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Families Playing Animal Crossing Together: Coping With Video Games During the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic was stressful for everyone, particularly for families who had to supervise and support children, facilitate remote schooling, and manage work and home life. We consider how families coped with pandemic-related stress using the video game *Animal Crossing: New Horizons*. Combining a family coping framework with theorizing about media as a coping tool, this interview study of 27 families (33 parents and 37 children) found that parents and children individual coped with pandemic-related stress with media. Parents engaged in protective buffering of their children with media, taking on individual responsibility to cope with a collective problem. Families engaged in communal coping, whereby media helped the family cope with a collective problem, taking on shared ownership and responsibility. We provide evidence for video games as coping tools, but with the novel consideration of family coping with media.

Keywords

coping, communal coping, stress, video games, families, Animal Crossing, pandemic, COVID-19

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During the COVID-19 pandemic, people had to rapidly transition to a lifestyle confined within their homes. In March 2020, the Nintendo Switch game *Animal Crossing: New Horizons* (AC:NH) serendipitously launched and was widely touted as therapeutic during the pandemic (Khan, 2020; Zhu, 2020). This study examines how families use AC:NH to cope with pandemic-related stress both communally and individually, providing an opportunity to understand family coping during the pandemic (Brock & Laifer, 2020; Jones, Yoon, Theiss, Austin, & Lee, 2021). Drawing from media coping research, the novel focus of this study is on individual and family coping with video games.

Literature Review

Context: AC:NH

Animal Crossing games are part of the life simulation genre (Kim, 2014) where play is repurposed from common activities, re-mediating real life (Apperley, 2006). In their own island, AC:NH players build and decorate cabins through learning skills and using resources. AI "villagers" interact with the player. The primary goal is to increase the island's "star rating". However, the game never ends, with smaller goals associated with tasks: gardening, landscaping, fishing, creating clothing, and more. We argue AC:NH facilitates individual and joint coping, throughout the pandemic.

Coping During Pandemic

The COVID-19 pandemic has been stressful for individuals and families (Calarco, Anderson, Meanwell, & Knopf, 2020) whom as a unit must cope with pandemic-related stress both individually and together (Verger, Urbanowicz, Shankland, & McAloney-Kocaman, 2021). Coping refers to "thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful" (Folkman & Moskowitz, 2004, p. 745). According to their model, people evaluate a stimuli as threatening, challenging, or harmful, and then evaluate if their personal resources are sufficient for dealing with it. If insufficient, they evaluate and implement coping options (Folkman & Moskowitz, 2004). Problem-focused coping seeks to change or eliminate the stressor and emotion-focused coping seeks to reduce or manage the emotional outcomes of a stressor (Folkman & Moskowitz, 2004).

Levels of coping. Coping occurs at three levels—individual, social, and communal—based on how individuals and groups appraise the problem or stressor and take on ownership for its management (Afifi, Hutchinson, & Krouse, 2006). Within the theoretical model of coping, these two dimensions are described as appraisal, when others are under consideration and individuals believe they are impacted by others' stressors, and action, which is behavioral and addresses the responsibility for the stressor (Afifi, Basinger, & Kam, 2020; Basinger, 2018).

The results of the combination of these dimensions manifest in four outcomes: individual coping, protective buffering, social coping, and communal coping. *Individual coping* is when an individual determines the stressor is "my problem, my responsibility" (Afifi et al., 2006). *Protective buffering*, or parallelism, is when the stressor is viewed as "our problem, but my responsibility" and is managed individually. This often manifests behaviorally as one attempting to shield another from a stressor (Afifi et al., 2006, 2016), especially for children (Rossetto, 2015; Wilson, Chernichky, Wilkum, & Owlett, 2014). *Social coping* is "my problem, our responsibility," whereby individuals seek support or act to share responsibility. Finally, *communal coping*, "our problem, our responsibility" is when multiple people jointly "own," appraise, and proactively act upon a stressor together, pooling resources, and building shared resolve (Afifi et al., 2006, 2020; Basinger, 2018; Lyons, Mickelson, Sullivan, & Coyne, 1998). Communal coping has relational functions for development and maintenance (Lyons et al., 1998), can enhance coping efficacy (Afifi et al., 2006) and resilience (Wilson et al., 2014).

Family coping. Families are an important entity for understanding coping and resilience (Hutchinson, Afifi, & Krause, 2007; Masten, 2018). Family coping during the pandemic (Hernandez & Colaner, 2021) is an illustration of the type of stress Afifi et al. (2020) argue is understood well with communal coping, similar to what Afifi et al. (2006) observed in post-divorce families: the entire family is affected, individuals are coping with their own stressors, but they are also attempting to cope as a family. The pandemic is severe and chronic (Liu & Doan, 2020), has much uncertainty (Rettie & Daniels, 2020), and allows opportunities for joint coping. Empirical work includes shared family time and joint activity engagement (Hutchinson, Loy, Kleiber, & Dattilo, 2003, 2007). Spending time together engaging in relaxing activities, including playing games (Hutchinson et al., 2007) can be a form of communal coping. Spending time together allows for relational maintenance and family solidarity and is tied to family resilience (Hutchinson et al., 2007; Masten, 2018), including during the pandemic (Prime, Wade, & Browne, 2020).

Coping with media. Coping tools are instruments that help facilitate coping goals and behaviors (Wolfers & Schneider, 2020), including entertainment media (Prestin & Nabi, 2020; Wolfers & Schneider, 2020), like video games (Reinecke, 2009). Media coping is usually studied at the individual-level. We seek to expand upon theorizing about coping with media to consider individual- and family-level coping. Video games as coping tools during challenge life circumstances is well documented (Caro & Popovac, 2021; Iacovides & Mekler, 2019). Individuals have used video games to cope with pandemic-related stress (Cahill, 2021; Eden, Johnson, Reinecke, & Grady, 2020; Kleinman, Chojnacki, Seif El-Nasr, & El-Nasr, 2021; Nabi, Wolfers, Walter, & Qi, 2021; Nebel & Ninaus, 2020), including AC:NH (Barr & Copeland-Stewart, 2021). Moreover, video games (Barr & Copeland-Stewart, 2021) including AC:NH (Johannes, Vuorre, & Przybylski, 2021) tied to well-being during the pandemic. We

expand upon theorizing about coping with media to consider both individual and family coping.

