

## How to create a mindful community of practice: Exploring the social functions of group-based mindfulness practices facilitated via Zoom during Covid-19

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### Abstract

This exploratory qualitative study was conducted to investigate the experiences of individuals who have been participating in online mindfulness sessions with an online mindfulness community since the beginning of Covid-19, i.e. during a period of heightened uncertainty and social isolation. The study's purpose was to better understand the social functions of regularly practicing mindfulness in this online community of practice. Analyses from semi-structured interviews reveal how shared mindfulness practice may foster several pillars of connection and interbeing in this community of practice. These include improved mind-body awareness, coupled with a unique sense of trust and connection, which may have helped cultivate collective alignment and a sense of common humanity among research participants. Findings are discussed through the lens of interdependence theory, resulting in several exploratory propositions on how to create a mindful community of practice. The study concludes with a call for more research in this understudied research domain and invites mindfulness researchers and practitioners to test these propositions further. Its overall aim is to stimulate debate among individuals and groups intent on creating a mindful community in their workplace, educational setting, or neighborhood.

### 1 Introduction

In Eastern contemplative traditions, mindfulness is considered a method – or practice – with a specific purpose: to develop lucid, metacognitive awareness of one's experience in order to clearly comprehend and transform suffering (Bodhi, 2011). In the scientific literature, the link between mindfulness and well-being has been extensively studied and mindfulness meditation is now widely utilized as part of mental health interventions (Wielgosz et al., 2019) including in workplaces (Kelloway et al., 2023). Furthermore, leading mindfulness scholar Jon Kabat-Zinn argues that mindfulness has transformative potential: mindfulness helps cultivate capacity to alleviate suffering and promote wellbeing for individuals as well as for communities and the world at large (Kabat-Zinn, 2011). In this paper, we incorporate Kabat-Zinn's assertion about the transformative potential of mindfulness and lean on Bodhi (2011) and Kudesia (2019) to define mindfulness by its purpose, as a metacognitive practice to deeply understand and transform suffering and generate wellbeing, for one and all.

Communities of practice are groups of individuals who come together regularly to learn together, to share knowledge, and to benefit from belonging to a community of shared interests (Wenger, 1998). When people practice mindfulness together regularly, they can be considered a mindful community of practice. Typically these initiatives last two to three months, and then the intervention stops. But what happens when people in a workplace come together for a longer period of time to practice mindfulness? What are the social functions (in other words, the beneficial effects of actions or processes in a social system; Merton 1949) of group-based

41 mindfulness practice in an online mindfulness community of practice created during Covid-19?  
42 This is the question at the heart of our study.

43 In this paper, we focus our attention on the transformative potential of mindfulness. Specifically,  
44 our work responds to calls for more research on how mindfulness may help generate wisdom and  
45 transform suffering, not only for individuals but for everyone (Bahl et al., 2016; Daniel et al.,  
46 2022; Tobias Mortlock, 2023). Scholars have theorized on why and how mindfulness can be  
47 transformative beyond beneficial individual change, for social groups and even for society as a  
48 whole. For example, du Plessis & Just (2022) argue that mindfulness can transform the way we  
49 think about ourselves and others through critical reflexivity. In addition to critical reflection on  
50 personal and social issues, Vu & Burton (2020) propose that mindfulness encourages moral  
51 reflexivity with the potential to transform learning, including management learning in  
52 organizations. Perera et al. (2024) suggest that the potential of mindfulness practice to balance  
53 cognitive and emotional aspects of decision-making can transform workplaces by promoting  
54 more ethical decisions and by mitigating against discrimination. Moreover, in the United  
55 Kingdom (UK), a growing number of politicians have started practicing mindfulness and appear  
56 to consider mindfulness as more than mental training that brings along individual benefits, instead  
57 contributing to a flourishing society (Bristow, 2019). Finally, practitioners call for more rigorous  
58 research exploring how mindfulness can help cultivate transformative leadership (Paul, 2022).

59 However, empirical research examining the potential of mindfulness to transform entire  
60 communities is still scarce. In other words, today much prominent mindfulness theory and  
61 practice is concerned with cultivating awareness of the self, predominately focusing on the breath  
62 to help calm one's mind and take on the stance of a non-judgmental observer of one's thoughts  
63 and feelings through silent meditative practice (Kabat-Zinn, 2005; Williams & Penman, 2011).  
64 Scientific studies focusing on how mindfulness may help transform relationships *between*  
65 individuals are more rare than those investigating how it may help cultivate transformation *within*  
66 individuals. An exception is case study research of community-based activism in the UK and  
67 Germany, proposing that the Buddhist notion of *interbeing* – a term coined by influential  
68 Buddhist monk and writer Thich Nhat Hanh which relates to humans being inextricably mutually  
69 engaged with each other – is an essential aspect of social change and the transformation of society  
70 (Schmid & Aiken, 2021). Another exception is Tobias Mortlock et al.'s (2022) mixed-methods  
71 study combining individual with collective mindfulness training in a high-stress military setting,  
72 suggesting that innovative mindfulness training interventions may cultivate transformative  
73 capacity not only for individuals but for entire work teams.

74 Indeed, scientists report that mindfulness can cultivate beneficial outcomes not only for the self  
75 but also for others (c.f. Schindler and Friese, 2021, for a recent review). For example, several  
76 studies suggest that brief mindfulness training interventions may be effective in helping workers  
77 behave more prosocially (Hafenbrack et al., 2020) and that even 8 to 15 minutes of mindful  
78 breathing can increase workplace civility (Hafenbrack et al. 2024). Other empirical work (by the  
79 same lead author) indicate that being in a state of mindfulness may in fact *reduce* people's  
80 motivation to feel guilt or engage in prosocial reparative behaviours (to mend broken  
81 relationships; Hafenbrack et al., 2022). While meta-analytic analyses do report that there is a  
82 significant correlation between mindfulness practice and prosocial outcomes (Berry et al., 2020;  
83 Donald et al., 2019), these comprehensive reviews also highlight concerns about publication bias  
84 and challenges regarding replicating these findings. Notably, Berry et al.'s (2020) meta-analysis  
85 makes a critical distinction between the cultivation of compassionate and empathetic attitudes  
86 through mindfulness practice and the translation of these attitudes into actual prosocial behaviors,  
87 particularly when such behaviors would incur a cost to the individual (e.g., sharing expertise with  
88 a colleague or offering shelter to a person in need), and conclude that there is no conclusive  
89 evidence supporting the universally salubrious effect of mindfulness meditation on actual  
90 prosocial behavior. It may be that it matters more than we previously thought *how* people practice

91 mindfulness together for social benefits of mindfulness practice to occur – hence our particular  
92 focus on examining mindfulness practice in groups.

93 In fact, in the contemplative traditions, mindfulness is understood as a socially engaged practice.  
94 As mentioned above, one of the core tenets of Eastern mindfulness is the intent to help people  
95 realize their *interbeing* nature. According to Hanh (2020), human experiences and the realities we  
96 create are all interconnected, and realizing this lays the path towards collectively understanding  
97 and overcoming suffering. We are more interdependent than we think: mindfulness in one person  
98 - as well as mindlessness - often impacts the level of mindfulness in another. Recall the last time  
99 you said or did something mindless to another person; this has likely influenced their capacity to  
100 be, to become, or to remain calm and non-judgmental. By the same token, meditation, the core  
101 mechanism of generating mindfulness, can be defined as “the practice of concentration, or  
102 stopping and looking deeply, in order to realize the truth of interbeing” (Hanh, *ibid.*, p. 88). This  
103 means we can make space to cultivate mindfulness within ourselves, as well as cultivate  
104 mindfulness ‘in the space between you and me’.

105 Based on the above-mentioned theoretical frameworks for understanding mindfulness in groups  
106 and organizations, as well as a broader understanding of mindfulness and its benefits, the field is  
107 well-positioned to better understand collective mindfulness practices and using qualitative,  
108 narrative methods to examine the social purposes of mindfulness.

109 In this study, we explore the experiences of members of an online mindfulness community of  
110 practice at a large metropolitan University who have come together to practice mindfulness and  
111 gentle mind-body exercises since the beginning of the Covid-19 pandemic, i.e. approximately 4  
112 years to date. In this university setting, online-facilitated mind-body sessions have been offered  
113 by experienced mindfulness facilitators three times a week and participants were invited to log on  
114 and join the online mindful community at any point.

115 The study is qualitative in nature. Sixteen semi-structured interviews were conducted with  
116 volunteers from the above online mindfulness community of practice, to gain an understanding of  
117 their motivation to engage with the community, to explore how they have experienced the mind-  
118 body practices, the community, and any outcomes of being a member of this community.  
119 Interviews were transcribed and analyzed using inductive thematic analysis (Braun & Clarke,  
120 2006) by two members of the research team (not the mindfulness facilitators), ensuring adequate  
121 interrater reliability, comparing and discussing major themes in two iterations.

122 In the sections that follow, we situate the study in its theoretical rationale, explain study research  
123 design and setting in detail, before presenting the results from our exploratory analyses. The paper  
124 concludes with a discussion of the study’s implications for theory and practice as well as an  
125 outline of the study’s research limitations and opportunities for follow-up research.

