Playing for resilience in a pandemic; exploring the role of an online board game in recognising resources

Abstract

In the current climate of Covid-19 and world-wide social distancing, the mental health toll has been widely reported, with an expectation that the negative impact will last beyond the lockdowns. With the prospect of an unknown future and continuing challenges, resilience is both topical and necessary. With a call for digitally delivered interventions to help people affected by the pandemic, this study explores how playing an online positive psychology-informed board game supported people to recognise resources for resilience. Sixteen multi-national participants played in groups of 3–4 and qualitative data, collected via focus groups, was analysed using Thematic Analysis. Participants described a broadening of resources, primarily through reflecting on and remembering prior strategies and successes. Four themes are identified which, it is suggested, facilitated this in a sequential, upward spiral; the game mechanisms (release), psychological safety (reflect), meaningful conversations (remember) and anchoring of prior experiences (reuse). Critically, this study suggests that psychological safety may have been amplified by the online environment, which participants suggested enabled them to engage without interruption or inhibition. Additionally, whilst not part of the original intervention, the post-game reflection played an essential role in meaning-making and transferring learning into real-life. Future research into how online environments might not just facilitate, but augment, interventions is recommended. Finally, this study calls for further research into the impact of playful positive psychology interventions, suggesting a potential development of ‘serious play’ towards ‘seriously positive play’.

Key words: Resilience, Covid-19, Serious Play, Positive Psychology, Positive Psychology Interventions, Online board games

Introduction

The Covid-19 pandemic, and the measures taken to contain it, has created unforeseen and unprecedented change for most of the world's population – with loss of face-to-face contact, loss of normality and, most tragically, loss of life across the globe. As multiple studies of the psychological impact of the pandemic begin to emerge (see Brooks et al., 2020; Galea et al., 2020; Ivbijaro et al., 2020), the risks of long-term social distancing to well-being and mental health are increasingly being demonstrated (Fiorillo & Gorwood, 2020), with reports showing an increase in stress, anxiety and depression (Cao et al., 2020). Worryingly, the negative psychological effects are predicted to persist long after the lockdowns have ended (Brooks et al., 2020).

A recent study in lockdown populations (Killgore et al., 2020), reported people with lower levels of resilience (described as the ability to withstand, adapt to and rebound from setbacks and adversity) found coping with the strains of the pandemic more challenging, reported greater concern about the impact and were more at risk of negative mental health outcomes (including anxiety, depression and risk of suicidal ideation). As a result, there has, increasingly, been a focus on fostering resilience in populations affected by Covid-19 (Palmer, 2020; Yıldırım & Arslan, 2020).

One area of psychology which is particularly focused on enhancing resilience is positive psychology, described as "the study of the conditions and processes that contribute to the flourishing or optimal functioning of people" (Gable & Haidt, 2005, p.104). To facilitate this, the use of positive psychology interventions (PPIs) are advocated (Parks & Schueller, 2014), both in daily life and in times of challenge. Whilst many well-established and evidence-based PPIs exist, recently it has been argued these interventions can and should be delivered in a range of updated forms (Pawelski, 2020). Notably, this includes "playing a game" (p.677), an activity that previous studies suggest can enhance both positive emotions and foster social bonds (Prensky, 2001; Uy, 2019). Use of boardgames, for instance, has been

found to reduce levels of depression among older adults (Lee et al., 2020). In fact, research is accumulating suggesting that even playing videogames can enhance wellbeing, including positively influencing emotional state, social connections and resilience (Johannes et al., 2021; Johnson et al., 2013).

However, there is a difference between games which are intended for pure entertainment and games additionally targeted at learning and change, such as is seen in 'serious play' (see Peabody, 2014; Primus & Sonnenburg, 2018; Roos et al., 2004). 'Serious play'; whereby games are used to educate and encourage change has been used in a variety of settings, including in relation to health (see Gauthier et al., 2019; Harn, 2018; Struwig et al., 2014). Whilst a growing body of research has explored the effect of "in-person" serious play, including through the use of board games, there is limited existing research on the experience of virtual participation, and none on the use of online board games in a positive psychology context. This, coupled with a call for more digital PPIs to reach socially-distanced populations "in the age of Covid-19" (Parks & Boucher, 2020, p.569) creates a gap in research, which this study aims to make a contribution towards.

The following literature review explores the concept of resilience, examines the link between resilience and well-being and ends by presenting play as a valuable vehicle for resilience, particularly when combined with positive psychology.

Literature review

1.1 Resilience defined

Despite being extensively studied, a single agreed definition of resilience remains elusive. Indeed, a systematic review on psychological resilience conducted by Meredith and colleagues (2011), identified more than 122 different definitions. Increasingly, resilience has been conceptualized as a multi-dimensional, dynamic process of adapting to adversity, that is both contextual and open to change (Masten, 2001; Meredith et al., 2011; Reich et al., 2010).

Furthermore, rather than being a rare gift of a selective few, Masten's research describes resilience as "ordinary magic" (2001, p.227) – a recognition that everyone has both prior experience of and capacity for resilience, whatever their background. Indeed, even in response to traumatic events, resilience is the norm not the exception (Bonanno et al., 2007).

Most definitions concur that resilience occurs in response to an intense, adverse event and is often presented as the ability to 'bounce back' (Smith et al., 2010). This is, at best, limiting and, at worst, damaging, in that it implies the only outcome of resilience is to return to the previous state of functioning and that this happens rapidly - neither of which, in some circumstances, is possible or desirable (Skews et al., 2019). Lepore & Revenson (2006) assert that resilience might, instead, result in a range of outcomes including; *resisting* (akin to grit, which Duckworth and colleagues (Duckworth, 2016; Von Culin et al., 2014) define as passion and sustained persistence applied toward a long-term goal); *recovering* to a previous state of functioning (perhaps by more gradual means) and, in some cases, *reconfiguring* into a new, sometimes stronger, form. The latter of these aligns with the concept of post-traumatic growth, defined as "the experience of positive change that the individual experiences as a result of the struggle with a traumatic event" (Calhoun & Tedeschi, 2013, p.6).

This suggests two key phases are pertinent to resilience; *during* and *after* the adverse event. There is, however, a third phase which is critical; that *preceding* the event, and this might be viewed as a facilitator of efficacy at the other stages. Research shows that coping strategies practiced before an adverse event offer a buffering, or protective capacity (Aspinwall, 2005; Aspinwall & Taylor, 1997). Indeed, a meta-analysis of resilience (J. H. Lee et al., 2013) found that increasing a range of protective factors (including self-efficacy, described as belief in one's ability to overcome future challenges (Benight & Bandura, 2004), positive affect, optimism and social support) was more effective than lowering risk factors (such as anxiety and depression). Indeed, Reivich and Shatte (2002) go even further and suggest that one of the key characteristics of resilient people is their ability to reach out and

connect to others when facing periods of adversity. Futhermore, Suedfeld (1974) posits that, during intense stressful events, people are motivated to connect with others in similar situations. Meredith et al.'s (2011) systematic review identified 20 factors shown to increase resilience, of which positive coping, positive affect and positive thinking were found to have the strongest evidence base. There is, however, increased recognition that resilience is also impacted by physical activities; and that this can have a reciprocal effect on the other factors, including positive thinking and affect (Hefferon, 2013). The factors that impact capacity for resilience appear, therefore, to be both multi-dimensional and mutually impacting. Indeed, a recently published systematic review, exploring the impact of resilience training on well-being in high risk occupations (Brassington & Lomas, 2020), recommends resilience interventions use a multi-dimensional approach, in recognition of the different domains and dimensions that impact resilience.

This study consequently adopts a multi-dimensional approach, and offers a definition for use within this study that captures the three identified phases of resilience. Resilience, for the purposes of this study is, therefore, defined as the practice of positively utilising multi-dimensional resources to ready for, respond to and recover from challenge and adversity.

