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Indoor play during a global pandemic: commonalities and diversities during a unique snapshot in time

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ABSTRACT

The first case of a novel coronavirus disease (COVID-19) was diagnosed in Wuhan, China, in December 2019 and the outbreak was declared a pandemic by the World Health Organization (WHO) on 11 March 2020. By the end of March 2020, 136 countries had positive COVID-19 cases. Meanwhile, in response to the virus, countries instigated various forms of 'lock-downs' and social distancing measures. Globally, children and adolescents could not meet and play or hang out with their friends as they did pre-pandemic. These changes essentially drove children (4–18 years) indoors for their play and recreation needs, instigating significant changes in the lives and day-to-day routines of children almost simultaneously in and across national borders. To understand the impact of these changes to children's play worlds and friendship groups, an online questionnaire was developed for children and parents and rolled out in Ireland, Italy, the United States, and England during the summer of 2020 following ethical approvals. The questionnaire consisted of qualitative (open ended) and quantitative (closed) questions and this paper focuses on the changes to children's (4–18 years) indoor play. We found that the various 'lock-downs' and social distancing measures created largely similar impacts on play behaviors and activities in each developed country, irrespective of culture, the globally did indeed become 'local'. Moreover, playing in 'safe settings' such as the home environment, may have helped to build resilience and to enhance protective factors in children's lives as opposed to a demonstration of global homogeneity [merriam-webster.com]. The impact of 'lock-downs' may counter-intuitively have reduced opportunities for cooperative play and parents' mediation of play due to increased parental responsibilities (working from home, home schooling) which reduced the time available to spend with children in non-school activities, including play.

KEYWORDS

COVID-19; indoor play; culture; globalization; play and social media

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Introduction

Children¹ are not the face of this pandemic, however, its wide-ranging effects risk being catastrophic to children with long-term consequences (UNICEF, 2020). In March 2020, the lives and normal daily routines of children, as well as their parents, was change to disrupted. This was compounded by social restrictions on with *whom* and *where* children could play. Children's access to and lived experience in the outdoors was severely and abruptly curtailed. The loss of these familiar outdoor spaces for playing and socializing with friends is impactful (Barron, 2018; Barron & Emmett, 2020) and this loss was accompanied by new dangers, such as contracting or transmitting COVID-19, with the implication that outdoor play became hazardous. This loss of normal daily activities such as playing with friends and playing outdoors was an almost global phenomenon and most definitions of cultural globalism describe it as a phenomenon whereby everyday life is influenced by the dissemination of commodities and ideas which reflect a standardization of cultural expressions globally: the 'global' becoming 'local'. Propelled by the efficiency or appeal of the internet, social media platforms, mass media, and international travel, globalization has been seen as a movement toward homogeneity that over time will make children's experiences fundamentally the same everywhere. We argue that whilst children and adolescents are directly affected by globalization experienced in their daily lives through their social networking, friendship groups, play activities, and wider cultural influences on their lifestyles, these homogenizing influences do not create a single world culture and similar play activities may not be experienced in the same way across borders.

Children's well-being and resilience during quarantine

After natural or man-made 'disasters', most people do not succumb to psychopathology (Pfefferbaum & North, 2020) but remain resilient. However, the COVID-19 pandemic has forced parents and children to adopt significant changes in their daily routine resulting in significant repercussions for family stress (Cusinato et al., 2020). Imran, Aamer, Sharif, Bodla, and Naveed (2020) inform us that there is a scarcity of research examining the psychological impact of quarantine and home confinement on children and adolescents during disease outbreaks prior to COVID-19. Recent COVID-19 studies from Europe and China suggest that children and adolescents' response to disasters is dependent on their age and developmental level (Orgiles, Morales, Delvecchio, & Mazzeschi, 2020; Pisano & Galimi D, 2020), coping strategies, and resilience (Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). When examining stress, resilience, and well-being in children and their parents during the COVID-19 pandemic, Cusinato et al. (2020) inform us that children may be more sensitive to changes in their daily routine than adults (Wang, Zhang, Zhao, Zhang, & Jiang, 2020) and quarantine and isolation may hinder their sense of predictability and security (Brazendale et al., 2017).

The closure of schools in particular, though not exclusively, may subject children to more sedentary lifestyle, longer screen time, irregular sleep patterns, and poorer diets (Brazendale et al., 2017). The cessation of school routines also takes away a significant coping mechanism for children (Lee, 2020). We know that children who undergo

quarantine and social isolation are four times more likely to develop post-traumatic stress disorder (PTSD) (Sprang & Silman, 2020). Children may become angry, anxious, withdrawn and restless (Imran et al., 2020) and display negative behavioral changes (Sprang & Silman, 2013). For children and parents alike, a culture of fear may develop from saturation of media coverage about the pandemic (Fitzgerald, Nunn, & Isaacs, 2020) which may reveal itself through disproportionate anxiety. Many of these conditions are certain to be echoed in populations affected by the COVID-19 pandemic according to Pfefferbaum and North (2020).