## 126 **2 Theoretical background**

### 127 **2.1 Theoretical rationale**

128 People can practice mindfulness alone or they can practice mindfulness with other people in a  
129 group setting within a community of mindful practice. Our study focuses on the social purpose of  
130 mindfulness, in other words its mission to cultivate wellbeing beyond individual transformation  
131 which has not been fully explored. Lacking knowledge about how individual and group processes  
132 and outcomes of people practicing mindfulness in communities of practice interact is problematic  
133 from a theoretical, practice-based and pragmatic perspective. There are at least two potential  
134 avenues through which mindfulness may prompt social transformation as an individual or as part  
135 of a community of practice: On one hand, there may be social or interpersonal benefits to an

136 individual practicing mindfulness, for example increased prosocial behaviour (Hafenbrack et al.,  
137 2020). This improved prosociality may come about because individual mindfulness practice not  
138 only helps an individual become aware of and regulate their own emotions and behaviour, but this  
139 self-awareness and self-regulation may *transcend* the self, prompting prosocial attitudes and  
140 actions such as empathy and compassion (Vago & Silbersweig, 2012). On the other hand, when  
141 people practice mindfulness together, individuals involved in such group-based mindfulness  
142 practice may benefit from another's mindfulness practice. This is because mindfulness practice  
143 can be 'contagious', in a positive way: it may prompt *interpersonal* mindfulness, defined as self-  
144 as well as other-awareness with nonjudgment and nonreactivity (Pratscher et al., 2018). Khoury et  
145 al. (2023) speculate on the mechanisms involved in generating these personal benefits through  
146 interpersonal mindfulness: prosocial behaviours initiated by a person who practices mindfulness  
147 may facilitate awareness and understanding of internal somatic and emotional states, emotion  
148 regulation, empathy and mindfulness of another person in their presence. In addition, developing  
149 embodied awareness of the self may contribute to a greater understanding of how the minds and  
150 bodies of others interact with the self to enhance interpersonal connection and wellbeing.

151 Mindfulness and mindful movement based mind-body interventions have reliably been shown to  
152 be effective in increasing individual wellbeing in a variety of contexts including workplaces,  
153 schools and universities (Creswell, 2017; Bartlett et al., 2019; Vonderlin et al., 2020). In the  
154 scientific literature, mind-body practices have been defined as those "whose origins lie outside of  
155 the Western culture, typically combining muscle-strengthening, balance training, light-intensity  
156 aerobic activity, and flexibility in one package" and include a variety of yoga, tai chi, and other  
157 physical activities that also consider mental practices such as mindfulness, relaxation, and  
158 spirituality (Powell et al, 2018, 1). Mind-body practices emphasize the interconnectedness of the  
159 mind, body and heart in order to soothe the parasympathetic nervous system and strengthen  
160 polyvagal tone that in turn allows the individual to gently pause before responding and thus  
161 regulate emotion and enhance decision-making (ibid.). The exploration of neurobiological  
162 mechanisms underpinning the benefits of mindfulness training have identified measurable  
163 changes in the brain associated with attention, perspective taking and cognitive flexibility (Hölzel  
164 et al, 2011; Tang et al, 2015; Edginton, 2020) including hemispheric synchronicity (Lomas et al,  
165 2014) and structural changes in the insula, a region of the brain that processes body awareness  
166 and emotional awareness (Sharp et al, 2018). A robust evidence base has been established for  
167 mindfulness as a mind-body intervention for stress reduction and improvements in wellbeing  
168 based on the efficacy of guided practices and inquiry (Farb et al, 2015; Pérez Peña et al, 2022).  
169 The inclusion of inquiry within the group, which fosters connection and a sense of shared  
170 understanding, combined with mindful awareness, may foster beneficial change (Pérez Peña et al,  
171 2022).

172 The growing evidence base on the efficacy of mindfulness has predominantly focused on in-  
173 person groups across a range of community, workplace, educational and clinical settings. More  
174 recently there has been an interest in online mindfulness-based interventions which have also  
175 been shown to be effective in raising wellbeing and reducing employee stress (Spijkerman et al.,  
176 2016; Stratton et al., 2017). The success of these online interventions support earlier findings that  
177 the inclusion of group-based mindfulness practices and mindful inquiry may be core components  
178 that underpin beneficial changes associated with mindfulness training and the creation of a  
179 community of practice. There is some research exploring the opportunities and challenges  
180 associated with mindful communities of practice, notably their potential to generate care and  
181 compassion in work settings (Correia & Strehlow, 2018). *Online* communities of practice have  
182 become more prevalent in recent years, especially in the wake of the Covid-19 pandemic. Little is  
183 known in the scientific literature about online mindfulness communities of practice, yet we do  
184 know that workplaces interested in bringing people together in an online mindful community  
185 need to balance potential concerns (perceived lack of personal connection, fear of cyber bullying,  
186 and so on) with potential benefits (in particular convenience and flexibility; El Morr et al., 2020).

187 Our study sits at the intersection of three literatures: social functions of individual mindfulness  
188 practice, mindfulness practice in a group setting, and online communities of practice.

### 189 **2.2 Relevant theoretical frameworks**

#### 190 **2.2.1 Situated learning theory**

191 Social learning is as simple as it is powerful: people learn by watching other people (Bandura,  
192 1977). Situated learning is an educational theory that emphasizes the contextual and relational  
193 nature of learning that occurs in adult education (Herrington & Oliver, 2000) and in Communities  
194 of Practice (CoPs; Handley et al., 2006). It is based on Vygotsky's work proposing that humans  
195 develop through social interaction (Vygotsky, 1994). Situated learning occurs when individuals  
196 collectively make sense of situations, in particular in non-routine contexts such as when people  
197 get together outside of their ordinary work convention (Huzzard, 2004). Critical reflection and  
198 contextual sense-making are deemed essential ingredients of situated adult learning (Welsh &  
199 Dehler, 2013).

#### 200 **2.2.2 Online communities of practice**

201 Social scientists Jean Lave and Etienne Wenger first coined the term "community of practice" in  
202 the early 1990s, describing a group of people who share a passion or concern and who come  
203 together and interact regularly in order to learn to do it better (Lave, 1991; Wenger, 1998). These  
204 communities are characterized by their shared interest, their collective learning and knowledge  
205 creation, and their shared practice and identity (Wenger, 1998). CoPs have been shown to be  
206 effective in generating knowledge sharing, learning, and professional development (Monaghan,  
207 2010). In particular, community psychosocial wellbeing is cultivated through CoP and  
208 community practice interventions (Ohmer & Korr, 2006). In addition, a recent systematic review  
209 of public health CoPs suggests that reflective practice, structured problem-solving, and diverse  
210 networking may help in generating beneficial outcomes for CoP participants (Barbour et al.,  
211 2018).

212 Online CoPs, also known as electronic networks of practice, are platforms where participants with  
213 a shared concern or passion interact to deepen their knowledge, expertise, and social networking  
214 capacity (Gunawardena et al., 2008; Zhang & Watts, 2008). Research has shown that online CoPs  
215 have various benefits. They can provide opportunities for individuals to engage in ongoing  
216 discussions, share personal experiences, and provide emotional support (Prescott et al., 2020). In  
217 addition, they may act as therapeutic spaces, offering support and understanding for individuals  
218 facing health challenges (Coulson et al., 2017). Finally, online CoPs foster sustained learning and  
219 engagement between individuals in particular if they are characterized by trust and interpersonal  
220 commitment (Chang et al. 2015).

#### 221 **2.2.3 Online mindfulness programmes**

222 Over the last decade, mindfulness-based interventions (MBIs) have increasingly been offered  
223 online. For example, individuals can join time-bound online MBIs delivered via the internet or  
224 group videoconferencing technology, such as the 8-week Mindfulness-Based Stress Reduction  
225 (MBSR) or Mindfulness-Based Cognitive Therapy (MBCT) training courses (Moulton-Perkins et  
226 al., 2022).

227 Scholars have begun evaluating the effectiveness of these new formats of mindfulness  
228 programmes (Spijkerman et al., 2016; Sommers-Spijkerman et al., 2021). Evidence from one of  
229 the first narrative syntheses of 10 online MBSR or MBCT programmes indicates that these may  
230 be as effective as in-person delivered mindfulness training, yet only three of these demonstrated  
231 moderate to high methodological quality (Moulton-Perkins et al., 2022). More recent systematic  
232 reviews and meta-analyses indicates that online MBIs can generate modest but significant

233 benefits (Sommers-Spijkerman et al., 2021; Johnson et al., 2024), yet we still know too little  
234 about who signs up for and who drops out of online mindfulness programmes, how often  
235 individuals should log on or attend to benefit, or who might benefit most.

236 Understanding drop-out rates for mindfulness programmes is particularly important because we  
237 know that in mindfulness, practice really does matter in terms of helping generate beneficial  
238 outcomes (Parsons et al., 2017). This argument is supported in a systematic review of 8 RCTs of  
239 online MBIs offered during Covid-19; overall, a more beneficial effect could be detected for  
240 MBIs with a longer duration as well as for those who offered repeated intervention options  
241 (Witarto et al., 2022). However, according to Vargas-Nieto et al.'s (2024) systematic review of  
242 digital MBIs for repetitive negative thought, we lack solid data on drop-out rates for online  
243 mindfulness (the authors suggest that only four out of the 13 studies included in their review  
244 reported adequate completion rates), and drop-out ranges widely, with completion rates ranging  
245 from 21% to 85%.