Coping with Video Games. Video games differ from other media, particularly for coping. The primary difference between coping with video games compared to other media is interactivity, "the possibility for players to manipulate the content and form of a video game and/or the possibility of a continuous information exchange between the user and the game system" (Weber, Behr, & DeMartino, 2014, p. 83). Interactivity influences the user's experience, arousal, and enjoyment (Bowman & Tamborini, 2012), including mood repair (Rieger, Frischlich, Wulf, Bente, & Kneer, 2015). Animal Crossing games are highly interactive (Kim, 2014; Milne-Plückebaum, 2014). Video games demand greater attention than other forms of media (Bowman, 2021; Weber et al., 2014), which increases affect, and in turn can reduce stress more than other media (Bowman & Tamborini, 2012). While AC:NH is not a high attention game, it does require more attention than traditional media. Finally, emotions manifest differently in video games from other media (Dormann, Whitson, & Neuvians, 2013; Hemenover & Bowman, 2018) and video games can facilitate emotional expression, linked to well-being (Gaetan, Bréjard, & Bonnet, 2016). Emotional expression is an emotion-focused coping behavior that reduces distress, facilitates insight, and affects interpersonal relationships (Kennedy-Moore & Watson, 2001). Animal Crossing games are described as having emotion and affect by design (Cesar, 2020; Kalinowski, 2020).

Mechanisms of coping. With regard to coping, Wolfers and Schneider's (2020) review finds three perspectives used to explain the mechanisms through which video games facilitate coping: stress and coping; mood management and emotional regulation; and media addiction.

Traditional stress and coping research focuses on how video games facilitate coping through recovery of resources (Collins & Cox, 2014; Reinecke, 2009; Reinecke & Rieger, 2021), arguing more interactive media activities like games provide greater recovery experiences. Moreover, video games provide a different kind of opportunity for the mastery and control dimensions of recovery. An element of recovery particularly well supported by video games is sense of control which affords resource restoration (Reinecke, 2009). Control is "a person's ability to choose an action from two or more options. . . the degree to which a person can decide which activity to pursue during leisure time, as well as when and how to pursue this activity" (Sonnentag & Fritz, 2007, p. 206–207).

Leisure-based coping and recovery promotes relaxation is another mechanism (Hutchinson et al., 2003). Relaxation is a behavioral effort of low activation and increased positive affect is part of emotion-focused coping (Folkman & Moskowitz, 2004), linked to leisure (Hutchinson et al., 2003). Relaxation is part of video game-enabled coping (Reinecke, 2009; Whitaker & Bushman, 2012).

Relaxation is also considered by those that study video games. Mood management (Reinecke, 2016), with media aiding mood optimization, is often linked to enhancing or

repairing versus avoiding or distracting (Bowman & Tamborini, 2015; Plante et al., 2019; Reinecke, 2016; Reinecke et al., 2012; Rieger et al., 2015).

Distraction is an emotional regulation and coping behavior that involves removal from negative affect, often used in mood management (Reinecke, 2016). Media including video games are used for distraction (Caro & Popovac, 2021; Eden et al., 2020; Reinecke et al., 2012; Rieger et al., 2015).

A common focus of video game mood management and coping studies is escapism, the avoidance of reality (Hastall, 2017; Kosa & Uysal, 2020) which is a mechanism for video games to allow for emotional regulation, mood management, respite, and stress coping (Kosa & Uysal, 2020), including during difficult life situations (Iacovides & Mekler, 2019). Escapism has been found to be tied to interpersonal (Jones et al., 2021), media-based (Eden et al., 2020), and video game (Barr & Copeland-Stewart, 2021) pandemic coping. In a uses-and-gratifications study of AC:NH, the related concept of diversion was reported by participants (Ng, 2021).

Another video game mood management emphasis is emotional regulation, with a focus on regulation and choosing stimuli that impact mood. Emotional regulation is related to processes for differentiating, recognizing, and modulating feelings with flexibility, linked to coping (Skinner & Zimmer-Gembeck, 2007), as well as individual and family resilience (Masten, 2018). Adults (Bowman & Tamborini, 2015; Caro & Popovac, 2021; Hemenover & Bowman, 2018; Kosa & Uysal, 2020; Pallavicini, Ferrari, & Mantovani, 2018; Villani et al., 2018) and adolescents (Gaetan et al., 2016) use video games for emotional regulation.

AC:NH and coping. Multiple features of AC:NH make it a particularly good video game to facilitate coping. Animal Crossing games are described as leisurely and mundane (Comerford, 2021; Khan, 2020; Kim, 2014; Straznickas, 2020; Zhu, 2020). Playing a game like AC:NH may be tied to some coping behaviors. From a recovery perspective, the relaxing AC:NH atmosphere may facilitate recovery as it helps to replenishing depleted resources. Compared to other games, players have much control over how they play and little pressure to achieve anything in AC:NH. The leisurely atmosphere is likely to facilitate relaxation and calm. From a mood management perspective, Whitaker and Bushman (2012) studied "relaxing video games" that promote calm and positive feelings like AC:NH. The island destination may promote a sense of escape (Kim, 2014).

Joint coping with video games. Spending time together, including leisure and playing games, is a form of communal coping (Hutchinson et al., 2003, 2007). We extend this understanding of leisure and coping to playing video games together. A relationship between family video game play and family connectedness exists (Balmford & Davies, 2020; Wang, Taylor, & Sun, 2018). The sociability affordance of video games is well documented, including for coping (Collins & Cox, 2014), especially during difficult life situations (Caro & Popovac, 2021; Iacovides & Mekler, 2019), including the pandemic (Cmentowski & Krüger, 2020; Marston & Kowert, 2020; Nebel & Ninaus,

2020), with AC:NH (Kleinman et al., 2021; Ng, 2021). One study found an association between social actions in AC:NH and decreased levels of loneliness (Lewis, Trojovsky, & Jameson, 2021). During the pandemic, gamers more broadly shifted to joint playing, including with family (Barr & Copeland-Stewart, 2021).

In AC:NH, players can engage in cooperative play in many ways both in-person and online compared to other games and previous Animal Crossing games. Players can interact together in the same physical location with multiple consoles, play together on a single console with different avatars simultaneously, or play together on a single account with the main player and spectators. Players can engage in online multi-player activities like visiting other people's islands and working together on tasks.

Less research on video games for problem-based coping exists, individual or joint. Problem-focused coping seeks to change or eliminate the stressor (Folkman & Moskowitz, 2004), including through leisure (Hutchinson et al., 2003). Video games were more likely to be used for emotion-focused than problem-focused coping (Reinecke, 2009). Eden et al. (2020) note emotion-focused coping is salient for the pandemic, as problem-focused coping may be challenging due to the pandemic's scope; although Nabi et al. (2021) consider both coping types.

Family pandemic stressors include isolation, fear, routine changes, managing children, working from home, and job loss (Calarco et al., 2020; Verger et al., 2021), leading to increased anxiety and depression (S. M. Brown, Doom, Lechuga-Peña, Watamura, & Koppels, 2020). Parents worry about protecting children from pandemic health issues and stress (Avery & Park, 2021) and parental pandemic stress negatively affects children (Brock & Laifer, 2020; Liu & Doan, 2020). Parental pandemic coping can impact children's coping (Mikocka-Walus, Stokes, Evans, Olive, & Westrupp, 2020).