1.2 Resilience and well-being

Enhancing resilience has the potential of providing benefit beyond times of acute difficulty, such as the 'relative normality' of a life after lockdown. Increased resilience, for example, has been correlated with higher levels of well-being (Mehta et al., 2019). Definitions of well-being have traditionally centred on the combination of reported life satisfaction and frequency of positive versus negative affect (Diener, 2000), a view conceptualised as hedonic well-being (Compton & Hoffman, 2013). More recently, however, recognition of the role personal growth, self-actualisation and contribution plays in enabling a fulfilling life has emerged (Boniwell & Tunariu, 2019). Termed eudaimonic well-being, this

perspective asserts well-being is fostered through factors including self-acceptance, positive relationships and meaning (Ryff & Singer, 2008), as well as meeting deep human needs such as autonomy, competence and connection - known collectively as Self-Determination Theory (SDT) (Deci & Ryan, 2002). One of the core models of positive psychology, the PERMA model (Seligman, 2018), asserts positive emotion, engagement, relationships, meaning and accomplishment are all required to support well-being. This multi-dimensional model has frequently been used to inform resilience programmes (see Challen et al., 2014; Griffith & West, 2013; Reivich et al., 2011). There has, however, been an evolving recognition that a sixth element, health, is also required, reflecting the development of positive psychology to encompass the body as a whole (Hefferon & Mutrie, 2012).

The negative psychological impact of Covid-19 has been widely reported (Brooks et al., 2020; Galea et al., 2020; Ivbijaro et al., 2020) with studies showing an increase in mental health conditions including anxiety, panic disorders and depression (Ganesan et al., 2021; Yıldırım & Solmaz, 2022). In particular, introduction of social distancing and lockdowns (which enforce restricted movement and contact in an effort to curb the spread of the virus) has been linked to loneliness, which has a number of potential adverse health outcomes (including sleep disorders, elevated blood pressure and increased risk of depression) (Hwang et al., 2020). Leigh-Hunt et al's (2017) systematic overview suggests people who are socially isolated may experience increased stress responses due to lack of social networks and support. This is particularly pertinent as social support has been shown to be a strong predictor of resilience following disasters (Saltzman et al., 2020).

Two well-being factors shown to be adversely impacted in times of quarantine are therefore social connection and positive affect (see Brooks et al., 2020; Killgore et al., 2020). As has been discussed, these have been correlated with a range of adverse mental, emotional and physical outcomes. In contrast, enhancing these factors can reduce the negative impact of stress and adversity (Lee et al., 2013; Tugade & Fredrickson, 2004), and possibly even offer a

buffering effect for future events, which is essential in the context of an unknown, uncertain future. This indicates a bi-directional relationship exists between resilience and well-being, with the potential to both reinforce and resource each other (see Green & Palmer, 2019; Reich et al., 2010), thereby offering benefit beyond the immediate period of challenge.

In populations subject to lockdown due to Covid-19, a combination of daily activities including self-care (time spent outdoors and regular exercise, among others), coupled with social support from family and friends, were found to be predictors of greater resilience (Killgore et al., 2020). Indeed, Kaye-Kauderer et al. (2021) recommend a range of resilience factors are promoted to support recovery from the effects of the Covid-19 pandemic, including positive affect, cognitive reappraisal, social support and connecting with meaning. Given the variety of factors mentioned in these studies, this suggests a multi-dimensional approach is, indeed, beneficial.

1.3 Resilience through play; in-person and online

Many resilience interventions are delivered through face-to-face training. Whilst research indicates these programmes can be effective, Joyce et al (2018) note there remains diversity over both definition and approach, making the effects challenging to quantify. To support consistency, IJntema et al's (2019) review and synthesis of resilience interventions offers a useful checklist of criteria which they assert need to be met when designing resilience-building programmes. These include providing a clear definition, clarifying the population and context, and mapping the process through which positive adaptation is enhanced[1].

Whilst evidence suggests online training might be an effective and efficient way of providing access to learning (Enrique et al., 2019), a lack of studies exist to support this,

[1] Further detail on how this study adheres to the checklist of criteria is provided in the design section.

prompting calls for further trials exploring the efficacy of online interventions (Joyce et al., 2018). In general, however, retention of learning through training has been shown to erode over time (Arthur et al., 1998). Subsequently, a call for more experiential learning has emerged, with recognition of the need for both emotion and engagement as key to retention of learning (Davachi et al., 2010). Play may offer this opportunity.

Play has long been known to be an innate and organic way in which animals learn and develop social and emotional skills (Power, 2000; Wilson, 1975). Brown (2009), a scientist and play researcher, posits that play is the mechanism through which humans become resilient. This, he asserts, is facilitated through the opportunity to practice skills in a safe environment, make sense of the world through experimentation and, crucially, encode experiences for future use. Key to this, he suggests, is the safety to explore and he argues play facilitates this as "we are safe precisely because we are just playing" (p.34). Indeed, research has shown that even playing videogames can enhance wellbeing in young people, and increase resilience (Johnson et al., 2013).

Whilst, surprisingly, limited research on adult play has been conducted (Vleet et al., 2015) several studies exist which explore the use of 'serious play' - a term originally coined by researchers using Lego for learning (Roos et al., 2004). Board games have been used in some serious play studies, (Boghian et al., 2019; Gauthier et al., 2019; Lennon & Coombs, 2007; Streng, 2009; Struwig et al., 2014; Uy, 2019) and show potential to stimulate positive emotions and foster connection, factors which are negatively affected by the experience of lockdown. Group play has also been shown to facilitate self-disclosure (Betcher, 1981), which in adult learning environments can help facilitate synthesis of learning – a process Baker et al. describe as "conversational learning" (2005, p.412). Participating in group discussion, they argue, allows adult learners to make meaning of their experience, create new insight and, subsequently, translate this into new knowledge.

Serious play, with its focus on positive experience might be considered a perfect complement to positive psychology. Indeed, Csikszentmihalyi's theory of flow (2005) (which describes an intense, all-consuming state whereby people experience positive emotions, function at optimal capacity and often lose sense of time) has been shown to occur during play - and this has been linked to enhanced well-being (Boniwell & Tunariu, 2019). He notes that "games are obvious flow activities, and play is the flow experience par excellence" (Csikszentmihalyi, 1975, p.36-37). Furthermore, Fredrickson's Broaden and Build theory (2001) asserts positive emotions, as have been noted in serious play studies, help to build multi-dimensional resources (including social, cognitive and even physical resources). This, she posits, happens through expanding capacity for multi-pathway thinking and creativity and, in so doing, creates conditions for further resources (such as social support and personal coping strategies) to be accessed (Tugade & Fredrickson, 2004).

Some previous studies have explored the intersection of positive psychology and games in a digital context, where players play individually in an immersive environment (Alexiou et al., 2012). Additionally, Bab and Boniwell (2016) combined positive psychology and serious play by using LEGO to introduce PPIs. However, few research studies have drawn these two apparently complementary fields together in a 'live group' online setting. The Handbook of Positive Psychological Interventions (2014) notes that online PPIs (OPPIs) present the potential for evidenced-based approaches to be tailored to participant pools in "enjoyable, engaging and scalable" ways (Bolier & Abello, 2014, p.305). However, the limited number of studies exploring the use and efficacy of these means that there is no clarity on which OPPIs are effective and, as they note, "what might be the ingredients or mechanisms through which they are effective" (p.305).