We draw on the work of Chatterjee (2018) who examined children's access to play specifically in situations of crisis (both manmade and natural) across six countries. Chatterjee found that no matter what form of crisis existed, children played. Moreover, playing in 'safe settings' such as the home is a way to build resilience and to enhance protective factors in children's lives (Duncan & Arnston, 2004). The nature of play in crisis situations, according to Chatterjee (2018), similar to very recent findings, is impacted by the child's age and gender (Pisano & Galimi D, 2020), the time and spaces they had available for play and the cultural and social context of the community.

Livingstone and Drotner (2011) argue that we need to develop multi-disciplinary and multi-sited understandings of the complex relations among children, media, and culture and we suggest play activities and behaviors. This research on children's indoor play in Ireland, Italy, The United States, and England during the first phase of the COVID-19 Pandemic and subsequent social distancing measures is a unique snapshot in time, examining indoor play from the multi-disciplinary fields of education, health, psychology, and anthropology. In this paper, we focus on cultural and/or gender commonalities and diversities that characterized children's indoor play during lockdown.

Literature review

Within the developed to high income world, children's play has changed over the past century from a child-initiated, unstructured endeavor (Marano, 2008) to an adult-directed activity. Chudacoff (2007) identifies place, things, and time as three societal changes that impact children's play. The place changes include a gradual, long-term shift from informal, natural play spaces to contrived playgrounds and play within the home. Toys have shifted from homemade and improvised to educational, manufactured, and electronic. Time devoted to children's play has fluctuated over the past century and common barriers limiting play today include safety concerns such as stranger danger, crime, and traffic (Brown & Patte, 2013), eroding social capital (Putnam, 2001), increasing time spent in school, and an overemphasis on structured sporting and club activities (Patte, 2009).

In the recent past, children had intimate working knowledge of their local communities. In their seminal text, *Children's Games in Street and Playgrounds*, folklorists Iona Opie and Peter Opie (1969) document that children prefer quiet and natural spaces to engage in play beyond the watchful eye of adults. Today the roaming hordes of children that once filled the local streets and neighborhoods are much diminished. Children, like an endangered species, now find refuge in the safety of their houses and through participation in a variety of organized activities and sports. These changes did not occur overnight nor recently, rather they have become the norm over time and the social restrictions imposed on children in all four countries have highlighted and disrupted the current 'norms'.

Traditional play, modern play, and globalization

The rhetoric from Europe, North America, and Australia is that children no longer know how to play (Brinton, 1985; Carpenter, 2001; Factor, 2001; Opie, 2001) which suggests that children simply sit around bored, or ‘played solitary games on their computers’ (Opie & Opie, 1997, p. 9). As child folklorists have been highlighting for decades, this rhetoric is not new. However, the persistence of this rhetoric has allowed it to acquire the status of a traditional belief (Opie & Opie, 1969); the only change is the reason given for the supposed decline across time and space and the persistent belief among adults that their ‘play’ in childhood was better.

Bishop and Curtis (2001) argue that the notion of traditional games has become intertwined with the concept of tradition. Does the concept of traditional games in popular culture connote a repertoire of play activities known to have a long history, OR is it more to do with adults viewing the games they played as children as now being ‘traditional’ from their adult perspective? Somehow the play activities with a long history are perceived to be of value precisely because they have been passed on from one generation to the next. Hidden within this view is the assumption that ‘tradition’ is, by definition, ‘good, positive, valuable, and desirable’ (Bishop & Curtis, 2001, p. 11). We suggest that equally hidden within this view of ‘tradition’ is the assumption that newer forms of games and play activities are not good, positive, valuable, or desirable.

Parental presence and indoor play

Parents enable and facilitate school-age children’s play through providing resources such as toys and space, arranging playdates, granting permission to play outside the home, and by engaging in joint play. Pearce, Page, Griffin, and Cooper (2014) found that British 10 to 11-year-old children were most often with a parent or alone indoors in the period after school, but time outdoors was spent with friends, suggesting opportunities exist for children to engage in cooperative play with parents. Much parenting research has been conducted through a matrifocal lens (Higham, 2017); and this is echoed in research on cooperative play between parent and child (Adamsons & Buehler, 2007) which predominantly focuses on infants and preschool children. Waldman-Levi, Grinon, and Olson (2019) found mothers regarded cooperative play as central to their lives but perceived fathers as having less time to engage in cooperative play.

The impact of lockdown may counterintuitively have reduced opportunities for cooperative play and parents’ mediation of play more generally. There is evidence that parenting responsibilities during COVID-19 reduced the time available to spend with children in non-school activities (Office for National Statistics, 2020). Whilst there is early evidence that home-schooling impacted maternal employment more than paternal employment (Berkhout & Richardson, 2020), there is also evidence that fathers were more involved in home-schooling, childcare, and play in Italy (Mangiavacchi, Piccoli, & Pieroni, 2020). However, evidence from the United States and the United Kingdom suggest that mothers bore greater responsibility (Anders, McMillan, Sturgis, & Wyness, 2020). It is of note that the majority of parental respondents in our study from all four countries were mothers.