246 In addition, a recent systematic review of 56 Randomised Controlled Trials (RCT)s of mind-body  
247 interventions to manage chronic pain, delivered using technology-enabled channels, found that  
248 only two thirds (that is, 38 out of the 56 included studies) provided a recommended 'dose' for  
249 adherence, i.e. how often to attend, log on, or practice the recommended techniques to experience  
250 benefits (Johnson et al., 2024). The authors of that same review explain that only three quarters of  
251 included studies (43/56) tracked intervention adherence, ranging from 69% to 92%, yet measuring  
252 this is crucial to gauge the effectiveness of online MBIs. These findings echo the findings of  
253 Spijkerman et al.'s (2021) comprehensive meta-analysis of 97 online mindfulness RCTs,  
254 reporting overall statistically significant to moderate effectiveness in reducing depression,  
255 anxiety, and stress, yet stating that less than 25% of these (22 out of the 97 included studies) had  
256 defined cut-off rates for adherence, and over 75% (76 out of 97) did not measure drop-outs.

257 In terms of understanding for whom online mindfulness programmes might be most beneficial, in  
258 Witarto et al.'s (2022) systematic review of online MBIs during Covid-19 a sub-group analysis  
259 seemed to suggest that older adults may benefit comparatively more than other age groups; the  
260 authors speculate that this may be due to older individuals' greater capacity for engaging in  
261 acceptance-based processes. The same effect was not found across the other systematic reviews  
262 and meta-analyses we could identify. Furthermore, a recent systematic review of 13 online MBIs  
263 specifically focused on university students found small but significant reductions in depression,  
264 anxiety, and stress (yet no link to improved wellbeing), which appeared to show comparatively  
265 higher effect sizes than MBIs for other adults (Gong et al., 2023). The authors of that review  
266 speculate that this may be due to university students being more familiar with technology-based  
267 interventions. In a similar vein, Vogeswaran et al.'s (2021) systematic review of (two) online  
268 mindfulness interventions to improve medical student mental health suggests these may be  
269 effective, yet warn that high drop-out rates diminish this potential benefit. Scholars call for more  
270 research specifically exploring the community dimensions of group mindfulness practice  
271 facilitated online, to counteract low program usage and high drop-out (Ahmad et al., 2018).

### 272 **2.2.4 The social effects of individual mindfulness practice**

273 We know that mindfulness practice can reduce symptoms of various mental health conditions  
274 (Creswell, 2017), as well as enhance mind-body connection (Grasser & Marusak, 2023), improve  
275 cognitive functioning (Lodha & Gupta, 2022) and strengthen physical health (Cardle et al., 2023).  
276 We also know that a disposition towards *interpersonal* mindfulness – an interpersonal awareness  
277 of moment-by-moment experiences both within oneself and also within another person by paying  
278 attention to the other's verbal and nonverbal communication – is linked to improved interpersonal  
279 communication (Pratscher et al., 2019) and improved intercultural communication effectiveness  
280 (Khukhlaev et al., 2022). In addition, *social* mindfulness theory is concerned with paying

281 attention to the interests and concerns of others and by engaging in “other-regarding actions that  
282 arise from other-regarding motives” (van Doesum et al., 2013). Social mindfulness can reduce  
283 social hostility (van Lange and van Doesum, 2015) and arises via empathy and perspective-taking  
284 (Gerpott et al., 2020).

285 The evidence base on this topic appears incomplete, in an important and arguably understudied  
286 way: while we agree that it is important to understand the outcomes of mindfulness training and  
287 practice, it is also important to deeply understand the process of how individual mindfulness  
288 practice may – or may not – engender social effects. In other words, much empirical work to date  
289 has focused on the benefits of mindfulness *programs*, not examining the benefits of *membership*  
290 in a mindfulness program. This approach may also contribute to resolving why individual  
291 mindfulness practice may not always bring along social benefits, as mentioned in our  
292 Introduction.

### 293 **2.2.5 Mindfulness practice in groups**

294 Nowadays there is an abundance of mindfulness Apps and online mindfulness resources available  
295 to individuals interested in learning to practice mindfulness, such as the Headspace™ App or the  
296 Calm™ App. However, people typically learn mindfulness practices in groups, for example by  
297 attending an 8-week group mindfulness-based stress reduction (MBSR) course based on the  
298 seminal work of Jon Kabat-Zinn (Kabat-Zinn, 1982; Creswell, 2017) or through attending an  
299 amended group course based on MBSR or one of its evidence-based derivatives. One of these is  
300 the 8-week group program mindfulness-based cognitive therapy (MBCT; Segal et al., 2002). The  
301 outcomes of these group-based mindfulness training programs has been studied extensively. For  
302 example, in a longitudinal and rigorously designed study comparing MBCT with antidepressant  
303 treatment, researchers found that MBCT training is as effective as taking antidepressants even 2  
304 years after completing the program (Kuyken et al., 2015). This impressive finding strongly  
305 indicates that learning to practice mindfulness in groups over time is effective.

306 MBSR pioneer Kabat-Zinn (1990) suggested that the group setting in the course plays a pivotal  
307 role in promoting mindful interactions – and thus mindfulness – among participants. There is  
308 empirical support for this view: Imel et al.’s (2008) examination of 59 MBSR groups found that  
309 being in a group while taking part in an MBSR course accounted for 7% of the variability in  
310 reducing psychological stress symptoms. The mechanism for this appears to be driven by MBSR  
311 instructors using their mindfulness skills to observe and adapt to group dynamics in real-time,  
312 aiming to (a) enhance the group’s collective understanding of mindfulness, (b) improve the  
313 group’s ability to listen deeply to each participant’s experiences, and (c) encourage individuals to  
314 more openly share their experiences (ibid.). Indeed, the group setting in mindfulness practice  
315 seems to significantly influence participants’ learning experience – which may be positive or  
316 negative – depending on the mindfulness facilitator’s skill in using the “group as a vessel on a  
317 shared journey” (Cormack et al., 2017, 735).

318 Specific examples pointing to the potential superiority of group-based mindfulness meditation  
319 over solitary meditation includes improved weight management when meditating in a group  
320 (Mantzios & Giannou, 2014) and enhanced social cohesion in groups meditating together (Hanley  
321 et al., 2022). Furthermore, a recently published meta-analysis indicates that group-based  
322 mindfulness-informed therapy is slightly more effective than standard (individual) cognitive  
323 behavioral therapy (Ferreira et al., 2022). Mindfulness practice can also help groups function  
324 better overall, because it helps group members become aware of their individual reactions to  
325 others in nonjudgmental ways (Michalski & Smith, 2023).

326 However, other direct empirical comparisons of mindfulness practice in groups vs practicing  
327 alone found no differences in effectiveness of group-delivered and individually delivered MBCT

328 for reducing depression and somatic disease (Schroevers et al., 2016) as well as no differential  
329 effect of participating in a mindfulness intervention alone vs as part of a group on improved  
330 character or mindfulness skills (Matiz et al., 2018). This means more research is needed to further  
331 illuminate the potential benefits of mindfulness practice in group settings.

### 332 **2.3 Study focus**

333 Bringing together the literatures we have discussed above in the context of the present study, the  
334 research question (RQ) for our inquiry is, what are the social functions of group-based mindfulness  
335 practice in an online mindfulness community of practice created during Covid-19. Furthermore, we  
336 explore this RQ in the context of situated learning theory. This is because the theoretical context  
337 for the study is collective reflection, learning, and sense-making.

## 338 **3 Materials and Methods**

### 339 **3.1 Research setting**

340 This study came about in the context of a large metropolitan university (the first and last authors'  
341 institution) offering 30 minute drop-in mindfulness practice sessions via an online platform  
342 (Zoom) to staff and students over lunchtime, three times a week. The sessions were run by three  
343 experienced mindfulness trainers with specific expertise in Mindfulness-Based Stress Reduction  
344 (MBSR), alternating mindfulness facilitation so that there was always one trainer facilitating.  
345 Participation was free, no prior meditation experience was necessary, and anyone could join a  
346 session at any time. The sessions had been created in the wake of the Covid-19 pandemic to  
347 support student and staff wellbeing.

348  
349 Each session followed the same broad structure: the facilitator welcomed the participants and  
350 invited them to share briefly how their mind was (or share a reflection that the facilitator initiated)  
351 on a voluntary basis (nobody was forced to share); then the facilitator guided the online group  
352 through a 10 to 15 minute gentle mind-body meditative practice involving gentle relaxation,  
353 mindfulness meditation, and/or gentle stretching practice; and the session finished with another  
354 inquiry, specifically an invitation to the participants to share how their mind was then, after the  
355 practice (or share anything else related to the practice or session). Throughout, the facilitator  
356 followed Crane's (2015) disciplined improvisation approach to the inquiry, namely seeking (as  
357 much as possible) to foster affiliation and intersubjective connection within the group of people  
358 present and gently steer communication towards nonjudgmental sharing of universal, embodied  
359 experience (as opposed to story-telling or sharing self-criticism).