Families individually and communally cope with their pandemic stress with the video game AC:NH. Our research extends and examines the intersection of individuals and families coping with stress through gaming. In this paper, we aim to answer the following research question: *How do families individually and jointly cope with pandemic-related stressors within the AC:NH video game?*

Methods

We interviewed 27 families, including 33 parents and 37 children from across the USA between August and October 2020 via Zoom. All study materials and procedures were approved by the University of Washington Human Subjects Division. We used AC:NH social media groups to recruit families with school-aged children playing AC:NH. In addition, we posted recruitment messages on social media. More details on the recruitment and screening process are available from the authors. Participant demographics are available on the project OSF page https://osf.io/678yh/.

Interviews averaged 90 minutes and began with parents and children being interviewed together, then children, concluding with parents interviewed without children present. Interview teams included two of the seven team members, with one

member as lead interviewer and the second member notetaking. Families were compensated with a gift card for $40 USD.

Analysis

We analyzed transcripts of interviews with thematic analysis to give descriptions to observed phenomena (Boyatzis, 1998). Our team developed a framework based on Rentscher's (2019) assessment of methods used for assessing communal coping, looking at pronoun use in participants' descriptions, as well as Basinger (2018) for coding for communal coping appraisal suggests emotions like worry can indicate how people appraise ownership and language demonstrating collective ownership. For coping behaviors, we drew from media and coping literature, especially for emotion-focused coping. For problem-based coping, the codes were more emergent and tied to pandemic-specific stressors and problems. We followed a consensus model with multiple coders and discussed any discrepancy between their coded results, aiming to reach a consensus. Family names were given by the researchers, representing game characters. Participants are mentioned with their chosen pseudonyms.

Results

Results are organized by emotion-focused and problem-focused coping behaviors whereby AC:NH is used as a coping tool, and then discuss how behavior manifests at different levels of coping. Pronouns indicating coping level are bolded in the text.

Emotion-Focused Coping

We present participant discussions of emotion-focused coping, as well as mental health stressors tied to the pandemic, their evaluation of the stressors' ownership and responsibility, as well as coping behaviors with AC:NH. We consider specific types of emotion-focused coping. Pandemic-related stressors that elicited emotion-focused coping were often described as mental health concerns. Many parents expressed worry about both their own and their children's mental health and emotional state throughout the interviews.

Escapist-Avoidant Coping. Participants mentioned escapism with AC:NH. Many parents both appraised their emotional state as their problem and took ownership of it, citing escape as a coping behavior. Mom Lyla explained, "work was so stressful **I** was in tears almost every day, transitioning online, and helping **my** kid transition, and dealing with **my** husband and I seeing each other 24 hours a day—we're not used to that—**I** am kind of emotionally and mentally not in a good place." Lyla played AC:NH after her child was in bed to "escape from reality." Mom Meesh said, "There's something really therapeutic about having your own private island that **you** can escape to when **you** can't

go anywhere so I think it helps in the mental health aspect of what **we're** [society] going through now."

No children discussed escapism and parents did not mention facilitating escape for children. No participants talked about joint escapism.

Distraction. Distraction as an *individual* adult coping behavior has been seen elsewhere (Rossetto, 2015). AC:NH as an individual distraction was a frequent adult refrain in interviews. Mom Ashley said, "It's a nice diversion, for when I play … I'm not thinking about politics or the economy or **my** job or any of social or public health issues or anything like that. It's been a nice diversion so **I** can zone out and not have doom and gloom in **my** life… To have this nice little flicker of hope and it's a nice peaceful idyllic world, unlike the current world." No children discussed AC:NH as a distraction.

Parents often help children cope through distraction (Prinstein, La Greca, Vernberg, & Silverman, 1996; Rossetto, 2015). AC:NH was used by parents to distract children through protective buffering. Mom Janae described a time when Hazel, 7, wanted to play with unmasked neighbors, against their family's policy. Hazel was "upset" and "frustrated" and Janae distracted her by offering AC:NH as an alternative. Janae explained for Hazel, AC:NH "would help get her mind off of that fact that she hasn't played with friends in a long time."

Parents and children using distraction as a communal coping behavior is common (Hutchinson et al., 2007; Rossetto, 2015), as families described AC:NH to jointly be distracted from pandemic stress. Families shared how AC:NH was a useful activity to center family time and distract from stress. Parent Jesse said, "With everything going on, **they** [children] needed something they could do together," then self-corrected, "actually, that ***we*** [entire family] could do together." Mom Flora said, "I've long believed that video games can be good for kids as well as adults, and especially during a pandemic… it's something that **we** [including her children] can do to keep **us** from depression."

Mood management, emotional regulation, and self-control. The participants discussed mood management frequently. Relaxation was the most mentioned mood management and emotional regulation feature of AC:NH. Nearly all adults described AC:NH as relaxing, peaceful, calming, or soothing for themselves or children.

Adult individual coping with pandemic-related stress via emotional regulation through relaxation in AC:NH was commonly mentioned: "[AC:NH] just looked so fun and relaxing and as soon as I started playing it, I just felt so relieved of the stress of all of the stuff going on with the pandemic," Mom Flora said. Many parents both appraised their need to relax as their problem and took ownership of it. Mom Marie appraising her pandemic stress as her own: "**I** was way stressed out during the whole pandemic and severely I feel like **I** definitely was depressed and I know **I** struggled a lot it was just not a happy few months here." She used AC:NH for relaxation, describing it as "stress-free." She followed, "I would totally claim Animal Crossing as a coping mechanism **for me** because **I** was way stressed out during the whole pandemic and I feel like I

definitely was depressed and I know **I** struggled a lot. It was not a happy few months here." For Marie, AC:NH was a relaxation coping tool, saying after, "finally **I** get the kids in bed, **I** could just play the game for an hour—that was **my** relaxation."

Some children used the device to regulate without parental facilitation. Dad Luke described AC:NH as 11-year-old Riley's "go-to comfort" item. Thirteen-year-old Darlene said she likes AC:NH because "it's generally laid back and very, like, easy like you don't have to stress. . . it's just enjoyable, like very relaxing."

Calmness. Related to relaxation is using media as a tool to calm down, another form of emotional regulation. Some adults used AC:NH as a way to calm themselves. Mom Zelda is a military spouse who had to quit her job due to the pandemic. She explained she was experiencing emotional challenges and stress, "There's been a tremendous amount of anxiety… a tremendous amount of worry…what am **I** gonna do about money, what are **we** gonna do about the kids in school, what are **we** gonna do with so many areas of life right now?" Zelda followed saying, "This game has been. . . my soothing. . . it's been my. . . you know how people read books and crochet and do that sort of stuff? It's been like that for me. . . it's been my source of comfort."