Play and digital technologies

Children born in the last two decades were labelled by societies as ‘digital natives’, the ‘Net Generation’, and ‘Generation Z’ and these labels emphasize the importance of technology in their lives globally. Prior to COVID-19, the presence of digital technologies in the lives of children and parents was expanding and diversifying with people spending more time online than ever before. Internet penetration in Ireland, Italy, the United Kingdom, and the United States in January 2020 ranged from 82% to 96% of the respective populations, whilst social media penetration was between 58% and 70% and the number of mobile connections was equivalent to 97%–133% of each country’s population. Yet, Erdogan, Johnson, Dong, and Qiu (2019) found digital play was the least preferred type by parents of young children (Blum-Ross & Livingstone, 2016; Nikken & de Haan, 2015).

The children and adolescents who took part in this study were enmeshed with new technologies. Since the onset of varying social distancing measures across Ireland, Italy, England, and the United States, existing networks of digital technologies and platforms have enabled some form of routine for children (e.g. online schooling). Holmes and Burgess (2020) correctly point out that lockdowns have served to underscore our dependence on virtual means of staying in touch, which is also true for parents. Acknowledging the multitude of digital technologies, this paper focuses on those relevant to children and adolescents’ indoor play as identified within the research findings such as television, Netflix, the Internet, YouTube, WhatsApp, TikTok, and Zoom.

Television and Netflix

Over the decades, the research literature on children’s TV screen usage and TV and sedentary lifestyles has become enormous. Television is simultaneously viewed as ‘national’ and ‘transnational’, the latter defined simply by Ramon Lobato as the ‘propensity for television distribution systems to cross one or more national borders’ (Lobato, 2019, p. 50). Netflix occupies the same national and transnational space, children and adolescents in all four countries are exposed to some of the same films, documentaries, and TV series, making the global ‘local’ and the transmission of children’s entertainment and culture international.

Youtube, WhatsApp, and TikTok

Burgess and Green (2009) state that YouTube is a platform for children and adolescents’ screen time and an alternative to traditional television content (Watson, 2019). In the United States, 81% of parents allowed their children under the age of 11 to watch YouTube (Pew Research Center, 2018) and content featuring video games are the most-viewed genres (18% of all videos) (Pew Research Center, 2019). WhatsApp is a mobile-based instant messaging application and a social networking platform that enables children and adolescents to exchange text and voice messages, photos, video clips, and communicate with each other privately or in groups via the internet (Aizenkot & Kashy-Rosenbaum, 2018). One of the most significant advantages of WhatsApp to children is that it is free to use. TikTok was the most downloaded

application in 2020 (Financial Times, 2020). TikTok rose to global prominence in 2019 and is now one of the fastest growing short video platforms in the world (Bondy Valdovinos Kay et al., 2020) and very popular with children. It features short videos, largely composed of user-generated content.

Indoor play during the pandemic

As a result of the COVID-19 Pandemic and stay-at-home mandates, parents focused on keeping their families entertained and toy sales surged (Fickenscher, 2020; Nam, 2020). In the U.S.A., overall toy sales in the first quarter of 2020 rose by 26% compared to the same period in the previous year (NPD, 2020). The main impetus for this change was unsurprisingly, the school closures in March 2020 and the move to online learning. In particular, arts and crafts and educational toy sales increased in the United States (Choi, Tessler, & Kao, 2020) and in the United Kingdom (Bu, Steptoe, & Fancourt, 2020). According to the NPD (2020), during the first global lockdown, parents turned to games and puzzles more than any other toy category (37%) in the G12.² Other categories experiencing growth were: Outdoor & Sports Toys (27%), Building Sets (14%) and Arts & Crafts (11%). Even UNICEF (2020), whilst being extremely careful not to promote bought toys for indoor play, did promote drawing and the use of crayons. We can clearly see how the toy industry has already incorporated the COVID-19 Pandemic into their toys, for example, Fisher-Price is promoting their *My Home Office Set* (toy laptop, smartphone, headset, and coffee cup) which is marketed as enabling children to imitate their parents who are working from home. The VTech KidiZoom Studio also saw increased sales with a similar marketing strategy (USA Today, 2020).

Methodology

To identify the impact of COVID-19 restrictions on children's play and friendship groups, in late May 2020 the research team launched an online survey named 'Impact of Coronavirus Restrictions on Children and Young People's Ability to Maintain their play worlds and friendship groups'. The questionnaire was developed in English and translated into Italian by CB, DB, and M-JE. Both parents and children could respond to the questionnaire; the survey included closed and open-ended questions, 30 for children from 10 to 18 years, and 36 for adults taking care of children from 4 to 14 years. The questionnaire was anonymous and general information about socio-demographic characteristics of children and parents was asked. Data were collected for two weeks during phase one of the COVID-19 Pandemic when restrictions were easing in Ireland; in May and June 2020, for three weeks during an easing of restrictions in Italy; in July 2020 for three weeks in England; and in July 2020, for three weeks in the U.S.A. Ethical approval for conducting the study was granted from each research team member's university across Ireland, Italy, and England. In the U.S.A. the project was promoted through School District contacts as the study had already received ethical approval from three European countries. In total, there were 1935 participants (1670 parents and 265 children) (Table 1).