360  
361 The study was conducted during the summer of 2022; 2.5 years after the start of offering the  
362 drop-in mindfulness sessions at the university. By then, approximately 330 online mindfulness  
363 sessions had been run. Approximately 300 individuals had taken part in at least one session. On  
364 average between 10 and 20 individuals logged on to a session, and there were approximately 50  
365 individuals who had participated regularly (i.e. at least once a week for several months). Over the  
366 several years that the online mindfulness sessions were running by the time the study was  
367 conducted, the sessions were reasonably well-known at the university. People joined and dropped  
368 out for a variety of reasons; scheduling conflicts contributed to drop-outs, so did changes in work  
369 patterns or individuals moving away and thus into other life contexts, as well as varying degrees  
370 of prioritizing practicing mindfulness alone vs. as part of this particular group. The individuals  
371 who formed part of our empirical study were drawn from the approximately 50 individuals who  
372 joined reasonably regularly, and thus were the community of practice for this study.

373  
374 Our methodology reporting approach follows APA publication recommendations for qualitative  
375 empirical research (Levitt et al., 2018).



376 **3.2 Research Design**

377 The research design for this study follows an interpretivist research paradigm, meaning that we  
 378 aim to understand human behavior through subjective interpretation (Denzin & Lincoln, 2005).  
 379 This paradigm shaped our relativist research ontology, assuming that there are multiple realities in  
 380 life and different people may experience the same event differently, and a critical realist  
 381 epistemology, which determined our research question by seeking to understand our participants'  
 382 interpretations of the world in their context and through their perceptions (Willig, 2013).  
 383

384 **3.2.1 Participant Recruitment**

385 Following approval to conduct the study from the first and last authors' university Institutional  
 386 Review Board (IRB), participants were recruited on a volunteer basis by sending email  
 387 communication to all individuals who had attended at least five of the lunchtime online  
 388 mindfulness practice sessions over the course of a month (as outlined above). The total number  
 389 of participants was 16. We chose this exploratory sample size leaning on Hagaman et al. (2017)  
 390 who suggest that 16 or fewer qualitative interviews are sufficient to uncover common themes  
 391 when conducting research with generally homogeneous populations and on Saunders et al.,  
 392 (2016) who suggest that the norm for sample size in organisational psychology research is  
 393 between 15 and 60 individuals.  
 394

395 **3.2.2 Participant Characteristics**

396 The 16 individuals below volunteered to participate in the study, provided informed consent, and  
 397 were interviewed by two research assistants not affiliated with the online mindfulness sessions.  
 398 They were between the ages of 20 to 60 years. In Table 1 below, we outline the demographics we  
 399 captured for the participants, notably gender, and their roles (student or staff at the university).  
 400 Out of the participants, 3 were male and 13 were females, which was representative of the  
 401 participants who attended. The age range was spread relatively widely; 5 participants were in  
 402 their 20s, four in their 30s, 3 in their 40s and 50s, respectively, and one person was in their 60s.  
 403 Five students at the university were interviewed, 7 staff members, and 4 individuals who were  
 404 affiliated but neither staff nor student at the university.

405 *Table 1: Demographics of the participants included in the study.*

<b>Name (anonymised)</b>	<b>Gender</b>	<b>Age range</b>	<b>Student or Staff</b>
Sarah	Female	20s	Student
Ruma	Female	50s	Student
Olivia	Female	40s	Staff
Ava	Female	60s	Staff
Matthew	Male	30s	Staff
Emma	Female	20s	Student
Zoe	Female	30s	Staff
Sriya	Female	50s	Staff
Lauren	Female	50s	n/a
Sophia	Female	20s	n/a
Emily	Female	30s	Staff
Jessica	Female	40s	n/a
Daniel	Male	20s	Student
Dounia	Female	30s	n/a
Hosnara	Female	20s	Student

Noah	Male	40s	Staff
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406

407 **3.2.3 Interview Procedure**

408 A semi-structured interview schedule was developed and pilot-tested before conducting  
 409 interviews with the research participants. The main focus of the questions was to understand the  
 410 participants' experience of the online mindfulness sessions. Questions explored how they found  
 411 out about the sessions; when they started regularly logging on; what their motivation was for  
 412 joining; how regularly they attended; how they would describe their experience of the sessions  
 413 and how this experience may have changed over time; whether they stopped joining at some point  
 414 and what factors might have contributed to that and/or what drove them to re-join the sessions  
 415 subsequently; what mindfulness meant to them and how they practiced mindfulness; how they  
 416 experienced the online mindfulness community; and any other feedback participants were willing  
 417 to share.

418

419 Interviews were arranged via email at a convenient time for the participant and conducted online.  
 420 Having ensured that informed consent was provided, the researcher ensured that the participant  
 421 understood the purpose of the study and the procedure. Interviews were audio-recorded following  
 422 verbal consent from participants; these audio-recordings were destroyed upon transcription. Each  
 423 interview took between 25-40 minutes and was debriefed in accordance with ethical guidelines.

424

425 The informational power among the sample of participants appeared satisfactory (Malterud et al.,  
 426 2016). This was demonstrated by the fact that both interviewers reported no significant additional  
 427 new insights collected during their last interview and concluded that data saturation seemed to  
 428 have been reached (Guest et al., 2020).

429 **3.3 Analytic Approach**

430 Interview transcripts were analyzed using Braun and Clarke's (2006) Thematic Analysis in  
 431 several stages to identify, analyze, and report on findings in the data. Two researchers (the first  
 432 and second author) developed initial codes inductively and individually, first by hand, then by  
 433 grouping them electronically, and sharing and discussing these in three iterations. After each  
 434 iteration discussion, the researchers went back to the transcripts to re-code and re-identify major  
 435 themes and subthemes before sharing their interpretations again, until intercoder reliability was  
 436 high and identified themes and subthemes were virtually identical across the two researchers  
 437 (O'Connor & Joffe, 2020).

438 **3.4 Reflexivity**

439 Reflexivity in qualitative research is concerned with researchers critically investigating their own  
 440 beliefs, judgments, and biases which may skew the reporting of results (Jamieson et al., 2023). In  
 441 line with the principles of subjectivist research paradigms guiding this study, it is important to  
 442 note that both researchers involved in the data analysis have been immersed in the study in  
 443 different ways (the first author served as one of the mindfulness session facilitators; the second  
 444 author was one of the data collection researchers) and therefore bring a degree of researcher bias  
 445 to the data analysis (Braun & Clarke, 2012). To mitigate this and minimize bias in reporting, the  
 446 researchers repeatedly engaged in reflection during the analysis process to realign their  
 447 understanding about the research process and its aim, and in particular how each of them might be  
 448 influencing this process (Lazard & McAvoy, 2020). Assumptions and expectations about the data  
 449 were shared in order to disentangle these from the empirical data as much as possible.

450 **4 Results**

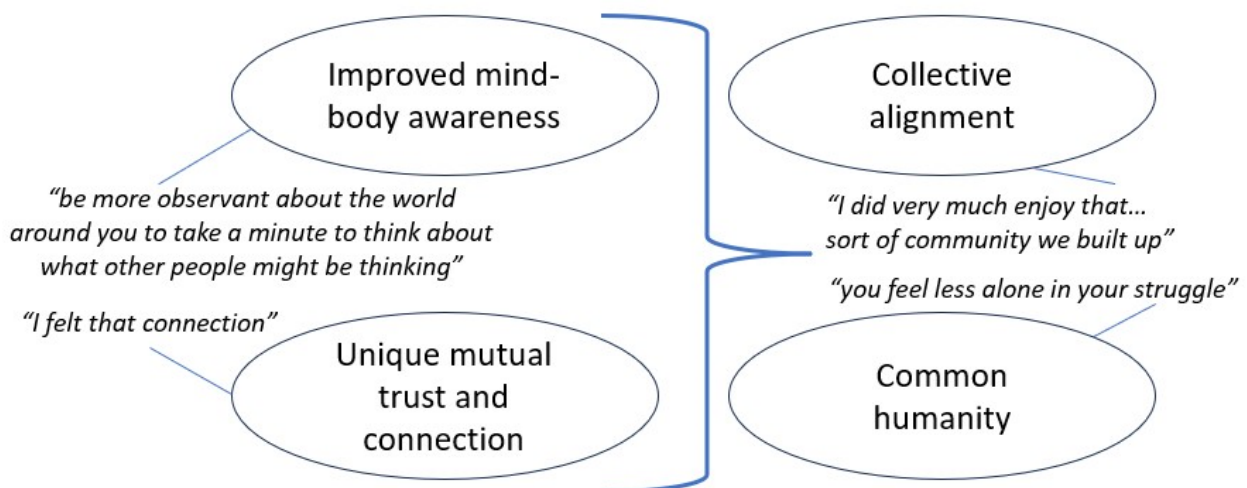
451 **4.1 Summary**

452 Four key thematic codes and their respective subthemes were identified in the data analysis:  
 453 Collective alignment; common humanity; improved mind-body awareness; and unique mutual  
 454 trust and connection in the online mindfulness community of practice we studied. Overall, our  
 455 research participants said they found the online drop-in sessions helpful and they appeared to  
 456 benefit from being a member of the online mindful community of practice. Particularly  
 457 noteworthy was that not only did the opportunity to engage in group-based mindfulness practice  
 458 seem to help improve individuals' mind-body awareness; it also seemed to help foster a unique  
 459 sense of social connection among the members of the online community of practice.

