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Coping with COVID: pandemic narratives for Australian children

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ABSTRACT

The experience of the COVID-19 pandemic can be recognised as traumatic for the way in which its sudden and unexpected onset disrupted a sense of ordinary life for so many around the world. Adults, and far less so children, were unable to prepare for the danger of the rapidly spreading disease. As such, both were left vulnerable to the experience of trauma and anxiety that surrounds the threat of COVID. Whereas adults, however, have access to a range of resources and strategies for mental health protection, children of various ages need targeted resources to enable them to understand, prepare for, and come to terms with a trauma situation. A great deal of research exists around the value of children developing their own narratives as a means of coming to terms with trauma, such that storytelling is identified as a primary coping device. Similarly, literature exists that compares parental narratives of trauma with those of their children. Moreover, the use of the fairy tale as a cautionary tale has long been examined. What has not been established is the way in which contemporary multimedia narratives – such as television programmes, animations, and digital stories – can be used to develop coping strategies in children and to mitigate anxiety in young people experiencing global or collective trauma. This article examines a selection of such narratives produced for Australian children during the COVID-19 pandemic. Through a cross-disciplinary framework, this work considers how these resources can help (or hinder) mental health recovery in young children under the age of five, as well as strategies for best practice in the future development of trauma-informed resources for this age group.

1. Introduction

The results of a recent survey conducted by Children's Health Queensland (2020) revealed that up to 20% of children aged between one and five suffered symptoms of depression and anxiety during the COVID-19 pandemic. While most children were able to cope with the profound social and cultural changes that they experienced during the first wave of the pandemic, many families reported disruptions to sleep, behaviour, and cognition in their children (ABC News, 2020). In the early months of the pandemic, in which Alpha was the only detected strain of the virus, caregivers were assured that children were unlikely to catch COVID, or that if they did, it was unlikely they would suffer significant effects. This assurance, however, has not been upheld during more recent mutations of the virus. In Australia, for example, the Delta strain has been shown to affect children to a far greater degree, with schools and daycares now a primary site for transmission. As a result, far greater care is being taken to protect children from infection. With Pfizer the only vaccine currently approved for Australian children aged five to eleven, the primary form of protection for children under the age of five is isolation. As such, the mental health consequences of the pandemic for young children must be taken into consideration by parents, educators, and policy makers.

Certainly, the experience of the pandemic can be recognised as traumatic for the way in which its sudden and unexpected onset disrupted a sense of ordinary life for so many around the world. Adults, and far less so children, were unable to prepare for the danger of the rapidly spreading disease. As such, both were left vulnerable to the experience of trauma and anxiety that surrounds the threat of COVID. Whereas adults, however, have access to a range of resources and strategies for mental health protection, children of various ages need targeted resources to

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enable them to understand, prepare for, and come to terms with a trauma situation. In a policy brief published in 2020, the United Nations confirmed that 'while children are not the face of this pandemic, its broader impacts on children risk being catastrophic and amongst the most lasting consequences for societies as a whole' (2020, p. 4). While the pandemic has prompted a range of new experiences, a great deal of research exists around the value of children developing their own narratives as a means of coming to terms with trauma, such that storytelling is identified as a primary coping device. Similarly, literature exists that compares parental narratives of trauma with those of their children (Alisic et al., 2016). Moreover, the use of the fairy tale as a cautionary tale has long been examined (Buttsworth and Abbenhuis, 2017).

What has not been established is the way in which contemporary multimedia narratives – such as television programmes, animations, and digital stories – can be used to develop coping strategies in children and to mitigate anxiety in young people experiencing global or collective trauma. Thus, this paper examines a selection of such narratives produced for Australian children during the COVID-19 pandemic. Through a cross-disciplinary framework, we consider how these resources can help (or hinder) mental health recovery in young children under the age of five. At the end of this paper, we present strategies for best practice in the future development of trauma-informed resources for this age group. The relationship of children to a disaster or emergency trauma situation generally falls into two main categories: protection of the child by minimising or reducing as far as possible the child's knowledge of the event, on the one hand; and exposure to unfiltered information, knowledge, and experience on the other. Our research suggests, however, that the best course of action lies somewhere between these two strategies, such that children are not denied knowledge, and thus the capacity to prepare, but that they are not overwhelmed with information that is difficult to process.