Children and parents were asked to report any changes in children's play or leisure activities in the home during the COVID-19 lockdown with the question: 'Please indicate if you or/your child is doing less or more of these activities than usual'. Respondents were

Table 1. Children's characteristics by country and type of informant.

Country	Parent's responses			Children's responses*		
	Age range, average (SD)	N whole sample (girls)	N children with disabilities	Age range, average (SD)	N whole sample (girls)	N children with disabilities
Ireland	4–13 years, 7.60 (2.6)	1079 (561, 52.0%)	108 (10.0%)	10–18 years, 12.16 (2.3)	178 (97, 54.5%)	17 (9.6%)
Italy	3–13 years, 7.68 (2.7)	497 (236, 47.5%)	29 (5.8%)	10–18 years, 13.73 (2.4)	75 (29, 38.7%)	5 (6.7%)
United Kingdom	4–13 years, 8.05 (2.4)	43 (26, 60.5%)	8 (18.6)	10–18 years, 14.1 (3.6)	7 (5, 71.4%)	1 (14.3%)
United States of America	4–14 years, 9.79 (2.6)	51 (19, 37.3%)	6 (11.8%)	10–17 years, 13.8 (3.1)	5 (2, 4.00%)	1 (20.0%)

asked to indicate if they were doing less, the same, or more (3-point Likert scale) than usual of 14 different activities to reflect play preferences of children and adolescents. There is no universal agreement on gender-neutral play activities; however, a review of numerous research studies on boys' and girls' play preferences informed the categories of activities selected for inclusion in the survey question (these activities are listed in Table 2).

Data analysis

Percentages of the responses about changes in the time spent in play activities were reported for the whole sample including the four countries. Given that the sample subgroups differed in size, the non-parametric tests (with Monte Carlo exact test) were used to detect differences among subgroups. Differences by gender were analyzed comparing the two biggest subsamples from Ireland and Italy: first, the Chi-squared test was run to check if the distribution of boys and girls differed in the two countries; then, the Mann-Whitney test was used to check the differences in play by gender. Differences in play activities due to parents' presence in the home (a categorical variable with three options) were analyzed in the whole sample using the Kruskal-Wallis test.

Table 2. Changes in play activities during the pandemic.

Type of activity	Child's responses (age 10–18 years)	Parent's responses (age 4–14 years)
	<i>More than before</i>	<i>More than before</i>
Playing cards or board games	30.2%	49.3%
Doing jigsaws	21.1%	29.7%
Playing with toys (cars, dolls, LEGO, etc.)	38.2%	54.3%
Doing arts and crafts	53.6%	55.3%
Drawing / painting	48.3%	49.8%
Reading for pleasure	41.3%	37.7%
Just hanging about	62.6%	59.3%
Watching TV / Netflix / films	76.1%	72.2%
Watching YouTube videos	67.4%	68.7%
Playing video/ computer games or apps	70.2%	65.9%
Browsing the web	59.5%	50.1%
Listening to music	54.4%	41.8%
Posting content online (TikTok, Instagram) or vlogging	45.5%	41.8%
Using Zoom (or similar)	84.8%	87.8%
Another activity not already mentioned	59.6%	49%

Findings

Across all four countries parents reported that during the pandemic their children aged 4–14 years spent more time than before engaged in the following activities: just hanging about (59.3%), doing arts and crafts projects (55.3%) (see [Figures 1 and 2](#)), playing with toys (54.3%), and drawing/painting (49.8%) (see [Figure 3](#)). Children aged 10–18³ years reported that, during the pandemic, they spent more time than before engaged in the following activities: just hanging about (62.6%), doing arts and crafts projects (53.6%), and drawing/painting (48.3%).

In relation to digital technologies/internet/social media, parents reported that during the COVID-19 lockdown, their children aged 4–14 years spent more time than before engaged in the following activities: taking part in Zoom (87.9%), watching television/Netflix/films (72.2%), watching YouTube clips (68.7%), and playing video or computer/application games (65.9%). Children aged 10–18 years reported that, during the pandemic, they spent more time than before engaged in the following activities: taking part in zoom (84.8%), watching television/Netflix/films (76.1%), playing video or computer/application games (70.2%), watching YouTube clips (67.4%), and listening to music (54.4%). Even the children's drawings focused on computer or video game characters (see [Figure 4](#)).

The pictures produced by children and parents were similar, with the exception of playing with toys, playing cards, or board games. The children's average age varied between the two samples; thus, this result was not surprising. Artistic play such as arts and crafts increased by 55.3% in the 4–14 age group and 53.6% in the 10–18 age group. This indoor play activity had the highest increase for both age groups once you exclude just hanging about (59.3% increase in 4–14 age group and 62.6% in 10–18 age group). Drawing and painting increased by 49.8% in the 4–14 age group and 48.3% in the 10–18 age group. Again, the picture painted by parents and children in relation to digital technologies/internet/social media was broadly similar. Using Zoom (or similar conferencing platforms) had the highest increase for both age groups (87.8% in the 4–14 age group and 84.8% in the 10–18 age group). Much of this may be attributed to online learning during the COVID-19 lockdown and zoom 'get togethers'. Watching



Figure 1. Arts and Crafts (Ireland).



