Little bugs and wicked viruses: communicating the COVID-19 pandemic through picturebooks for children.

Abstract

    The COVID-19 pandemic has led to the production of large numbers of books to educate children about the novel coronavirus and the measures to control its spread. The books have been produced by a wide variety of different individuals and organisations, from health professionals and educators to national public health organisations and the United Nations. This study provides a detailed analysis of 73 picturebooks about coronavirus / COVID-19 available in English and produced between March and June 2020. The analysis reveals that the books combine early scientific knowledge about the novel coronavirus with pre-existing connotations of germs to produce a specific, comprehensible cause for the social disruption produced by the pandemic. This portrayal is frequently used to mobilise children to be heroes and fight the virus through a number of behavioural measures, principally frequent hand washing and staying at home. The books also reveal adult anxieties about the nature of childhood and the uncertainty of the nature and timing of a post-pandemic future.

Introduction

The COVID-19 pandemic has had an unprecedented impact on the daily lives of children, with two thirds of the world's pupils affected by school closures in 2020 (UNESCO 2020). In addition, the principal approaches for controlling the spread of the virus, including stay-home policies as well as behavioural changes such as social distancing and more frequent hand washing, are measures to which all citizens, including young children, have had to adapt. This has led to an explosion in books and resources developed to help educate and reassure children in the face of these significant changes to everyday life (Chen et al. 2020). The aim of this study is to provide an initial survey of digital children's picturebooks in English about coronavirus / COVID-19, produced in the first phases of the pandemic. Written and illustrated by a range of authors, from global organisations such as the United Nations to concerned relatives and even children themselves, these books combine text and image to convey health information to younger children (4-8 years).

Books have long been considered to be a 'safe' way to facilitate conversations with children about challenging subjects such as death and illness (Blumenrich & Siegel 2006) and parents and carers report a desire for resources such as books to help them talk to children when a family member has a life-limiting illness (Fearnley and Boland 2017; Miller Ott 2020). Furthermore, books and bibliotherapy have been used to help young people develop coping skills after experiencing trauma and illness (Brewster & McNicol 2018; De Vries et al. 2017; McNicol 2016). More specifically, books have traditionally been a major source of health information for children; a recent study indicated that almost half of the science books for children in public libraries are about health and the body (Caldwell & Wilbraham 2018). As a major component of formal science education in schools, books also have a key role in introducing children to medical concepts and terminology (Rawson & McCool 2014). For younger children, these books are highly illustrated and frequently take the form of 'mixed texts', where scientific content is embedded into a narrative, to make the science 'meaningful, relevant, and accessible' (Avraamidou & Osborne 2009: 1683). Herman (2007:3) explains the distinction between narrative and scientific discourse:

> Rather than focusing on general, abstract situations or trends, stories are accounts of what happened to particular people – and of what it was like for them to experience what happened – in particular circumstances and with specific consequences. Narrative, in other words, is a basic human strategy for coming to terms with time, process, and change – a strategy that contrasts with, but is in no way inferior to, "scientific" modes of explanation that characterize phenomena as instances of general covering laws.

Texts that narrativise science have, however, been criticised for being distracting, adversely affecting retention and encouraging the development of misconceptions (see Ayra & Maul 2012 for a review). Despite this, studies have found that students learn more deeply when a text involves personalisation, including through techniques such as conversational writing style, a visible authorial voice, direct address to the reader and the inclusion of details about the values and emotions of scientists (Ayra & Maul 2012; Mayer 2009; Saunders 2019).

Narrative strategies have also been used extensively in health promotion, where they have been found to change health beliefs, attitudes and behaviours (see Braddock & Dillard 2016 for a review). Authors have suggested a range of factors that are responsible for the persuasive effects of narrative, which include identifying with the characters and becoming immersed in the story (Green 2006; Moyer-Gusé & Nabi 2010). Notwithstanding warnings about the assumed link between reading, empathy and prosocial action (for example, Keen 2007 on adult readers), effects such as identification and immersion may promote the

acceptance of the messages embedded in the story and encourage the reader to recognise that the consequences of risky behaviour apply to them (Moyer-Gusé & Nabi 2010). Children's literature scholars are certainly increasingly recognising the importance of affect, emotion and empathy in the ways in which children's literature educates and socialises children (Bullen, Moruzi and Smith 2017).

