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Children’s Physical Activity and Screen Time during COVID-19 Pandemic: A Qualitative Exploration of Parent Perceptions

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Abstract

Objective: In this study, we explore parent perception of children’s physical activity and screen time during COVID-19 stay-at-home orders.

Methods: We interviewed 16 parents of children ages 5–12 years in the St. Louis, Missouri region using snowball sampling. We sampled from rural, urban, and suburban areas. The interviews were recorded, transcribed, and analyzed using *a priori* and emergent codes.

Results: The transition to virtual school and work transformed daily activities. Physical education requirements varied, generally perceived as not contributing to overall physical activity. Parents perceived the amount of physical activity as the same or increased but reported an increase in screen time. The physical environment of the home, yard, and neighborhood emerged as a theme as did the social environment for physical activity.

Conclusions: COVID-19 stay-at-home orders created challenges for children’s physical activity. Results can be used to inform more generalizable studies and serve as a basis for creating better parent resources to support their children’s physical activity outside of ordinary school, sport, and community activity opportunities.

Keywords

physical activity; public health; child health; parenting; COVID-19; virtual school

When the coronavirus 2019 (COVID-19) was officially named a pandemic by the World Health Organization (WHO) in March of 2020, people were asked, or ordered, to shelter-in-place or stay-at-home to decrease the spread of disease.¹ Schools and many workplaces were closed, resulting in transitioning of activities which once took place outside of the home, to virtual implementation in the home environment. For children, this transition meant

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Human Subjects Approval Statement

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adapting to online learning in the absence of in-person teachers, friends, and a supportive school environment. For many parents, stay-at-home orders meant navigating their own work responsibilities, assisting children with online learning, and juggling the stress of an indefinite pandemic.

Another negative consequence of stay-at-home orders was a decrease in opportunities for children to be physically active. The closure of schools eliminated routine ways children got daily activity, such as recess, physical education classes, sports, and after-school programs. The extent to which virtual physical education lessons were prioritized and implemented varies by state and school district.² Additionally, state and local governments closed playgrounds, parks, trails, and community centers, eliminating them as physical activity options.³ Study results from early in the pandemic show parents perceived their children as less physically active and more sedentary during the early days of COVID-19.^{4,5}

Pandemic-related reductions in physical activity compounded by increased physical inactivity are a public health concern. Regular physical activity helps improve cardiorespiratory and musculo-skeletal fitness.⁶ Building a foundation for lifelong physical activity in childhood and adolescence contributes to future health benefits as well. Regular physical activity reduces risk of developing health conditions such as heart disease, cancer, Type 2 diabetes, osteoporosis, and obesity.⁶ Of particular importance during a worldwide pandemic, physical activity can help mitigate the symptoms of anxiety and depression in children.⁶ There are academic benefits as well. Students who are physically active are likely to have better grades, school attendance, classroom behaviors, and improved cognitive performance.^{7,8}

In 2016, only 24% of children in the United States (US) ages 6–17 participated in the recommended 60 minutes of physical activity every day.⁹ The pandemic is likely to contribute to a decrease in this already low rate. There are future health implications of less physical activity and more sedentary behaviors in childhood, making this an important public health research topic. The purpose of this qualitative study is to explore how parents perceive their children's physical activity and screen time during COVID-19 stay-at-home orders. Knowing more about the ways in which parental values, rules, and home and neighborhood environment may contribute to children's physical activity during this unprecedented time can help inform future intervention and resource development.

METHODS

We interviewed parents of elementary school-age children (5–12 years) using a snowball sampling strategy. Using past collaborations, members of the research team recruited 3 parents who were well-connected to other parents in 3 schools within and around the St. Louis, Missouri metropolitan area (one urban, one suburban, and one rural). These parents agreed to be interviewed and also provide names of other parents who would be interested in participating in the study.