Figure 2. Arts and Crafts (Italy).

TV/ Netflix/films saw the next highest increase across countries and age cohorts 76.1% in the 4–14 age group and 72.2% in the 10–18 age group.

Parental presence in the home across the four countries

Overall, there was a high percentage of parental presence in the home during the COVID-19 lockdown (75.2% in the whole sample), that varied markedly across the four countries, with Ireland having 86.9%, the U.K. (69.2%), Italy (52.6%), and the United States (52.9%). Increased parental presence in the home may well have impacted the indoor play activities of the children cross-culturally and the levels of cooperative play with parents. To check this hypothesis, we crossed the parent's status, which was re-coded into working at home, working outside the home, and not working, with the play activities of children. The Kruskal–Wallis non-parametric test (with the Monte Carlo exact test) showed that



Figure 3. Drawing (Italy).



Figure 4. Video game character.

significant differences were present for the activities playing cards or board games, playing with toys, doing arts and crafts, reading for pleasure, just hanging about, playing video/ computer games or apps and using Zoom (Table 3).

We asked parents what caused the most difficulty in assisting their child to play and similar themes emerged across all four countries. As an example, four participant mothers identified lack of time as a barrier to their active participation across certain activities during the COVID-19 lockdown. A mother from Italy shared, ‘working from home and having to take care of household chores like shopping, lunch, dinner, and

Table 3. Play activities by parent’s availability at home (parents’ responses; children’s age 4–14 years).

Type of Play Activity	Parent working at home <i>More than before</i>	Parent working outside the home <i>More than before</i>	Not working parent <i>More than before</i>	Kruskal-Wallis test: Monte Carlo exact test
Playing cards or board games	68.8	47.4	42.9	$p = .001$
Doing jigsaws	29.6	27.3	30.7	$p = .337$
Playing with toys (cars, dolls, LEGO, etc.)	57.7	48.6	53.3	$p = .003$
Doing arts and crafts	57.9	49.2	55.2	$p = .018$
Drawing / painting	51.5	47	48.3	$p = .149$
Reading for pleasure	44.1	33.7	29.3	$p < .001$
Just hanging about	63.3	52.9	58.2	$p = .003$
Watching TV / Netflix / films	74.5	67.4	72	$p = .050$
Watching YouTube videos	68	65.8	72.6	$p = .126$
Playing video/ computer games or apps	68.5	59.4	67.8	$p = .014$
Browsing the web	49.8	48.8	51.4	$p = .538$
Listening to music	42.6	41.9	38.9	$p = .471$
Posting content online (TikTok, Instagram) or vlogging	39.8	39.7	50	$p = .193$
Using Zoom (or similar)	90.4	81.9	87	$p = .002$
Another activity not already mentioned	57.5	32.3	49.7	$p < .001$

cleaning kept me from dedicating the time needed for homework and play’. A mother from Pennsylvania shared similar sentiments, ‘I am in nursing school and don’t have the time to help her find things to do’. In Ireland a busy mother stated that there is ‘no time for parents to play with work, housework, and schoolwork to check’. Finally, a mother from England lamented that ‘work demands from home and juggling work and home-schooling as well as encouraging them both to play and enjoy this time they have been given has proven to be a challenge’. Thus the levels of cooperative play with parents did not increase in the early stage of the pandemic due to the multiple roles parents found themselves engaged in (increased parental working from home, online schooling), as opposed to any cultural differences between the four countries.

Commonalities in gender differences – between Ireland and Italy

The non-parametric Chi-squared test (with Monte Carlo exact test) was run to check if the distribution of boys and girls differed by countries. No differences were detected in the subsample of the 4–14 age group ($\chi^2 = 6.98, p = .074$). Differences were present in the subsample of the 10–18 age group ($\chi^2 = .27, p = .020$), as a lower number of Italian girls were represented. Subsequently, differences by gender in play activities were analyzed in the whole group of children aged between 4 and 14 years and also separately by country in the group of children aged between 10 and 18 years. Given the nature of the variable used to measure the changes in play activities (a categorical variable with three options), the non-parametric Mann–Whitney test (with Monte Carlo exact test) was used to check the differences in play by gender. According to their parents (see Table 4 for the general results), girls and boys between 4 and 14 years of age differed in the way they adapted their play activities during the pandemic. Compared to boys, girls spent more time doing arts and crafts ($Z = -6.32, p < .001$), drawing and painting ($Z = -6.13, p < .001$), and listening to music ($Z = -2.97, p = .004$). The p level is also very close to significant for doing jigsaws and playing with toys. Compared to girls, boys spent more time during the pandemic reading for pleasure ($Z = -1.96, p = .047$), playing video games, computer games, or applications ($Z = -3.18, p = .002$).

Table 4. Difference by gender in the percentage of parents’ responses to the question ‘Please indicate if your child is doing less or more of these activities than usual’ (child’s age 4–14 years).

