety of advanced, progressive diseases (e.g., Hui et al.,
554 2008; Li et al., 2014). Through highlighting the potentially negative ways in which patients
555 with advanced disease may experience Tai Chi, this finding presents an original contribution
556 to the field, while also supporting recent critiques of the 'exercise is medicine narrative'
557 (Williams, Hunt, Papathomas, & Smith, 2018). Future research guided by qualitative inquiry
558 is needed in this area to broaden our understanding of the nuances and complexities that
559 accompany Tai Chi (and physical activity) engagement in patients with advanced, incurable
560 disease, including the potentially negative and messy ways in which they may experience
561 participation.

562 Collectively, these findings support the use of hospice-based Tai Chi as a non-
563 pharmacological adjunct to conventional treatments for patients with advanced, incurable
564 disease. They also support a recent Hospice UK report which underscored the importance of
565 ensuring that palliative patients have adequate access and provision to rehabilitative palliative
566 care therapies/services (e.g., Tai Chi) within the catchment area of where they live (Hospice
567 UK, 2015). In achieving this, hospices may act as 'diffusers' in their local communities (e.g.,
568 places that provide adequate provision and access for patients to be physically active) of Tai
569 Chi and MBM interventions more generally (McLeroy et al., 1988).

570 To contextualise these findings, it is appropriate to highlight some limitations of the
571 study. First, many aspects of participants' experiences of Tai Chi were deeply sensuous and
572 embodied. A potential limitation of this study was that it relied on traditional forms of
573 analysis and representation that have been critiqued with regards to their ability to fully
574 communicate the complexity and richness of sensual and embodied experiences (Sparkes,
575 2016). Future research that draws on different types of creative analytic practices (e.g.,
576 creative non-fictions) would greatly enrich our understanding on this topic by digging deeper
577 into, and more evocatively representing, these aspects of participants' experiences. Another
578 potential limitation of this study was that the observations and experiences analysed are those
579 of a predominantly female group (f=15, m=4). While future research should strive to address
580 this through actively seeking out the experiences of men, we maintain that this limitation can
581 be mitigated through opportunities to generalise our findings using naturalistic
582 generalisability (Smith, 2018). In other words, males involved in hospice-based Tai Chi are
583 likely to identify (albeit partially) themselves and their experiences within our findings. That
584 we did not identify significant within-sample differences between our female and male
585 participants further supports this. Remaining on the theme of gender, another limitation of
586 our study relates to the observational data that was collected (e.g., fieldnotes), including
587 decisions regarding where to 'hang out', and what conversations to initiate and when, being
588 overseen exclusively by a male researcher [initials removed for peer review]. We must
589 acknowledge, therefore, that these (inter)actions were equally gendered. This is by no means
590 to imply the findings are less trustworthy (indeed, difference here may have helped with
591 rapport, access, elaboration etc.) but worth noting given the gender breakdown of the group
592 being studied. The involvement of [initials removed for peer review], who offered guidance
593 on research conduct, data analysis and representation of findings may have further mitigated
594 this.

595 **Conclusion**

596 The aim of this study was to explore hospice outpatients' lived experiences of
597 hospice-based Tai Chi in relation to mindfulness. Through adopting a focused ethnographic
598 approach, this study provides a situated account of how participation in Tai Chi facilitated
599 experiences of mindfulness. The various aspects of Tai Chi (e.g., gentle movements, breath-
600 work, visualisations, soothing music, and surrounding environment) acted as a gateway into
601 the present moment in which many participants were able to experience temporary relief
602 from the distressing aspects of their illness. In this regard, Tai Chi mostly helped participants
603 to experience their minds, bodies, and social surroundings in pleasurable and peaceful ways.
604 Integral to the benefits that were experienced through the mindful aspects of Tai Chi was
605 ensuring that it was conducted in a calming and therapeutic setting. This study supports the
606 use of Tai Chi as a non-pharmacological adjunct to conventional treatments in helping to
607 manage and address the multifaceted healthcare needs of patients with a range of advanced,
608 incurable diseases.

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