

MuseumsForward

Understanding adult play and wellbeing in children's museums

Gillian H. Cobb

Abstract

Play is a powerful learning agent for children, and many children's museums are built around this belief. While play has proven health benefits for adults, it is still understudied and underutilized. This study looks at the influence of adult and family play in children's museums on adult wellbeing. Using the University College London Museum Wellbeing Measures Toolkit, adults at two children's museums in the Greater Seattle, WA area were asked to rank their wellbeing during a time of play at the museum. Findings suggest that a majority of adults were able to engage in play during their experience and that their play experiences did generally have a positive influence on wellbeing. These findings suggest that by successfully fostering and facilitating play and family engagement, children's museums can positively impact adult wellbeing.

Keywords

Wellbeing; adults; play

Committee Chair

Meena Selvakumar

Committee Members

Amanda Wilkening; Jessica Luke

Accepted:

Published:

Introduction

The COVID-19 pandemic has deprived adults of physical and social interaction, causing adverse effects on mental health, especially for caregivers of children and adolescents (Cullen, 2020; Chafouleas, 2020). About 21% of Americans are experiencing high psychological distress due to COVID-19 (Keeter, 2021). A national survey completed in October of 2020 found that 27% of parents reported mental health decline (Patrick et al., 2020). In a time where stress and anxiety are abundant, playtime has been cited as an essential catalyst in relieving stress (Clay, 2020). The importance of play on mental and social well-being and learning has been proven for children and adults. Adult playtime has been proven to reduce stress, improve brain function, and improve relationships and social skills (Robinson et al., 2020).

Play is recognized as a valid form of child learning, and many children's museums are centered around this fact. While play-based museum activities are often silly and fun, it is an engaging avenue for children to develop skills and foster connections with others (Boston Children's Museum, n.d.). Play and its impact on children is well studied, and it has been found it promotes problem-solving, creativity, cognitive and language development, discovery, cooperation, social skills, reasoning, and gross and fine motor skills (Hurwitz, 2002). In light of the additional stress that adult caregivers of children have experienced during the pandemic, there is another opportunity to understand how play activities can also support the wellbeing of the adults who accompany children at these museums. This research study aims to examine the role of museum-based play experiences on adults in children's museums on their wellbeing.

Literature Review

COVID-19 and Stress

The COVID-19 pandemic has deprived adults of physical and social interaction, causing adverse effects on mental health (Cullen, 2020). Lack of social connection and interaction profoundly lowers both physical and mental health, and research shows that loneliness increases the probability of premature death by 26% (Tonkin, 2021). In one international study looking at the impact of COVID-19 on mental health, it was found that 60% of the sampled population suffered from low to moderate mental health. The same study also claimed that social support was the biggest protective factor against stress during the pandemic (Gloster et al., 2020). A 2020 research study suggests that caregivers of children and adolescents experienced poorer mental health, increased stress, and reduced income due to the COVID-19

pandemic, with caregivers indicating that because of COVID-19 their psychological worry had increased, and their opportunities to participate in self-care decreased. The same study also described caregivers to children with developmental disabilities experienced markedly higher levels of depression, anxiety, and stress (Chafouleas & Iovino, 2020). In their book *Stress, Appraisal, and Coping*, Lazarus and Folkman defined psychological stress as “a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984).

Pathways to Wellbeing

With stress levels high in part due to the COVID-19 pandemic, the pursuit of wellbeing has become increasingly important. Wellbeing is often defined as “the combination of feeling good and functioning well; the experience of positive emotions such as happiness and contentment as well as the development of one’s potential, having some control over one’s life, having a sense of purpose, and experiencing positive relationships” (Ruggeri et al., 2020). Across studies, wellbeing has been linked to success on the personal, professional, and interpersonal levels, and also leads to better productivity, more effective learning, positive relationships, greater prosocial behaviors, and increased levels of creativity (Ruggeri et al., 2020). Ryff’s research suggests that wellbeing is multidimensional, and not just about positive emotions, and splits wellbeing into six core dimensions. These categories are self-acceptance, personal growth, autonomy, purpose in life, environmental mastery, and positive relationships (Ryff, 2013). Ryff’s framework for wellbeing incorporates meaning-making. This eudaimonic approach to wellbeing has been used in clinical practice and scientific inquiry across fields as a tool to “evaluate people’s negotiations through the challenges and transitions of adulthood and aging” (Ryff, 2013). Similarly, Falk argues that achieving a sense of wellbeing is of importance to people and that attaining wellbeing “allows a person to feel like they have lived a satisfying and successful life” (Falk, 2021).