1.1. Literature review

Optimising mental health and wellbeing for children during times of prolonged stress is not only necessary for managing psychological distress but for maintaining individual functioning and for mitigating future potential for pervasive mental health sequalae (de Miranda et al., 2020; Singh et al., 2020). In this respect, evidence-based social and health psychology models can be utilised to better understand the need for credible resources that optimise the mental health and wellbeing of children during stressful times. This can be achieved in a range of ways, including through psychoeducation; by delivering appropriate health messages; by enhancing coping strategies (for current, cumulative, and anticipatory stressors); and by promoting the healthy acknowledgement and processing of adverse or traumatic events (both direct and vicarious experiences). The 'recovery model' takes a holistic approach to mental health, emphasising foundational building blocks to enhance mental health and functioning, including having a sense of purpose, meaning, and belonging. Investment in accessible and relatable support systems and resources designed to bolster these aspects of children's lives can buffer the effects of stress and enhance resiliency. Social identity theory also posits that individuals share a group membership with others and thus individuals have a role to play in group health and health risk. In this way, social identity theory recognises the direct impact that one's risk behaviours have on the group (Cruwys et al., 2020). In the children's context, this is especially important during times of adversity because the group experience, including the group's resiliency, can impact the child's ability to cope.

According to resiliency theories and strength-based approaches, children can learn how to develop adaptive qualities such as 'grit', which can enhance their ability to cope with both present and future stressors. This can be achieved through ongoing support and long-term goal commitment (Tang et al., 2019). Harnessing one's resources from a strength-based perspective – by identifying both internal and external opportunities and qualities to enhance coping – can also be valuable during times of adversity. For example, resilience is fostered by peer encouragement, caregiver psychological support, and different caregiver factors (McDonald-Harker et al., 2021). Positive psychology theorists further posit that the following aspects enhance wellbeing and resiliency by helping children to 'flourish' during times of hardship: (1) positive emotion; (2) a sense of engagement; (3) positive relationships; (4) a sense of meaning or belonging; and (5) personal accomplishment or achievement (Seligman, 2011). Employing mindfulness-based approaches can also result in even higher dividends when it comes to coping because attending to areas where one feels greater self-efficacy can strengthen one's sense of vitality and fortitude during times of hardship (Niemiec, 2012; Niemiec et al., 2012). Engaging in activities that align with one's values can also enhance psychological wellbeing and coping during times of adversity.

However, in order for these strategies to be most effective, health messaging needs to be designed in a manner that is appropriate and relatable to the target audience. In the case of children, it is vital that health messaging includes visual material that children can relate to (for example, the use of a cartoon character who delivers preventative behavioural messages, such as hygiene measures or steps to take when feeling unwell) (Gray et al., 2020). Further to this, both the level of affect (for example, worry) and the different types of cognitions induced via the information (for example, risk perceptions and severity of threat), should also be in the moderate range; if this is too low or too high, the message in question can inhibit heath protective behaviour, either through intense fear, or via avoidance and denial. During the COVID pandemic, it has been shown that children benefit from health messages that are reassuring, educational, and age appropriate, and which aid children in maintaining 'normality' in their daily lives and routines (Imran et al., 2020).

1.2. Emergency and disaster recovery for children

Disaster research has also played a leading role in examining how to build individual and community resilience and its role in preparing for, and recovering from, disasters (Masten, 2018). Within the disaster literature, there are various definitions of resilience; however, the concept is generally understood as 'the ability of a system, community or society, exposed to hazards, to resist, absorb, accommodate, adapt to, transform, and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management' (UNDRR, n.d.). Resilience, then, refers to anticipating, planning, and reducing disaster risk in order to effectively protect persons, communities, and countries – their livelihoods and cultural heritages, their health and wellbeing, and their socio-economic assets and ecosystems. The ideas of 'bounce back' and 'build back better' are commonly used in the disaster management literature to capture the essence of resilience. Resilience is inherently strengths based, recognising the capacity of individuals, communities, and societies to face and manage disasters.

The concept of resilience also emphasises the importance of effectively managing change and improving one's sense of wellbeing. As the definition implies, building resilience incudes a focus on the interplay of multiple systems of social life, including economic, social, health, cultural, and environmental systems. Intersectional research in disaster scholarship, as clearly observed during the COVID-19 pandemic, has elucidated how factors such as class, ethnicity, gender, age, disability status, immigrant status, Indigenous status, and other diverse social determinants of health, shape individual experiences of disaster. Moreover, research clearly establishes how families with limited access to social, economic, human, and political capital have less resilience to the impacts of disasters, highlighting the powerful effects of the social determinants of health on a family's resilience (or their vulnerability to natural hazards, including viral hazards) (Masten, 2021). Resilience building, then, involves not only strengthening infrastructure but also addressing the underlying socio-economic determinants of resilience.

Young children, often defined in disaster management plans as 'at risk,' or as 'a vulnerable population', are an emerging area of interest in disaster studies (Anderson, 2005; Masten, 2021). Research into children's strength and resiliency confirms studies of disaster resilience in other populations, and again recognises the important role of social determinants of health, as well as the need to address inequities in access to socio-economic and cultural capital. Several studies have also demonstrated the important role that children play in disaster recovery within their families, peer groups, and communities (Peek and Richardson, 2010; Walker et al., 2012; Mort et al., 2018). Examples of the ways in which children demonstrate their strengths in responding to disasters include assisting relatives during evacuation, helping other children, translating evacuation and public health directives, and later, singing, producing art, and keeping journals (Mitchell et al., 2008; Mort et al., 2018). Children are also increasingly involved in disaster preparedness and planning activities (Fletcher et al., 2016; Ronan et al., 2012, 2015). Their involvement in disaster risk reduction and recovery efforts can have a positive effect not only on other children but on their families and their community (Freeman et al., 2015; Delicado et al., 2017).