460 All four thematic codes and their subcodes are outlined in the table below. These capture the core  
 461 findings from our interviews. The first key theme was about the group-based setting for the online  
 462 mindfulness drop-in sessions. This seemed to provide a helpful social structure for participants'  
 463 mindfulness practice – all the more so as many participants juxtaposed this to the felt sense of  
 464 social isolation that Covid-19 presented. Second, interviewees seemed to benefit particularly from  
 465 the fact that online sessions participants were invited to share what was on their minds and how  
 466 they were feeling before and after the mindfulness practice. This appeared to contribute to them  
 467 feeling less alone on one hand, and to helping them understand their own personal feelings better.  
 468 Third, mind-body awareness seemed to have improved through regular participation in the online  
 469 mindfulness sessions, potentially linked to the regular practice of actively sharing insights and  
 470 feelings in the group. And finally, the sessions appeared to have fostered a unique sense of social  
 471 connection among members of the mindful community. More specifically, our interviewees  
 472 suggested that they felt connected to fellow drop-in session participants in unusually deep and  
 473 precious ways.

474 When analysing the thematic codes further, we put them into two sub-groups, and found that the  
 475 combination of the first sub-group is likely to have helped bring about the themes in the second  
 476 sub-group. In other words, improved mid-body awareness *and* unique mutual trust and connection  
 477 (two of our thematic codes as outlined further below) helped generate a combination of the two  
 478 other thematic codes; namely collective alignment and common humanity. We therefore arranged  
 479 the four key themes in a (tentative) logical relationship, as outlined in Figure 1 below.

480 *Figure 1: Key thematic codes alongside illustrative quotations.*



481

482

483 Table 2 below shows the four key thematic codes used for the data analysis, alongside subthemes  
484 and illustrative quotes from interviewees.

485 Quotes are attributed to interviewed participant by adding pseudonyms per participant.

486 Each theme is illustrated further below.

487 *Table 2: Qualitative themes and subthemes alongside illustrative quotes*

<b>Thematic code</b>	<b>Subtheme</b>	<b>Illustrative quotes</b>
1. Collective alignment	1.1 Helpful structure	<i>“There was a regular pattern and routine to it” (Sarah)</i>
	1.2 Help with individual practice	<i>“It was kind of convenient, and at other times it was necessary” (Ruma)</i>
	1.3 A sense of community	<i>“I did very much enjoy that community aspect of it, connecting with the others and that sort of community we built up” (Noah)</i>
2. Common humanity	2.1 Feeling less alone	<i>“you weren’t alone in dealing with the kind of weirdness of situations” (Olivia).</i>
	2.2 Understanding one’s own feelings better	<i>“outlet for just like for 20 seconds saying how I feel and checking in with how I feel” (Ava)</i>
3. Improved mind-body awareness	3.1 Reconnecting with the body	<i>“I found myself learning about myself. Basically, I think I had been very detached from myself and my body” (Emma)</i>
	3.2 Group practice getting them out of the thought bubble	<i>“[the group] practice helps you to be more observant about the world around you to take a minute to think about what other people might be thinking rather than just trapped inside your own thought bubble” (Daniel)</i>
4. Unique mutual trust and connection	4.1 Absence of social pressure	<i>“you just were responsible to be there and to be open” (Zoe)</i>
	4.2 Mutual care	<i>“I felt that connection, I felt comfortable talking. I guess that that trust was built and hard for me to pinpoint exactly what</i>

		<i>lead to that but it did feel like a space where you felt trust and safe” (Sriya)</i>
--	--	---

488

489 **4.2 Collective alignment**

490 Three sub-themes emerged for this first thematic code; (a) helpful structure; (b) help with  
491 individual practice; and (c) a sense of community.

492 The first of these is concerned with the fact that the online drop-in mindfulness sessions occurring  
493 three times a week was perceived as a helpful structure in the lives of the participants. In the  
494 words of Noah, “[I] think it gave a structure to my day ... .the discipline of attending at a regular  
495 time and engaging with the practice, that was really helpful.” Many of the regular participants in  
496 the mindful community had been joining the sessions since the beginning of the pandemic, and  
497 the sessions seemed to offer them a regular break from their stressful lives. Several interviewees  
498 emphasized that the regular sessions provided much-needed structure for organizing their days.  
499 One person suggested “I remember quite strongly feeling that it was a really nice sort of clearing  
500 a space in the middle of your day, which was very good.” (Olivia). Others said they liked “there  
501 was a regular pattern and routine to it” (Sarah).

502  
503 Some interviewees shared that they were somewhat astonished that the short, regular structure of  
504 the drop-in sessions proved helpful to them. One regular participant shared that “expectations  
505 were like it’s definitely not going to work, so give it a little trial period, but yeah, pleasantly  
506 surprised” (Ruma). Another reflected on the fact that the sessions were short and in the middle of  
507 the work day, adding that she was “actually surprised what you could get from that” (Lauren).

508  
509 In sum, the regularity of the sessions appeared to bring stress relief. The quote below sums up this  
510 sentiment:

511 *“It was very, very difficult in [my work] sector... I’m trying to say that the world I was*  
512 *working in... was... under a lot of strain and devastation really. So it was really ... helpful*  
513 *to come to this quiet time for lunch. Usually twice a week, and just to find space to do it.”*  
514 *(Zoe)*

515 The second sub-theme revolved around the effect of the group-based practice setting: it was  
516 perceived as helping the participants with their individual mindfulness practice. Many of the  
517 interviewed participants indicated that practicing mindfulness in the online group encouraged  
518 them to practice in the first place. As Ruma said, “it was kind of convenient, and at other times it  
519 was necessary”. Several explained that they found practicing mindfulness with other people  
520 easier than practicing alone, saying that “it would help me with my own discipline of practicing, I  
521 find it easier, yes, in a group than to do it myself.” (Noah). Some of the interviewees had left the  
522 online community for a variety of reasons, and insisted that the group setting had been conducive  
523 to regular mindfulness practice. The sentiment that the mindful community had been valuable in  
524 promoting regular individual mindfulness practice is summarized in the statement below:

525  
526 *“I am nowhere near as regular with practicing now that I am not practicing online [in the*  
527 *group], and I don’t have that outlet for just... 20 seconds saying how I feel and checking*  
528 *in with how I feel” (Ava)*

529 The final sub-theme related to the group-based setting of the mindfulness sessions was focused on  
530 a sense of community. Specifically, interviewees made statements such as “I did very much enjoy  
531 that community aspects of it, connecting with the others and that sort of community we built up”  
532 (Noah), indicating that over time, the online drop-in sessions had fostered a sense of

533 connectedness and shared experience. In addition, this emerging sense of community seemed to  
534 have been perceived as affirming to the participants, particularly by promoting a shared sense of  
535 understanding the world around them. Essentially, the online mindfulness sessions provided space  
536 for much-needed shared experiences, as expressed in the quote below:

537 *“It was really validating because during that time there was a collective experience that you*  
538 *weren’t aware of what was happening until you came into the mindfulness sessions and*  
539 *people were saying, oh I also feel like that and that bit on the news made me feel as well like*  
540 *that and that was very validating.”* (Ava)  
541

### 542 4.3 Common humanity

543 Two subthemes are discussed in the context of this second thematic code: (a) feeling less alone;  
544 and (b) understanding one’s own feelings better. Both are situated in the context of the invitation  
545 by the facilitators to actively share a thought or feeling at the beginning and end of the online  
546 drop-in sessions. Interviewees seemed to particularly enjoy sharing at the end of the session and  
547 listening to others’ reflections. One person explained, *“coming back to [the practice] and*  
548 *reflecting and what went right and seeing how other people felt it’s good”* (Sophia).  
549

550 The first subtheme here is about feeling less alone and isolated. Some of this seemed to be  
551 specifically because of listening to other participants share some of their struggles. In the words  
552 of one interviewee, actively sharing during the practice meant *“hearing the types of issues that*  
553 *other people are struggling with, so that you feel less alone in your struggle”* (Daniel). Another  
554 person related that sharing how they were feeling *“was very useful because you just saw that you*  
555 *have a bigger whole, you know, you weren’t alone in dealing with the kind of weirdness of*  
556 *situations”* (Olivia).  
557

558 The second subtheme relates to understanding one’s own feelings better, because of being in a  
559 context in which individuals are encouraged to actively share their thoughts and feelings. Being  
560 gently encouraged to share what was on their minds seemed to provide an opportunity to work out  
561 in the first place what *was* on their minds, in that moment. In the words of one interview  
562 participant, the online community offered an *“outlet for just like for 20 seconds saying how I feel*  
563 *and checking in with how I feel”* (Ava).

564 Expressing feelings was deemed superior than silent meditative practice alone. This is because the  
565 act of articulating out loud how participants were feeling was seen not only as an opportunity for  
566 connection but also an opportunity to understand more deeply what was real for the person in that  
567 moment. The quote below illustrates this insight:

568 *“We can write things down, we can notice ourselves, but when we articulate it to a group*  
569 *and possibly get some, some feedback, or sometimes some support...and actually hearing*  
570 *yourself speak out the words.. it’s different from just thinking... I’m acknowledging more*  
571 *deeply how I’m feeling when I say it aloud to somebody else”* (Sarah)

572 Moreover, listening to others reflect on their mental state during the mindfulness practice was  
573 deemed valuable, precisely because other people’s insights seemed to help generate personal  
574 insight. In the words of one of our interview participants:

575 *“It was great to, in the group, connect with people in different situations from myself, because*  
576 *sometimes that helps, helps with reflection to understand that everyone’s circumstances and*  
577 *my own trends is transient. They’re not fixed.”* (Matthew)  
578

579 **4.4 Improved mind-body awareness**

580 The third key thematic code refers to improved mind-body awareness. This is in itself not  
 581 surprising as mindfulness practice generally fosters mind-body awareness. Yet this increased  
 582 mind-body awareness seems to also have come about because the group setting in the online  
 583 mindfulness community seemed to have enabled learning about the self.