Instrumentation

We developed the interview guide to assess parents' perceptions of their children's physical activity and screen time during COVID-19 stay-at-home orders. Domains include parent and household demographics, parental values and attitudes toward their own and their child's physical activity, parental influences on physical activity and screen time, child's physical activity and screen time use prior to and during stay-at-home orders, and barriers and facilitators to physical activity. Parents were asked to report perceptions about one child (of their choosing) if there were multiple age-eligible children in the household. Questions were pilot-tested with 2 parents with children in the target age group and no major modifications were made.

Procedure

An initial contact email was sent to the participants. If they responded with interest in participating, a member of the research team contacted them to set up a day and time for the interview. Once the day and time were confirmed, we sent each participant a project information sheet and a list of the questions to be asked. Research team members conducted interviews via internet audio conferencing during May and June of 2020 which lasted an average of 25 minutes. The audio files were professionally transcribed and research team members checked for accuracy.

Data Analysis

Data were analyzed using a combination of methods. First, *a priori* codes were developed from the categories of interview questions. Next, 2 members of the research team read all of the transcripts and drafted more detailed codes within each of the main categories. Three transcripts (one from each school) were selected for the next step. Using the draft of the coding tool, 2 members of the research team coded the 3 transcripts independently, and then met to go over each one for consensus of coding all text. After edits, a final coding tool and detailed coding dictionary were developed. A third member of the research team was trained to use the coding tool. Each transcript was coded independently by 2 researchers and reviewed for interrater reliability and to reduce the impact of reflexivity. The 2 researchers met to discuss all of the coded text and reach complete consensus. Next, text was separated by main code (eg, physical education during stay-at home orders). Two researchers reviewed each group of compiled main code text and summarized the data into themes. Exemplary quotes also were drawn from the main code documents (Table 1).

RESULTS

We conducted 16 interviews for this study with 5 rural, 5 urban, and 6 suburban parents. Fifteen participants were women, and most (N = 13) reported being married. The parents reported on a total of 23 elementary school age children, 10 of whom were boys. Fourteen of the families had more than one child, but not all of them were in elementary school.

Parents held a wide range of job types and included teaching, nursing/healthcare, and business. When asked how COVID-19 pandemic affected their employment, responses

varied. Some were considered essential workers, and some were furloughed or laid off. The majority reported a transition to working at home.

Physical Education during Stay-at-Home

We asked parents about how physical education was incorporated into virtual learning. Almost all parents interviewed said there were physical education resources available, but, just as in the case of art or music, the activities or assignments were not required. Parents described examples of virtual physical education instruction such as exercise videos and creative activity challenges. Some indicated their children tried a few of the lessons but were not consistent. Many participants explained ways in which they would do other physical activities as a substitute for what was developed by the school.

I remember one that there was a workout. It went with the letters of their name. For each letter, say J, you had to do 5 jumping jacks. And A, you had to walk backwards for 20 steps, stuff like that. Or there was a headstand challenge, lots of different things like that.

The PE Zooms, were probably 2 the whole quarantine. And I'm assuming, I think they did scavenger hunts and things like that, but she never participated. So, I'm not exactly sure.

Their PE teachers did reach out to them and he did give them suggestions and activities, but it wasn't a daily check in with him. We would do things like kickball outside together as a family, we would do baseball, or softball, or basketball, or something like that just to keep them active and moving.

Perception of Child's Physical Activity

Almost all of the parents perceived their child as the same or more active during the stay-at-home orders. Many compared their current amount of activity to what they would get if they were in school during recess and physical education. Whereas many indicated increased physical activity for their child during stay-at-home, parents also noted the increase in screen time and other sedentary activities. Some parents encouraged their children to take activity breaks throughout the day to counteract boredom or frustration with virtual schoolwork.

I personally think he's getting more physical activity now than when he was in school because at school, I think they only had one morning recess and then a recess after lunch, and then he was in aftercare and the aftercare was terrible about making physical activity a priority.

It's a weird phenomenon, but once the screen comes on after that, getting up and going outside or going for a bike ride, it's an impossible task. It's twisting, what is it? Pulling teeth or twisting an arm or something. It's hard.