1.4 Study aims

Drawing on the existing literature and identified gaps in knowledge, this study explored the use of an online play-based PPI to support those currently, or recently, subject to social distancing as a result of the Covid-19 pandemic. It has been asserted that resilience will be required to ready for, respond to and recover from an uncertain future and serious play, via a positive psychology-informed board game, was the mechanism through which this was targeted. This study, therefore, explored participants' experience to understand whether, and by what means, people recognised resources which could be used to help them ready for, respond to and recover from the challenges of the pandemic. The primary research question of this study was, therefore, how does playing an online positive psychology-informed board game facilitate recognition of resources for resilience during a pandemic?

2. Method

2.1 Design

This research, with its focus on exploring and understanding participants' experience of taking part in the intervention, adopted a social constructionist epistemological position (Burr, 2003). This framework formed the basis for both data collection and subsequent analysis of data. Qualitative data was collected via five semi-structured focus groups, with groups of 3-4 participants in each, which took place immediately after each group had collectively participated in the intervention. Data was subsequently analysed using Thematic Analysis, in accordance with the stages outlined by Braun and Clarke (2006) to identify, refine and validate themes both within and across the groups.

2.2 Participants

Sixteen participants (F=14 M=2) took part in the intervention, split across a total of five groups (four groups had three participants and one had four). This exceeds Braun and Clarke's (2013) recommended sample size for Thematic Analysis. Whilst the intervention

was unlikely to cause harm, participants who had previously been diagnosed with depression or anxiety were excluded.

Participants were aged between 25-65, had prior work experience and all participants had recently been subject to social distancing measures as a result of Covid-19. Participants were located across three continents, with varied nationalities including British, Romanian, Indian and Belarusian. The participant sample was purposely heterogenious and cross-cultural, as the study was interested in understanding the broad phenomenon of taking part in this experience, versus exploring the specific experience of a sub-section of population (Robinson, 2014), and this was facilitated by the virtual delivery of the intervention.

An initial pilot group comprising first degree contacts was conducted and, as no significant changes were made to the design of the study, this data was included. One of the subsequent groups also comprised first degree contacts, with other groups recruited via snowballing (Patten, 2002) using well connected first-degree contacts, as advocated by Braun and Clarke (2013). The use of first-degree participants is in-line with techinques used by other scholars conducting research into serious play through the use of board games (see Uy, 2019) and is not uncommon in qualitative research (McConnell-Henry et al., 2010).Whilst recognising there may be potential issues researching with people known to the researcher (or each other), McConnell-Henry et al (2010) assert there are benefits to this approach. For example, they note that pre-existing relationships can accelerate rapport building, leading to participants feeling more able to open up, thereby facilitating rich data collection. Additionally, Owten and Allen-Collinson (2013) assert that prior relationships also create the potential to reduce the hierarchical divide that can exist between the researcher and participants, leading to a more equitable power balance. In line with McConnell-Henry et al's recommendations for overcoming potential issues, confidentiality and anonymity was assured (and this was also required within the groups as a condition of participation) and the role of the researcher was clarified (both verbally at the start of the focus groups and through the

written briefing and participation forms) with assurance the researcher was not seeking any particular answers but, rather, wanted an authentic account of their experience.

Of the five groups that took part; two comprised participants who were known to each other and to the researcher, two groups were strangers to each other and to the researcher (except for one participant who knew the researcher) and one group was mixed, as a result of a participant inviting two of their contacts to participate who did not know each other. This group also had no prior relationship with the researcher. This mix of 'strangers' versus 'friends' in the participant sample was reflected on both within the focus groups and also through observation of group dynamics, to reflect on whether the group make-up appeared to alter the experience or outcomes.

2.3 Materials

The study used an online board game, '*Not all plain sailing™',* which one of the researchers created for the purposes of this study. The game was facilitated through Zoom using a central game board with pre-defined stages of a journey that the researcher moved the team through. All team members could see and interact with all other players throughout. The game used a central narrative of a fictional boat journey from a desert island to the safe shores of "home". The team mission was to navigate through the stages of their journey by completing tasks, for which they received team treasure (which they were told would be needed for life back on land).

Along their journey, participants were met with various challenging events and invited to complete an individual or collective task (the latter denoted by the phrase *'All hands on deck')* to overcome these. Tasks incorporated a variety of mediums including storytelling, drawing, choosing objects from their surroundings, movement and even singing, all of which were designed to elicit fun and enjoyment. The tasks were adapted from evidence-based positive psychology interventions e.g. best possible self (Carrillo et al., 2019; King, 2001),

use of strengths (Martínez-Martí & Ruch, 2017; Niemiec, 2018, 2019; Peterson & Seligman, 2004), acts of kindness (Curry et al., 2018; Ko et al., 2021; Lyubomirsky & Layous, 2013) and activating optimism (Seligman, 2006) amongst others. For example, at one stage the team was told that the boat had started taking on water and that all the team's strengths were needed to overcome the challenge or the boat would sink. To complete the challenge, and fix the boat, team members had 30 seconds to find and share with the other players an object that represented one of their recognised strengths. Figure 1, below, shows illustrative examples of content from the game.

Figure 1: Illustrative examples of game content

Interspersed with the events, participants were also invited to spin a wheel to gain a resource they could use to ready for or recover from difficulty. When landing on one of the twelve possible resources, they were given a question or task related to this. For example, when landing on "Connection", players were shown a short definition (i.e. "Connection means fostering relationships with others, giving and receiving support and positively

contributing to others") and then posed a question related to it (e.g. "Who is someone you have reached out to for support in the last six months?").

The range of resources presented through the game relate to a multi-dimensional model of resilience and well-being (Figure 2) which sits at the heart of the game. The four domains and twelve associated resources are drawn from evidence-based positive psychology interventions (see Parks & Schueller, 2014), many of which have been shown to support resilience during times of crisis, including a pandemic (see Waters et al., 2021).

Figure 2: Multi-dimensional model of resilience used in the intervention

Table 1, below, maps the resources to specific positive psychology interventions and theories and illustrates how these are applied through provision of example tasks used in the game.

345 **Table 1:** Resources and their links to Positive Psychology Interventions

Domain	Resources	Example questions/tasks
 Feeling	**Recognise** relates to identifying and using emotions as a resource (Fredrickson, 2001; Tugade & Fredrickson, 2004)	Write as many emotions as you can in 30 seconds. The person with the longest list gets an extra coin.
	Transform means generating positive emotions (Catalino et al., 2014; Sheldon & Lyubomirsky, 2006) including through gratitude (Seligman et al., 2005) and humour (Gander et al., 2013)	What are three things from the past week you are grateful for?
	Savour involves deliberately enhancing and sustaining positive experiences to boost the benefits of these moments (Bryant et al., 2011; Bryant & Veroff, 2007)	Recall a funny experience you have had in the past month. Share it briefly with your team and tell them why it was so entertaining.
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 Thinking	**Perspective** includes reframing thinking (Lazarus & Folkman, 1984; Padesky & Mooney, 2012) and activating optimism (Seligman, 2006)	What is something you saw as negative at the time, but are now glad it happened?
	Focus draws on theories of self-determination (Deci & Ryan, 2002), Hope (Snyder, 2002) and flow (Csikszentmihályi et al., 2005)	What are three things you want to *not* do for the rest of this year?
	Presence relates to research on mindfulness (Brown & Ryan, 2003; Ivtzan et al., 2016)	Share one thing you can see, hear, touch, smell and taste right now.
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 Doing	**Move** draws on research around physical activity and the link to wellbeing (Hefferon, 2015)	Where is your favourite place to walk and why?
	Rest draws on theories of positive coping and physical recouperation (Hefferon, 2013; Hefferon, 2015; Lomas et al., 2017)	Collect a different strategy from every player to foster good sleeping habits! Award a bonus coin to the one you like best.
	Nurture includes positive coping strategies and self-care (Allen & Leary, 2010; Neff, 2011)	What act of self-kindness can you commit to over the next week?
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 Being	**Strengths** includes recognition and use of character strengths (Gander et al., 2013; Ghielen et al., 2018; Niemiec, 2019; Seligman et al., 2005)	If the people who know you best were asked what one of your strengths is, what would they say?
	Meaning draws on theories of meaning in life (Martela & Steger, 2016) and job crafting (Wrzesniewski & Dutton, 2001)	Think of a high point in your life. What values were being met?
	Connection relates to social support (Keyes, 1998) and acts of kindness (Ko et al., 2021)	Who is someone you have turned to for support in the past 6 months?