Finally, several international agreements highlight the importance of disaster risk reduction and resiliency in mitigating the damaging effects of disasters on children. The Sendai Framework for Disaster Risk Reduction 2015–2030 – the global blueprint for building disaster resilience – recognises children's role in risk management. The UNICEF (2011), developed through consultations with more than 600 children in 21 countries in Africa, Asia, and Latin America, also recognises the role that children play in reducing disaster risk. In Australia, school-based disaster resilience education programs are included within the National Strategy for Disaster Resilience (COAG, 2011). This more recent rights-based work includes engaging children in participatory and arts-based processes, and adopting approaches to disaster risk management that include children's stories and perspectives (Fletcher et al., 2016; Haynes and Tanner, 2015). In fact, involving children in conversations about disaster preparation, and developing their ability to respond and cope, can encourage them to actively participate in the development of disaster management plans, thus providing them with a greater sense of control. Other factors associated with strengthening children's disaster resilience and recovery include maintaining a positive attitude (Nelson, 2008; Mort et al., 2018); building caregiver and peer support; ensuring parental optimism and frequent parental communication; and providing opportunity for children to share their experiences and express their feelings (McDonald-Harker et al., 2021).

1.3. Impact of the COVID-19 pandemic on children's wellbeing

The different social distancing policies and lockdown measures implemented to reduce the spread of infection have, at present, shown to be the most effective response to the pandemic. Research has shown that these initiatives have substantial benefits, with enforced measures dramatically reducing the rate of infection (Greenstone and Nigam, 2020; Razzak, 2020). However, in an attempt to keep the global population safe, the various challenges caused by social isolation and disruption – including financial strain, caregiving burden, and confinement-related stress – pose a significant threat to the wellbeing of children (Prime et al., 2020). In fact, the increased risk of child maltreatment and neglect as a result of social distancing measures has been widely reported in the lay press (3AW News, 2020; UN News, 2020; UNICEF, 2020). The National Centre for Injury Prevention and Control ((NCIPC 2020)) lists a number of general risk factors for child maltreatment: social isolation; family and parenting stress; concentrated community disadvantage; and poor social connections. Naturally, these risks have been amplified during the pandemic. Experts have already called attention to the reported escalation in family violence during the pandemic, which is primarily a result of additional household stressors, such as loss of employment and family income, increased alcohol use among household members, closure of schools and extracurricular activities, and family members being forced to spend longer periods of time together (Meyer and Fitz-Gibbon, 2020; Fitz-Gibbon and Meyer, 2020). Early evidence indicates that the isolation conditions implemented to 'flatten the curve' effectively restrict children's access to vital services and monitoring sources, while at the same time removing their supports, a situation that places at-risk children in an intense environment of exacerbated risk and stress (Bryce, 2020; Cluver et al., 2020; NSW Health, 2020; Buheji et al., 2020). Importantly, however, it is not only at-risk children who are vulnerable to the psychological and psychosocial impacts of the pandemic. According to Prime et al. (2020, p. 2):

> The COVID-19 pandemic will influence children's adjustment in a cascading fashion: social disruptions from the pandemic will generate heightened levels of psychological distress for caregivers, impacting the quality of relationships among caregivers (marital); parents and their children; and, indirectly, siblings. Such changes to families' ways of relating to one another pose a significant risk for the adjustment of children, given their dependence on positive family processes for a host of developmental outcomes.

In other words, the pandemic has negatively affected children's wellbeing through the exacerbated stress on caregiver wellbeing and the ongoing strain on family routines and processes (Repetti et al., 2002; Conger et al., 1994; Prime et al., 2020).

During times of stress, the parent-child relationship can also become strained as a result of the uncertainty and tension surrounding the stressor (in this case, the pandemic). For example, research conducted during the 2008 financial crisis found that 'harsh' parenting, alongside reductions in maternal warmth, corresponded to economic upheaval (Brooks-Gunn et al., 2013; Schneider et al., 2015, 2017). This tension is reflected in the Family Stress Model, developed during the great Farm Crisis of the 1980s (Conger and Elder, 1994). This model espouses that when faced with significantly elevated stress levels, a caregiver's mental and emotional resources are depleted, which in turn diminishes their ability to parent positively and which subsequently creates an over-reliance on less effective parenting approaches, such as harsh or coercive discipline (Prime et al., 2020; Conger and Elder, 1994). In the context of COVID-19, many parents face acute financial stressors, unprecedented rates of unemployment, and the collapse of economic markets. These financial strains run parallel to the social and physical impacts of the pandemic. The latter include the impending threat of illness; reduction in social support; change in work roles and routines; and the burden on caregivers to meet the social, emotional, and educational needs of children following the closure of schools, playgrounds, and childcare centres (Prime et al., 2020; Bryce, 2020). Again, in households already experiencing conflict, adversity, and disadvantage – especially those homes with separated-parenting and domestic and family violence – these stressors are exacerbated (Bryce, 2020; Desmarchelier and Bryce, 2020; Prime et al., 2020).