Environment for Physical Activity

Parents living in urban or suburban areas described their yard or aspects of their immediate neighborhood such as cul-de-sacs, alleys, and sidewalks as places for their children to be physically active. Those living in rural areas described larger outdoor spaces such as wooded

areas as resources. Parents talked about parks, playgrounds, and nature trails, but indicated pandemic-related closures limiting use.

Bike riding and walking were the most frequent activities referenced by parents, often in a social context. Siblings and the parents did some outdoor physical activities together with the children due to the lack of friends with which to play. This togetherness was also reported as a positive outcome of everyone being at home. Parents listed many types of equipment within their outdoor space that helps their children be physically active such as swing sets, bounce houses, jump ropes, balls, and goals/hoops. The indoor home environments for physical activity ranged from “limited space” to those with “plenty” of indoor space. Some parents mentioned use of indoor play areas such as basements specifically for use when the weather is bad, or when it got dark early.

Actually, we’re on a cul-de-sac, which is really nice. The kids play out there a lot. Actually, just for play time or when we were just sitting out in the driveway with the kids, my younger 2 would just hit around the tennis ball together.

There’s plenty of space. And by outside, we live in again a rural area, so we are in a big corner lot. We have our whole side yard and the backyard. We have a swing set, again they can ride bikes back there because we have a back patio, actually 2 back patios. Then we have a playhouse that sits on a pad of concrete, like one of those little doll house-type playhouses. They play in that as well.

When asked about changes in outdoor play rules during the COVID-19 pandemic stay-at-home orders, parent responses varied. Several parents with younger children reported no change in requiring supervision of outdoor play at all times, but also noted how they juggled this with allowing outdoor play to counteract the negative impact of stay-at-home orders.

There were times where my husband and I set up a desk in the garage to watch them ride bikes around in circles while we were working during the quarantine.

They often ride their bikes in the alley and that is challenging because an adult needs to be with them, all the time in the alley. So with the stay-at-home stuff, my husband and I are both working from home. So, at times, it would be really challenging to get them outside, even though they really needed to be outside, so we play.”

Other parents mentioned how they became less strict about outdoor play rules, giving the children more independence to play in the yard or neighborhood. More freedom to ride bicycles unsupervised was noted by several parents of older children.

I would say, in general, we have eased up a bit on letting them just play in the backyard by themselves. I think it was time to start doing that anyway, because if we open the window, we can still hear them and see them. It made me a little uncomfortable at first, but we’ve kind of eased up on that.

And they all got new bikes this spring, so they have been outside quite a bit riding their bikes, which I’ve never really let them do before. It has really given me a good opportunity to let them be kids and ride around the neighborhood like hooligans.

Parent Physical Activity

Most parents described being physically active before the pandemic, and all but 2 noted a reduction in physical activity for themselves and their partners. They reported less activity due to increased demands of work and home responsibilities, and the closure of gyms or places they would typically go to be physically active. They described the difficulty in carving out time during the day to dedicate for exercise without the structure of their pre-pandemic workouts. Several mentioned being active as a family such as walking the dog together or engaging in sports or active play with their children. A few also mentioned the importance of being a role model for this behavior.

I feel like, for me, my ability to be physically active is sort of built into the structure of our workday and our childcare configuration are the time that I'm able to be physically active is right between the hours that I dropped my kids off at school and when I'm at school and daycare and when I begin work, so I have about an hour in there where that's the time that I normally I'm physically active. That means going to the gym and then getting ready for work and heading into work or going for a jog in the park or whatever. I mean, when there's no childcare, it's just, well, hey, the whole schedule is thrown off because no one's doing their normal thing.

We've gone on family bike rides. My son learned how to ride a 2-wheeler during this time. So we will all go on a bike ride together, or they'll bike and I'll run or something like that. We have also gone on multiple hikes as a family, which we had not done prior to COVID. I would say definitely because our schedule is clearer than it ever has been, we kind of lean towards doing physically active things outside and it has provided us more time to do that. That's been one of the positives.