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Participants had choice throughout the game to re-spin the wheel and be introduced to a new resource, choose which challenge to complete (by selecting one of four possible coins, which each linked to different tasks) or to pass on any question or task by stating *"Sail on by".* In this instance, their fellow crewmates could *"Take the helm"* and earn the treasure instead. Whilst the treasure gained was awarded to the whole team, the person with the most coins at the end of the game gained a bonus prize (which involved each team member sharing something they appreciated or admired about the winner).

To support the rigour of the intervention, the design was informed by IJntema et al's recommended twelve criteria for resilience programmes (2019, p.290). For example, the process through which resilience was targeted was clearly outlined (see Table 1), the timing of the intervention was specified (i.e. during the pandemic) and an explanation was provided as to how positive adaptation is understood (i.e. ready, respond and recover using a range of evidence-based resources). The definition of resilience used for the study, however, as previously outlined, additionally encompassed physical elements, which differs from the definition of psychological resilience presented in IJntema's et al's study.

Following the intervention, a focus group was conducted using a detailed discussion guide. Key questions included:

- Tell me about your *experience* of taking part in today's session overall.
- What reflections or insights can you share about the *content* and *format* of the game/intervention?
- Can you tell me about how you viewed resilience before the game? How, if at all, has that changed?
- If you think about your *capacity* for resilience before and after the game, what if anything has changed?

2.4 Procedure

Ethical approval was obtained from the University of East London, which ensured the study adhered to the British Psychological Society code of ethics for research (2018). Interested participants attended a 10 minute 1:1 briefing session via Zoom and, subsequently, gave their consent to participate. The game intervention, which took place on Zoom, lasted on average 62 minutes, with the shortest being 47 minutes and the longest 70 minutes and was not recorded, as it was deemed this might inhibit participation.

The Social Constructionist framework that guides this research is interested in meaning that comes from shared experiences and interactions. For this reason, focus groups were selected as a method of data collection, as it enabled participants to extend and comment on each others' perspectives of their shared experience (Nestel et al., 2012). By holding the group immediately after the intervention, participation rate was 100%. Focus groups ranged in length from 50 minutes to 1:31, with the average being 61 minutes, and the focus group was recorded using Zoom, with participants' consent, to ensure accurate transcription.

There was a balance of voices overall, with no noticably quieter or more dominant group members. No names were shown on the screen whilst recording and the audio recording was subsequently professionally transcribed for analysis. Any specific details that could identify participants in the transcripts were redacted and pseudonyms allocated. A debrief letter was subsequently sent to all participants.

2.5 Data analysis

Thematic Analysis was used, which Braun and Clarke describe as "a method for identifying, analysing and reporting patterns within data" (Braun & Clarke, 2006, p.79). This approach was chosen over other methods of qualitative analysis (for example, IPA) both due to its flexibility (Clarke & Braun, 2017) and because using IPA with focus groups has been shown to present challenges due to the lack of individual focus and depth (Smith et al., 2009).

An inductive approach was used to analyse the data (Patton, 2002), meaning findings emerged from the reported experience of participants, and this was augmented through observation of non-verbal communication and group interactions. In order to ensure anlaytic rigour (and in recognition of the increased potential for researcher bias due to the multiple roles of researcher, moderator and game-creator) the six-step framework developed by Braun and Clarke (2006, p.87) provided a structured approach, which was adhered to throughout. This included reviewing both interview recordings and transcripts many times in a cyclical process to create detailed codes, generate and refine themes and, finally, validate prevalence of the identified themes. Themes were, where possible, reflective of the participants' own words so that the participants' voices came through the findings (Hefferon et al., 2017). A prevalence table was completed for all participants and groups at sub-theme level, and this led to refining master themes.

3. Findings

Analysis of the data identified four master themes, each with between 2-3 sub-themes, which are listed in the table below (Table 2) along with illustrative quotes from participants across the multiple groups. Prevalance of the themes was strong on a per participant level and across groups and all master themes were mentioned in every focus group. Each of these themes and sub-themes are discussed in this section, along with illustrative quotes from participants (using pseudonyms) across the five groups (shown as G1-G5).

428 **Table 2:** Themes, sub-themes and prevalence of master themes per focus group

Master themes	Sub-themes	Example quotes	Prev.
3.1 "So much more than a game"	3.1.1 "Time just disappeared"	"Sometimes I got lost in the game" (Olivia, G5) "as soon as it started, I was in it" (Carmen, G1) "I wasn't aware of the time" (Anna, G1) "it was fun, it was interactive, it was engaging" (Fiona, G2) "the group turns…that really helped keep that engagement and the momentum going" (Carmen, G1)	5/5
	3.1.2 "More challenging than your average game"	"I haven't had this kind of interaction for a very, very long time." (Jack, G4) "It gets you to think about things you wouldn't normally" (Lee, G4) "you don't get to such conversations a lot, especially nowadays" (Olivia, G5) "it prompts something that you wouldn't naturally reflect on very often" (Heidi G3)	
3.2 "Safe space"	3.2.1 "In this together"	"The camaraderie between everybody…helps to fuel and boost you" (Gill, G3) "that you're together in this actually is a very important part of it" (Heidi, G3) "we're a team, we're in this together…you're doing it for the team" (Lee, G4)	5/5
	3.2.2 Virtually "in the same room"	"felt like we were all in the same room" (Belle, G1) "it benefits to a point 'cause it's almost as a barrier of protection…a bit more of a safer space" (Heidi, G3) "it creates a different vibe, a kind of trust vibe" (Molly, G4) "I really felt like we were in the same room" (Olivia, G5)	
3.3"Deep and meaningful" conversations	3.3.1 "Self-dialogue"`	"I've learned some things about myself" (Anna, G1) "It opens up conversations within our own heads" (Carmen, G1) "Really thought provoking" (Dee, G2) "the game has helped with self-awareness" (Kim, G4)	5/5
	3.3.2 "Different perspectives"	"You learn from how other people respond to things" (Anna, G1) "You're learning off each other" (Isabelle, G3) "I appreciate different perspectives" (Molly, G4) "Hearing examples from other people made me realise things I could be doing myself" (Carmen, G1)	

	3.3.3 "Connect the dots"	"I think [the Focus Group] is really valuable, almost having like a debrief after". (Gill, G3) "It feels as though it rounds you off the session rather than having to call a stop after the game" (Kim, G4) "I think this, the debriefing, is very important to-to connecting this game with the actual topic, resilience" (Olivia, G5)	
3.4."This game is an anchor"	3.4.1 "Individual journey"	"there's multiple aspects to resilience" (Carmen, G1) "There's all these ways you can be resilient" (Anna, G1) "It gave me an insight into how small things can actually increase your resilience" (Kim, G4) "It made me think about resilience as so many different parts of who we are" (Ellie, G2)	5/5
	3.4.2 "It's a reminder"	"It made me remember and focus on some of the practical things" (Anna, G1) "There are tools that I have in my arsenal that I perhaps have forgotten" (Isabelle, G3) "It's a great reminder that we have a strong core" (Olivia, G5)	

3.1 "So much more than a game"

Every group mentioned a combination of both enjoyment (sometimes beyond expectations) of the format and mechanisms of the game, as well as a recognition that the game had triggered conversations that were deeper than usual. One participant captured this as *"it's straightforward and fun and engaging on the surface, but I think it's really powerful. There's this underlying, uh, purpose. (Fiona, G2)"*. Two noticable sub-themes emerged around this theme; the game mechanisms that led to the time seamingly passing quickly, plus the structure and content of the game that supported a deeper experience than that of a usual game.