For children, emotional regulation was not tied to relaxation, but to calmness. This is unsurprising, as calmness is common behavior in adolescent emotional regulation (Carthy, Horesh, Apter, & Gross, 2010). Parents are often co-regulators of emotions for children, lacking the developmental capacity to self-regulate (Masten, 2018). This protective buffering occurred when parents used AC:NH to facilitate calmness to help children emotionally regulate. Drouin, McDaniel, Pater, and Toscos (2020) found parents used "screens" to calm children during the pandemic.

No participants discussed using AC:NH as a coping tool for communal emotional regulation.

Emotional expression. Parents and children discussed ways AC:NH allowed them to express emotions, nearly always a communal coping behavior. Some emotional expression behaviors in AC:NH were tied to loss. Some participants had family die from COVID-19, and built memorials or hosted funerals within AC:NH. One family had their business close, and another experienced a job loss. In both cases, the families re-created the physical business within AC:NH. Mom Star had lost her long-time job in a movie theater. She grieved "I personally cried for 3 days" but, as communal coping, Ellie "took it really hard, because she's eight and I've worked there for nine-and-a-half years, so she grew up there. She knew everything. So, I think that playing has definitely helped lessen that pain a bit. It's been therapeutic. It's helped with the challenges of everything that has happened." And within this, they communally coped. "**We** [mom and daughter] had to deal with that loss and through that loss, **I** actually turned my basement [in AC:NH] into a movie theater. . . it really kind of worked its way into the game." They visited the virtual theater often.

Spending Time Together. Spending time together was an emotion-focused coping behavior where communal coping manifested for participants. Spending time together

is not an individual coping behavior and was discussed as communal coping where the entire family discussed the importance for coping. Families co-owned and shared responsibility for the need to spend time together during the pandemic. Families said they both needed a way to connect with each other and to pass the time and acknowledged it was everyone's responsibility. Nine-year-old Ella explained in AC:NH "**we** do these things and these events ***together***." When asked about their favorite AC:NH memory, parents and children shared examples of playing AC:NH together like hide-and-seek, dance routines, and fashion shows.

Participants elaborated on the effect of playing AC:NH on their relationships. Mom Marie explained, "I think it's fun because it's something that where **we've all connected** and been able to do **together** and something different than what we would normally do." Mom Flora echoed this, saying that playing together in AC:NH "bonded" her and Isabel, 9. Later she elaborated, "I'm actually really grateful for this game because it's brought **us** together in a way that is outside of the stress of this pandemic." Mom Meesh said that AC:NH "really brought **us** together during a really hard time." Children also reflected on togetherness.

Some parents of older children said coming together to play AC:NH was unusual. Mom Meesh described that "now they [Danny, 11 and Rose, 12] come down and they want to play with us, they want to spend time with us and I can't remember the last time, aside from holidays, where our living room was really used by the entire family." She later mentioned due to AC:NH, "nobody was hiding in their rooms and doing their own thing anymore. It was something that **we** all wanted to sit in the living room and **do together**."

Problem-Focused Coping

Reinecke (2009) found video games were more likely to be used for emotion-focused than problem-focused coping. In our study, there were explicit problems with the pandemic individuals and families had to cope with: keeping busy or being occupied; lack of routines; and limited social interaction. Participants were concerned with more tangible aspects of these problems and how AC:NH helped them cope. These were emergent codes.

Occupation. Being occupied, passing time, and having something to do were frequently noted pandemic problems of families, especially for working parents. In other studies, AC:NH is described as relieving boredom during the pandemic (Seller, 2021).

For individual coping, some adults felt AC:NH gave them something to do for themselves. Mom Mae explained, "it just kind of gave **me** something to do." Mom Nicole said AC:NH was "a really good way to busy **myself** through all of this."

Keeping children occupied was a protective buffering coping behavior. This pandemic stressor has been well-documented (Calarco et al., 2020). Parents frequently talked about how AC:NH aided them. Many parents indicated self-appraisal of their ownership of the stressor. Dad Steve explained, "I think because of the quarantine, and

we're all cooped up, **we're** [he and spouse] trying to entertain him [Jake, 10] and keep him busy." He said he was grateful for AC:NH because both he and his wife had to work from home and said Jake's AC:NH playing has "been almost out of necessity and something that's really helped our family function." Mom Gemma would say to Leah, 7, "we [parents] need you to go away for an hour, here's the Switch." Mom Ashley had to bring 8-year-old Beatrice with her to the office daily and gave Beatrice AC:NH to play so she was "occupied so I could do my job." Other researchers have found parents using screens to occupy children during the pandemic (Calarco et al., 2020; Drouin et al., 2020).

While parents acknowledged it was primarily their problem they had to work, they noted the children themselves wanted something to do, a finding echoed by others (Bengtsson, Bom, & Fynbo, 2021), thus the problem was appraised as co-owned. In some families AC:NH giving them something to do was both assessed as a joint-problem and joint-solution. Mom Mae said AC:NH, "just helped **us** alleviate a lot of boredom."

Routines

Having a routine is a coping behavior (Hutchinson et al., 2007), even through leisure (Hutchinson et al., 2003), tied to both individual and family resilience (Masten, 2018), especially after a crisis (Masten, 2018; Prinstein et al., 1996), like the pandemic (Jones et al., 2021). Family video game playing can provide routine (Gee, Siyahhan, & Cirell, 2017). Playing AC:NH provided adults with a routine for pandemic coping (Barr & Copeland-Stewart, 2021; Comerford, 2021; Kleinman et al., 2021).

Individual coping with routines was noted by parents, who took ownership and responsibility. Mom Janae described her daily tasks as "ritualistic" within her family's larger daily routine. Dad Steve said he "gravitated" toward the "predictability" of his daily tasks, saying they "add a little bit of routine to your quarantine life." Mom Flora described her AC:NH tasks as a "daily part of a routine that just helped soothe anxiety." Many of the parents were explicit about how this was something for *them*, not their children.

Protective buffering occurred in the study when parents facilitated children having a sense of routine, similar to what Rossetto (2015) found. AC:NH helped parents encourage routine for their children by providing a rhythm and consistency to the day. Dad Steve created a daily family schedule with blocks of AC:NH time.

Hutchinson et al. (2007) found maintaining a routine is a communal coping behavior. The need for a routine was assessed as a jointly owned stressor with joint responsibility. The Wendy family used AC:NH's daily, weekly, and monthly calendar to structure family routines. Families looked forward to weekly events. Mom Beth noted the weekly fireworks show became a family ritual "that was really fun because we could all do the online play together as a family and just interact through a game but still being together in the same room."

Social Interaction

The lack of social interaction during the pandemic was evaluated as a problem by adults and children. Adults were concerned about themselves and their children, as others found (Brock & Laifer, 2020). Adults (G. Brown & Greenfield, 2021; Jones et al., 2021; Mikocka-Walus et al., 2020) and children (Cauberghe, Van Wesenbeeck, De Jans, Hudders, & Ponnet, 2021; Drouin et al., 2020) used technology to foster social connection during the pandemic. Families had a myriad of choices of technology to have connections with others, but AC:NH provided them with a more interactive space for socializing.