The Value of Physical Activity

Parents indicated several reasons for valuing physical activity for themselves and their children. Parents perceived physical activity as contributing to not only better health, but also better energy, focus, mood, and improving sleep and overall behavior. They noted physical activity is especially important during stay-at-home because of the stress of virtual learning (or work at home), increased screen time, and uncertainty of the pandemic. Several parents also mentioned how children need to establish healthy habits early in life, so they can continue the behaviors as they age. They especially valued outdoor activity during stay-at-home.

They're healthier and happier when they're active. When they don't get outside, they tend to get crabby. I think it's just really good for them. I see they're just happier and in a better mood when they've had a chance to be physically active.

I can always tell a day where we haven't really gotten outside or done much physical stuff because they kind of drag, they complain a lot. I can definitely see an impact on their mood.

Screen Time

Parents reported an increase in screen time for both school and leisure activities during stay-at-home orders. When asked to quantify time spent on devices and watching television,

parents estimated 30 minutes a few days a week, to “almost unlimited.” The average amount of screen time reported by parents was 2 hours a day. The amount of time spent at home (versus at school or at sport practices) influenced this increase. Because of lack of friends to play with in-person, parents reported their children (especially older elementary) used screen time to connect with others socially. Some parents reported increased screen time helps them manage increased work-at-home demands, so their rules changed out of necessity.

So both kids have had screen time increased, almost unlimited because we have been trying to work and when we restrict it for the kindergartner he will find things to entertain himself that may not be safe.

Well, normally my kids don't watch TV at all during the week because there's really no time. So, during quarantine it was obviously increased by a lot because they had free time to watch TV, free time to play video games, and be on their phones a lot more.

She's gotten very big into, especially during COVID and not being with her friends at school, they do a lot of FaceTime and some of those apps like House Party and things like that so they can actually see each other and talk and a group of them being together.

Almost all parents also reported a change in the rules for screen time use during stay-at-home orders. A few parents noted that with work, school, activities, and homework, pre-pandemic schedules were so busy that there was no time for screen time. They noted how the lack of other usual activities such as sports or playing with friends created gaps of engagement during the day, and they increased the amount of time their children were allowed to watch shows or play video games to fill this gap. Several parents noted, pre-pandemic, they did not allow leisure screen time during the school week, but without the boundaries of actual “school days,” this became more difficult to enforce. Parents reported a range of allowable screen time from “an hour or 2” to “unlimited.” Most mentioned they would revert to pre-pandemic rules when children go back to school.

We allow him to stay up later and I guess, have more late screen time than we did before.

I would say on average, before COVID, they never watched more than an hour of screens in a day. Some days they wouldn't watch anything, especially when they were at school and stuff. I'd say now, some days we're still able to keep it to an hour, but I'd say we've probably increased to more like 2 hours a day.”

Another reason for the change in rules about screen time was the transition to working at home. Many parents reported using screen time as a way to keep children occupied so they could complete their work tasks. They mentioned the difficulty of work-life balance and increased family and work demands for time.

So if I don't have meetings, we're going to do something else. And that has met with a lot of resistance then, because now we've established this new norm where he gets to sit in front of a screen for an hour and a half or 2 hours in the afternoon. And I'm just like, “Aaah.” I think that's just been difficult to shift.

Positive Outcomes

Nearly all parents cited increased family togetherness as a positive healthy change resulting from the stay-at-home mandates. The change in schedules and increased “free-time” made these changes possible. Ten of the participants mentioned active outdoor time, especially time spent together as a family. Several also reported their child learning how to ride a bicycle during this time. Parents also reported benefits from the changes in daily schedules as a result of the pandemic. The second most common positive family activity was family mealtime, with extra time for preparing home cooked meals and children’s interest in cooking mentioned often. Other family activities cited as positives include family game time, sibling bonding, more reading by children, and improved sleep.