Images are a vital part of children's books about health, as they are more broadly in children's literature. As Nikolajeva (2010:31) argues about picturebooks, 'the proairatic visual and multimodal code offers considerable further potential as compared to purely verbal'. Children are sophisticated decoders of visual imagery and children as young as five can recognise visual metaphors and artistic styles (Styles and Arizipe 2001). Pictures have been shown to increase children's comprehension, recall and attention to information (Houts et al. 2006). Furthermore, images have been found to be beneficial in conveying health information (Koops van't Jagt et al. 2018; Noble et al. 2015). Images have the potential to convey powerful emotional content (Nikolajeva 2012) and can help facilitate discussions about the fears and anxieties felt by people living with particular conditions and their families (Hanson et al. 2017; McNicol 2014; McNicol 2016). It is worth noting, however, that images in children's books are not straightforward and that the complex interplay between text and image may present challenges for communicating health information (Caldwell et al. 2020; Sakai et al. 2012).

One of the challenges in communicating health information to young children is the need to circumvent, or translate, medical concepts or terminology, whilst still providing accurate information that engenders healthy behaviours. Consequently, authors and illustrators frequently turn to metaphorical and metonymic representations of the body, illness and disease, and symptoms are often stripped down to a single visual element, such as a dark cloud for depression (Church 2016). One of the most enduring metaphors of infectious diseases is the military metaphor, which invokes the language of warfare to describe the way that the immune system mounts a 'defence' against the 'invasion' by microbes (see Lupton 2012 for a review). Children's books are no exception to this trend. For example, Blumenrich and Siegel (2006) report that children's books about HIV/AIDS reproduce the war metaphors frequently used to describe viruses as 'enemies' of the body. In popular culture, germs are commonly conceptualised as 'invisible, malevolent entities' (Hellman 1978: 118), and are frequently anthropomorphised as 'wily aggressors' (Lupton 2012: 63). In contrast, doctors and scientists are positioned as heroic, making discoveries that will save people from disease (Osei-Kofi & Torres 2015). These warlike metaphors do more than represent the scientific concepts; they also create a sense of urgency and mobilize a vigorous response to the threat posed by particular microbes (Sontag 1989).

Following scholars in children's literature (such as Nodelman and Nikolajeva), we recognise the importance of multimodality in picturebooks and therefore employ a mixed-methods approach to analysis of both words and images in picturebooks about COVID-19. Paying particular attention to metaphor and symbolism, we focus on the ways in which the books represent the virus; the health messages that they promote; and the endings that they offer. As a whole, the picturebooks about COVID-19 are remarkably consistent in their use of imagery and metaphor, and the ways in which they engage both with the science of the virus and the media and cultural discourses of that science. The books aim to make the virus an intelligible and knowable threat, and they do this by drawing on both pre-existing associations with germs, and emerging scientific knowledge of the virus. As such, they both reflect and contribute to the popular cultural discourse of COVID-19. There is, nevertheless, more variation in the conclusions of the books, indicating adult anxieties and uncertainties about the future.

Method

The picturebooks analysed in this study are part of a larger corpus that we assembled from a publicly available list of free e-books about coronavirus / COVID-19 curated by the New York City School Library System. On 17 June 2020 the Library list comprised of 267 items, of which 188 were available in English. The items were in a variety of electronic formats, including ebooks, videos of physical books being read aloud, electronic copies of print books (pdf format) and images of book pages hosted on blogs and other internet sites. An item was included in our corpus if all pages (including front and back matter) were available for view on the electronic hosting platform. All 188 items in English were reviewed, but five items were unavailable, three items were published prior to the pandemic, two items were not books and two items were not available for free at the time of corpus assembly. This left an initial final corpus of 176 available items (see Table 1).

Book type	Downloadable format (pdf file)	Online only format	Total
Colouring and activity books	24	0	24
Comics	2	4	6
Picturebooks	73	29	102
For older children (>8 years)	10	6	16
Therapeutic and educational resources (including Special Educational Needs)	24	4	28
Total	133	43	176

Table 1: Summary of items in the corpus by book type and format.

The large number of books produced between March and June 2020 is notable and indicates the impact of the pandemic on children and families. Reflecting the speed at which the books about coronavirus have been produced, only 12% of the books were published by a commercial publisher, with many self-published or otherwise made available online by their authors/sponsoring institutions. Interestingly, the majority of books are aimed at younger primary school children (eight and under), which demonstrates that even in the digital age, the book format is still considered an important cultural product and information source for young children. Over half (60%) of the books were produced in the United States, which is likely a result of the fact that the list from which the corpus was taken is compiled and hosted there. However, the corpus contains books in English from all continents (see Table 2).