584 As expected, about half of the interviewed participants in the online community identified that the  
 585 mindfulness drop-ins had helped them improve their mind-body awareness, in other words their  
 586 embodied felt sense of being present in mind and body. Facilitated mindfulness practices included  
 587 gentle yoga stretches, exploring different types of perceptual awareness such as focusing and  
 588 subsequently broadening attention on particular aspects of seeing, listening, feeling and so on, as  
 589 well as mindful breathing and mindful movement. The two sub-themes here were (a)  
 590 reconnecting with the body; and (b) the group practice getting them out of the thought bubble.

591 First, several interviewees mentioned that they welcomed the regular opportunity to consciously  
 592 shift attention onto themselves. An opportunity they wouldn't ordinarily use even if they blocked  
 593 time in their diaries to *"have 20 minutes quiet time... I don't think I would have engaged with*  
 594 *myself quite as much as they allowed me to engage"* (Emily).

595 The core insight here is that their awareness of their five senses seemed to have improved. This,  
 596 in turn, seemed to have strengthened their sense of connection between mind and body. The idea  
 597 of *reconnecting* mind and body was central to this theme, with an interviewee recalling the  
 598 following:

599 *"I found myself learning about myself. Basically, I think I had been very detached from*  
 600 *myself and my body. For most of my life, and I think practices like mindfulness has really*  
 601 *helped me to connect."* (Emma)

602 Second, and perhaps more interestingly, the mindfulness practices seemed to have provided a  
 603 welcome break from being lost in thought and reconnecting with others and with the world  
 604 around them. Becoming more embodied seemed to be at the heart of this theme, with interviewed  
 605 participants explaining that they enjoyed getting out of their minds and getting back into  
 606 consciously feeling their body alongside others. The notion that the practice *"relaxes your body*  
 607 *and relaxes your mind"* (Emily) was a common theme here among interviewees. One participant  
 608 reflected on the positive energy that could be felt between individuals getting together to practice  
 609 mindfulness, adding that *"if you've got a whole room full of people meditating and feeling calm,*  
 610 *there's something that's happening on a subconscious cellular level that adds to the experience"*  
 611 (Daniel). This effect is particularly noteworthy as people were not physically in the same room  
 612 yet a different, beneficial energy seemed to emerge nonetheless. The same participant  
 613 summarized this benefit of practicing together, online, as:

614 *"[the group] practice helps you to be more observant about the world around you to take a*  
 615 *minute to think about what other people might be thinking rather than just trapped inside your*  
 616 *own thought bubble"* (Daniel)

617 **4.5 Unique mutual trust and connection**

618 The final key thematic code is unique mutual trust and connection. The following two subthemes  
 619 emerged on the impact of the drop-in sessions for the interviewed participants and point towards a  
 620 unique degree of trust and connection that some of the participants appeared to have felt towards  
 621 each other. They are (a) absence of social pressure; and (b) mutual care. Both of these relate to the

622 fact that people from a wide range of groups were invited to participate in the drop-in sessions,  
623 including current and former students and staff members. Several interviewees commented on the  
624 fact that different people from different parts of the organization would be *“coming together to*  
625 *reflect and think and take this time out,”* and added *“I think [connecting with really different*  
626 *people] is a really powerful thing”* (Olivia).

627 The first of these subthemes is about the somewhat paradoxical idea that this particular social  
628 setting did not bring with it the usual social pressure to follow conventional norms of behavior,  
629 such as being nice or outwardly taking care of each other. Participants expressed in particular a  
630 sense of relief that the sessions were not about being *“responsible to look after people”* and at the  
631 same time they welcomed the fact that *“you just were responsible to be there and to be open”*  
632 (Zoe). In other words, whenever someone logged on to a particular mindfulness drop-in session,  
633 they would not need to behave in a particular way towards each other and instead were allowed to  
634 simply *be*.

635  
636 Notably, it seems that being released from this particular social pressure meant that session  
637 participants could be genuinely there for each other, *“listen to each other and respect each other*  
638 *and also give each other space”* (Zoe). The lack of social pressure in this setting was mentioned  
639 by several interview participants as valuable, precious even, as the statement below suggests:

640 *“I just felt I didn’t feel any pressure to be a certain way or hold feelings for anyone or if I*  
641 *was feeling really stressed, anxious, or down I could just come with that to the*  
642 *mindfulness without having to pretend that it wasn’t there or be a certain way. Yeah, that*  
643 *was a really unique space that was completely different to being with friends and family.”*  
644 (Ava)

645 The second subtheme in this category leads on from the first, in that interview participants shared  
646 that there seemed to be mutual care among session participants as a result of the unique social  
647 bond that people felt for each other. An interviewee explained that in the sessions *“there’s a sense*  
648 *of nurturing, so it feels very psychologically safe, of caring about ourselves and each other”* and  
649 that *“people have mentioned things that they’re struggling with, or ways that they were feeling*  
650 *that were fairly personal and intimate, in some cases, you know, and what they got back from the*  
651 *group was support and loving kindness”* (Daniel). Essentially, the community seemed to offer a  
652 space for giving and receiving social support informally.

653  
654 This sense seemed particularly palpable among participants who joined the sessions frequently. In  
655 essence, the more frequently people participated, the stronger this sense of mutual care seemed to  
656 become, which meant that *“the people who were joining regularly were very willing to be*  
657 *vulnerable, to share how they are, which I have never experienced before”* (Jessica). In the words  
658 of another one of our interviewees:

659  
660 *“I felt that connection, I felt comfortable talking. I guess that that trust was built and hard*  
661 *for me to pinpoint exactly what lead to that but it did feel like a space where you felt trust*  
662 *and safe”* (Sriya).

663  
664 One participant, however, indicated that the online nature of the group meant that the connection  
665 was less natural than it would have been in a face to face setting. She explained, *“there was less*  
666 *of a human connection with the others, we had a bit of a chat, and I could relate to some of what*  
667 *they were saying but there was less room for that side of things which I would have liked”*  
668 (Lauren). Clearly, online connection cannot really replace real human interaction and connection.  
669



670 In sum, the data indicates that an atmosphere of mutual trust and care seemed to have emerged for  
671 the majority of the people interviewed for the study *despite* an absence of pressure to act in  
672 conventional ways towards each other.

673 We discuss these findings and what they may contribute to theory and practice in the section  
674 below.

### 675 **5 Discussion**

676 This inquiry is about exploring the social functions of group-based mindfulness practices in an  
677 online mindfulness community of practice created during Covid-19, with a particular focus on  
678 understanding the process – and potential benefits – of being a member of a community of practice  
679 engaging in regular gentle mind-body exercises together over Zoom. We examined the exploratory  
680 qualitative data we collected within a situated learning context. In other words, the underlying  
681 assumption for our investigation was that the members of the community of practice under study  
682 would engage in learning in the specific situation in which their learning occurred.

683 Besides drawing on situated learning as context, we structure the discussion through the lens of  
684 interdependence theory, a framework that examines the influence of social orientations, such as  
685 cooperation or conflict, within contexts where outcomes are interdependent (Kelley & Thibaut,  
686 1978). This is for the following reasons: While we acknowledge that mindfulness theory and  
687 practice needs to understand intrapersonal (or intrapsychic) processes, it is helpful to make sense  
688 of our findings with an interdependence lens. Interdependence theory asserts that it is the  
689 interpersonal dynamics that predominately shape individuals' perceptions, motivations, and  
690 behaviors (Rusbult & van Lange, 2008). Essentially, the theory posits that these interpersonal  
691 interactions form the emotional landscape within which individuals make decisions and take  
692 actions. In addition, interdependence theory offers a fruitful pathway to integrate mindfulness  
693 theorizing with the contemplative tradition's emphasis on other-orientation and interdependence,  
694 aspects that may not yet have been fully explored in the contemporary mindfulness discourse (see  
695 Gergen, 2009). Echoing the Dalai Lama's insights, profound wisdom is realized when individuals  
696 acknowledge and value the interconnectedness of their own interests with those of others (Dalai  
697 Lama, 2005).

#### 698 **5.1 A special note on the special context of this study**

699 Before outlining the study's proposed contributions to theory and practice, it is necessary to draw  
700 attention to the fact that the study was conducted during the Covid-19 pandemic, and every reader  
701 will know that this was an unprecedented time of apprehension and ambiguity for most. It is  
702 reasonable to assume that mindfulness practice is well-suited to address feelings of uncertainty,  
703 loss, and confusion that inevitably came along with the pandemic (Antonova et al., 2021). There is  
704 also evidence that mindfulness appears to have been protective against negative affect arising  
705 during Covid-19 (Treves et al., 2023). Moreover, in a systematic review of 16 nonpharmacological  
706 interventions developed during the pandemic to promote the mental health of children that include  
707 mindfulness, Quiroga et al. (2024) found that these were potentially effective. The authors also  
708 suggest that interventions designed during Covid-19 are likely to be useful in other future crisis  
709 situations, yet note a significant risk of bias across the studies they examined, hence caution against  
710 drawing firm conclusions.