Type of activity	Girls	Boys	Mann–Whitney test;
	<i>More than before</i>	<i>More than before</i>	Monte Carlo exact test
Playing cards or board games	36.5	45.5	$p = .684$
Doing jigsaws	42.9	22.9	$p = .052$
Playing with toys (cars, dolls, LEGO, etc.)	25	16.7	$p = .052$
Doing arts and crafts	56.6	10.5	$p < .001$
Drawing / painting	48.1	11.1	$p < .001$
Reading for pleasure	39.7	44.2	$p = .047$
Just hanging about	56.7	52.3	$p = .724$
Watching TV / Netflix / films	73.8	78.7	$p = .474$
Watching YouTube videos	78.6	79.6	$p = .240$
Playing video/ computer games or apps	68	80.9	$p = .002$
Browsing the web	65.5	60	$p = .768$
Listening to music	63.8	53.3	$p = .004$
Posting content online (TikTok, Instagram) or vlogging	57.1	48.1	$p = .092$
Using Zoom (or similar)	88.2	75	$p = .089$
Another activity not already mentioned	56.3	50	$p = .138$

According to the children, girls and boys between 10 and 18 years of age differed in the way they adapted their play activities. Table 5 shows the general results, unified by Italy and Ireland. There, significant differences between boys and girls are present in doing jigsaws, arts and crafts, drawing/painting, just hanging about, and playing video/computer games or applications. Yet, given that the two groups differ by gender distribution, we cannot separate the effect of gender from the effect of culture. Thus, we have also reported the analyses within each country. In Italy, compared to boys, girls spent more time drawing and painting ($Z = -297$, $p = .003$), and reading for pleasure ($Z = -3.25$, $p = .001$). In Ireland, compared to boys, girls spent more time doing arts and crafts ($Z = -2.10$, $p = .039$) and drawing and painting ($Z = -2.82$, $p = .006$). Compared to girls, boys spent more time during the pandemic playing video games, computer games, or applications ($Z = -2.57$, $p = .012$). Thus, parents' views and children's views are mostly the same despite the age difference.

Indoor play as a coping mechanism

Both children and their parents expressed mental health disturbances caused by the pandemic as described in the literature review (see Cusinato et al., 2020; Lee, 2020; Orgiles et al., 2020; Pisano, Galimi, & Cerniglia, 2020; Sprang & Silman, 2020; Trickey et al., 2012; Wang et al., 2020). A 16-year-old girl from Pennsylvania, tells us she feels 'Anxiety, and I don't like to go outside, it scares me'. This is echoed by parents cross culturally as this mother from Italy explains, 'I have struggled and still struggle to convince him to leave the house'. In Ireland, a mother explains the impact of school closures on her child

... she has expressed feeling of sadness, loneliness and missing her friends and school so much. She was a happy positive easy-going child and now she is fearful, easy to anger, anxious and hard to engage in activities she used to enjoy.'

Finally, this mother from England says her child is "Very anxious at the minute, nightmares, having accidents, scared of germs. Missing social interaction'.

Table 5. Difference by gender in the percentage of children's' responses to the question 'Please indicate if you are doing less or more of these activities than usual' (child's age 10–18 years).

Type of activity	Girls <i>More than before</i>	Boys <i>More than before</i>	Mann–Whitney test; Monte Carlo exact test
Playing cards or board games	33.9	26.5	$p = .372$
Doing jigsaws	26.9	14.3	$p = .028$
Playing with toys (cars, dolls, LEGO, etc.)	33.7	41.6	$p = .654$
Doing arts and crafts	63.4	41.5	$p = .003$
Drawing / painting	61.4	32.3	$p < .001$
Reading for pleasure	44.6	38.1	$p = .229$
Just hanging about	69.2	56.7	$p = .048$
Watching TV / Netflix / films	79	73	$p = .219$
Watching YouTube videos	65	69.5	$p = .499$
Playing video/ computer games or apps	60.7	78.7	$p = .002$
Browsing the web	63.3	55.4	$p = .183$
Listening to music	55.7	52.5	$p = .440$
Posting content online (TikTok, Instagram) or vlogging	48.1	41.5	$p = .415$
Using Zoom (or similar)	88	81.4	$p = .182$
Another activity not already mentioned	33.9	26.5	$p = .372$

Many of the children spoke about indoor play during the first wave of the pandemic as occupying time ‘I drew a lot during the lockdown times to occupy me’ (Boy aged 14, Dublin, Ireland). The use of technology indoors did help children to maintain their friendship groups and socialize with peers as this mother from England explains when she ‘set up Skype with her friend in the estate. [housing development] Since we have moved to social distance playdates in our garden or theirs or crafts and games. The girls have contact and chat frequently’. However, technology could also have negative impacts as ‘getting him off of video games’ was the most difficult part of the lockdown for this mother from Pennsylvania, U.S. Nevertheless, it was overwhelmingly outdoor play that was directly perceived as helping her child to cope as this mother from London, England explains, ‘Taught her to ride her bike. Eventually I could run next to her while she pedalled. Then I got exercise and so did she. It was an efficient use of our limited time and helped manage stress levels’. A girl (aged 17) from Puglia, Italy similarly explains ‘dancing in the garden makes me happy’. The presence of friends to play and socialize with clearly helped children to cope and maintained their resilience as a mother from Pennsylvania, U.S. tells us ‘The neighborhood kids all came outside their houses, stayed in their family groups and they could talk in person. That was nice’. Similar responses came from other parents internationally,