Museums: Frameworks for Stress to Wellbeing

As institutions that promote curiosity and exploration, museums have a role to play in enhancing wellbeing. Epidemiological surveys in the UK, Sweden, Norway, and the United States “have demonstrated strong

positive correlations between cultural activities and health” (Camic & Chatterjee, 2013). Cultural activities include visits to museums. Much of the current research on museums and wellbeing is focused on art institutions. A 2010 study found that viewing art in a museum had a positive impact on wellbeing and anxiety (Binnie, 2010). Since then, many museums and heritage sites have realized and embraced their role as spaces of healing and have begun health promotion programs to serve their social role in health and wellbeing (Camic & Chatterjee, 2013). Silverman argued that museums can contribute to the pursuit of health in five ways: they can promote relaxation, which is beneficial to both physiology and emotions, and encourage introspection, “... a process of understanding one’s feelings and thoughts that is essential to mental health,” foster health education, serve as public health advocates, and address social conditions through public health advocacy (Silverman, 2010). Museum-goers have increasingly reported that a key benefit to their museum experience is the short-term “fix” for “tamping down the stresses of modern life” (Falk, 2021). Museums operate within the paradigm of meaning-making. This paradigm aligns with Ryff’s framework and “illuminates the visitor’s active role in creating meaning of a museum experience through the context he/she brings, influenced by the factors of self-identity, companions, and leisure motivations,” allowing visitors to create their own sense of meaning and significance during their visit (Silverman, 1995). The UCL Museum Wellbeing Measures Toolkit produced by University College London and Museums & Public Engagement has set scales of measurement that are used to assess levels of wellbeing from museum and gallery attendees (Thomson & Chatterjee, 2013)

Stress and Play

Research suggests that play is also a catalyst for wellbeing. Play is often described as intrinsically motivated, open-ended, pleasure-seeking, and does not have a fixed outcome (Tonkin, 2021). This definition is used in this study due to its open-ended nature and applicability to a museum setting. Tonkin’s definition, as partially taken from Göncü and Vadeboncoeur, presents a definition that is in line with “dominant cultural perspectives,” and they later discuss the sociocultural research that shows the limitations of play research across cultures due to a limiting definition (Göncü & Vadeboncoeur, 2017). The definition of play varies across cultures. Some definitions emphasized fun in order to separate play from other intrinsically motivated activities (Van Vleet et al., 2015).

Play and playfulness are understudied within the adult subset (Proyer, 2017). Studies in psychology have shown that play has a positive impact on adults: play reduces stress, improves brain function, relationships, and social skills, and adults are then less likely to use avoidant and escape-oriented strategies in their lives (Magnuson, 2013; Qian et al., 2011). Studies have found that in both children and adults, facilitating coping and releasing tension are benefits of playfulness (Qian et al., 2011). Humans' ability to play and be playful is a chief component of sociability (Tonkin, 2021). Qian and Yarnal also observed that playful university students were likely to seek out companionship through social leisure and enhance their mood through leisure pursuits to cope with psychological stress, though it was also found that higher stress levels can subdue playfulness (Qian et al., 2011). Qian and Yarnal suggest considering how situations can influence playfulness in adults to create nurturing conditions that "bring out the benefits of playfulness more fully" (Qian et al., 2011).

Types of Play and Children's Museums

Many children's museums are centered around play and are focused on child and/or family play. In his book *Play: How it Shapes the Brain, Opens the Imagination, and Invigorates the Soul*, Brown outlines several types of play. These include object, social, pretend, storytelling, creative, and body play (Brown, 2010). Object play involves the handling and manipulating of physical objects. Social play involves interaction with others. Pretend play is acting out imagined scenarios. Storytelling play includes learning and language. Creative play allows the "imagination to transform/transcend what is known in the current state, to create a higher state" (Brown, 2010). Lastly, body play describes play based on the movement of the body and how it interacts with the world around us. These types of play are common in children's museum exhibits and have been embedded in the conceptualization of children's museums, from their architectural design to their programming and exhibits. Exhibit designer Margaret Middleton argues that children's museums "... design experiences that engage the senses, stimulate the imagination, and encourage social interaction. Experiences that engage lots of different parts of the brain are particularly personal, memorable, and enjoyable and it looks like play — because it is" (Summers, 2014). Children's museums and design firms have created spaces and exhibits with the principles of play in

mind, in order to create spaces that encourage interaction and individual meaning-making.