Unsurprisingly, then, early research has identified significant mental health concerns for children and young people as a result of the pandemic (Liang et al., 2020; Lee, 2020). For example, a study by Liang and colleagues (2020) revealed significant evidence that infectious diseases, such as COVID, may have an influence on youth mental health, with more than 40% of youth surveyed in their study exhibiting psychological problems two weeks after the emergence of the virus in China. According to Lee (2020), there is an ongoing need to monitor the status of children's mental health, given the significant body of evidence that demonstrates the escalation in stress, maltreatment, and adversity for children both during, and following, significant global events (Seddighi et al., 2019; Keenan et al., 2004; Berger et al., 2011).

1.4. Children's exposure to disasters and significant global events

Our current worldview has been permeated by commentary of the transmission and effect of the COVID-19 virus. New language has filtered through our discourse as words like 'social distancing', 'self-isolation', and 'flattening the curve' have become commonplace in our conversations and we, as a global society, appear to have entered a 'new normal'. With the outbreak thus came a new language, a new set of cultural rules and expectations, new daily routines to navigate, and new social infrastructure to manage. In this rapidly evolving situation, media and social conversations have been dominated by the outbreak, with children exposed to significant amounts of information, as well as high levels of stress and anxiety in the adults around them. Granted, it is an inherent human reaction to protect children from challenging events; however, research holds that children as young as two are aware of changes in their environment (Dalton et al., 2019).

Although the pandemic has presented us with a unique and unprecedented experience, literature exists which attests to the significant psychological impact that natural disasters and other significant global events can have on children. Such events are known to result in symptoms of post-traumatic stress disorder (PTSD), anxiety, and depression (Hoven et al., 2005; Stein et al., 2004). For example, as many as half of the children surveyed after hurricane, earthquake, and flood disasters report some symptoms of PTSD (Saylor et al., 2003), as well as exhibiting non-clinical adjustment difficulties, such as interpersonal alienation or interference with daily functioning (Evans and Oehler-Stinnett, 2008). McLean et al. (2016) found that experiencing one or more natural disasters by age five increases the risk of mental health disorders in adulthood, particularly those related to anxiety.

Recently, emerging literature has highlighted the potential impact of pervasive media exposure of disasters and other significant global events on children (Fothergill and Peek, 2006). For example, in a study following the Oklahoma City bombings in 1995, it was revealed that viewing bomb-related media was correlated with PTSD symptoms in children and young adults (Pfefferbaum et al., 1999). According to Saylor et al., in their 2003 study of children's media exposure to the events of September 11, both positive media coverage (for example, heroic efforts) and more negative coverage (for example, images of death, injury, and physical destruction) were associated with PTSD symptoms. In fact, greater amounts of exposure to media coverage of 9/11 corresponded with increased PTSD symptoms, particularly when the images were viewed online (Saylor et al., 2003; Lengua et al., 2005). These studies provide compelling evidence of the impact of media exposure on the psychological wellbeing of children.

This impact is of particular concern for the mental health and wellbeing of children in early childhood (that is, 0–5 years of age), given the rapid development of children at this age. The cumulative effect of traumatic events on a child, particularly when less than five years old, and the anticipatory stress and fear of those events recurring, can be at the least distracting, and at the most debilitating. In the preverbal child, traumatic experiences, such as those resulting from natural disasters, are stored in the child's preverbal memory (Perry, 2006). These memories are intense, perceptual experiences that often intrude on awareness later in life, often in the form of hyper-vigilance, nightmares, and hyper-arousal. Both behaviour and feeling are directed by physiological processes; thus, in hyper-vigilant children, these impacts may manifest as oversensitivity, hyperactivity, or as the misinterpretation of non-verbal cues (Perry, 2006; Shonkoff and Phillips, 2001). Moreover, disruptions to normal brain development in early life may affect the development of other areas of the brain later in life. According to Shonkoff and Phillips (2001), researchers investigating brain development use the term 'toxic stress' to describe the prolonged activation of stress management systems in the absence of cognitive, social, and emotional support.