Individual coping with AC:NH was common for parents to have their own social connections. Mom Star said, "With quarantine, it's [AC:NH] been a really great way for people to not feel secluded." Mom Michelle described how AC:NH allowed for safety: "**I** could go visit other people's island and it felt you were part of something and being safe and socially distant at the same time." Mom Flora said, "I have friends that play it and so **I** regularly have meetings with them where we visit each other's island and we're freaking out [about the pandemic] so it's been replacing **the social needs that I have** because **I'm** kind of hanging out with people."

> Mom Marie described it as great because it was for **me,** a way for **me** to connect with other people. I'm a stay-at-home mom so my only time that I would really deal with people was going to the grocery store or going to my gym or going to school as a volunteer and then that was all gone. So this [AC:NH] was **my** biggest outlet for being able to communicate with other people.

Some parents found new social interactions on AC:NH social media groups. Mom Lyla was surprised: "I'm not usually that social with people I don't know and it's not like me to join all of these Facebook groups. Maybe that has something to do with the pandemic."

Occasionally older children facilitated their own social connections via AC:NH. Fifteen-year-old Robert discussed playing AC:NH with his real-life friends: "Hanging out with **my** friends is something that's keeping **me** from going insane in quarantine, so **I'm** going to take that opportunity to play with **my** friends." Adolescents often use social media to cope with pandemic loneliness and anxiety (Bengtsson et al., 2021; Cauberghe et al., 2021).

Another way individuals coped with the lack of social connection with AC:NH was through interacting with the AI villagers. Children spoke at length about their favorite villagers, demonstrating parasocial relationships. Evie, 10, "loves them all so much." Violet, 14, was concerned about causing pain to notorious entomophobe villager Blathers: "I never have him talk about the bugs because I know he hates bugs."

Parents too formed parasocial relationships with the villagers. Mom Michelle said, "It was exciting to talk with 'people,' which sounds weird, talking with computer characters, but I could have a discussion [with the AI]." Dad Kevin said AC:NH gave

him "an ability to connect even if you were only connecting with AI animals that, that brought a little bit of joy."

Protective buffering was also commonly found. Parents were concerned about their children's lack of social interaction and used AC:NH to facilitate connections for children. Although the children's lack of social interaction was *technically* the children's problem, parents felt responsible for facilitating their children's connection.

Some parents did less direct facilitation and merely encouraged, especially with older children who could have greater ownership over such coping behaviors. This was the case with Riley, 11, in which Dad Luke explained AC:NH was, "very good specifically in breaking social isolation. Above anything else she has maintained friendships and created new friendships using this platform."

But other parents took greater responsibility for the facilitation of their children's social connections via AC:NH. From our participants, children played with relatives, "real-life" friends, and sometimes new friends.

Some parents described facilitating their children's meeting with friends within the AC:NH game like a "playdate." Mom Flora said for Isabel, 9, having AC:NH playdates with existing friends was "precious to us now because it's so hard to interact because she doesn't go to school."

Communal coping was also found. Participants used AC:NH to facilitate family social engagements with extended family or friends. Cameron, 9, and Olivia, 4, played with relatives, with prompting. Their mom Beth explained her mother-in-law feels AC:NH is "a way to reach the kids even though **we** can't be together all of the time, **we** can be together in the game."

Conclusion and Discussion

In this study, we found families use of AC:NH as a coping tool was reflected in many behaviors at many levels. Emotion-focused coping behaviors included escapism/avoidance, distraction, mood management and emotional regulation with relaxation and calmness, emotional expression, and spending time together. Escapism, distraction, and mood management were consistently an individual coping behavior. Parents exclusively used AC:NH as an escape; no evidence suggests protective buffering, social coping, or communal coping. No children discussed AC:NH as a tool for escape. Distraction was both an individual coping behavior with AC:NH and used in protective buffering, with parents distracting children with AC:NH to help them cope. There was also communal distraction coping. No children discussed using AC:NH as a distraction themselves. Mood management and emotional regulation included both relaxation and calmness, using AC:NH as an individual coping behavior. Some older children described using AC:NH to relax. No evidence of parents using the game to facilitate protective buffering through relaxation existed; however, calmness was mentioned. There was no social or communal coping tied to mood management and emotional regulation. This is not surprising, as it may be difficult to engage in these jointly. Emotional expression through AC:NH was usually discussed as a communal coping

behavior. Finally, spending time together, always a communal coping behavior, was a frequent way families used AC:NH as a coping tool.

Problem-focused coping is less often explored with media and video games. However, we found evidence of AC:NH facilitating coping behaviors tied to problems. All problem-focused coping behaviors were found as individual, protective buffering, and communal coping, although not social coping. Adults used AC:NH to occupy themselves as well as facilitating children being occupied, as protective buffering. Families communally used AC:NH to cope with boredom. Routines in AC:NH were individual, protective buffering, and communal. No children talked about in-game routines as a coping behavior, only adults. Finally, the AC:NH facilitated much-desired social connections for all. Adults and some older children facilitated their own connections, parents facilitated connections for children, and families communally coped with the lack of interaction by using AC:NH to interact as a family with others. This contributes to work on video games and coping by demonstrating coping is not always an individual act.

We contribute to work on family coping by providing media as a coping tool. While research exists on leisure and communal coping, video games are an important part of 21st century leisure. The work on families and video games is theoretically rich. Thus, such a pairing is logical and needed. AC:NH's design uniquely positions it to be used as a coping tool communally because of the ways it can be played jointly.

This study provides a context for protective buffering. In our interviews, especially with parents alone, ample examples of protective buffering occurred. This aligns with work demonstrating concerns about parental pandemic stress being "contagious" to children (Liu & Doan, 2020). Parents understood children co-owned the problem but felt compelled to take greater responsibility for it. Mom Amy expressed she felt her helping "the kids go through this" was a higher priority than her own coping. "I feel like they're suffering more than I am and they are more important." Under circumstances where parental concern for children supersedes concern for themselves, it is unsurprising protective buffering emerges. Evidence exists of parents protectively buffering in other crises (Afifi, Afifi, Merrill, & Nimah, 2016). The pandemic does allow for examination of this among a broader population. We note other work looking at parent–child pandemic relations. While not using a coping framework, work from Avery and Park (2021) looks at how parents engage in what they call *protective efficacy,* "the perceived ability to complete a task to keep a dependent other safe during a crisis situation" (p. 82).

Finally, the pandemic context is unique, but not isolated. While certainly pandemic studies will proliferate over the coming years, this study can be viewed as an extreme situation whereby individuals and families experienced stress and had to cope. Looking at media coping for families will continue to be important theoretically and pragmatically.