Adults: Motivation & Identity in Museums

Play and playfulness are not always incorporated into programming for adults in museums. This is in part due to avoid adults feeling self-conscious about playing in public. Through the aging process, adults have not lost the capacity to play, but rather have lost the spaces and opportunities to do so (Grenier, 2010). The ambiguous nature of experimentation play allows adults to make their own meanings and discoveries in a playful learning setting. A recent study from 2018 showed that adults viewed children's museums as spaces that foster positive social interactions (Dickey, 2018).

Parent-child play is beneficial not only to the child but to the parents themselves. Playing with one's child is crucial in the establishment and advancement of the parent-child relationship (Runcan, 2012). A clinical report from the American Academy of Pediatrics described it as:

Play is essential to the social, emotional, cognitive, and physical well-being of children beginning in early childhood. It is a natural tool for children to develop resiliency as they learn to cooperate, overcome challenges, and negotiate with others... It provides time for parents to be fully engaged with their children, to bond with their children, and to see the world from the perspective of their child (Milteer & Ginsburg, 2012).

The motivation(s) behind museum attendance is crucial to understanding the museum visitor. Falk outlines five types of museum visitors: 1. explorers are those who are driven by their curiosity and possess an interest in the museums content; 2. professionals/hobbyists are visitors who "feel a close tie between the museum content and their professional or hobbyist passions"; 3. experience seekers are motivated by their perception that the museum is an important destination that should be experienced; 4. rechargers are visitors seeking a spiritual, contemplative, and/or restorative experience; and 5. lastly, facilitators are visitors who are socially motivated, and their visits are mainly focused on the learning and experience of others in their social group (Falk et al., 2012). Facilitators can be split into two groups: facilitating parents and facilitating socializers. Facilitating parents are those who attended museums with children or grandchildren with the perception that learning is fun but ultimately has trouble identifying what they

learned, and facilitating socializers are those who attended a museum with another adult, where emphasis is placed on the social aspect of the visit, rather than the museum content (Duplessis, 2011). It is important to note that families do not attend with an individual agenda, but rather a group/family agenda to guide their visit (Falk et al., 2012). Adults and family members can act as mediators of group learning activities. They can act as facilitators, teachers, and group leaders during a museum visit and “use a variety of strategies to facilitate, including helping children identify the important features of an exhibit, offering explanations, making connections to prior experiences and knowledge, and asking questions” (Falk et al., 2012). These roles within a family unit, or between adult and child, are not static, and are dependent upon complex family interactions.

By engaging families, museums can support family learning through collaboration, social interaction, and sharing (USS Constitution Museum). Although, the good that can come from engaging families can be interrupted by multiple factors. Some studies have shown a disconnect between museum professionals and parents, and their belief systems surrounding the value and importance of play, as well as the role of the adult in the children’s museum (Downey, Krantz & Skidmore, 2010). In a study completed at the Please Touch Museum, while many parents self-indicated their role to be playing with their child, their observed actions were “supervisory, instructional, or disciplinary in nature” (Downey, Krantz & Skidmore, 2010). Another 2013-2014 study focused on how adults view play at children’s museums and their role in supporting it, adult roles were defined as the observer, supporter/facilitator, family, friend/playmate, teacher, and supervisor/guardian (Vergeront, 2016). Within these roles, adults believe they extended learning, created an intimate bond with their child, and provided safety and security. Again, this shows that the roles of an adult in a children’s museum is not static, and also shows that museums could be doing a better job of facilitating and fostering adult engagement in these settings.

By providing playful learning spaces, museums specifically can stimulate learning, creativity, and social interaction in adults, while also challenging visitors' preconceptions of the serious nature of museums (Grenier, 2010). Some children’s museums and science centers have begun to create after-hours programs designed specifically for adults that encourage play. These programs place adults in children’s shoes and encourage them to engage in play. Given that adults bring children to children’s museums for the explicit purpose of play, there is an opportunity to understand if these adults themselves engage in play

and if they attribute an indicator of wellbeing to the specific play experience.

Together, this literature suggests that children’s museums could provide an avenue for adult wellbeing through the act of play, to help combat the negative mental health impacts of the COVID-19 pandemic. The purpose of this research study is to examine the role of museum-based play experiences on adults in children’s museums on their wellbeing.

Purpose Statement

The purpose of this research study is to examine the role of museum-based play experiences on adults in children’s museums on their wellbeing.

Research Questions

1. Do adults feel invited to and included in play in children’s museums?
2. How do play experiences in children’s museums influence adult wellbeing?

Methodology

This study used a mixed-methods survey design in which qualitative and quantitative data were collected to describe trends, opinions, and attitudes, with the goal to generalize findings to the wider population of adults who enter children’s museums (Creswell, 2014). This design allowed for a quick analysis turnaround, as well as allowed participants to think about their wellbeing in that exact moment, instead of at a later time where things can be misremembered.