I asked her school friend to meet us for a walk in a park socially distancing - the difference has been unbelievable, she’s [daughter] in much better form and now we have agreed on our road that they must meet every day as they are enjoying this so much but do find the not hugging and standing away from each other weird. (Mother, Ireland)

Discussion

Our findings suggest that during the first COVID-19 wave from March 2020, children spent more time participating in play activities such as doing arts and crafts, drawing and painting, playing with toys, and playing cards or board games. This is also confirmed by the significant shift in parental spending habits as outlined earlier in the paper.

The rhetoric that ‘children do not know how to play anymore’ (Brinton, 1985; Carpenter, 2001; Factor, 2001; Opie, 2001) seems misguided given our data highlights increases, across genders and countries, of traditional forms of play such as board games, drawing and painting, and playing with jigsaws. Davis and Hines (2020) suggest that cross-cultural similarities may be explained by the sameness of industrialization, wealth, education, media access, democracy, and gender equality. However, whilst the children may have similar toys and understand the dominant social stereotypes surrounding these toys, we argue there is also a connection to parental instincts to turn to the known, the familiar, the traditional in times of crisis, as evidenced by the increased sales in these play objects at the beginning of the COVID-19 Pandemic. The traditional and familiar serves to give a feeling of control to parents and indeed children, in situations where control is absent or minimized. This was also mirrored in parental purchases of films that generate a sense of nostalgia and familiarity; the most popular titles during the COVID-19 lockdown were *The Wizard of Oz* and *E.T.*

Results from this study also showed that there were minimal differences in play activities when parents were in the home during the periods of social distancing. This may highlight the socio-economic differences, if one assumes that working parents have on average higher levels of disposable income. Alternatively, it is becoming more and more evident that parental role strain during periods of social distancing was highly impactful on parents across all four countries. Parents (predominantly mothers) had to take on multiple new roles while working from home, for example, home schooling on top of their normal parental roles, leaving them time poor for play with their children.

There is a similarity of activities and the time devoted to these activities between boys and girls participating in this study. A significant reason for this finding, we argue, is because of the globalization of play activities and gendered behaviors. However, there are noticeable differences also. In both Ireland and Italy, girls undertook more creative and artistic play including arts and crafts activities, drawing, and painting. Boys in both countries spent more time on computer and video games. This latter finding echoes previous research dating back through the decades that boys spend more time playing video games than girls (Chien & Tsai, 2007; Mavoa, Carter, & Gibbs, 2018; Sanger, Willson, Davies, & Whittaker, 1997).

In recent decades we have seen the emergence of the ‘death-of-TV’ rhetoric (Chulkov & Nizovtsev, 2015; Gilder, 1994; Hardenbergh, 2010). Toby Miller (2010) persuasively argues against the ‘death-of-TV’ rhetoric and is highly critical of the assumption that ‘the grand organizer of daily life over half a century has lost its pride of place in the physical layout of the home and the daily order of drama and data’ (Miller, 2010, p. 11). The findings of this research study support Miller’s arguments as TV viewing and Netflix saw the highest increase for children across both age cohorts during the COVID-19 Pandemic. Matrix (2014) informs us that, as it becomes more culturally permissible, children (but also adults) are experimenting with and enjoying binge viewing, chiefly on Netflix, where marathon spectatorship is not only encouraged but is the default consumption mode. Binge viewing and Netflix are becoming synonymous, especially for young viewers in the present day.

Woodgate (2020) suggests that parents are less concerned about the increase in their children’s screen time because they are on their own screens (working from home, entertainment, etc.) and so worry about seeming hypocritical. Children play in a digital universe that can combine toys, media characters, and everyday consumer goods with games, applications, and websites (Goldstein, Buckingham, & Brougere, 2008) in unification of childhood play cultures (Wohlwend, 2017), digital literacies (De Veirman, Hudders, & Nelson, 2019), and consumer practices (Buckingham & Tingstad, 2010). We support the view of Livingstone and Drotner (2011) amongst many others that children play a pivotal role in contemporary processes of mediatized globalization.

Limitation of the study

A first limitation of our study is that we did not measure the reliability of the parents’ answers but we know from the literature that parents are reliable when describing play or physical activity in the home and outdoor locations (e.g. Dodd, Nesbit, & Maratchi, 2021; Hinkley, Salmon, Okely, Crawford, & Hesketh, 2012; Veitch, Salmon, & Ball,

2009). The sample size across all four countries varied, however, the participants belong to a convenience sample and it was a purposeful decision to maintain the data from all four countries because we value the opportunity to show the insight and experiences of both children and parents in the early phase of the pandemic from an international perspective. The countries selected were a convenience sample as already indicated and this was because of the authors international network of colleagues. In retrospect, people may assume that children had more time for indoor play during the early part of the pandemic and we did not ask a question about this issue in the survey. However, children were still receiving full-time education during the period in which the survey was conducted; therefore their physical time was controlled albeit in a differing and new form - online learning. We could not, therefore, prove whether children were spending less time in education and therefore we cannot take the stance that children had more time to play as a starting point during this specific time frame.