3.1.1 "Time just disappeared"

Several participants across the various groups mentioned how they were *"not really into board games"* (Anna, G1) and how they had initially felt some anxiety about what would be

asked of them. One participant, for example, reported wondering "*am I gonna mess the team up and sink the boat?"* (Lee, G5). This suggests perhaps the content, or interest in the topic of resilience, rather than the prospect of playing the game itself, was the driver for participation for some. However, all participants who expressed initial anxiety spoke about how that rapidly alleivaited, with one participant stating;

> *"I don't play games. It's not really my thing. So I'm like, to play a game for that long seemed, you know, like an onerous amount of time. And yet in it, time just disappeared and I wanted more". (Carmen, G1)*

Participants attributed this feeling of enjoyment and engagement to a range of factors that related to the game mechanisms, including the variety of tasks they were completing, the aspects of choice and chance (through spinning the wheel and choosing which challenge to complete) and the balance between individual and group challenges. This latter aspect was mentioned by several participants and seemed to be facilitated by the small group size, which ensured the pace was maintained throughout. Jack (G4) summarised this by saying he had appreciated *"the entire session being so involving that you never felt left out".*

3.1.2 "More challenging than your average game"

Many of the participants across all the groups spoke about the fact that the game environment had encouraged them to talk about topics they would not normally speak about, particularly with strangers. Lee (G4), for example, found the structure of the game *"a comfort",* which enabled him to speak about deeper, more emotional topics than he reported he usually would. Olivia (G5) reflected that the game environment had enabled the group to "*skip the small talk and to get to deep conversations".* Some participants noted that the narrative of the game, in particular, had allowed them to reflect on their experiences in a somewhat lighter way, that seemed facilitative of openess. Belle (G1), for example, said:

"I think the fact that it's a game and you can visualise being on a boat, and things like that, um it adds more fun into it. And I think it takes some of the stress away from it, from thinking about yourself in, in situations, you know, it's just a game…but you're still getting the learning in a really nice way."

This suggests that the game environment helped create a sense of release from some of the reported tensions and, perhaps, release of expectations related to what can and cannot be shared in conversation. This seems to have allowed more depth of disclosure as a result. In particular, the game's use of positively phrased questions appeared to facilitate the opportunity for participants to reflect on strengths, successes and growth in a way they described as both non-typical and beneficial. Isabelle (G3) captured this by reflecting:

"I think that's one of the reasons that the game is a great idea, and it-it's a great opportunity for people to-to stop and look back at where the areas are in their lives that they've succeeded. You know, looking positively at things, not, you know, what were you struggling with and you've come through, but what-what positive situations have you embraced? And-and what great things have you achieved…It's not looking at spinning a positive out of a negative, but look at the positive and how you've grown."

3.2 Safe space

This theme relates to participants reporting a feeling of safety throughout their experience, which appeared to come from two main sources; the shared group experience and, suprisingly, the online environment. Whilst several participants mentioned initial anxiety or nervousness at the outset, it appeared these factors helped people to feel safe to open up and reflect on their experiences with curiosity and lack of self-judgement.

3.2.1 "In this together"

Participants in all the groups spoke about the benefit playing live with others brought to their experience. Being one of many participants appeared to further amplify the sense of safety to share, as others set the tone for doing so: *"from like a feeling safe perspective, it's- it's- I think it's easier to be open if you think that everybody else is going to be open as well" (Fiona, G2).* It appears that, not only did others help set the benchmark for disclosure and participation, but the game environment also served to motivate participation, as *"we're a team, we're in this together…you're doing it for the team" (Lee, G4).* Interestingly, there was no marked difference in groups of either strangers or friends, suggesting that the make-up of the group had limited impact on sense of openness to share. Indeed, one participant described how, even though they played with a known group, they would have felt as open to share with strangers – and several members of the 'strangers' groups echoed this*; "I was comfortable to-to share things and to deep dive and to-to go into deep conversations with strangers." (Kim, G4).*

Finally, being in a shared group environment also seemed to serve as a way to normalise people's experience, which some participants found reassuring. For example, Dee (G2) shared how hearing others' experiences helped her to accept her own responses to challenging situations*; "that made me happy hearing that from-from somebody else as well. And you know, thinking, wow, you know, kind of, um, it's okay to-to feel like that."*

3.2.2 Virtually "in the same room"

The virtual environment was discussed in every group, with a consensus that the online environment may have augmented the experience of participants, particularly in relation to helping people feel more relaxed and safe. *"It feels almost as if we're in a room together, but with the advantage of, um, feeling, I suppose more at ease because I'm in my space." (Isabelle, G3).* This sense of safety was echoed across the groups, with Molly (G4)

describing how in an online environment, there was a different kind of connection, which she described as creating *"a kind of trust vibe"* (Molly, G4).

The ability to engage in the game-based activity from the 'comfort of your own home' (coupled with other reported advantages participants mentioned, including the ability to connect with multi-national groups) seems to have impacted people's experience in a positive way. However, some participants reflected that, had someone become distressed, it may have been more challenging to support them in an online environment.

One aspect that multiple groups mentioned was that the turn-taking, which was central to the game process, helped facilitate a smooth online experience, and that in turn the online environment helped facilitate turn-taking. Ellie (G2) reflected;

> *"I guess we've all learned that if you start talking over someone in an environment like this, you both get canceled out. There is that, um, opportunity for you to say- for you to say what you want to say in its entirety without getting interrupted…"*

She reflected this had additional positive potential for cross-cultural groups, where interrupting may be less common and less extroverted voices can be under-represented. Overall, groups reported feeling a closeness and intimacy which seemed amplified, not eroded, by being in a virtual environment.

3.3 "Deep and meaningful" conversations

This theme relates to the experience of reflection and meaning that participants derived through the conversations they had with others in the group. Three sub-themes were identified as contributing to this; "self-dialogue", the gaining of "different perspectives" through interacting with others in the group and, finally, the desire to "connect the dots" and make sense of their experience in relation to their resilience in real-life.

3.3.1 "Self-dialogue"

All the participants talked about how participating in the game had stimulated self-reflection and, in many, fostered a deeper sense of self-awareness. The questions and activities of the game often asked players to share their own experiences of positively coping with difficult situations and people reported this activated learning that had previously been missed as "*your life happens and you move on" (Heidi, G3).* Many participants mentioned that this self-reflection continued beyond their 'turn'. For example, Carmen (G1) shared: *"It did make me think about it afterwards. So even, even if answering was difficult, it was interesting to open up that self-dialogue with myself".*

Several participants reported that inner dialogue was activated through the *process* of completing the tasks, not just the tasks themselves. Molly (G4), for example, reflected *"it was also interesting to see my reaction…how I feel when I'm put…not, not in a comfortable situation".* Indeed, even the questions and tasks of others triggered reflection for some participants. For example, Anna (G1) who began to reflect on why certain tasks were easier for her than others. *"I was noticing that, like, other people's questions, like, oh, I could easily have done that one and then I got my own question. It was like, oh, no, I can't do this one. So I was thinking, why is that?"*

It appears, therefore, that through facing a range of scenarios and challenges as part of the game, some participants were able to observe how they tended to respond, or didn't respond, and that this added an additional layer of self-awareness. In this way, the game, perhaps, helped gain insight into how they might approach challenges 'in real-life' that was beneficial.

3.3.2 "Different perspectives"

Participants in all groups talked about the value of hearing others' experiences and approaches to challenging situations. This appeared to help remind them of their own experiences and resources, or gave them ideas they could adapt for their own future contexts.