1.5. Trauma narratives told by children

Research supports the value of children developing their own narratives as a means of coming to terms with trauma, such that storytelling is identified as a primary coping device. White (2005) highlights the importance of subordinate story line development as an antidote to the impacts of trauma, emphasising that:

> subordinate storyline development provides an alternative territory of identity for children to stand in as they begin to give voice to their experiences of trauma. This affords children a significant degree of immunity from the potential for re-traumatisation in response to therapeutic initiatives to assist them to speak of their experiences of trauma and its consequences. (p. 20)

Similarly, Yuen (2007) argues that story development can emerge from a focus on children's responses to trauma; this can facilitate conversations that support recovery without retraumatising children or young people. These narrative enquiries can focus on children's acts of resistance, places of safety, and other life skills, such as mindfulness and resilience building. Such work represents an extension of research on trauma and narrative, which asserts that reconstructing trauma into a cohesive, linear narrative is one of the most crucial processes in the journey towards the healing of the victim (Van der Merwe and Gobodo-Madikizela, 2008).

White (2005), for instance, encourages clients to understand their meaning constructions and work toward a more productive renegotiation of their self-narratives in terms of their feelings about themselves and their relationships with others. Moreover, according to Lee (2020), new narratives provide alternative frames for attributing meaning to experiences that can help clients understand their histories and identify new possibilities and actions. White (2004) argues that when individuals begin to make meaning of their traumas and accommodate this into their worldview through the formation of a life narrative, they "open neglected territories of life, beginning with atolls, then islands, then archipelagos, and then continents" (p. 65). Further to this, White (2005) proposes that alternative territories of identity are possible as individuals use personal life narratives to give voice to their traumas.

Coping through narrative construction and reception provides an alternative to trauma narration, which is foundational to grief and trauma interventions (GTI) employed during disaster recovery (Rynearson and Salloum, 2011; Salloum, 2008; Salloum et al., 2009; Salloum and Overstreet, 2008). GTI incorporates both cognitive behavioural therapy (CBT) and narrative therapy approaches to assist children to learn coping skills and to construct trauma and loss narratives (Salloum et al., 2009; Salloum and Overstreet, 2008). According to Salloum and Overstreet (2008), interventions for trauma that incorporate direct coping skills, as well as narrative approaches, may be the best first line treatment for highly distressed children.

1.6. Promoting narrative construction and open communication

Communication-based interventions are effective yet often overlooked tools in achieving mental and behavioural outcomes (Houston, 2012). Programs, campaigns, and psychotherapeutic interventions that explain significant global events and their potential impacts, including what constitutes normal reactions, are valuable in both preparing children for, and mitigating the harm of, disasters and pandemics (Midtbust et al., 2018). The way caregivers relay information to children about global disasters, including the pandemic, is in part responsible for the levels of fear experienced by children, alongside information they receive from media, peers, and other community members, as well as direct encounter with the infection itself (Remmerswaal and Muris, 2011). Saxena and Saxena (2020) argue that when speaking with children about COVID-19, it is important to remain truthful and transparent about what

to expect and how to act in order to keep safe in order to minimise anxiety and reduce fear. Open communication is as much about preparedness as it is about agency and participation. Hart's (1992) seminal work on the topic of children's participation, for example, was adopted by UNICEF (O'Kane, 2013) and endorsed by the United Nations Conventions on the Rights of the Child (UNCRC). According to Hart (1992), children should be engaged in communication around disasters and hold agency in the construction of narratives about their experiences. Equally, resources which impart knowledge about the pandemic and its impact on children should be developed in partnership with children, or child-led, so that children's voice is heard in addition to those of adults, thus meeting their needs more appropriately. This co-construction aligns with the research emphasising the therapeutic value of narratives in children's recovery from trauma.

Most disaster research has focused on children's trauma symptomology, rather than on processes that foster children's adaptability within their social and environmental contexts; therefore our understanding of how children cope effectively with, and adapt well to, global events of significance is incomplete. Children's coping capacity is dependent, in part, on the resources available to them (Gil-Rivas and Kilmer, 2013; Wisner et al., 2018). These may be internal or external resources in the child's contexts, and may include the narratives that children construct for themselves, as well as those that are offered to them (Wisner et al., 2018). Regardless, coping strategies appear to play a key role in mediating or mitigating the impact of disaster stress on children's adjustment (Coyne and Racioppo, 2000). During significant and traumatic transitions and events, it is clear children require honest information about changes within their environment; when this information is absent, children attempt to make sense of the situation on their own (Christ and Christ, 2006). Dalton, Rapa, and Stein (2020, p. 346) argue that 'listening to what children believe about COVID-19 transmission is essential; providing children with an accurate explanation that is meaningful to them will ensure that they do not feel unnecessarily frightened or guilty'. Sensitive and effective communication about traumatic events has major benefits, both for children and for the family's long-term psychological wellbeing (Christ and Christ, 2006). In the context of COVID, children need to incorporate these events, changes, and challenges into their existing worldview in order to make sense of the pandemic (Prime et al., 2020). This response is considered most effective when families form a cohesive unit and present a reasonable and consistent narrative, which views the significant event as time-limited and manageable, resists forecasting the worst-case scenario, and minimises catastrophic thinking (Beck, 2008; Don and Mickelson, 2012; Ellis, 2004). In order to establish a coherent narrative about COVID-19 for children, the literature recommends that caregivers take the developmental considerations of children into account, and use clear and transparent communication (Dalton et al., 2020).