Region	Number of items
Africa	8
Asia	15
Australasia	8
Europe	30
Latin America	5
Middle East	1
North America	106
International organisations	3
Total	176

Table 2: Origin of corpus items by region

Our analysis in this article concentrates upon picturebooks, the most common type of book in the corpus. Picturebooks are defined as books with a small number of words and at least one picture on each page spread, where both the words and images convey meaning (Nikolajeva and Scott 2000; Salisbury & Styles 2012). The picturebooks in our corpus occur on a broad continuum from fictitious narratives set during the coronavirus pandemic, through narrative non-fiction, where health informational content is embedded in a story, to richly illustrated information books aimed at young children.

In total, the corpus contained 102 items that met the criteria to be classified as picturebooks. The other types of books in the corpus (see Table 1) – such as colouring and activity books, comics, therapeutic and educational resources, and books for older children – warrant separate analysis as they are produced within specific genre conventions and/or for audiences that are outside the scope of this study. Picturebooks were then included in the sample for detailed analysis if they were available as a pdf file to download (73 items), which enabled us to use analytical approaches developed for physical books.

The detailed analysis used a mixed-method approach (Johnson et al. 2007), which involved both literary analysis of the words and image-word assemblages on page-spreads and a content analysis of images of coronaviruses and health messages contained within the books (Ali 2012; Caldwell et al. 2020). We adopted a close-reading approach in our independent analysis of each picturebook, paying particular attention to setting, characterisation, plot and metaphor. During these readings, images and texts were read together as co-constituents of the narrative. Joint data sessions then enabled us to collate prominent literary themes and metaphors across the books. As visual elements are an important communication device in picturebooks, an additional content analysis was carried out on the illustrations of coronavirus, which were coded for colour, shape, anthropomorphic features and facial expression. Finally, the health messages contained in the picturebooks were analysed by counting the frequency with which they occurred, and handwashing advice was further analysed using Rutter et al.'s (2020) codebook for analysing handwashing messages.

In the section that follows we present our analysis in four parts, which detail the dominant themes found in the picturebooks. The first of these themes relates to the ways that the novel coronavirus is represented in both words and images in the books. Following this we explore the use of heroic and military metaphors found in the narratives. Next, we analyse the health actions recommended to children, and finally we explore the representation of the future in the conclusions of the books.

Analysis of Picturebooks
Representations of the novel coronavirus
The way that the virus is depicted in these books indicates their desire to clearly identify and make comprehensible COVID-19, and to do so in terms that draw on both science and the adoption of science within the media and cultural discourses. The majority of the books (71%) refer to the coronavirus or COVID-19 by name. Often this naming is found in the title or subtitle of the book, but many also refer to the virus by name within the text. The virus is most commonly named 'coronavirus', 'novel coronavirus', 'corona' or 'COVID-19', but a small number do also give its formal scientific name, 'SARS-CoV-2'. Where the virus is not called coronavirus, or one of its variations, it is named a 'bug' (for example, *A Hero Too*), the 'sneeze virus' (for example, *The Spooky, Shallow Cough*) or simply 'the virus' (for example, *Oaky and the Virus*). There are only a small number of books that make no explicit reference to a virus and even these tend to explain the pandemic through

references to germs or needing to stay healthy. In a very few books the pandemic is left undefined and vague, such as in the reference to 'difficult times' in *Piggy and Bunny and the Stay at Home Plan*.

The frequent attribution of illness to a specific cause, in this case the coronavirus, is unusual in children's literature. Turner's (2006) study of 119 picturebooks about illness and injury found that the majority of books did not give specific indications of causation. However, Blumenrich and Siegel (2006: 99) suggest in the case of books about HIV/AIDS that specific information about viral transmission is included 'in an effort to calm children's fears'. It seems that in our sample, ascribing the disruption of lockdown specifically to the novel coronavirus works to turn the virus from a generalised life-changing threat into a comprehensible, and nameable, entity.