Limitations

First, at the time of data collection, the pandemic was ongoing. Although this afforded an opportunity to interview families actively coping, later studies will allow reflection on pandemic coping. Another limitation is we did not ask children directly about coping. This

was an ethical consideration by the research team. We were concerned about the ongoing nature of the pandemic and our inability to provide sufficient trauma-informed debriefing follow-ups, it would be inappropriate. However, post-pandemic, we encourage researchers to work with scholars with expertise in children and trauma to consider the role games like AC:NH played in children's pandemic coping. There is value in viewing families playing together, similar to Balmford and Davies (2020), but during the pandemic this was difficult. Future research should consider observation to triangulate findings. Moreover, we recruited families from AC:NH social media groups, which indicates they were more involved with AC:NH than other families may be. Thus, these findings may not extend to more casual players. We were unable to access families that had constraints related to pandemic stress and were not available to be interviewed. Finally, problem-focused coping strategies were emergent and led to questions such as why people opted to cope with AC:NH versus other media or avenues. Future research should consider why did families have social interactions in AC:NH versus other platforms.

Conclusion

The COVID-19 pandemic was stressful for everyone, and it was particularly stressful for parents. Children too experienced stress and needed ways to cope. We provide evidence for video games as coping tools, but with the novel consideration of communally coping with video games.

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References

Afifi, T. D., Afifi, W. A., Merrill, A. F., & Nimah, N. (2016). 'Fractured communities': Uncertainty, stress, and (a lack of) communal coping in Palestinian refugee camps. *Journal of Applied Communication Research*, *44*(4), 343–361. https://doi.org/10.1080/00909882.2016.1225166.

Afifi, T. D., Basinger, E. D., & Kam, J. A. (2020). The extended theoretical model of communal coping: Understanding the properties and functionality of communal coping. *Journal of Communication*, *70*(3), 424–446. https://doi.org/10.1093/joc/jqaa006.

Afifi, T. D., Hutchinson, S., & Krouse, S. (2006). Toward a theoretical model of communal coping in postdivorce families and other naturally occurring groups. *Communication Theory*, *16*(3), 378–409. https://doi.org/10.1111/j.1468-2885.2006.00275.x.

Apperley, T. H. (2006). Genre and game studies: Toward a critical approach to video game genres. *Simulation & Gaming*, *37*(1), 6–23. https://doi.org/10.1177/1046878105282278.

Avery, E. J., & Park, S. (2021). Perceived knowledge as [protective] power: Parents' protective efficacy, information-seeking, and scrutiny during COVID-19. *Journal of Health Communication*, *36*(1), 81–88. https://doi.org/10.1080/10410236.2020.1847438.

Balmford, W., & Davies, H. (2020). Mobile Minecraft: Negotiated space and perceptions of play in Australian families. *Mobile Media & Communication*, *8*(1), 3–21. https://doi.org/10.1177/2050157918819614.

Barr, M., & Copeland-Stewart, A. (2021). Playing video games during the COVID-19 pandemic and effects on players' well-being. *Games and Culture*, 155541202110170. https://doi.org/10.1177/15554120211017036.

Basinger, E. D. (2018). Explicating the appraisal dimension of the communal coping model. *Journal of Health Communication*, *33*(6), 690–699. https://doi.org/10.1080/10410236.2017.1300208.

Bengtsson, T. T., Bom, L. H., & Fynbo, L. (2021). Playing apart together: Young people's online gaming during the COVID-19 lockdown. *YOUNG*, *29*(4), S65–S80. https://doi.org/10.1177/11033088211032018.

Bowman, N. D. (2021). Interactivity as demand: Implications for interactive media entertainment. In P. Vorderer, & C. Klimmt (Eds.), *The Oxford handbook of entertainment theory* (pp. 646–670). Oxford: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190072216.013.34.

Bowman, N. D., & Tamborini, R. (2012). Task demand and mood repair: The intervention potential of computer games. *New Media & Society*, *14*(8), pp. 1339–1357. https://doi.org/10.1177/1461444812450426.

Bowman, N. D., & Tamborini, R. (2015). "In the mood to game": Selective exposure and mood management processes in computer game play. *New Media & Society*, *17*(3), pp. 375–393. https://doi.org/10.1177/1461444813504274.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.

Brock, R. L., & Laifer, L. M. (2020). Family science in the context of the COVID-19 pandemic: Solutions and new directions. *Family Process*, *59*(3), 1007–1017. https://doi.org/10.1111/famp.12582.

Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, *110*(■■■), 104699. https://doi.org/10.1016/j.chiabu.2020.104699.

Brown, G., & Greenfield, P. M. (2021). Staying connected during stay-at-home: Communication with family and friends and its association with well-being. *Human Behavior and Emerging Technologies*, *3*(1), 147–156. hbe2.246. https://doi.org/10.1002/hbe2.246.

Cahill, T. (2021). *Gaming as coping in response to COVID-19 pandemic-induced stress: results From a U.S. national survey.* International Communication Association.

Calarco, J. M., Anderson, E., Meanwell, E., & Knopf, A. (2020). "Let's not pretend it's fun": How COVID-19-related school and childcare closures are damaging mothers' well-being. SocArXiv. https://doi.org/10.31235/OSF.IO/JYVK4.

Caro, C., & Popovac, M. (2021). Gaming when things get tough? Examining how emotion regulation and coping self-efficacy influence gaming during difficult life situations. *Games and Culture*, *16*(5), 611–631. https://doi.org/10.1177/1555412020944622.

Carthy, T., Horesh, N., Apter, A., & Gross, J. J. (2010). Patterns of emotional reactivity and regulation in children with anxiety disorders. *Journal of Psychopathology and Behavioral Assessment*, *32*(1), 23–36. https://doi.org/10.1007/s10862-009-9167-8.

Cauberghe, V., Van Wesenbeeck, I., De Jans, S., Hudders, L., & Ponnet, K. (2021). How adolescents use social media to cope with feelings of loneliness and anxiety during COVID-19 lockdown. *Cyberpsychology, Behavior, and Social Networking*, *24*(4), 250–257. https://doi.org/10.1089/cyber.2020.0478.

Cesar, M (2020). Fear thy neighbour: Socialisation and isolation in Animal Crossing. *Loading. The Journal of the Canadian Game Studies Association*, *13*(22), 89–108. https://doi.org/10.7202/1075265ar.

Cmentowski, S., & Krüger, J. (2020). Playing with friends: The importance of social play during the COVID-19 pandemic. *Extended Abstracts of the 2020 annual Symposium on computer-human Interaction in play*, 209–212. https://doi.org/10.1145/3383668.3419911.

Collins, E., & Cox, A. L. (2014). Switch on to games: Can digital games aid post-work recovery? *International Journal of Human-Computer Studies*, *72*(8–9), 654-662. https://doi.org/10.1016/j.ijhcs.2013.12.006.

Comerford, C. (2021). Coconuts, custom-play & COVID-19: Social isolation, serious leisure and personas in Animal Crossing: New Horizons. *Persona Studies*, *6*(2), 101–117. https://doi.org/10.21153/psj2020vol6no2art970.