2. Method

In order to understand what constitutes an 'appropriate' narrative for young Australian children, we examined a range of multimedia resources ($n = 8$) that were developed in response to the pandemic. These resources include three educational videos: a short animation featuring characters from the children's television program, *Little J and Big Cuz*; a handwashing song performed by popular children's entertainers, The Wiggles; and *Corona Virus (COVID-19)*, an instructional animation developed by Queensland Health and disseminated via social media. The resources also include three online picture books or pamphlets: *Hi, This is Coronavirus*, a children's book developed by South Australia Health and reproduced by New South Wales Health; *The Magic Cure,* a fantasy storybook self-published by Bridget Myerscough and Anna Ralph; and *Birdie and the Virus,* an online flipbook produced by Children's Health Queensland. We also analysed two special episodes of the long-running children's television program, Play School: 'Hello Friends' and 'Hello Again'. In total, eight texts were examined. The target audience for all of these narratives is children under the age of five, with three of the texts (*The Magic Cure* and both *Play School* episodes) specifically designed to be read or viewed by parents and children together.

After the texts were selected, thematic analysis was used to identify common areas of concern, as well as formal or structural narrative approaches. Thematic analysis is an inductive process of synthesis that identifies and interprets patterns of meaning within data (Crowe et al., 2015; Liamputtong, 2012). Thus, coding data is critical to this method of analysis and a necessary step before 'tangible data can be analytically interpreted' (Liamputtong, 2012, p. 242). In this study, thematic analysis was determined to be the most appropriate method for identifying the relationship between the data and the phenomenon of interest, and for inductively deriving explicit findings from the data, without drawing deductive predetermined conclusions (Crowe et al., 2015; Liamputtong, 2012). Thus, broad first-order themes were identified and recorded based on a review of the various sources of pandemic resources for children. Once thematic clusters were identified, they were coded in order to refine the themes further until each theme clearly reflected the data patterns (Braun and Clarke, 2006). Next, a process of writing and re-writing was employed in order to construct a 'narrative of the meaning of the phenomenon under investigation' (Crowe et al., 2015, p. 618). The final phase involved a process of synthesis, whereby the relationship between both the themes, and the themes and the phenomenon of interest, was emphasised (Braun and Clarke, 2006). At the end of this process, four core themes were identified: 'Information Provision', 'Promotion of a New Normal', 'Anxiety Reduction', and 'Community and Connection'.

3. Results and discussion

3.1. Information provision

All of the resources ($n = 8$) analysed in this study encompass some degree of information provision, including handwashing instruction, suggestions for maintaining good health and hygiene, explanation of social distancing measures and restrictions, and the identification of everyday scenarios where these measures might be necessary. Seven of the eight resources examine handwashing specifically, with The Wiggles' 'Handwashing Song' dedicated entirely to the promotion of this preventative measure. Through the song's built-in focus on numeracy, young viewers are instructed to 'count to fifteen' while washing their hands, with the lyrics providing explicit guidance as to when handwashing is necessary: 'before you eat food, after you play with animals, and after you use the toilet' (The Wiggles, 2019). While catchy and upbeat, the song relies heavily on the band's popularity and on familiarity with the group's cultural substratum, with the song itself intended as a tool for adults rather than a narrative for children. As Red Wiggle, Simon Price, explains:

> We had a lot of parents writing in concerned about their children, and explaining the concept of social distancing to [them]. A mum wrote in saying that her child's birthday party was being cancelled, and he was wondering if that meant he wasn't turning four. That was the concept he had. So, it was about trying to put those ideas into a song, as well as explaining this 1.5-metre rule that we have. (Price, as cited in McLaughlin and Ky, 2020).

While several of the resources connect direct instruction with explanation of the reasons behind the implementation of social distancing measures ($n = 4$), one resource, *The Magic Cure*, discusses social distancing indirectly through the use of fairy-tale tropes and conventions. Set in the fictional land of Rosymere, the story follows two human siblings, Eve and her younger brother Jem, as they search for a cure to a mystery illness that is making the elves of Rosymere unwell. Together, with the help of Bromley the Elf, Eve and Jem come up with a plan to stop the disease spreading: they acquire a flute and a tambourine, and play magical healing music in the village. When the bed-ridden elves hear the music, they are cured. To prevent further spread of the illness, the

siblings issue the elves with mandatory 'magic bubbles' that they must enclose themselves within for two weeks in order to protect themselves and others. While the fairy-tale elements inject the story with complexity, and while the provision of serious information is treated creatively, the emphasis on a 'magic cure' provides young readers with a false sense of hope, as well as the misconception that magical shields (or masks) will protect them from catching the virus. This type of 'magical thinking' might result in a poor understanding of how the virus is spread, while at the same time fostering unrealistic expectations about the future by not addressing, for example, the possibility of further waves of infection. As the OECD makes clear, education systems, including parents, 'must prepare [children] for an uncertain future [with] new waves of contagion' (2020, p. 16).