The visual depictions of the virus in the books in our sample similarly function to define a specific cause for the disruption. The images of the virus, like its naming, suggest the desire to be fairly explicit in the presentation of information to children, making comprehensible and identifiable what might otherwise be a looming, but amorphous threat. Though varying in colour, size and, sometimes, shape they very often resemble the images of the virus produced by the Centre for Disease Control and Prevention (CDC) that have been widely circulated in the media (CDC 2020). Illustrations of coronavirus are used in 45 books (61%) and they tend to depict the virus as a sphere with protuberances; the images vary in colour, but are most often red (as in the CDC images) or green, the latter a colour commonly used for depicting germs and monsters in children's media. These popular images of the coronavirus with its 'crown' of protuberances, act as a 'poster child' for the pandemic, as iconic as polar bears are for climate change (Born 2018: 1). Van Dijck (2005) argues that such images of disease can give the impression that seeing goes some way towards curing, further locating the virus as knowable and therefore containable.

Not surprisingly, given the established trend to anthropomorphise germs in popular culture (Lupton 2012), many of the images of the coronavirus are anthropomorphised, literally giving the virus a face and making it further intelligible to children. Two thirds of the images of coronavirus have a face and/or limbs, and 20 books depict the virus with a scary or threatening face. In particular, some of the images of coronavirus transform it into menacing or monstrous cartoon characters (for example, *The Class that Can* and *Coronavirus: Get Outta Here*!). These depictions echo common representations of green, monster-like germs used in advertising, such as in the 2008 Domestos bleach commercial in the United Kingdom, featuring the voices of Rik Mayall and Tony Robinson. The representations of coronavirus in the picturebooks are a clear example of the way that scientific images can intersect with those from popular culture (Jordanova 2004; Martin 1992). By drawing on associations with monster-like germs and the need to rid ourselves of them, these menacing images of coronavirus are 'conjuring meanings and generating significance for viewers' (Burri and Dumtt 2007: 305).

Just as many images depict the virus as threatening, the language used for the virus also describes it in negative terms, and this is apparent even in those books that do not depict the virus in the images or name it as coronavirus or COVID-19. For example, the virus is referred to as the 'wicked virus' (*Wicked Virus and the Powerful Children*) and the 'awful virus' (*Stuck Inside*). There are a few exceptions to this and in a small number of books the virus is depicted as a less malevolent presence. For example, Mr Corona in *Jasper and Tabitha Play a Trick on the Coronas* is 'naughty' and 'pesky' rather than wicked and threatening. The negative portrayals echo Hellman's (1978:199) description of germs in folk conceptions of illness: 'There are no "good" Germs, or "normal" Germs; all Germs are bad, whether they are "Bugs", "Germs" or "Viruses".' As such, it seems that the depictions of the novel coronavirus are conflated with long-standing value judgements surrounding microbes

and demonstrate the ways in which new phenomena are made explainable and comprehensible through their association with pre-existing cultural concepts (Burri & Dumitt 2008; Hoijer 2010).

Fighting the virus and being a hero

The representation of the virus as a threat provides the foundation for a narrative about children fighting the virus, replete with the employment of martial language and imagery. By positioning the coronavirus as an aggressor, the narrative of battle can be employed, with health practices as the weapons. The virus must be fought, conquered and overcome by children taking specific actions. A third of the books contain explicit metaphors of fighting, whether in cartoon-like images of immune cells fighting the coronavirus (*Community Heroes*) or in pictures of children defending themselves against the virus with a syringe (*Kelly Stays Home*) or shield (*Covid-19 Helpers*), as well as in the titles of books, such as *Be a Coronavirus Fighter* and *Kid Covid Fights Back*. The presence of military and martial metaphors in these books echoes both media coverage of COVID-19 and early artistic responses to the pandemic (Marandet et al. 2020). For example, the artist Duyi Han created an artwork in a church that instead of religious figures, shows healthcare professionals in personal protective equipment raising their fists against the virus (Khanna 2020). As noted above, these pugilistic metaphors are common in discourse on infectious diseases and serve to inspire action from the viewers or readers (Sontag 1989). In the case of the coronavirus picturebooks, articulating the need fight the virus has the effect of converting the passivity, anxiety and confusion induced by lockdown into clarity and activity, and this is central to the successful engagement with the health messages in these books.