Conclusion

The global COVID-19 Pandemic significantly restricted children's access to the outdoors and increased their time indoors and indeed their indoor play. This is a unique snapshot in time, never before experienced globally. The children in this study are 'playing' in Ireland, Italy, England, and the United States, in this particular cultural-historical moment. The notion of 'children's play culture' refers to children's own play and cultural activities, with its own unique folklore and rituals (Opie & Opie, 1969). Whilst all four countries involved in this study implemented social distancing measures, they varied from country to country across 2020 and 2021. Note this child's representation of social distancing in [Figure 5](#) below. Children appropriate, reproduce, and reinvent cultural and societal information; they do not simply internalize the society and culture in which they are growing up; rather they are actively contributing to cultural production and change, as well as adapting and internalizing the same information. Children also used differing play forms as coping mechanisms as demonstrated in this image.

In a time of uncertainty and crisis, we saw a strong return to traditional indoor play activities (arts and crafts, games, puzzles) for parents and children who take comfort in the known, the ordinary, the mundane. Searching for ways to keep involved in play during the pandemic could have further encouraged the passage of traditional games and activities from parents to children, from one generation to the next, as many parents felt the responsibility to support their kids' play, while outdoor activities were forbidden.

Children are not the focus of the COVID-19 pandemic and minimal research has examined the impact of epidemics and pandemics on children's mental health previously. The closure of schools, cessation of after school activities and inability of children to socialize with their peers presented a range of psychological difficulties and challenges to children's resilience within 2–3 months after the commencement of quarantining, within all four countries. Children felt fearful, unhappy, anxious, stressed, and displayed behavioral problems. Solitary play, traditional play with board games, arts and crafts gave children and their parents a sense of control in a situation without control. Technology enabled children to stay in contact with their peers and maintain normal peer relationships as far as possible whilst indoor play (traditional



Figure 5. Social distancing represented in children's play.

and modern), may have helped children's resilience in this time of crisis. It is noteworthy however that children and parents predominantly identified outdoor play activities as supporting their mental health.

The wide acceptance and use of labels like 'digital native' and 'Generation Z', whilst popular is not unproblematic, as it assumes access to digital network and platforms for all children and ignores pre-existing digital exclusion associated with socio-economic factors (Holmes & Burgess, 2020) which were further compounded by COVID-19 and the subsequent parental job losses. This is not reflected in these findings as the countries included in the survey are all rich nations with high internet penetration. In the context of global lockdowns, online digital play provides valuable opportunities to connect with

others for parents and children but may also invoke conflict regarding access to devices and competition for WIFI bandwidth with parents working at home.

Media culture produced directly for children's play and entertainment, from children's TV programmes to the marketing of licensed merchandise globally, constitutes one of the fastest developing areas of media globalization (von Feilitzen, 2002). Cultural boundaries continue to be transcended; and the COVID-19 pandemic has escalated this process for children in relation to their use of ICT for play. The parental 'world view' of digital play and technologies tends to focus on negatives, as do child health professionals' concerns that digital play may lead to sedentary lifestyles and musculoskeletal problems (Howie, Coenen, Campbell, Ranelli, & Straker, 2017), obesity (Bel-Serrat et al., 2013), anxiety and depression (Hoge, Bickham, & Cantor, 2017), negative cognitive and emotional effects (Brown, 2011) and sleep disturbances (Levenson, Shensa, Sidani, Colditz, & Primack, 2016). However, digital technologies and digital play did act as coping mechanisms for children by enabling some form of routine for children in relation to their education and indoor play opportunities. We argue that digital technologies are not all good, nor all bad. Rather, they are simultaneously both and we call for a broader range of perspectives when examining the role of technologies in children's play worlds moving forward. In conclusion, the COVID-19 Pandemic triggered similar 'lock-downs' and social distancing restrictions in each country. This largely created very similar impacts on play behaviors and activities in each developed country, irrespective of culture, the globally did indeed become 'local'. Moreover, playing in 'safe settings' such as the home environment, may have helped to build resilience and to enhance protective factors in children's lives as opposed to a demonstration of global homogeneity.

Notes

1. To avoid repetition and duplication, the term 'Children' is used throughout this paper to denote a child between the ages of 4–18 years who were the subject of this research project.
2. The G12 is a group of industrially advanced countries whose central banks co-operate to regulate international finance. It comprises of Australia, Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom, and United States.
3. Children required literacy skills to undertake the questionnaire and therefore, 10 years was the youngest age in which one might expect children to have acquired these skills sufficiently to undertake the questionnaire

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No potential conflict of interest was reported by the author(s).

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