Gaining previously unknown insight into other people's inner world, and in particular how others both make meaning of the challenges they face and use a range of resources to address them, seems to have been deeply affecting for some participants;

> *"it's opened up so many realizations about, um, who I am, the way I live my life, um, the way other people, uh, live their lives, um, and the significance that the other members of the group, um, placed on different questions that they were asked and the way they think about things and the way I don't think about things and perhaps I should start thinking about things differently". (Fiona, G2)*

3.3.3 "Connect the dots"

Finally, in relation to deep and meaningful conversations, participants talked about a desire to continue the conversation beyond the game in order to make sense of their experience and extend the insights. As Fiona (G2) described; *"it sparked off all these other thoughts and feelings that I-I think, you know, rather than just throwing them up there and leaving them to hang, there's-there's an opportunity to sort of develop it."*

This sense of an unfinished conversation was echoed by many participants and, as the groups progressed, it became evident the focus group, whilst not originally intended as part of the intervention, was playing a valuable role in helping participants to make meaning of their experience. As Polly (G5) put it;

> *"It's very important because; I get to clarify some, uh, understanding that I gained during the game, but, uh, I get also to go out of the game and understand, how does everything that I've learned in there reflect into my real life?"*

Creating this (unplanned) opportunity to collaboratively review their experience and translate learning into real-life proved extremely valuable. Several participants across the groups expressed a desire to continue these types of conversations with others in their lives; from their families to their work colleagues. In this way, it appeared that experiencing different,

more meaningful conversations opened up new conversational possibilities - and people wanted more.

3.4 "This game is an anchor"

Reflecting on their experience of taking part, in particular in relation to the future, several participants shared that they had gained a greater understanding of the multiple, often day-to-day, aspects of resilience. Notably, several people reflected on how these resources were individualised depending on experiences and preferences (represented by the sub-theme "Individual journey"). Importantly, participants reported remembering their own successful history of being resilient (the second sub-theme; "It's a reminder"). Facing a future, which more than one participant described as "uncertain", this appeared to be grounding at a time when many people reported they needed it most. Nancy (G5) captured this by reflecting; *"I think that to some extent, this game is an anchor…it's anchoring us to what we do know when we don't know much."*

3.4.1 "Individual journey"

Participating in the game appears to have broadened many participants' view of what resilience is, and, notably, helped people to connect with some aspects of resilience they may have forgotten or overlooked. The physical aspects, for example, were mentioned by several participants as being a surprising resource for resilience. Seeing resilience as a 'package' of multiple elements seemed to have had a broadening effect for many people, which opened up possibilities of using available resources more purposefully in the future. As Dee (G2) reflected: "*Everybody's got an element of resiliency built into them, but actually, true resiliency is that whole package, which I've not really thought of before."*

Within this sense of 'whole' there seemed a reconsidering of resilience away from 'keeping going until you break' towards, perhaps, 'taking a break so you can keep going' –

and with it a recognition of the 'whole' of their human experience in times of challenge. For example, Fiona (G2) noted;

> *"I feel that through the game I've remembered that being resilient is also about admitting your limitations…I think it's about recognizing that you're-- you're not infallible. You have vulnerabilities and you need to- you need to pay attention to them…to meet your challenges. It's not just about, you know, the suit of armour."*

Additionally, several participants noted that resilience, was in fact, *"an individual journey"* (Heidi, G3). As Isabelle (G3) described it, *"you're demonstrating <u>your</u> resilience".* This highlighted the different ways in which people were resilient, and that there was not, therefore, one "right" way to exhibit or validate it. Some participants found this lack of clarity challenging. For example, Isabelle, went on to reflect; *"For me, it kind of brings up a bit of a validation piece…there's a small element of me that thinks, okay, so how does that line up against, uh, some sort of standard?"* These findings suggest the multi-dimensional and contextual nature of resilience appears, at times, to impact the extent to which people feel confident they are truly exhibiting it.

3.4.2 "It's a reminder"

Finally, participants reported that, through playing the game, they had an opportunity to reflect on and remember the extensive track record they all had of overcoming difficulty and responding to challenging situations. One participant (Isabelle, G3) captured this process of remembering resilience as;

> *"It does remind us, uh, me that actually with a whole bunch of stuff, I've coped and this is how I've dealt with them. And also, I already have a lot of these things I have- I know I have stuff that I can identify as coping mechanisms that I have used in the past and have been successful to a point. And so, I can take them forward. So, it's not like*

I'm sort of, um, toolless. Um, I-I-I have tools available and it's good to be reminded of them."

Rather than reporting learning new approaches, it seemed, overwhelmingly, that participants had instead benefited from remembering their own individualised strategies and resources for resilience. Whilst participants were unsure if their capacity for resilience had shifted through taking part in the intervention, almost every participant mentioned remembering resilience resources in some form. This appeared to generate a sense of increased self-efficacy that future challenges could be overcome by reusing these successful strategies from the past. Polly (G5) for example reflected:

"*I don't think that my capacity of being resilient really changed, uh, from three hours ago uh, but…I got reminders that there are people around me that could help me … it's a way of remembering that you are doing okay, and you can face any difficulties because, you have tools that help you going through those".*

Olivia (G5) echoed this feeling of remembered strength as *"a great reminder that we have a strong core"* and Fiona (G2) asserted "*I know I-I can do it, because I've done it before, I just need to recognize the importance of-of doing the same thing again".* The impact of this was summed up by Isabelle (G3) as;

"The game gave me an opportunity or triggered a reason for me to reconsider and go back and review…I can draw on those in the future because I'm given a reason to remember that actually I've done that in the past…I guess it's the confidence that I have it within me".

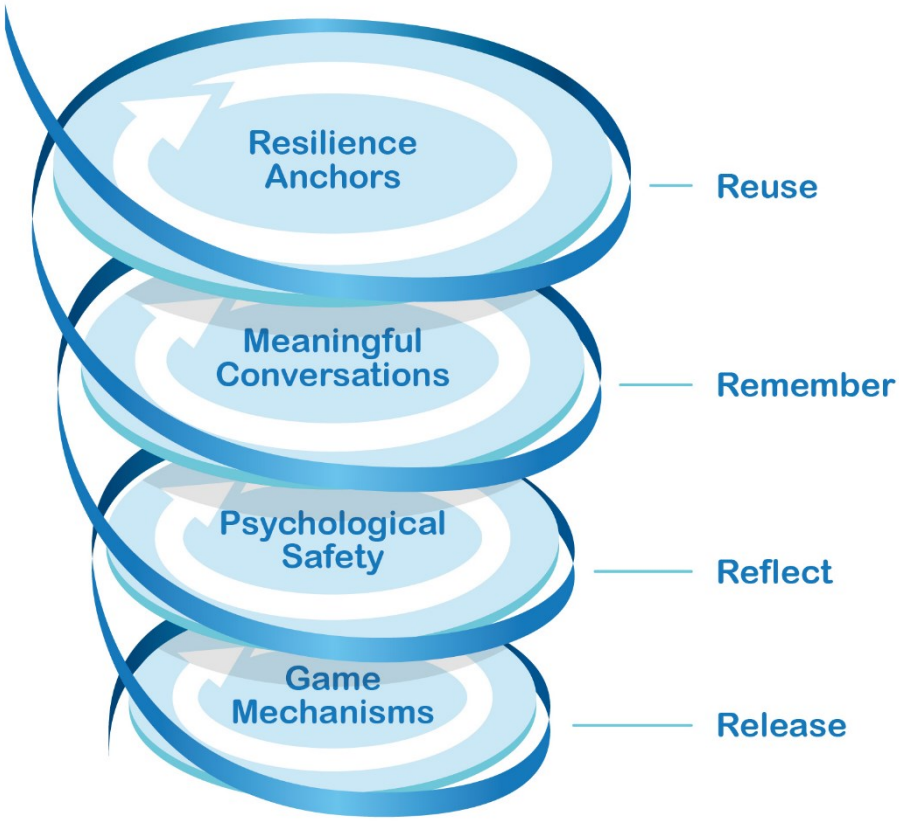
When reflecting on the continuing challenges of the pandemic, participants agreed the future was uncertain and for some this brought anxiety and fear; *"If I need resilience tools, actually, I need them now. I need them now moving forward, not retrospectively, because I think the whole Coronavirus challenge is going to be of a different order actually" (Anna, G1).*