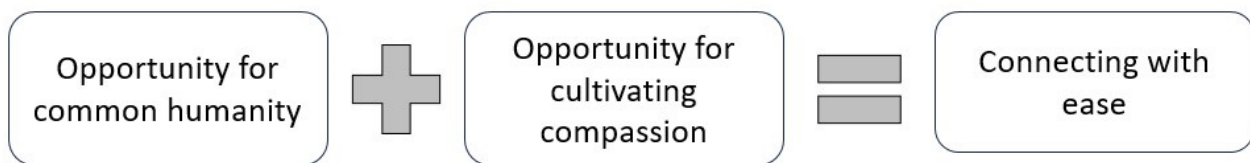
711 Our study is no different in this regard: it was conducted during an especially unusual time, its  
712 design prevents us from making any generalizable predictions, and it is situated in a scientific  
713 literature that is still in its infancy. As a case in point, online group psychotherapy pioneer Haim  
714 Weinberg who had been facilitating online discussions on the topic among 400 group therapists  
715 from 30 nations for over 25 years synthesized these insights in his (2020) practice review of online  
716 group psychotherapy for the Covid-19 context. His recommendations included that the lack of

717 physical presence in virtual meetings and distorted eye contact may warrant increasing therapists’  
 718 self-disclosure (TSD) and enhanced verbal interactions. While there is certainly scientific support  
 719 for the use of TSD in therapeutic settings, a more recently published study of two independent  
 720 samples of therapists ( $N=1705$ ) and patients ( $N=772$ ) interacting online early on during the  
 721 pandemic suggests that therapists perceive the use of TSD as more helpful in fostering real  
 722 relationships than patients (Luo et al., 2023). Clearly, the Covid-19 pandemic helped accelerate our  
 723 understanding of online group therapeutic interventions, including online mindfulness groups. Yet  
 724 scholars call for more research to better grasp their potential (Andrews et al., 2024; Quiroga et al.,  
 725 2024). Our study responds to this call.

726 **5.2 Implications for theory**

727 Based on our empirical investigation, we make three exploratory propositions intent on stimulating  
 728 follow-up empirical research at the intersection of literatures on online communities of practice,  
 729 mindfulness practice in groups, and the social effects of individual mindfulness practice. We have  
 730 arranged these exploratory propositions in a logical relationship, as depicted in Figure 2. In essence,  
 731 we speculate based on our exploratory data set that the combination of proposition 1 and 2 may  
 732 result in proposition 3, and all three may contribute to creating a mindful community of practice.

733 *Figure 2: Proposed relationship of propositions for how to create a mindful community of practice.*



734  
 735 Taken together, these propositions aim to stimulate further empirical research in this understudied  
 736 area, by formulating a proposed – and testable – combination of elements for how to create a  
 737 mindful community of practice. Leading on from the sections outlining this work’s implications for  
 738 theory and practice below, we outline follow-up research opportunities for further empirical  
 739 examination, potential correction, and extension of our propositions.

740 **5.2.1 Proposition 1: Creating opportunity for common humanity**

741 Our data suggests that the online mindful community of practice we studied first and foremost  
 742 helped individuals experience common humanity, in other words, share a felt sense of belonging,  
 743 at least during the time they practiced mindfulness together. The participants we interviewed  
 744 repeatedly mentioned that the online mindfulness community provided respite from the isolation  
 745 many people felt because of the Covid-19 pandemic.

746 A basic assumption in mindfulness is that there is suffering in the world, and this suffering can be  
 747 alleviated through mindfulness practice. In the context of this study our data indicates that the  
 748 mindfulness-based community of practice we examined helped individuals enjoy a sense of  
 749 community, even if only temporarily.

750 This is because in our study, the personal mindfulness practice that was cultivated because  
 751 individuals regularly logged on to the online mindfulness group seemed to help them feel less  
 752 alone (thematic code 2.1), understand their own feelings better (thematic code 2.2), and the group  
 753 practice seemed to get them out of their own thought bubble (thematic code 3.2). Thus they  
 754 appeared to become better able to recognize helpful as well as unhelpful thoughts, emotions and  
 755 impulses with a deeper awareness of universal experiences, challenges and concerns leading to  
 756 authentic connection and a sense of belonging within the community of practice. Mindfulness  
 757 scientists have been able to reliably establish the two-fold mechanism through which mindfulness

758 practice operates; consciously experiencing awareness as well as acceptance is key here (see  
759 Carmody et al., 2009; Vago & Silbersweig, 2012; Lindsay & Creswell, 2017). The group setting  
760 appears to have served as a facilitator for this, because our participants indicated that their  
761 individual mindfulness practice improved in the group setting. This echoes the writings of Thich  
762 Nhat Hanh who emphasized that the practice of mindfulness should be a socially engaged practice  
763 rather than something individuals cultivate in isolation of others (Hanh, 1998).

764 From an interdependence perspective, experiencing common humanity also involves reducing the  
765 power of *ego*. In the mediative traditions *ego* is explained as a sense that the self exists entirely  
766 independently and separately from others, which leads to ignorance, paranoia, and confusion  
767 (Trungpa, 2002). The mind-body practices intent on fostering stronger embodiment in our  
768 community participants seemed to have helped them to relax into their bodies, and appreciate  
769 their common humanity, which appeared to have offered some respite from being lost in their  
770 “thought bubbles” and sense of existing as separate from others. According to mindfulness  
771 philosophy this helps individuals realize that they “no longer have to maintain the existence of  
772 ego [and] can afford to be open and generous” (ibid., p. 168). We speculate that the regular,  
773 repeated group setting of the community of practice may cultivate this stance of openness  
774 comparatively more than when individuals practice mindfulness by themselves.

775 This is why we propose the following:

776 *Proposition 1: Practicing mindfulness in a community of practice may help create opportunities*  
777 *for experiencing common humanity.*

### 778 **5.2.2 Proposition 2: Creating opportunity for cultivating compassion**

779 Leading on from Proposition 1, the mindful community of practice we studied appeared to have  
780 created opportunities for cultivating compassion among its members. Compassion has been  
781 defined as a distinct emotion geared at facilitating cooperation and an intent to protect those who  
782 suffer (Goetz et al., 2010). Interdependence theory posits that people think and act in relation to  
783 each other. A growing body of mindfulness scholarship is focusing on the mental space between  
784 individuals, arguing that *interpersonal* mindfulness – the state of being mindful while interacting  
785 with others – helps shape healthy relationships (Pratscher et al., 2019). Interpersonal mindfulness  
786 practices and trainings based on Gregory Kramer’s Insight Dialogue (Kramer, 2007) such as  
787 relational mindfulness (Donaldson-Feilder et al. 2018; Donaldson-Feilder et al. 2021) have  
788 become increasingly popular in mindfulness science and practice, because of their growing  
789 evidence base in fostering *interpersonal* awareness and acceptance.

790 In particular the combination of feeling a part of a community (thematic code 1.3) and mutual  
791 care (thematic code 4.2), coupled with an absence of social pressure (thematic code 4.1) seem to  
792 have produced this effect. As the data in this study suggest, research participants indicate that by  
793 listening to each other during the online drop-in mindfulness sessions, they experienced a sense of  
794 community that seemed unique and precious in its warm and supportive quality. This is related to  
795 how compassion is defined in the contemplative traditions. Compassion is basic warmth towards  
796 oneself and towards others, which can be operationally defined as an absence of interpersonal  
797 aggression (Trungpa, 2002). This warmth is crucial for the development of healthy relationships.

798 We speculate that in the online mindful community of practice we studied, the foundation for  
799 compassion may have been cultivated. We suggest this because communication in the online  
800 mindfulness community of practice was carefully managed by the facilitator. Specifically, the  
801 facilitator encouraged a ritual of listening to what others were sharing at the beginning and end of  
802 the online mindfulness practice sessions. The act of listening to each other at the beginning and  
803 end of the mindfulness sessions seemed to have enabled individuals to engage in socially induced  
804 processes of *decentering*; shifting their perspective to gain psychological distance (Bernstein et al,

2015; Shapiro et al., 2006). Decentering, also referred to as *reperceiving*, is typically discussed in the context of intrapsychic experiences, in other words, the metacognitive practice of shifting one's perspective "from *within* one's subjective experience *onto* that experience" (Bernstein et al., 2015; p. 599, emphasis added). In the social context we discuss here, decentering may have played a role in community building, because it may have fostered a mental shift for the members of the mindful community of practice, from an exclusive focus on *personal* wellbeing through mindfulness towards *interpersonal* wellbeing. This is similar to how Epstein (2013) conceptualizes the link between mindfulness and psychotherapy, essentially suggesting that listening to others enables a shift in mindfulness practice from a solitary and self-focused aspiration to watch one's own thoughts and feelings towards an interpersonal meditation that helps cultivate compassion between people.

The repeated nature of this interpersonal communication ritual may have been the second 'ingredient' for how to create a mindful community of practice. This is why we propose the following:

*Proposition 2: Practicing mindfulness in a community of practice may help cultivate compassion.*

### 5.2.3 Proposition 3: Connecting with ease

Mindfulness is multifaceted (Daniel et al. 2022) and multi-dimensional (Sutcliffe et al., 2016). This means we can practice mindfulness to make space *within* ourselves, and we can also focus our attention mindfully on the space *between* people. More specifically, our data overlaps with Vogus et al. (2014) who theorized that the affective (or mood-based) foundation of a mindful group are equanimity and a prosocial orientation; in other words when people interact with each other with motivations marked by equanimity and prosociality, collective mindfulness emerges (Vogus et al., 2014). We speculate that the particular, unique type of social connection marked by mutual trust and connection that our participants have described (theme 4) is linked to increased prosociality and enhanced equanimity. Additionally, equanimity may be related to our data's themes of understanding one's own feelings better (theme 2.2) and in particular the group practice getting them out of the thought bubble (theme 3.2).