I would say definitely because our schedule is clearer than it ever has been, we kind of lean towards doing physically active things outside and it has provided us more time to do that. That’s been one of the positives.

We’ve had a lot of family time and open schedules that we wouldn’t have had if it was all the typical things. I think we would look back on that and have really enjoyed that.

Whereas the participants appreciated these positive changes, they had mixed opinions about the sustainability after lifting the stay-at-home orders. Most noted they would like things to continue, but some were less hopeful once the family reverts to pre-COVID routines.

It does seem like everything’s just kind of going back to that crazy life that we had before. So I’m not sure. I mean, I’d love to say that it kind of slowed us down a little bit, but I really don’t think that it has. I think everything, if we’re allowed to go back to normal, I think we’ll just fall right back into that pace.

DISCUSSION

The results of this exploratory, qualitative study provide insight into the impact of stay-at-home orders on children’s physical activity and screen time. Unlike the decline in children’s physical activity found in literature from early in the COVID-19 pandemic,^{4,5} parents in our study indicated their children’s physical activity levels were mostly the same or higher compared with before stay-at-home orders. This perception of physical activity may have been influenced by several factors. First, parents in this study reported a relatively supportive environment for physical activity, especially for outdoor play. Evidence indicates children are more active when they are outside compared to indoors.¹⁰ Having neighborhood, yard, and home factors supportive of outdoor physical activity were of particular importance during COVID-19 stay-at-home orders because of the lack of other community programs and resources available during this timeframe.

Neighborhood environmental supports are a theoretically important influence of physical activity, but complexity in definition and measurement make it challenging for empirical study.^{11,12} However, our findings are consistent with past research showing the positive correlation of parental perception of the neighborhood environment and children’s physical activity.^{13–15} Parents in urban, suburban, and rural environments in our study mentioned

different neighborhood characteristics supportive to physical activity. Most rural parents mentioned natural features such as woods and open fields as places where their children were physically active. These natural spaces may allow for a greater range of types of active play compared with more structured built environments.^{10,16} Suburban parents noted sidewalks and cul-de-sacs as features conducive to safe outdoor activity for their children. There is evidence that both of these features are related to increased physical activity for neighborhood residents.^{17,18} Many of the components of a supportive neighborhood are determined by local policy. Parents can encourage neighborhood improvements by becoming advocates for local zoning and planning policies governing for example, walking infrastructure or lower speed limits.

The yard was a commonly cited place within neighborhoods where outdoor play occurred during stay-at-home orders. Yard characteristics varied by rural, suburban, and urban participants, but most reported it as a location for child and family activity. Although the yard as an influence on physical activity has not been investigated thoroughly in research, there are some data to support a positive association.¹¹ The close proximity of a yard to the house is one factor which may increase the parent's perception as a safe place for outdoor active play especially for young children.¹³

Parents in our study mentioned many types of outdoor equipment (eg, balls, sports equipment, swing sets) and they were a source of motivation for outdoor play and physical activity. This finding is consistent with some evidence to suggest the presence of equipment is associated with increased children's physical activity levels.^{11,19} Although all children may not have access to equipment at home, this is a potential opportunity for school intervention. Physical education equipment "libraries" can provide students with various types of equipment to check out for temporary use at home. Policies and resources to support this will benefit students beyond pandemic-related virtual learning and may reduce disparities in physical activity opportunities.

In addition to the physical environment, the social environment was an important theme that emerged from our qualitative study. Many parents valued physical activity for themselves and their children for physical health reasons, but also for mental health benefits and as a way to counteract the stress of virtual schoolwork and the pandemic in general. The value of physical activity resulted in creative ways to fit it into busy schedules and concurrent work-at-home responsibilities. This seemed especially true for parents of younger children who needed supervision for outdoor play. For some, rules for outdoor play changed due to the stay-at-home orders. Parents were more lenient out of necessity. Past literature shows the influence of both rules and parental support as important to children's physical activity.^{20,21} As indicated by the literature on active transportation, children's independence to travel within neighborhoods may result in more daily physical activity and the ability to learn about and better navigate their environment.²² One review shows consistent evidence on the positive correlation between children's independent mobility and their activity levels.¹⁵ Even though parental perceptions and supervision styles may vary, schools may be a resource for children and parents on best practices for safety and developmentally-appropriate supervision of activity.