Land Acknowledgement

This research study was designed and carried out on the unceded traditional and ancestral lands of the Duwamish, Suquamish, Muckleshoot, Stillaguamish, and Coast Salish people, who have served as stewards of this land since time immemorial.

Sampling

Participants were recruited onsite at KidsQuest Children’s Museum, Bellevue, WA, and Seattle Children’s Museum, Seattle, WA. A flyer advertising the study was placed at the front desk, where front desk staff was able to alert incoming families that a study was being conducted, and they were welcome to decline participation.

Participants were approached at random and informed of the study, were offered an incentive (raffle for a \$25 Amazon gift card), and were reminded the study was entirely voluntary. Adults who agreed were asked to fill out the short six-minute survey, via QR code to the direct google form, or via hard copy, based on the participants' preference.

KidsQuest Children’s Museum’s mission is to “create learning through the power of play and exploration that connects children to their communities and the world” (KidsQuest). KidsQuest leveraged play through hands-on and interactive exhibits to encourage physical, emotional, and cognitive development. Located in Bellevue, WA, just fifteen minutes from Seattle, WA, the museum serves 100,000 people a year from Western Washington (KidsQuest).

Seattle Children’s Museum’s mission is to “engage children, and the people who care for them, in playful, creative, hands-on exploration and discovery” (Seattle Children’s Museum). The museum set the stage for engagement, interaction, physical challenges, and hands-on experiences to create fun and playful experiences for children and their families. Located in Seattle Center, the museum is located centrally for Seattle residents.

Data Collection

Due to COVID-19 restrictions during the collection period, a short 6-minute survey was distributed to willing adult participants at KidsQuest Children’s Museum and Seattle Children’s Museum.

Participants were first asked their age, where they were given the option to choose the range that best represented them (21-30, 31-40, 41-50, 51-60, and 60+). They were also asked to provide the number of people they attended the museum with.

Participants were given the following definition of play: activities that are open-ended, pleasure-seeking, and do not have a fixed outcome. Using this definition, participants were asked to think about their

experience in the museum and to write a brief description of a time they believed they were playing during their visit.

Participants were asked to self-identify the type of play they engaged in using Brown's typology of play. They were given the following definitions of each type.

1. Social: I was building connections and interacting with others.
2. Pretend: I was acting out make-believe scenarios.
3. Storytelling: I made up an answer to explain a phenomenon.
4. Creative: I used my imagination in order to create something new.
5. Object: I was handling and manipulating physical objects
6. Body: I used my body to interact with the world.
7. I did not feel like I was playing.

This survey included the shortened six-question Generic Wellbeing Questionnaire outlined in the UCL Museum Wellbeing Measures Toolkit in order to establish wellbeing. Participants also answered a series of questions about their experience to provide identifiers of what aspects of their visit they attribute to their feelings of wellbeing. The questions are as follows.

1. I felt happy.
2. I felt engaged.
3. I felt comfortable.
4. I felt safe and secure.
5. I enjoyed the company of other people.
6. I talked to people.

Participants were asked to provide rankings for each question on the following scale.

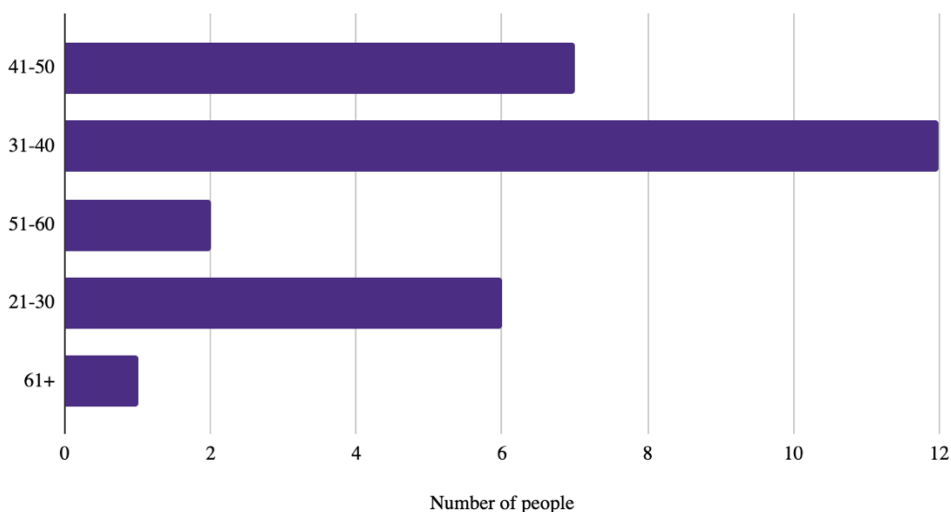
1. None of the time.
2. Not very often.
3. Some of the time.
4. Very often.
5. All of the time.