However, for several participants, the pandemic had presented a chance to reexamine and positively readjust their lives, creating new possibilities and sometimes new or deeper connections with others. Several spoke about how they did not want to return to the life they had before Covid-19. Whilst these participants spoke about hardships and difficulty, they equally described positive transformation and a reevaluation of what was truly important, suggesting, perhaps, a positive reconfiguration to the adversity had already begun. Reflecting on how playing the game might help her to face the future, whatever it might bring, Carmen (G1) stated; *"it's made me recognise things that are happening anyway that are part of my resilience…and if things get tricky over the next few months then I will make sure that I am using those resources".*

3.5 Summary of findings

The route to remembering resources for resilience appears to have been facilitated by a number of factors, which align with the themes identified. The nature of the themes, and the way these were described and connected by participants, suggests the four master themes might flow sequentially, in a cumulative manner. The environment and mechanisms of play, it appears, helped participants to release anxiety and inhibition, participate in self-disclosure and reflection, and, subsequently, make meaning of their experience through discussion. This, ultimately, enabled participants to remember existing resources, creating the potential to, therefore, reuse them in the future. These findings have been depicted in the model below (see figure 3).

699 **Figure 3.** Upwards spiral of accessing and anchoring resources for resilience



700

701 **4. Discussion**

702 This study set out to explore the experience of participants playing an online positive
703 psychology board game to understand how it might facilitate recognition of resources for
704 resilience during a pandemic. The findings suggest that, through their participation,
705 individuals felt they had broadened their perspective of available resources for resilience,
706 primarily through reflecting on and remembering existing resources. This aligns with
707 Masten's (2001) view of resilience as "ordinary magic" that is present in us all. The
708 individualised resources participants shared aligned with previously identified factors of
709 resilience (Meredith et al., 2011), including positive coping (e.g. getting more sleep,
710 exercising and drawing on support networks), positive thinking (e.g. challenging negative
711 self-talk) and positive affect (e.g. engaging in activities that bring and sustain enjoyment).
712 The breadth and variety of resources also supports the perspective of a multi-dimensional

view of resilience (Brassington & Lomas, 2020), with participants describing a range of cognitive, emotional, physical and relational resources.

Whilst several participants were unsure as to whether their capacity for resilience had changed, there seemed to be signs of increased self-efficacy (Benight & Bandura, 2004) in all the groups as a result of recognising resources that could be used to respond to future challenges. This was seen through participants voicing greater confidence in facing the challenges of an unknown future, as a result of reconnecting with and remembering their "toolkit" of existing resources. As has been previously shown, self-efficacy has been proven to be an essential protective factor in buffering against the effects of future challenges (Lee et al., 2013). The 'real-life' impact of this was witnessed through one participant who, within days of taking part, decided to apply for a promotional role they had previously discounted as unachievable. Having been reminded of the resources and strengths they possessed to support them, they subsequently applied for and secured the promotion.

One possible reason participants may have struggled to identify their own capacity for resilience might be, as the findings suggest, because resilience is both contextual and highly individualised. The "individual journey" of resilience created particular challenge for some participants, who were keen to benchmark and validate their level of capacity. As Bonanno notes in a recently published article, as no one strategy works all the time, this presents a challenge for 'teaching' people to be resilient (Saner, 2020). Indeed, this may shed light on why resilience has traditionally been so challenging to define (Meredith et al., 2011). Bonanno recommends, instead, that helping build on existing strengths and encouraging flexibility to draw on these when needed is the key to developing resilience (Saner, 2020) – aspects this intervention appears to have provoked. The benefit of remembering and reactivating previously forgotten resources suggests that defining resilience as a *practice,* as was presented, might accurately capture the on-going, refining nature of personal resilience.

Whilst participants described resources that might be supportive of 'readying' for challenges, many also pointed to the recognition that recovery was needed as a result of the experience of living through the lockdowns. In particular, participants described a need to both recuperate and exercise self-acceptance towards some of the less comfortable aspects of their experience. This perspective aligns with developments in positive psychology to recognise and embrace the full spectrum of the human experience in order to function optimally (Lomas & Ivtzan, 2016). Several participants mentioned, specifically, an intention to exercise increased self-compassion, an aspect which has been shown to reduce negative emotional responses when facing challenging situations and facilitate positive coping (Allen & Leary, 2010). Self-acceptance additionally correlates with aspects of eudaimonic well-being (Ryff & Singer, 2008), suggesting this resource will benefit beyond the immediate challenges of Covid-19. Research on self-compassion (Neff & Germer, 2017) shows that developing common humanity (described as gaining an understanding of how challenges are universally experienced) is a key factor in fostering this valuable resource. Given the group intervention allowed participants to hear the challenges of others, and so normalise their own experience, the format of the intervention may have been an important contributor towards developing this critical resource.

Furthermore, whilst participants described both the resisting and recovering aspects of Lepore's three outcomes of resilience, (2006), there was also evidence of reconfiguring as a result of the challenges of the pandemic. In particular, some participants reported a greater appreciation and gratitude for aspects of their lives, and the fostering of deeper relationships, phenomenon reflective of post traumatic growth (PTG) (Tedeschi & Calhoun, 2004). Whilst, understandably, much of the focus has been on the negative impacts of the crisis, a recent paper has questioned whether perhaps, as with other forms of growth from adversity, the pandemic may have triggered positive impacts on well-being too (Palmer, 2020). The findings from this study suggest this may well be the case, and that, as with PTG, these most

764 closely align with elements of eudaimonic well-being (Ryff & Singer, 2008). Given the
765 demonstrated link between well-being and resilience (Mehta et al., 2019), this may fuel
766 further resources that could prove beneficial for subsequent phases of readiness, response and
767 recovery.
768 In alignment with previous serious play studies using board games (Uy, 2019),
769 participants reported both positive emotions (described variously as fun, excitement and
770 positivity) and a sense of engagement and immersion whilst playing. It is posited this
771 increase in positive affect may have been a key mechanism through which individuals were
772 able to both broaden their thinking to respond to challenges and, critically, reflect on and
773 remember resources - markers of the broaden and build theory in action (Fredrickson, 2001).
774 Furthermore, participants' description of losing track of time indicated that many individuals
775 entered a state of flow whilst playing, which aligns with Csikszentmihályi's (2005) assertion
776 that play can be facilitative of flow. Inherent in a flow experience is the presence of challenge
777 (Primus & Sonnenburg, 2018), an aspect which many participants highlighted and which was
778 captured through the theme "more challenging than your average game". Studies have shown
779 four specific dimensions are reflective of flow; positive affect, concentration, willingness to
780 participate and involvement (Moneta & Csikszentmihalyi, 1996) all of which emerged
781 through the data. Additionally, it has been argued that individual flow can be a precursor to
782 group flow, which results in groups accessing collective creativity (Sawyer, 2003). A marker
783 of this, it is asserted, is equal participation, which participants noted was enabled through the
784 turn-taking structure of the game. Whilst flow has been correlated with increased positive
785 affect (which, as shown, creates its own benefits in terms of broadening and building
786 resources), time spent in flow also has the potential to benefit beyond the experience itself.
787 Compton and Hoffman note that; "the sense of self is more integrated after the flow
788 experience as the various elements that make up the complex self work together more
789 harmoniously" (2013, p.117). This aligns with feedback from participants who spoke about

how the intervention had helped facilitate increased self-awareness. Through the immersive, engaging game experience, it is posited, therefore, that participants may have gained access not just to individual resources, but a deeper holistic awareness of how these both integrate and impact.