In addition to the military metaphors, the language of heroism is frequently used in the picturebooks. This is employed in two ways: either heroes or superheroes 'fight' the virus, or rather than fighting the virus directly the heroes 'help' us all to keep safe and healthy. It is the child who is frequently portrayed as a hero, or superhero, for taking action such as staying at home and handwashing, a point also noted by Chen et al. (2020). Indeed a number of picturebook titles echo this idea, including *The Virus-Stopping Champion, How to be a Covid-19 Superhero* and *A Hero Too*. Though often the heroism is of a specific child, in other cases, it is collective action that is stressed. In some books, such as *Wicked Virus and the Powerful Children* and *Who is Corona*?, children band together to fight the virus.

The idea of heroism is also extended to adults in many books, specifically those adults who continue to work outside the home, from delivery drivers and grocery store cashiers to health professionals. In *The Inside Book*, children are encouraged to cheer for the doctors and nurses fighting the virus. *What's Going on in the World?* refers to the 'real heroes out there' alongside an image of medical staff. This echoes the traditional portrayal of doctors as 'superhuman figures' that 'can cure any malady' (Lupton 2012: 55); however, in the case of the novel coronavirus the lack of a specific treatment means that heroism is also extended to scientists who are searching for a cure or vaccine. For example, in *Community Heroes,* scientists are pictured at their lab bench in white coats with red superhero capes. This reflects not only the common positioning of the scientist as the hero more generally (Osei-Kofi & Torres 2015) but also specifically 'as the "generals" in the battle against disease' (Lupton 2012: 63).

Health messages for children

Most of the picturebooks in our sample feature health advice, and the most common health messages are staying at home and washing hands (see Table 3). Indeed, staying at home forms the central part of the narrative in many books, which is often clear from the titles, such as *I Want to Go Out, Staying Home, Stuck Inside, The Inside Book* and *Time to*

Stay Home…What's Next? Most of these narratives acknowledge the negative aspects of not being able to play with friends or go to school and frequently attribute these unwanted experiences to the arrival of the novel coronavirus. In so doing, even if they do not overtly portray the coronavirus in a negative way, the narratives subtly place the virus in the archetypal role of the 'baddie' that creates disruption to normal life. As the texts continue, they frequently present ways that children can counter the restrictions of staying at home, such as video-calling relatives, baking, playing make-believe and helping neighbours. Despite the positive exhortations in the words, the images in the books emphasise the sense of containment, even imprisonment, that lockdown may bring for children. Domestic interiors feature heavily in these picturebooks, as do images of children looking out of windows or doors, such as in *From My Window,* and *Rainbows in Windows*. As Nikolajeva (2010: 33) points out, 'Picturebooks depend heavily on visual space. Images are better suited than words to convey all kinds of spatial aspects.' In *Even Superheroes Stay Home*, for example, the young boy is seen looking wistfully out of a window and (from behind) standing at an open door, whereas the words explain that 'Outside is grim' and 'At home feels safe'. The potential disjunction between text and image here is evidence of the polyvocality of picturebooks and their ability to convey multiple messages through the combination of word and picture (Nodelman 2010).

Health advice	Number of picturebooks (out of a total of 73 books)	
	n	%
Stay at home	58	79.5
Handwashing	57	78.1
Social distancing	47	64.4
Cover coughs and sneezes	32	43.8
Emotional care	29	39.7
Mask wearing	26	35.6

Table 3: Health messages contained in picturebooks

In contrast to the 'stay at home' message that is embedded in a lot of the narratives, forming the basis of many storylines, handwashing advice is given in a more explicit way. Handwashing occurs in 57 out of 73 books and in order to present this advice, the narratives are frequently paused so that the books can give explicit instructions through both words and images. The advice features information such as the length of time taken to wash hands, techniques for washing and the situations after which hands should be washed. Familiar songs, such as *Happy Birthday* or *ABCs,* are often suggested as a way to measure the recommended length of time for handwashing and some books, such as *Oaky and the Virus*, also suggest their own rhymes or songs to sing. A number of books also have additional handwashing instructions or posters at the end. The books' handwashing advice is very didactic: children are told very precisely how to undertake actions that they *must* perform in order to keep themselves and others safe. Some books explain the rationale for handwashing in terms of removing germs, or killing the virus with 'plain old soap' (*Kelly Stays Home*). and in a number of books, such as *Bye Bye Germs, Be a Handwashing Superhero,* children are positioned as heroes or superheroes for undertaking this action.