Dormann, C., Whitson, J. R., & Neuvians, M. (2013). Once more with feeling: Game design patterns for learning in the affective domain. *Games and Culture*, *8*(4), 215–237. https://doi.org/10.1177/1555412013496892.

Drouin, M., McDaniel, B. T., Pater, J., & Toscos, T. (2020). How parents and their children used social media and technology at the beginning of the COVID-19 pandemic and associations with anxiety. *Cyberpsychology, Behavior, and Social Networking*, *23*(11), 727–736. cyber.2020.0284 https://doi.org/10.1089/cyber.2020.0284.

Eden, A. L., Johnson, B. K., Reinecke, L., & Grady, S. (2020). Media for coping during COVID-19 social distancing: Stress, anxiety, and psychological well-being. *Frontiers in Psychology*, *11*, 1–21. https://doi.org/10.3389/FPSYG.2020.577639.

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, *55*(1), 745–774. https://doi.org/10.1146/annurev.psych.55.090902.141456.

Gaetan, S., Bréjard, V., & Bonnet, A. (2016). Video games in adolescence and emotional functioning: Emotion regulation, emotion intensity, emotion expression, and alexithymia. *Computers in Human Behavior*, *61*, 344–349. https://doi.org/10.1016/J.CHB.2016.03.027.

Gee, E., Siyahhan, S., & Cirell, A. M. (2017). Video gaming as digital media, play, and family routine: Implications for understanding video gaming and learning in family contexts. *Learning, Media and Technology*, *42*(4), 468–482. https://doi.org/10.1080/17439884.2016.1205600.

Hastall, M. R. (2017). Escapism. *The international encyclopedia of media effects* (pp. 1–8). Hoboken, NJ: Wiley. https://doi.org/10.1002/9781118783764.wbieme0154.

Hemenover, S. H. & Bowman, N. D. (2018). Video games, emotion, and emotion regulation: Expanding the scope. *Annals of the International Communication Association*, *42*(2), 125–143. https://doi.org/10.1080/23808985.2018.1442239.

Hernandez, R. A. & Colaner, C. (2021). "This is not the hill to die on. Even if we literally could die on this hill": Examining communication ecologies of uncertainty and family communication about COVID-19. *American Behavioral Scientist*, *65*(7), 956–975. https://doi.org/10.1177/0002764221992840.

Hutchinson, S. L., Afifi, T. D., & Krause, S. (2007). The family that plays together fares better: Examining the contribution of shared family time to family resilience following divorce. *Journal of Divorce & Remarriage*, *46*(3–4), 21–48. https://doi.org/10.1300/J087v46n03_03.

Hutchinson, S. L., Loy, D. P., Kleiber, D. A., & Dattilo, J. (2003). Leisure as a coping resource: Variations in coping with traumatic injury and illness. *Leisure Sciences*, *25*(2–3), 143–161. https://doi.org/10.1080/01490400306566.

Iacovides, I., & Mekler, E. D. (2019). The role of gaming during difficult life experiences. In *Proceedings of the 2019 CHI conference on Human Factors in Computing Systems*, Glasgow, Scotland, UK, 4–9 May 2019, (pp. 1–12). https://doi.org/10.1145/3290605.3300453.

Johannes, N., Vuorre, M., & Przybylski, A. K. (2021). Video game play is positively correlated with well-being. *Royal Society Open Science*, *8*(2), 202049. https://doi.org/10.1098/rsos.202049.

Jones, H. E., Yoon, D. B., Theiss, J. A., Austin, J. T., & Lee, L. E. (2021). Assessing the effects of COVID-19 on romantic relationships and the coping strategies partners use to manage the stress of a pandemic. *Journal of Family Communication*, *21*(3), 1–15. https://doi.org/10.1080/15267431.2021.1927040.

Kalinowski, A. M. (2020). "My pockets are full": The emotional and mechanical function of goodbyes in Animal Crossing. *Loading: The Journal of the Canadian Game Studies Association*, *13*(22), 59–71.

Kennedy-Moore, E., & Watson, J. C. (2001). How and when does emotional expression help? *Review of General Psychology*, *5*(3), 187–212. https://doi.org/10.1037/1089-2680.5.3.187.

Khan, I. (2020, April). Why Animal Crossing is the game for the Coronavirus moment. *New York Times*.

Kim, J. (2014). Interactivity, user-generated content and video game: An ethnographic study of Animal Crossing: Wild World. *Continuum*, *28*(3), 357–370. https://doi.org/10.1080/10304312.2014.893984.

Kleinman, E., Chojnacki, S., Seif El-Nasr, M., & El-Nasr, M. S. (2021). The gang's all here: How people used games to cope with COVID19 quarantine. In *ACM CHI Conference on Human Factors in Computing Systems*, Yokohama, Japan, 8–13 May 2021, (pp. 1–27). https://doi.org/10.1145/3411764.3445072.

Kosa, M., & Uysal, A. (2020). Four pillars of healthy escapism in games: Emotion regulation, mood management, coping, and recovery. In B. Bostan (Ed.), *Game user experience and player-centered design* (pp. 63–76). Cham: Springer. https://doi.org/10.1007/978-3-030-37643-7_4.

Lewis, J. E., Trojovsky, M., & Jameson, M. M. (2021). New social horizons: Anxiety, isolation, and Animal Crossing during the COVID-19 pandemic. *Frontiers in Virtual Reality*, *2*, 14. https://doi.org/10.3389/frvir.2021.627350.

Liu, C. H & Doan, S. N. (2020). Psychosocial stress contagion in children and families during the COVID-19 pandemic. *Clinical Pediatrics*, *59*(9–10), 853–855. https://doi.org/10.1177/0009922820927044.

Lyons, R. F., Mickelson, K. D., Sullivan, M. J. L., & Coyne, J. C. (1998). Coping as a communal process. *Journal of Social and Personal Relationships*, *15*(5), 579–605. https://doi.org/10.1177/0265407598155001.

Marston, H. R., & Kowert, R. (2020). What role can videogames play in the COVID-19 pandemic? *Emerald Open Research*, *2*, 34. https://doi.org/10.35241/emeraldopenres.13727.1.

Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory & Review*, *10*(1), 12–31. https://doi.org/10.1111/jftr.12255.

Mikocka-Walus, A., Stokes, M. A., Evans, S., Olive, L., & Westrupp, E. (2020). *Finding the power within: Is resilience protective against symptoms of stress, anxiety, and depression in Australian parents during the COVID-19 pandemic?* PsyArXiv. https://doi.org/10.31234/OSF.IO/V5GPM.

Milne-Plückebaum, D. (2014). Animal Crossing as an interactive narrative machine. *The philosophy of computer games conference*. https://gamephilosophy.org/wp-content/uploads/confmanuscripts/pcg2014/Milne-Plueckebaum-2014.-Animal-Crossing-as-an-Interactive-Narrative-Machine.-PCD2014.pdf.