3.2. Promotion of a 'new normal'

Interestingly, five resources address the 'new normal' and promote wellbeing and self-care as part of this adjustment. Under this theme, two subthemes were identified: 'depiction of a new world' and 'changes to everyday routines and behaviours', with all resources in this category ($n = 5$) employing a blended approach that integrates both subthemes. Moreover, all resources promote new routines and behaviours to children as necessary for keeping safe during the pandemic; one resource, *Little J and Big Cuz,* even encourages children themselves to advocate for these preventative measures. In this short animation, described as 'a special PSA' for kids (ACTF, 2020), Little J and his friend, Levi, model handwashing and social distancing to their mob, explaining 'this is how we keep our mob strong and healthy' (ABC Kids, 'Little J and Big Cuz', 2020). By positioning J and Levi as advocates for the health and wellbeing of their community, the text recognises the strength and resilience of Indigenous children and their families; indeed, it is the young characters themselves who are employed 'to get the urgent message out about handwashing to Australia's remote communities' (ACTF, 2020). Keiryn Christodoulou, an early childhood worker at Yera Children's Service, confirms, 'Little J and Big Cuz model their own stories' (as cited in Moyle, 2019, p. 46).

Another instructional animation, *Coronavirus (COVID-19)*, acknowledges the difficulty of adhering to the 'new normal', particularly when that difficulty pertains to social restrictions. In the clip, the Coronavirus is anthropomorphised into a talking and feeling virus cell who announces that he is 'travelling the world right now' before warning children to 'not get too close to other people, including your friends' (Queensland Health, 2020). Similarly, in the online flipbook, *Birdie and the Virus,* children are encouraged to adapt to their new context through motivated curiosity and creative thinking: 'It was hard for Birdie and Mr Frog, having to stay home. They couldn't go out and do the things they usually did. But they found new ways to have fun together' (Children's Health Queensland, 2020). Likewise, the two *Play School* episodes model adaptive practices, so that children and their parents are encouraged to adjust their social behaviours: 'Instead of going to the shops every day to get a few things, try to go just once a week and get everything you need' (ABC Kids, 'Hello Friends!', 2020). In *Play School*, instruction is suggestive rather than directive, with explicit information conveyed through participatory activities, such as science experiments, role play, and meditation. This participatory approach is supported by the work of Hart (1992), whose seminal work was the first to present children and young people as active participants in their environment.

3.3. Anxiety reduction

Five resources acknowledge children's feelings of overwhelm and anxiety; however, all of these resources approach anxiety management in different ways and to varying degrees of success. For example, two resources use minimisation, through casual language and the downplaying of the seriousness of the pandemic, to reduce anxiety and fear, although the efficacy of these strategies is questionable. While *Birdie and the Virus* privileges the child's experience of social isolation, one of the text's limitations is the illogical structure of the story world. In Birdie's world, it is established from the outset that there is no treatment for the virus; however, at the end of the story, Doctor Grace cures Birdie's sick friends, promoting perhaps a false sense of trust and again failing to prepare the child for a suspended ending. In other words, while the text attempts to alleviate the child's anxiety through reassurance and validation, the breach of narrative logic potentially undermines the child's intelligence and minimises the seriousness of the pandemic. Similarly, in two of the government produced narratives, a friendly anthropomorphised germ assures children that the virus does not pose a serious threat to their health and that the pandemic will end soon: 'I don't last long, and most kids get better quickly' (Queensland Health, 2020) and 'We can all play with our friends and family again soon' (South Australia Health, 2020). Indeed, several resources ($n = 3$) address anxiety reduction through the promotion of a resolution, a happy ending, or an 'easy fix', and in doing so, highlight the temporary nature of the pandemic. The impact of offering such resolutions and reassurances will be evaluated for efficacy in the discussion.

3.4. Community and connection

Building on a layered approach to meeting children's needs in the pandemic, several ($n = 5$) resources promote connection and a sense of community, albeit to differing degrees. The Wiggles' handwashing song and the *Little J and Big Cuz* animation both include some level of connection; while *Little J and Big Cuz* promotes community resilience and recovery in Indigenous and remote communities, The Wiggles illustrate inclusivity and accessibility through the use of Auslan captioning, images of diverse cultures and lifestyles, and the second person point of view ('Wash your hands, wet your hands, lather your hands … now your hands are clean' (The Wiggles, 2019).

All five resources adopt a 'we are all in this together' attitude in order to promote collective responsibility, as evidenced in the following dialogue: 'You can help stop me spreading!' (Queensland Health, 2020) and 'Together, we can beat it!' (Play School, 'Hello Friends!', 2020). Three resources offer practical strategies for remaining safe, staying busy and connected, and managing social distancing and isolation, especially from family and friends.