The specific appeal to child action and even to heroism used in the narratives in these books goes beyond techniques that foster social norms used in pre-pandemic health

information, as, for example, in Rutter et al.'s (2020) study of posters for children about handwashing. Rutter et al.'s (2020) analysis of these pre-pandemic posters found that children were more likely than adults to design posters that gave strong rationales for handwashing in terms of avoiding the consequences of germs, such as illness for the child themselves. This is somewhat complicated in the case of books for children about COVID-19. Though these books do present handwashing and other practices as ways of avoiding germs, they also generally emphasise that the novel coronavirus rarely causes serious illness for children, and protecting more vulnerable people is, therefore, the aim of the health practices. Children are not simply protecting themselves, but saving others, a narrative that is predominantly founded on a generational model of resilience versus vulnerability.

The generational divide here is both a feature of children's literature and a marked aspect of the wider social discourse of the pandemic. As Beauvais (2015: 11) argues, generational divides are fundamental to the ways in which we understand and represent childhood itself: 'the imagined gap between adult and child is phenomenologically vertiginous because it is indicative of a difference in temporal statuses, in temporal imaginations.' Arguably, this temporal gap has been accentuated during the pandemic as lockdowns have resulted in intergenerational separation at a scale previously unknown. Children in the United Kingdom and in many other countries have frequently been separated from grandparents and other older people, only able to communicate remotely. At the same time, age-based stratification has been central to the medical, political and cultural discourses around COVID-19. Children are presented as a low-risk, almost immune, group, whilst older people are depicted as vulnerable, high risk and, in some cases, in need of 'shielding' or 'cocooning'. As Gilleard and Higgs (2020) put it: 'Age has most often and most loudly been highlighted as the vector distinguishing between the "vulnerable" and the "invulnerable"'. The characterisation of older people as a vulnerable, frail, homogenous group is a feature of narratives that explain medical, political and economic decisions. Children, on the other hand, are distinguished by their invulnerability, yet also their danger as potential transmitters of the disease.

Two other common measures used to control the spread of coronavirus, namely social distancing and mask wearing, feature less frequently in the books. Social distancing is mentioned in 47 out of 73 books, but the advice is often less explicit than the handwashing instructions. Some books refer to 'not getting too close' or 'keeping apart', with social distancing demonstrated through images, such as children greeting friends across a road, children separated by large animals ('stay one big cow apart'), or by arrows measuring a specific distance (such as 6 feet, 1.5m or 2m). Mask wearing is rarely given as explicit advice in these books; often it is simply that some characters, particularly health professionals, are featured wearing masks or that mask wearing is mentioned in the narrative (and depicted) as a consequence of coronavirus. Only a very small number of books actually advocate mask wearing for children, probably reflecting the fact that in a number of anglophone countries young children are exempt from wearing a mask, as well as the fact that the books were produced in the very earliest phases of the pandemic, when recommendations on face coverings were still evolving.

Hope and Futurity

Given the emphasis on happy endings in stories for children (Tucker: 2006), a future free from COVID-19 seems like a likely conclusion to a picturebook about the pandemic, particularly one written in the early stages. However, the endings of these picturebooks are more varied than might have been expected. The picturebooks as a whole offer a variety of endings, with more or less expansive visions of change and locations of hope. Some books offer a projection into the COVID-free future in their final pages. In contrast to the largely

domestic, interior settings of the images in most of the books, these final images are often outdoor scenes that feature a group of people together, post-social distancing and lockdown. In most books, the future is anticipated in the images rather than fully realised, as in *Tomorrow* (aptly titled) where an image of a future normality (people together in a park) is accompanied by text that makes clear that this is the future, rather than the narrative present. In other books, the future is contingent upon the actions of the child, as in *A Message from Corona*. In this book, a happy future scene of friends and family outdoors together is accompanied by the text: 'In time, we will not be harmful to the humans anymore if you help to get rid of us.'

In contrast to these more future-orientated conclusions, some of the picturebooks do not look into the future at all, simply staying with the narrative present of lockdown and restrictions. These books stress acceptance, action and perseverance in the face of a restricted life. *Has Anyone Seen Normal?*, for example, is about the acceptance of the 'new normal' rather than a projection to a future that looks like the past. More active endings reiterate that hope lies with the child and a number of the books conclude with a direct address to or form of interactivity with children – usually with a challenge to engage them in health practices. *Bray Bray Conquers the Coronavius*, for example, asks children to make their own plan to fight the coronavirus – the final page is a blank, numbered sheet for children to do just that. Some books include colour-in sheets or activities, such as spot the virus in the picture. Others simply address children and spur them to action, such the ending of *Jasper and Tabitha*, which asks children: 'Can you help us play a trick on the coronas?', or the final lines in *Careless Corny*: 'Now go wash your hands.'