Participants

Data were collected from twenty-eight participants, eighteen of whom attended Seattle Children’s Museum and ten who attended KidsQuest Children’s Museum. Participants indicated that they were in groups of two people to seven. The most common group size was 3-4 people. Participants were asked to self-select their age group on the survey. Graph 1 shows the percentages of ages represented in the sample.

Graph 1

Age of Participants



Results

Play Experiences

Participants were asked to self-report on a time when they believed they played during their visit to the museum. Of the responses, 96.43% (n= 27) of participants provided instances of when they believed to be at play, and 3.57% (n= 1) indicated they did not have a play experience to provide.

Of the play instances provided in the write-in section of the survey, 17.86% (n= 5) described instances where they **observed** their child or engaged in **vicarious play**, but later selected that they did not feel like they were playing. 60.71% (n= 17) of participants provided experiences that were they directly played with their child. Activities included building blocks, puppet making, dancing, and pretend play, where adults helped deliver packages or acted as a checkout clerk. Other responses that were not direct play emphasized the child’s play. Adults

indicated that they **showed their child new things**, engaged in **vicarious playing**, and offered **general praise** of the facilities and how they facilitate play for families.

Identifying Types of Play

The following question asked participants how they would describe their play or actions using Brown’s Typology of Play. Participants were asked to select all that applied to their experience.

Table 1 shows the percentages of each type of play represented in the sample.

Table 1

Type of Play	Percentage
Social	57.1% (n=16)
Pretend	50% (n= 14)
Storytelling	25% (n= 7)
Creative	39.3% (n= 11)
Object	53.6% (n= 15)
Body	39.3% (n= 11)
I did not feel like I was playing	17.9% (n= 5)

Social, object, and pretend play were the most widely utilized types of play indicated by participants in the museums. 1/3 (n= 10) of respondents described using a combination of different types of play.

Play and Wellbeing

Participants were then asked to think of that specific instance they provided, or their general experience in the museum if they indicated that they were not playing. Participants were then asked to fill out the Generic Wellbeing Questionnaire short 6-item version found in the University College London Museum Wellbeing Measures Toolkit (Thomson & Chatterjee, 2013). See table 2 for the average and ranged scores from the wellbeing questionnaire in the 28 respondents.

Table 2: Wellbeing and indicated play (n=28)

Statement	Average	Range

I felt happy.	4.32	3-5
I felt engaged.	4.18	2-5
I felt comfortable.	4.43	2-5
I felt safe and secure.	4.68	2-5
I enjoyed the company of other people.	4.29	2-5
I talked to other people.	3.11	2-5

The average wellbeing score is 4.17. All 28 participants indicated that they were happy at least some of the time during their experiences in play. 50% of participants felt engaged very often, with the lowest engagement score at not very often. 75% (n=21) of participants indicated that they felt safe and secure all of the time. The lowest overall score is the “I talked to other people” category. Only 14.3% (n=4) of participants indicated all of the time, while the majority, 67.8% (n=19), ranked not very often and some of the time.

Discussion

The purpose of this study was to examine adult play experiences in children’s museums and if they have an influence on wellbeing. Based on data gathered, a majority of adult participants did feel that they engaged in play while at a children’s museum. With an overall average wellbeing score of 4.17, data also suggests a strong correlation between play at children’s museums and wellbeing of adults in these settings. This study was limited by the small, self-selected sample size, as well as a difference in how each person reported their own play. For example, wellbeing scores could be associated with adult-only play or play with a child or family member. This study could be replicated to address these limitations.

While the majority of participants did feel like they were playing during their time at the museum, some did not feel like they were playing at all. This aligns with current belief systems on play in adults, such as that it is not productive and that some adults feel self-conscious about playing in public spaces (Grenier, 2010; Van Vleet et al., 2015). After distributing this survey, a participant expressed curiosity over the benefits of play for children and how what their child was doing

impacted their development. It also shows how some adults may lack the confidence and/or knowledge about how to play with children at a children's museum due to the name, mission statement, and exhibit spaces being tailored to children (Downey et al., 2010). Four responses to this survey provided play experiences that they described as observed or vicarious play, but indicated that they did not feel like they were playing. This enforces the research that shows the dissonance that adults feel when stepping into children's museums. This research shows the complexity of play and playfulness in adults, in part due to its difficulty to define and differences across cultures (Tonkin, 2021; Van Vleet et al., 2015).