Another aspect of the social environment related to physical activity in our study was parental role-modeling and participating in physical activity together. There is evidence to support the importance of parent role-modeling in promoting child physical activity.^{23–25} The social support resulting from participating in physical activities together, especially as a family,²⁶ is also an important evidence-based strategy to increase physical activity.²⁷ Stay-at-home orders resulted in a lack of classmates and friends for regular interaction. Siblings and parents filled the gap often with activities such as walks and outdoor games. The sustainability of the social changes as a result of stay-at-home orders remains to be seen.

Virtual physical education delivery and expectations varied in this study. Online physical education was not a major contributor to overall physical activity across all participants in our study. Parents in our study mentioned the sporadic or absent nature of engaging with virtual physical education lessons provided by the schools. Lack of requirement, accountability, or interest may have decreased the influence on children's activity. However, physical activity is not the only component of physical education. Physical education plays an important role in the development of fundamental motor skills and knowledge about physical activity, both of which may have been lacking with substitute activities during stay-at-home-orders.² Future research should investigate ways to enforce the importance of comprehensive physical education as a vital part of an online curriculum. Parents may need resources on evidence-based ways to help their child be active outside of school and encourage sustainability of this beneficial behavior. There is also an opportunity for physical education teachers to use existing geo-spatial data sources such as the Smart Location Database by the US Environmental Protection Agency²⁸ to learn about the characteristics of neighborhoods (eg, walkability) where their students reside. This information could help tailor their recommendations for out-of-school activity.

In addition to physical activity, we explored perception of children's screen time during stay-at-home orders. Whereas our physical activity findings were contrary to previous pandemic timeframe results, an increase in children's screen time was consistent.^{4,5} An increase in screen time seems directly related to stay-at-home orders. Children used screen time for schoolwork, connecting with friends, and for leisure activities. For younger children, parents reported changing the rules for amount of leisure screen time during the pandemic because of the need to conduct their own work-at-home responsibilities. For older children, parents noted the use of screen time as a substitute for in-person social activity or just to fill up the time normally spent in other activities. The unique challenges of the pandemic and the modified work-life demands were noted as reasons for increased screen time by parents in our study. However, many parents noted the rules of expanded screen time during stay-at-home orders would be reverted when normalcy returns. Increased awareness of best practices for screen time limits should be resources provided by schools and other influential organizations such as the American Academy of Pediatrics.

Limitations

There are several limitations of this study warranting mention. First, the sample for this study was small and results cannot be generalized to other parents of elementary school-

aged children or older children/adolescents. Second, although we attempted variability by recruiting within rural, urban, and suburban schools, few differences by these settings emerged. Most of the parents in this sample were married and employed. A more diverse and larger group would provide better information on the inequities among families due to the COVID-19 pandemic. We also relied on parents' perceptions of their children's physical activity and screen time rather than using objective measures or collecting information from the children themselves. There are also several strengths of this study worthy to note. The findings captured insight to physical activity and screen time during an unprecedented and unique time period. The results can be used to inform a larger study on the best resources for parents to encourage physical activity in out-of-school environments. Even when in-person school instruction and sports programs are reinstated, creating spaces, routines, and rules to help children be more physically active at home may contribute to better child health. Families need options and resources when home and community are not supportive for physical activity.

Conclusions

Stay-at-home orders during the COVID-19 pandemic created unique challenges for children's physical activity. In this study, we explored parent perceptions of influential aspects of the physical and social environment for children's physical activity and screen time during stay-at-home orders. Results can be used to inform larger, more generalizable studies and serve as a basis for creating better parent resources to support their children's physical activity outside of ordinary school, sport, and community activity opportunities.