Participants reported how the game mechanisms of choice, challenge and connection helped to create enjoyment and engagement. These aspects align closely with the elements of self-determination theory (SDT) (Deci & Ryan, 2002), which are linked to both increased intrinsic motivation (a desire to participate for participation's sake) and enhanced well-being. Furthermore, several participants mentioned how these factors, plus the imaginary setting of the game, helped them to release tension and inhibition to immerse in the experience. This echoes Brown's (2009) assertion that play can create the conditions for people to feel safe to experiment. Psychological safety (Newman et al., 2017) has been shown to encourage contribution and openness in groups (Jackson & Bourne, 2020), and participants reported the sense of safety they felt was enabled by several factors. Firstly, being in a group of peers and, secondly, by being in an online environment. This latter finding was somewhat surprising, both to the researcher and, it seemed, to several of the participants. Indeed, a recent study of an online coaching programme found mixed responses in how psychologically safe participants felt in a virtual setting (Jackson & Bourne, 2020). Perhaps, as some people reflected, the prevalence of virtual working had normalised the experience so that this medium felt more supportive than it may have previously. Or, perhaps, the game structure of turn-taking, coupled with the ability to participate from the 'comfort of their own homes', both supported and was supported by the online environment. This suggests that, as predicted, OPPIs might be an effective way of reaching socially distanced populations (Parks & Boucher, 2020). However, beyond enabling access to these interventions, it appears that the online environment might actually augment their efficacy, by creating the conditions for people to feel safe to participate. This insight might, therefore, contribute some preliminary

answers to Boiler and Abello's (2014) question as to what the mechanisms might be for effective OPPIs.

Participants reported this sense of perceived safety enabled them to share their experiences in an open, vulnerable way and engage in conversations that were more "deep and meaningful" than usual. Few studies have focused on meaningful conversations, and there is therefore little clarity on what identifies a meaningful conversation compared to a non-meaningful one. One study (Mehl et al., 2010) suggested that more substantive conversations led to enhanced well-being when compared with 'small talk'. Gardiner's (2020) emerging research offers a definition of meaningful conversations as those where people 1. self-express 2. make sense of themselves and 3. connect with others. Her research found that engaging in meaningful conversations versus meaningless ones in a group setting led to increased positive affect and greater connection - two factors shown to be negatively impacted in lockdown populations (Brooks et al., 2020). Critically, her findings showed these effects occurred even when the group was comprised of strangers. This aligns with the observations of this study, which noted no noticeable difference between the experience of friends, strangers or mixed groups in terms of openness and participation. Based on this, it is posited that engaging in these meaningful conversations created the capacity for participants to make sense of their experiences, remember resources and anchor these for reuse in the future.

This process is reflective of the 'conversational learning' process Baker et al describe (2005). In this case, however, it appeared that much of the transfer from remembering to reuse happened once the intervention itself had completed. The focus group, whilst intended as a space to gain feedback on the group experience, emerged in the findings as being a fundamental part of the meaning-making process. This was unintentional, yet unsurprising. The intervention, and particularly the meaningful conversations it stimulated (both externally between and internally within participants) appeared to open up insights that required

processing. Future adaptations of this intervention would therefore benefit from incorporating increased opportunities for learning conversations to be incorporated into the design.

Participants across all the groups noted that, through their participation, they had recognised resources for resilience, primarily through remembering their prior experiences. These included resources such as savouring positive experiences, reframing negative perceptions and recognising forms of support. For instance, Polly remembered the people she could turn to for help if needed. This connects to both the relationship dimension of PERMA (Seligman, 2018) as well as the ability to reach out to others for support, which Reivich and Schatte (2002) list as one of their essential factors of resilience. As hoped, it appears that the integration of positive psychology content with a play-based design might indeed be both complementary and even amplifying – and this is a tentative step towards exploring the effect of a new generation of PPIs (Pawelski, 2020). The positive focus on exploring strengths and resources, coupled with the motivating and enjoyable environment of play, appeared to create the conditions for participants to reflect on, remember and plan to reuse their own individual range of resources. Whilst resilience might, as Masten (2001) suggests, be "ordinary magic", perhaps, therefore, positive psychology play might be the stage that supports the act of conjuring it.

4.1 Limitations and recommendations

This study has a number of limitations which, if addressed, could help strengthen and extend the findings of this study. A critical limitation relates to the potential for researcher bias, as a result of the multiple roles of researcher, moderator and creator of the game. Researcher reflexivity was a crucial factor for awareness in this research (Wilkinson, 1988), and, as a result, steps were taken to mitigate the impact of this through inviting honest feedback and applying a rigorous data analysis approach. It is, however, recognised there remains significant possibility for bias and subjectivity. This was compounded by the fact that

two of the groups were comprised of first-degree contacts, therefore this also adds the potential for participant bias, which could impact the findings.

Secondly, whilst the model of findings presented describes the process observed in these groups, in line with qualitiative research principles, it is not suggested that this is predictive of all future interventions. It is therefore suggested that this be explored further through other play-based positive psychology interventions to investigate if, and to what extent, this descriptive model might be applicable in other similar settings.

Whilst this study focused on the experience of participants, thereby warranting a qualitative approach, incorporating a quantitative design would provide the opportunity to explore the effects of the intervention further. This would enable measures of resilience to be monitored to explore, potentially, how these may fluctuate over time. Longditudinal studies, such as this, would also allow evaluation of the real-life impact of any changes to be investigated, to determine if remembering resources does indeed lead to reuse.

As has been noted, playing the game stimulated self-awareness and reflection, which participants expressed a desire to continue exploring through conversation. This highlights the potential for further iterations of this intervention to incorporate ongoing opportunities for this - perhaps through group or individual coaching. Coaching, particularly in this context of change and challenge, has the potential to deepen self-awareness and support embedding past reflection into future responses (Palmer, 2020). It is therefore recommended this be explored through future studies.

Finally, several participants mentioned the anticipated benefit of playing this game with specific populations (e.g. those who are struggling with mental health issues, children in schools and those who have recently been made unemployed as a result of the Covid-19 pandemic). Further research with more homogeneous populations would allow exploration of any adaptations needed to appeal to different participant groups.

5. Conclusion

This research set out to explore the role of an online board game in recognising resources for resilience, at a time when they may be needed most. The findings suggest that through enhancing positive affect, flow and meaningful connection (enabled through the online game environment), participants were able to reflect on, remember and, ultimately, feel more equipped to reuse their own routes to resilience.

This study is the first of its kind to explore the intersection of positive psychology and play through the use of an online board game and the findings suggest these approaches are, as hoped, synergistic. This suggests a potential development of 'serious play' towards 'seriously positive play', whereby game-based interventions are both informed by and comprised of positive psychology theory and practices, with the goal of enabling resilience and well-being. Further research to explore this link, and its potential to reimagine and reinvigorate PPIs, is encouraged. Furthermore, the online environment within which this intervention took place was perceived to not only enable delivery, but to amplify its effect. In a context of continuing wide-spread social distancing, this presents the possibility for future research to explore how a virtual environment might more intentionally augment interventions, and test the mechanisms through which these effects occur. Ultimately, the findings of this study suggest that, by reflecting on and remembering our personal history of resilience, we may discover the necessary resources to better navigate the storms of the future and keep on course - even when it's not all plain sailing.

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