This range of responses to the rendering of hope and happiness at the end of the books includes a set of dominant images and motifs. If the CDC image is the dominant scientific and cultural representation of the virus, then other visual symbols of the pandemic provide further evidence of the ways in which cultural associations and emotions can be attached to particular images. For example, rainbows are found in many of the books in our corpus, both fiction and non-fiction. Rainbows are a wider cultural image of the pandemic (Marandet et al. 2020) and can be found frequently in children's drawings made during lockdown (Gaulkin 2020). In our corpus, as more widely, rainbows function as a sign of both hope and perseverance – usually though collectivity and community, as in *Hopeful Hues, I Wonder,* and *Where did Everyone Go?* In addition, they are connected to the narrative of heroism attached to health professionals caring for those suffering from COVID-19. The globe, which in some books acts as a symbol of the widespread nature of the pandemic, functions as another symbol of hope to represent the global community and the possibility of an improved post-virus world in books such as *What's Going on in the World?* and *What Happened When We all Stopped?* The books, therefore, both reflect and contribute to the visual symbolism that surrounds the pandemic.

The books, then, range from positive projected futures, to present-centred narratives that offer a future hope without actually realising it, and books that insist upon acceptance of the new normality. In this, they are a good example of Natov's (2002: 220) insistence that that 'a poetics for children requires a delicate rendering of hope and honesty'. Further, the instability and uncertainty found in many of the endings of these books can be read as an expression of adult desire and anxiety. As many children's literature scholars argue, most notably Nodelman (2008; 2010: 18), children's books contain 'hidden adult content', the adult authority that lies behind the child protagonist and child reader and that ostensibly controls the didactic discourse. This adult is not co-extensive with the author or narrator, but what Beauvais (2015: 9-10) terms 'the adult volition conveyed within the book; the synthesis, as coherent as it can get, of a given text's construction of adulthood, with its accompanying intentions, fears, desires, values and attitudes towards childhood.' It is the hidden adult that

stands behind the authoritative reassurance and call to action (indeed, to arms) that many of the texts express. But the notable number of these books that either fail to imagine the future at all, sticking firmly with the pandemic present, or that imagine the future only as that, an expression of hope rather than a concrete realisation of what that future might look like, is evidence of adult uncertainties about what the future may hold.

Conclusion

These picturebooks reflect and engage with the fears and hopes of the early stage of the current COVID-19 pandemic. Drawing on martial metaphors, pre-existing associations with germs and viruses, and the emerging scientific knowledge about COVID-19, they depict the coronavirus as a knowable and definable threat. Countering the sense of precarity engendered by the lack of information about the virus and its effects in the early months of the pandemic, the books represent a recognisable virus that can be overcome through specific actions. Children, in particular, are directed to take action to protect others, echoing the cultural discourse of age-related (in)vulnerability. Remarkably consistent in their representation of the virus and children's role in overcoming it, the books tend to locate hope in the figure of the child and the future generation that the child represents. At the same time, the variation in the endings of the books indicates less certainty, perhaps less optimism, about what the future may hold.

This article provides an early snapshot of literature for children about the coronavirus pandemic. Further work is needed to not only analyse additional aspects of the books, such as intergenerational representations as well as those of gender and ethnicity, but also to analyse the other categories of publication in our corpus, such as the colouring books and books for older children. It is also the case that additional books have been produced since the assembly of the corpus for this study and so an analysis of changes over time in texts produced in different phases of the pandemic, as well as in different localities, is necessary. Furthermore, picturebooks are only a fraction of the health education resources for children that have been produced about COVID-19. Future research is required to examine the multimedia health information aimed at children, such as the WHO and UN Foundation public service announcement featuring Gru and the Minions (WHO 2020) and children's television content produced by the BBC, to name but a few. Finally, we feel that where possible, studies of children's media should involve the voices and opinions of children themselves and it is clear that such research is needed in order to ascertain the impact of cultural and public health narratives of COVID-19 on children.

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