It is important to note that two of the lowest scores, "I talked to other people," with an average of 3.11, and "I enjoyed the company of other people," with an average of 4.29, could be a result of the ongoing COVID-19 pandemic. The lack of social connection over the past two years, as well as anxiety with being in a large and crowded space amidst the still impactful pandemic, could be a cause for social anxiety, and discouraged interaction between people outside of visitors' original party. One individual commented on their survey regarding the difficulty of entering crowded spaces since the COVID-19 pandemic and had the lowest scores in the two categories previously mentioned. Research shows that this lack of social connection has negative impacts on mental health (Cullen, 2020; Tonkin, 2021). As shown by Qian, higher stress levels could have subdued playfulness for some participants. The stress of the COVID-19 pandemic as well as potential stress from keeping track of children in the large museum space could have had an impact on adults' propensity for play (Qian et al., 2011).

That being said, social and object play had the highest indicated types of engaged play by participants. Falk argues that "museums known to disproportionately attract parents with young children... had inordinately high social well-being outcomes" (Falk, 2021). Many adults indicated that they engaged in more than one type of play. This data showed that adults do have the space and do play in children's museums, though it may not be the primary motivation. Adults could also be more focused on family needs and see socialization as more important for their children rather than themselves. Here we encounter a difference in social play with your party versus being sociable with others outside of their party. Motivation and identity may impact how adults think about and view sociability in the space of a children's museum (Falk et al., 2012; Duplessis, 2011). This type of family play in children's museums allows for a flexible definition of play, solidifying the individualization that comes with meaning-making in museums.

Feelings of safety, comfortability, and happiness were the highest-ranking wellbeing scores, indicating that play does have an influence on these feelings (Qian et al., 2011; Lazarus & Folkman, 1984; Ruggeri et al., 2021). Feelings of safety and comfortability both fall within physical wellbeing as outlined by Falk.

Implications

The results of this study show there is a positive relationship between play and wellbeing, as well as play and general family time. The implications for a study of this nature, while preliminary, are quite extensive, which I will outline here.

Much like the results from the Downey, Krantz & Skidmore study, this research also shows that children's museums could be better at communicating the role of family involvement and fostering and facilitating spaces where adults feel that they can play. Children's museums may benefit from further single-site evaluative studies on adult involvement in their institutions to assess feelings of belonging for adult visitors as well as their role in their child's playtime at the museum.

This study could also benefit from replication through the lens of accessibility. Studies show that "Lower-income parents may have fewer resources, including time, to invest in playing with their children. Because play holds so many benefits, including fostering connection between parents and children, less play may be an added, although rarely mentioned, risk of poverty" (Milteer & Ginsburg, 2012). As pointed out by Falk, decision-making around leisure activities comes down to cost-benefit decisions by individuals, of which money may play a role (Falk, 2021). This study could be expanded to investigate how children's museums can support lower-income families to ensure playtime. COVID-19 has highlighted many inequities in education and museums, and family play could be helpful in relieving stress if it is accessible.

As pointed out in the discussion section, there is an interesting dichotomy between definitions and actions of sociability. Although social play was one of the consistent types of play identified, sociability ranked with some of the lowest scores. Studying further individuals' definitions of sociability could be beneficial. This study would be a good candidate for replication when the COVID-19 pandemic is no longer looming. Doing this study in a post-COVID-19 environment may produce results with more identifiable indicators of sociability.

It is also important to note that in the nature of children's museums, play is meant to be process-oriented, open-ended, and, most notably, child-directed (Downey et al., 2010). In play, children require the freedom to initiate their own play and exploration with the support of adults who are familiar with and will follow their rules of play (Gaskins, 2008; Miller & Almon, 2008; Downey et al., 2010). In thinking about this study and the relationship between play, adults, and wellbeing, it would be worthwhile to study adult-only play programs where play is adult-directed. This was the original plan of this study before the Omicron variant surge of early 2021. Adult-directed play may produce different results in common types of play, I hypothesize a decrease in storytelling and pretend play, as well as other outcomes in sociability. This adaptation of the study may bring new definitions and groupings of play to the table. Robin Grenier places the common approaches to adult play into three categories: Collaboration, Fantasy and Role Play, and Experimentation (Grenier, 2010). Collaboration, often done through group play, defines "play as a process through which one can become familiar with societal symbols, is able to see themselves in relation to others, and can develop skills necessary for being a productive member of a social community (Grenier, 2010). Fantasy and role-play enable visitors to experience the world differently and blur the lines between play and reality (Grenier, 2010).