This paper is about creating a community of practice, of a particular kind: a *mindful* community of practice. In Buddhism, the essential pillars of mindfulness practice are referred to as the 'three jewels': the teacher or facilitator (in Buddhism this has originally been the Buddha); the teaching elements or topics to focus on during the practice (traditionally referred to as the *dharma*); and the community of mindfulness practitioners (referred to as the *sangha*; Hanh, 2020). Of course, in a traditional Eastern contemplative context, the *sangha* would consist of monastics coming together to meditate, but in today's world this word also refers to a community of Buddhist practitioners regularly practicing mindfulness together. While this paper is not concerned with religious or spiritual mindfulness practice, we argue that creating connections among mindfulness practitioners during mindfulness practice may be an important element of mindfulness, perhaps not emphasized enough in the scientific community studying mindfulness meditation over the last four decades.

People who interact with each other mindfully seem to have one *collective mind* (Weick & Roberts, 1993). A visual metaphor for this is a flock of geese flying through the sky in unison, with each goose adapting its individual flight path to align with the direction – and needs – of the flock as a whole. Interdependence theory conceptually overlaps with Hanh's notion of *interbeing*, because both emphasise the inextricable connection between people that shapes people's lives and their experience. Connecting with each other has been at the heart of the community of practice we studied. Especially the sense of relief that participants shared about feeling an absence of the typical social pressures that many of us experience in conventional social settings, such as making

852 small talk, comparing oneself to others, and so on (theme 4.1) seemed to have cultivated what we  
853 call *connecting with ease*.

854 Experiencing ease and thus an absence of pressure is an essential aim in mindfulness practice.  
855 The word “budh” in Buddhism means “to wake up”, “to understand at a deep level”. As referred  
856 to at the outset of this paper, the purpose of mindfulness is to understand and transform suffering  
857 (Bodhi, 2011). Therefore, helping individuals ‘wake up’ from suffering and the potential fear of  
858 interpersonal connection is an essential component of creating a mindful community of practice.  
859 Today, many individuals in industrialized nations suffer from loneliness and social isolation,  
860 shying away from forging meaningful social connections, which in turn puts them at risk for  
861 premature mortality (Holt-Lunstad et al., 2015). Among our participants, there was a felt sense of  
862 delight in connecting with others, coupled for some with a certain degree of surprise at  
863 experiencing a lack of social pressure in this setting. We speculate that many of us in today’s  
864 world may benefit from experiencing anew that social connection can be healing and that it can  
865 reduce, rather than increase, pressure and stress.

866 We therefore suggest that to help transform suffering for oneself as well as for others, which is at  
867 the core of the intent or purpose of mindfulness practice, it may be helpful to foster connections  
868 among mindfulness practitioners with an emphasis on ‘waking up’ from the struggles we all face  
869 in our lives by connecting with each other regularly, as Buddhist meditators have done in a  
870 *sangha*, in ways marked by equanimity and prosociality. Leading on from this, we propose the  
871 following:

872 *Proposition 3: Practicing mindfulness in a community of practice may help facilitate connecting*  
873 *with ease.*

### 874 **5.3 Implications for practice**

875 Clearly, group mindfulness practice requires skillful facilitation. The competence of mindfulness  
876 facilitation can be learned through a variety of reputable mindfulness training institutions  
877 globally, and is typically assessed through the evidence-based Mindfulness-Based Interventions  
878 Teaching Assessment Criteria (MBI:TAC; Crane et al., 2013). In addition, the characteristics of  
879 inquiry in group-based mindfulness practice can be likened to “disciplined improvisation”;  
880 flexibly interacting with participants after mindfulness practice in ways that build intersubjective  
881 connection and interpersonal affiliation (Crane et al., 2015).

882 To the best of our knowledge, there is a lacuna of academic research on how to create a  
883 mindfulness-based community of practice. Leaning on Wenger (1988) and Lave (1991) who  
884 suggest that communities of practice need to consistently foster a shared sense of interest – here  
885 mindfulness – as well as a felt sense of community and regular practice of the shared interests, we  
886 therefore make the following specific recommendations for individuals intent on creating a  
887 mindful community of practice, organized around three main themes. This may be especially  
888 important during periods of societal change – and today’s world seems to be marked by ongoing  
889 social change, as well as heightened anxiety and uncertainty.

#### 890 Facilitate regular and varied mindfulness practices

- 891 • Make it easy for people to join in regular group mindfulness sessions. Offer short sessions at  
892 several different times and days a week. Online mindfulness practice is becoming increasingly  
893 common and is convenient for people to log on to.
- 894 • Include gentle yoga, mindful movement, and other mind-body explorations in the mindful  
895 community practices, to strengthen the conscious link between mind and body among group  
896 participants.

- 897 • Explore different ways in which community members may experience mindfulness in the  
898 group practices. According to Crane et al. (2017), mindfulness-based training always needs to  
899 include essential elements such as an understanding of human suffering and mental health –  
900 and depending on the needs of those practicing mindfulness, new and different elements may  
901 be added, such as varying the degree of physical activity during the mindfulness session.  
902 Experiment by introducing community members to different practices and inquire which ones  
903 may be more appropriate for the community of practice.

### 904 Facilitate connection with ease

- 905 • Ensure that all mindfulness practices are participant-centered and grounded in mind-body  
906 awareness as well as non-judgmental interpersonal sharing. If appropriate, then gently  
907 encourage people to build personal relationships in informal ways.
- 908 • Refrain from managing group membership or attendance. Keep participation voluntary and  
909 open.

### 910 Facilitate compassionate communication

- 911 • Invite participants in a group mindfulness session to share what is real for them, without  
912 forcing participation from anyone. Lead by sharing authentically yourself. If appropriate, you  
913 may want to engage in *leading with vulnerability*, in other words, sharing what you feel in the  
914 moment, rather than saying what you may believe others want to hear.
- 915 • Consider integrating the offering of a mindful community of practice with other workplace  
916 initiatives such as training and development, induction activities, or during regular  
917 organizational meetings. This may increase the potential of embedding the routine of people  
918 coming together to practice mindfulness regularly.

## 919 **5.4 Limitations and follow-up research opportunities**

920 As noted previously, this study was conducted during an extraordinary time, with a group of  
921 participants who came together during Covid-19. A small group of volunteers from the  
922 mindfulness community of practice were sampled, which means that insights captured were  
923 bound to be biased towards those of research participants, rather than expressing more universally  
924 applicable views. It is plausible that participants in the sample shared a subset of relevant insights,  
925 or other insights were not represented in the data. Furthermore, the interview questions were  
926 exploratory in nature, and the lack of targeted questions and our exploratory analysis made it  
927 impossible to test whether the online mindfulness community of practice was beneficial, and how.  
928 Of course, the fact that only one mindfulness community of practice was sampled further restricts  
929 the potential to generalize from the findings presented here. In addition, while the interviewers  
930 collecting the data for this study were not members of the community of practice, it is  
931 conceivable that participants did not freely share all feedback, as it was known to them that at  
932 least one of the facilitators of the sessions was involved in the research study. Finally, there is  
933 also risk of bias because two of the authors of this study were involved in delivering the online  
934 mindfulness sessions, and one of the interviewers was involved in the data analysis.

935 Follow-up research can extend the insights presented here in several ways. First, it would be  
936 helpful for future research to test out the suggested propositions on how to create a mindful  
937 community of practice, for example by exploring the relative contribution of individually focused  
938 mindfulness practices versus interpersonal elements in the community. Second, quantitative  
939 surveys of mindfulness groups could investigate the attitudes of participants towards their own  
940 wellbeing, their learning, and the relationship quality with other participants. Constructs such  
941 individual mindfulness, team mindfulness, and psychological safety could be included in  
942 measures in such studies, to understand the relationship between individual-level outcomes and

943 interpersonal outcomes. Finally, more longitudinal explorations of mindfulness groups would  
944 help us understand the characteristics of how a mindful community of practice is formed and  
945 sustained.

### 946 **6 Conclusion**

947 This study took place during Covid-19, a highly exceptional period in the life of everyone. Its  
948 specific aim was to explore the social functions of group-based mindfulness practice facilitated  
949 regularly online at a large metropolitan University during that time. Findings suggest overall that  
950 the online mindful community may have offered a welcome and unexpected safe space to  
951 cultivate mutual trust and connection, as well as increased mind-body awareness. These two key  
952 factors seemed to be linked to a sense of collective alignment and common humanity. Our  
953 findings are discussed through an interdependence theory lens and result in three exploratory,  
954 testable propositions on how to create a mindful community of practice.

955 While the study focused on a mindful community of practice that was formed during a time of  
956 unprecedented instability and extreme social isolation for many, and while its research design and  
957 exploratory analysis render it impossible to draw firm conclusions, it nonetheless sheds new light  
958 on how mindful pillars of interbeing and connection may be formed in an online community of  
959 practice. We argue that more research is needed in this understudied domain, in order to extend  
960 the transformative potential of mindfulness for one and all.

961

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