Nabi, R. L., Wolfers, L. N., Nathan, W., & Qi, L. (in press). Coping with COVID-19 Stress: The role of media consumption in emotion- and problem-focused coping. *Psychology of Popular Media*.

Nebel, S., & Ninaus, M. (2020). Short research report: Does playing apart really bring us together? Investigating the link between perceived loneliness and the use of video games during the COVID-19 pandemic. Psyarxiv. https://doi.org/10.31234/OSF.IO/ZXHW3.

Ng, Y.-L. (2021). *Uses and gratifications of ecocentric artificial life games and associated pro-animal attitude and pro-environmental behavior*. International Communication Association.

Pallavicini, F., Ferrari, A., & Mantovani, F. (2018). Video games for well-being: A systematic review on the application of computer games for cognitive and emotional training in the adult population. *Frontiers in Psychology*, *9*(NOV), 2127. https://doi.org/10.3389/fpsyg.2018.02127.

Plante, C. N., Gentile, D. A., Groves, C. L., Modlin, A., & Blanco-Herrera, J. (2019). Video games as coping mechanisms in the etiology of video game addiction. *Psychology of Popular Media Culture*, *8*(4), 385–394. https://doi.org/10.1037/ppm0000186.

Prestin, A., & Nabi, R. (2020). Media prescriptions: Exploring the therapeutic effects of entertainment media on stress relief, illness symptoms, and goal attainment. *Journal of Communication*, *70*(2), 145–170. https://doi.org/10.1093/joc/jqaa001.

Prime, H., Wade, M., & Browne, D. T. (2020). Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist*, *75*(5), 631–643. https://doi.org/10.1037/amp0000660.

Prinstein, M. J., La Greca, A. M., Vernberg, E. M., & Silverman, W. K. (1996). Children's coping assistance: How parents, teachers, and friends help children cope after a natural disaster. *Journal of Clinical Child Psychology*, *25*(4), 463–475. https://doi.org/10.1207/s15374424jccp2504_11.

Reinecke, L. (2009). Games and recovery: The use of video and computer games to recuperate from stress and strain. *Journal of Media Psychology*, *21*(3), 126–142. https://doi.org/10.1027/1864-1105.21.3.126.

Reinecke, L. (2016). Mood management theory. In *The international encyclopedia of media effects* (pp. 1–13). Hoboken, NJ: Wiley. https://doi.org/10.1002/9781118783764.wbieme0085.

Reinecke, L., & Rieger, D. (2021). Media entertainment as a self-regulatory resource: The recovery and resilience in entertaining media use (R^2EM) model. In P. Vorderer, & C. Klimmt (Eds.), *The Oxford handbook of entertainment theory* (pp. 755–779). Oxford: Oxford. https://doi.org/10.31234/OSF.IO/FYG49.

Reinecke, L., Tamborini, R., Grizzard, M., Lewis, R., Eden, A., & Bowman, N. D. (2012). Characterizing mood management as need satisfaction: The effects of intrinsic needs on selective exposure and mood repair. *Journal of Communication*, *62*(3), 437–453. https://doi.org/10.1111/j.1460-2466.2012.01649.x.

Rentscher, K. E. (2019). Communal coping in couples with health problems. *Frontiers in Psychology*, *10*, 398. https://doi.org/10.3389/fpsyg.2019.00398.

Rettie, H., & Daniels, J. (2020). Coping and tolerance of uncertainty: Predictors and mediators of mental health during the COVID-19 pandemic. *American Psychologist*. https://doi.org/10.1037/amp0000710.

Rieger, D., Frischlich, L., Wulf, T., Bente, G., & Kneer, J. (2015). Eating ghosts: The underlying mechanisms of mood repair via interactive and noninteractive media. *Psychology of Popular Media Culture*, *4*(2), 138–154. https://doi.org/10.1037/ppm0000018.

Rossetto, K. R. (2015). Developing conceptual definitions and theoretical models of coping in military families during deployment. *Journal of Family Communication*, *15*(3), 249–268. https://doi.org/10.1080/15267431.2015.1043737.

Seller, M. (2021). Ever-lockdown: Waiting through times of playbour and pandemic in Animal Crossing. *Networking Knowledge: Journal of the MeCCSA Postgraduate Network*, *14*(1), 100–116. https://doi.org/10.31165/nk.2021.141.635.

Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology*, *58*(1), 119–144. https://doi.org/10.1146/annurev.psych.58.110405.085705.

Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, *12*(3), 204–221. https://doi.org/10.1037/1076-8998.12.3.204.

Straznickas, G. L. (2020). Not just a slice: Animal Crossing and a life ongoing. *Loading... The Journal of the Canadian Game Studies Association*, *13*(22), 72–88.

Verger, N. B., Urbanowicz, A., Shankland, R., & McAloney-Kocaman, K. (2021). Coping in isolation: Predictors of individual and household risks and resilience against the COVID-19 pandemic. *Social Sciences & Humanities Open*, *3*(1), 100123. https://doi.org/10.1016/j.ssaho.2021.100123.

Villani, D., Carissoli, C., Triberti, S., Marchetti, A., Gilli, G., & Riva, G. (2018). Videogames for emotion regulation: A systematic review. *Games for Health Journal*, *7*(2), 85–99. https://doi.org/10.1089/g4h.2017.0108.

Wang, B., Taylor, L., & Sun, Q. (2018). Families that play together stay together: Investigating family bonding through video games. *New Media & Society*, *20*(11), 4074–4094. https://doi.org/10.1177/1461444818767667.

Weber, R., Behr, K.-M., & DeMartino, C. (2014). Measuring interactivity in video games. *Communication Methods and Measures*, *8*(2), 79–115. https://doi.org/10.1080/19312458.2013.873778.

Whitaker, J. L., & Bushman, B. J. (2012). "Remain calm. Be kind." Effects of relaxing video games on aggressive and prosocial behavior. *Social Psychological and Personality Science*, *3*(1), 88–92. https://doi.org/10.1177/1948550611409760.

Wilson, S. R., Chernichky, S. M., Wilkum, K., & Owlett, J. S. (2014). Do family communication patterns buffer children from difficulties associated with a parent's military deployment? Examining deployed and at-home parents' perspectives. *Journal of Family Communication*, *14*(1), 32–52. https://doi.org/10.1080/15267431.2013.857325.

Wolfers, L. N., & Schneider, F. M. (2020). Using media for coping: A scoping review. *Communication Research*. https://doi.org/10.1177/0093650220939778.

Zhu, L. (2020). The psychology behind video games during COVID-19 pandemic: A case study of Animal Crossing: New Horizons. *Human Behavior and Emerging Technologies*, *3*(1), 157–159. hbe2.221 https://doi.org/10.1002/hbe2.221.

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