The survey used in this study was intentionally kept short due to time constraints due to COVID-19 during the collection period. The implications for further research and institution practice with a study of this nature are rather long, partially because of an already lacking research body on adults and play. While this particular study shows that museum play does have a positive impact on adult wellbeing, it is essential for this research to be expanded in order to best serve the population post-COVID-19.

Acknowledgements

My biggest acknowledgments have to go to my wonderful committee members, Amanda Wilkening, Meena Selvakumar, and Jessica Luke. Thank you for sticking with me through every panicked "COVID ruined my plans, what if I did this instead" email. COVID-19 threw many curveballs for data collection, and so this research has had many different faces. I could not have asked for a better committee to help me navigate new ideas.

Thank you to my friends at KidsQuest Children's Museum and Seattle Children's Museum for your kindness and support in my data collection

period. Another thank you must be given to the superhuman adults at these museums who graciously filled out this survey during their time in the museum.

Thank you to my parents and sister for always being my biggest cheerleaders, even from across the country. Lastly, thank you to my found family here in Seattle. I could not have done this without my wonderful support system.

References

- Seattle Children's Museum. (2022). *About*. <https://seattlechildrensmuseum.org/about/>.
- KidsQuest Children's Museum. (2022). *About*. <https://www.kidsquestmuseum.org/about-us/>.
- Binnie, J. (2010). Does Viewing Art in the Museum Reduce Anxiety and Improve Wellbeing? *Museums & Social Issues*, 5(2), 191-201.
- Boston Children's Museum. *The power of play*. The Power of Play | Boston Children's Museum. <https://bostonchildrensmuseum.org/power-of-play>.
- Brown, S. (2010). *Play: how it shapes the brain, opens the imagination, and invigorates the soul*. Scribe.
- Camic, P.M. & Chatterjee, H. J. (2013). Museums and art galleries as partners for public health interventions. *Perspectives in Public Health*, 133(1), 66–71. <https://doi.org/10.1177/1757913912468523>.
- Chafouleas, S.M. & Iovino, E.A. (2020). Initial Impact of COVID-19 on the Well-being of Caregivers of Children with and without Disabilities. *UConn Collaboratory on School and Child Health*. <https://csch.uconn.edu/wp-content/uploads/sites/2206/2020/07/CSCH-Brief-COVID-19-Impact-on-Caregivers-July-2020.pdf>.
- Clay, R.A. (2020). *The Serious business of play*. American Psychological Association. <https://www.apa.org/topics/covid-19/children-unstructured-play>.
- Cullen, W., Gulati, G., & Kelly, B.D. (2020). Mental health in the COVID-19 pandemic. *QJM: Monthly Journal of the Association of Physicians*, 113(5), 311–312. <https://doi.org/10.1093/qjmed/hcaa110>.
- USS Constitution Museum. *Engage Families: A Guide to Family Engagement in Exhibits and Programs*. <https://engagefamilies.org/wp->

[content/uploads/dlm_uploads/2018/05/Engage-Families-Booklet.pdf](#).

- Dickey, K. L. (2018). *Adult Play in a Children's Museum* (Order No. 10813893). Available from ProQuest Dissertations & Theses Global. (2196947464). <https://www.proquest.com/dissertations-theses/adult-play-childrens-museum/docview/2196947464/se-2?accountid=14784>.
- Downey, S., Krantz, A. & Skidmore, E. (2010) The Parental Role in Children's Museums, *Museums & Social Issues*, 5(1), 15-34.
- Falk, J.H. (2021). *The Value of Museums: Enhancing Societal Well-Being*. Rowman & Littlefield.
- Falk, J.H. & Dierking, L.D. (2012). *The Museum Experience Revisited*. Left Coast Press.
- Gaskins, S. (2008). Designing exhibitions to support families' cultural understandings. *Exhibitionist*, 27(1), 11–19.
- Gloster, Lamnisos, D., Lubenko, J., Presti, G., Squatrito, V., Constantinou, M., Nicolaou, C., Papacostas, S., Aydın, G., Chong, Y. Y., Chien, W. T., Cheng, H. Y., Ruiz, F. J., Garcia-Martin, M. B., Obando-Posada, D. P., Segura-Vargas, M. A., Vasiliou, V. S., McHugh, L., Höfer, S., Karekla, M. (2020). Impact of COVID-19 pandemic on mental health: An international study. *PloS One*, 15(12). <https://doi.org/10.1371/journal.pone.0244809>.
- Göncü, & Vadeboncoeur, J. A. (2017). Expanding the definitional criteria for imaginative play: Contributions of sociocultural perspectives. *Learning & Behavior*, 45(4), 422–431. <https://doi.org/10.3758/s13420-017-0292-z>.
- Grenier, R. (2010). All Work and No Play Makes for a Dull Museum Visitor. *New Directions for Adult and Continuing Education*, 2010(127), 77-85.
- Hurwitz, S. C. (2002). To be successful--let them play! (For Parents Particularly). *Childhood Education*, 79(2). https://link.gale.com/apps/doc/A96193637/AONE?u=wash_main&sid=bookmark-AONE&xid=1854238c.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer Publishing Company, Inc.