All of these coping narratives, developed for young Australian children during the COVID-19 pandemic, are well-intentioned: the desire to protect children at such a critical developmental stage underpins all of these works. However, when read or viewed in a trauma context, not all of the narratives can be viewed as successful in terms of their development of children's coping strategies and their management of children's mental health.

First, the form and content of these narratives raise a number of questions around diversity and inclusion. For instance, all of the case studies examined are digital narratives, including the flipbook, which would otherwise take the form a traditional children's picture book. Although the digital nature of these works makes them freely and widely accessible, their consumption requires additional 'screen time' for children and limits their use for those children without internet access or access to a streaming device. Moreover, the narratives under study also express a general lack of cultural diversity. The obvious exception is *Little J and Big Cuz*, which makes explicit use of Australian Indigenous characters and language in order to target a more culturally diverse audience. While The Wiggles include representations of racial and cultural diversity in their handwashing song, the tokenistic depiction of the 'Third World' setting in which these children are presented undermines the practice of inclusion. Furthermore, none of the narratives addresses the possibility of a 'second wave,' or a return of the virus. Indeed, the assurance of a 'happily ever after' conclusion – supported by platitudes such as 'It will all be over soon,' and 'We can beat this together' – may be more harmful than helpful for children who experience a recurrence of lockdown procedures and social isolation. These cliched platitudes may also reduce

the efficacy of narratives in developing children's coping strategies if the inherent trust between the child-reader and the text is disrupted.

These limitations aside, the narratives discussed here adhere to a hierarchy of sophistication in the coping strategies they offer young readers. That is, the identified themes can be seen to form their own narrative logic, such that these works are focused on *information provision* in order to explain *the problem* or *the 'new normal'*, for the purpose of *anxiety reduction*, which is only possible through *community and connection*. Each narrative progresses some way through this hierarchy; however, the most effective narratives are those that complete this cycle of instruction as part of the development of children's coping strategies for social isolation and stress management.

4. Conclusion

These findings are significant because of the implications arising from the irresponsible production of children's narratives in relation to children's mental health, and their resilience and recovery. A failure to progress through the hierarchy may be the result of parents and adult authors who wish to protect or escape their own situational overwhelm or anxiety, and as such project their own level of comfort on their assumptions about a child's developmental stage and capacity for knowing and understanding complex issues. This might indicate a parent's desire to construct the child as a kind of 'safe' space in which the adult can retreat from the stresses and anxieties of the world. Such a separation of the child from the potential for preparation, however, can put them at significant risk. Adult assumptions can also represent a disconnection in the levelling between adult and child, as well as a denial of the child's autonomy and emotional intelligence. This disconnection is evident through strategies such as displacement, as evident in the use of imagined or animal worlds to approach our lived reality, as well as familiarity, as in the anthropomorphism of the Coronavirus germ. Since a clear target audience is essential for both effective writing and strong public health promotion, a failure to understand the needs of the child reader will always undermine the efficacy of the narrative.

Finally, narratives that stop short of providing a full explanation (in age-appropriate terms) of the problem and offering appropriate responses may have no impact on a child's wellbeing, at best, or be physically or psychologically damaging, at worst. Of particular concern are those narratives that stop short at the first level of *information provision*, rather than progressing to an explanation of the *problem*. A failure to explain *why* a child must wash their hands, stay at home instead of attending school or daycare, cease visits with their friends and extended family, or keep off the local playground not only makes the injunction to adhere to such instructions hollow, but prevents the child from preparing for exposure to danger. This lack of preparation is itself the precondition for traumatic experience – a sudden and overwhelming shock for which we cannot know or prepare. Equally, this failure runs contradictory to established research which purports that children's genuine and authentic involvement in disaster risk reduction and recovery can have a positive effect on children, their families, and their community (Freeman et al., 2015; Delicado et al., 2017). Practical implications of these findings encompass the need to partner with children in the construction of resources that address the complexities of COVID-19. In other words, authors of pandemic narratives should involve children in creating these resources, given both the therapeutic benefit of narrative construction, and the use and value of storytelling as an intervention for children to mitigate harm, as highlighted by White (2004, 2005) and Yuen (2007). Thus, further avenues for research might consider how this hierarchy of preparation maps onto a model of mental health recovery or a model of disaster recovery. This research might help us to understand how existing narratives, penned and produced for Australian children during the pandemic, can help children understand their strange new lives, while at the same time providing a potential model for public health narratives aimed at young children who find themselves in stressful situations around the world.

Declarations

Author contribution statement

Kate Cantrell, Jessica Gildersleeve, India Bryce, Kirstie Daken, Jo Durham, Amy Mullens, Beata Batorowicz and Rhiannan Johnson: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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