IMPLICATIONS FOR HEALTH BEHAVIOR OR POLICY

Almost 75% of children age 6–13 do not meet the current physical activity recommendation of at least 60 minutes per day.⁹ Multilevel strategies to promote physical activity within families, communities, and schools are needed to elevate the percentage of children who meet this recommendation to achieve the *Healthy People 2030* goal.²⁹ The stay-at-home orders of the COVID-19 pandemic presented an opportunity for research on the best ways to connect the school, home, an neighborhood environment for sustainable physical activity behavior of children. Future studies should include:

- developing best practices for the delivery of physical education content online;
- exploring ways to support physical educators in virtual teaching;
- creating and testing parent resources for encouraging child physical activity and limiting screen time;
- exploring comprehensive databases of local community physical activity resources for use in conjunction with physical education; and
- feasibility of physical education equipment lending programs.

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Table 1

Outline of Codes and Examples of Coded Text Used in Qualitative Analysis

#	Code Name	Description and Sub-codes	Example Text
1.0	Characteristics	Describes general family and child characteristics such as age, gender, family make up, parent employment	"There's 4 of us. There's my husband, he is a commercial loan officer. Myself, I am an eighth grade language arts teacher. And then we have 2 kids."
2.0	School work	Describes general aspects of schoolwork done at home during COVID stay at-home including child behavior, parent involvement, technology, and perception of school district	"Well, for my daughter who was in fifth grade, it wasn't a ton of work. Her teacher did have frequent Zooms, probably 2 or 3 times a week in the morning and assigned a few things, which she completed within an hour or 2. And they were also supposed to be reading 30 minutes a day. But other than that, there really wasn't a ton of work."
3.0	Physical Education	Describes what schools provided for PE during stay-at-home instruction, accountability, and substitute activities	"One day, there was planking. There was, I don't know if you've done wall sits before. Jogging in place. We stretched. Sometimes it was just kind of like, every once in a while, there'd be this program where it would be a song, and the kids just followed along to the dance."
4.0	Physical Activity	Describes the current and past physical activities of family, changes due to COVID, technology for PA	"She dances on the competitive team, so she dances about 7-8 hours a week on a normal basis, when the studios were open."
5.0	Environment for PA	Describes aspects of the home, yard, neighborhood community which influences PA of child and family, equipment, and natural surroundings	"We don't have any sidewalks where I'm at. We're mostly side streets...but all the parks are closed. We live close to a couple parks and they're all closed as well."
6.0	Parent PA	Describes the physical activity participation of parent(s) and changes in PA due to COVID	"I am a member at Orangetheory, so that was really what I did for working out. Pre-COVID, I would go 3 times a week. But of course, since that was canceled, it's mostly just been walking in the neighborhood and that, of course, weather dependent."
7.0	Value/Importance of PA	Describes what the parent(s) value about their child's and their own PA	"Well, of course, just for health-wise, I think it's important for her to stay active and in shape and then just for competitive dance as well. If they don't continue with their stretching and conditioning and that kind of thing, they could lose some of their skills."
8.0	Sedentary	Describes general sedentary behavior, changes due to COVID, screen time	"He plays video games and he watches TV or he sits at the table and colors and draws."
9.0	Parent Rules	Describes any time of rules or restrictions for PA, screen time, and outdoor play	"To be honest, I have not been as strict this quarantine. This is the first quarantine we've experienced, but I have not been as strict because this has been such a life changing time for them with the unknowns and the restrictions."
10.0	Well-being	Describes aspects of well-being of child during COVID	"They were never bored or felt like they didn't have a purpose or anything like that. They adjusted pretty well."
11.0	Positive Outcomes	Describes any changes that the parent reports as being positive or healthy, and the perceptions of sustainability	"I think the biggest positive change was the ability to have family dinners almost every night, which was not a possibility before."