- Magnuson, C.D. & Barnett, L.A. (2013). The Playful Advantage: How Playfulness Enhances Coping with Stress. *Leisure Sciences: An Interdisciplinary Journal*, 35(2), 129-144.
- Miller, E., & Almon, J. (2008). Crisis in the kindergarten: Why children need to play in school. College Park, MD: Alliance for Childhood.
- Milteer, R.M., Ginsburg, K.R. (2012). The importance of play in promoting healthy child development and maintaining strong parent-child bond: focus on children in poverty. *Pediatrics (Evanston)*, 129(1), e204-e213. <https://doi.org/10.1542/peds.2011-2953>.
- Keeter, S. (2021). Many Americans continue to experience mental health difficulties as pandemic enters second year. Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/03/16/many-americans-continue-to-experience-mental-health-difficulties-as-pandemic-enters-second-year/>.
- Patrick, S.W., Henkhaus, L. E., Zickafoose, J. S., Lovell, K., Halvorson, A., Loch, S., Letterie, M., & Davis, M. M. (2020). Well-being of Parents and Children During the COVID-19 Pandemic: A National Survey. *Pediatrics (Evanston)*, 146(4). <https://doi.org/10.1542/peds.2020-016824>.
- Proyer, R.T. (2017). A multidisciplinary perspective on adult play and playfulness. *International Journal of Play*, 6(3), 241-243. <https://www.tandfonline.com/doi/pdf/10.1080/21594937.2017.1384307?needAccess=true>.
- Qian, X.L. & Yarnal, C. (2011) The role of playfulness in the leisure stress-coping process among emerging adults: an SEM analysis. *Leisure = Loisir*, 35(2), 191-209. <https://doi.org/10.1080/14927713.2011.578398>.
- Robinson, L., Smith, M., Segal, J., Shubin, J. (2021). The Benefits of Play for Adults. HelpGuide. <https://www.helpguide.org/articles/mental-health/benefits-of-play-for-adults.htm>.
- Ruggeri, Garcia-Garzon, E., Maguire, Áine, Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*, 18(1). <https://doi.org/10.1186/s12955-020-01423-y>.
- Runcan, P.L., Petracovschi, S., & Borca, C. (2012). The Importance of Play in the Parent-Child Interaction. *Procedia – Social and Behavioral Sciences*, 46, 795-799. <https://doi.org/10.1016/j.sbspro.2012.05.201>.

- Ryff, C.D. Psychological Well-being Revisited: Advances in the Science and Practice of Eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10-28. <https://doi.org/10.1159/000353263>.
- Silverman, L. (1995). Visitor Meaning-Making in Museums for a New Age. *Curator: The Museum Journal*, 38(3), 161-170. <https://doi.org/10.1111/j.2151-6952.1995.tb01052.x>.
- Silverman, L. (2010). *The Social Work of Museums*. Routledge. <https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/reader.action?dclid=465568>.
- Solis, S.L., Liu, C.W. & Popp, J.M. Learning to cope through play. The LEGO Foundation. <https://cms.learningthroughplay.com/media/jqifsynb/learning-to-cope-through-play.pdf>.
- Summers, J. (2014). Q&A: Designing Playful Learning Spaces. nprEd. <https://www.npr.org/sections/ed/2014/07/18/331671868/q-a-designing-playful-learning-spaces>.
- Tonkin, A., & Whitaker, J. (2021). Play and playfulness for health and wellbeing: A panacea for mitigating the impact of coronavirus (COVID 19). *Social Sciences & Humanities Open*, 4. <https://www.sciencedirect.com/science/article/pii/S2590291121000383>.
- Van Vleet, M. & Feeney, B.C. (2015). Play Behavior and Playfulness in Adulthood. *Social and Psychology Compass*, 9(11), 630-643. <https://doi.org/10.1111/spc3.12205>.
- Vergeront, J. (2016) *Museum Notes: Inspiration + Intention + Action*. <https://museumnotes.blogspot.com/2016/01/messaging-with-parents-and-caregivers.html>