National Trends in Youth Sport during the COVID-19 Pandemic: Understanding American Parents’ Perceptions and Perspectives

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Abstract: American children participate relatively ubiquitously in youth sport and parents are intimately engaged in their participation. However, the onset of the novel coronavirus 2019 (COVID-19) has dramatically changed how families consume youth sport. Given this, it is important to explore the new and still-changing landscape of youth sport in the United States. The purpose of the present study was to better understand parent perceptions of the current state of youth sport in the United States amidst the backdrop of the COVID-19 pandemic. To address this purpose, a large and statistically representative subset of youth sport parents in the United States (N = 2603; Mage = 38.72) was recruited via Qualtrics panel to complete a study-designed instrument assessing their perceptions prior to, and during, COVID-19-related restrictions. Results highlight youth sport parents’ COVID-19-related perspectives, as well as their perceptions of return-to-play protocols in various organizational, community, and sociodemographic contexts. The present work has the potential to shape the ways families engage with youth sport if and when COVID-19-related restrictions are ultimately lifted.
Introduction

Organized youth sport participation has become a staple of family life for most American children. Estimates suggest that as many as 90% of youth participate in organized sport at some point before they turn 18 (Bremer, 2012). Assuming their experiences are properly designed and delivered, youth are likely to benefit from regular participation (Wells et al., 2008). A broad literature highlights the positive physical (Anderson-Butcher et al., 2019; Nelson et al., 2011; Spruance et al., 2020; Wickel & Eisenmann, 2007) emotional (Eime et al., 2013, Wells et al., 2008), and social (Anderson-Butcher et al., 2018; Dorsch et al., 2016) benefits that result from participation in well-designed youth sport contexts.

In 2020, SARS-CoV-2 (COVID-19) developed into a highly infectious disease that led to the onset of a global pandemic. From March 2020 through January 2021, the United States had one of the highest per capita mortality rates (1107.39 deaths per million inhabitants) in the developed world (United States Centers for Disease Control and Prevention, 2021). In response, leaders and experts across the country have implemented measures such as physical distancing, mask-wearing, and stay-at-home orders to slow the spread of the virus. As a result of the pandemic, most youth-sport related activities in the United States were canceled or postponed. Unsurprisingly, this led to decreased participation in sport and physical activity participation for children and adolescents, in an age period where participation is typically at its highest (McKay et al., 2019; Watson & Koontz, 2020). The disruption of in-person participation has left athletes and their families in a unique and evolving position.

As noted in the youth sport literature, parents are intimately engaged in their children’s youth sport experiences (Fraser-Thomas & Côté, 2009; Fredrick & Eccles, 2004; Knight et al., 2016). Especially at the earliest ages, parents’ interest and involvement are important predictors of young people’s positive experiences and outcomes (Knight & Holt, 2014). Decisions made by parents facilitate the ability of youth to remain engaged in sport through adolescence and sometimes even into adulthood. Of particular importance are the instrumental contributions made by parents (e.g., financial support, transportation, laundry, meal preparation, volunteering (Stein et al., 1999). Without early and continued support, children may be faced with substantial barriers to their continued pursuit of sport experiences, mastery, and enjoyment (Fraser-Thomas et al., 2013).

Given the current COVID-19-related restrictions in youth sport, parents, children, organizations, and communities have had to adapt to a new range of expectatons and experiences. Although past research in youth sport has explored the joys and struggles parents face in youth sport (e.g, Wiersma & Fifer, 2008), there is a need to better understand the effects of the COVID-19 pandemic on American sport families. In addition, there is evidence that the effects have had an impact on families in different ways based on multiple demographic variables (e.g., race, income, age etc; Dowd et al., 2020; McLaren, 2020). Moreover, it remains important to compare parents’ perceptions of youth sport before and during COVID-19-related restrictions, as well as how families might re-engage when restrictions are lifted. In light of the uncertainty around how return-to-play protocols are being developed and implemented on a national level, it is also important to pursue an initial understanding of how comfortable parents will be sending their children back to formal and informal sport environments.
COVID-19 is transmitted primarily through respiratory droplets expelled when sneezing, coughing, or talking (United States Center for Disease Control and Prevention, 2020). Additionally, the virus can be spread by touching an infected surface and then transmitting the virus via one's own hands. In youth sport, this has the potential to occur through the sharing of equipment, engaging in physical contact with an infected teammate or competitor, or high-exertion breathing (United States Centers for Disease Control and Prevention, 2020). Accordingly, team sports may present different challenges to athletes, families, and other stakeholders than individual sports (Nia & Besharat, 2010). Those who engage in youth sport must consider whether play, training, and competition take place indoors or outdoors, utilize shared or personal equipment, or occur in contexts that limit the ability to physically distance (Blocken et al., 2020; Loucaides et al., 2007). Additionally, we must observe how sport-related decisions may impact children’s mental health and well being (Golberstein et al., 2020).

In many communities, evidence-based protocols that account for the nature and prevalence of COVID-19 in a particular community are being designed to guide children’s return-to-play once restrictions are lifted. An added layer of concern, however, is that many parents will be forced to weigh safety among the many other factors that guide them in these decisions (e.g., the cost of sport, children’s development, logistical responsibilities). With regard to fiscal responsibility, the rate of unemployed American adults peaked at 11.1%, approximately three times higher than it was prior to the onset of the COVID-19 pandemic (United States Bureau of Labor Statistics, 2020). Even for parents who did not lose their jobs, the pandemic has upended financial markets, the costs of goods and services, and as a consequence, typical spending and saving patterns (Baker et al., 2020). The uncertainty surrounding when and how youth sports will fully return may cause concern among parents about the costs associated with return to play, especially at the more competitive levels of youth sport (e.g., travel, club, elite). In measuring parent perceptions of the current state of youth sport amidst the backdrop of the COVID-19 pandemic, it is therefore worth considering levels of family affluence as it pertains to children’s sport participation, families’ perceived barriers to resuming regular sport participation, and (c) parents’ comfort with children’s return to organized participation.

Given the myriad changes occurring across youth sport settings in the United States, there is a clear need for fact-based and action-oriented research to elucidate the effect of COVID-19-related restrictions on youth sport families. Therefore, the purpose of the present study was to better understand parent perceptions of the current state of youth sport in the United States amidst the backdrop of the COVID-19 pandemic. In pursuing this aim, we sought to address two research questions: (1) How are sport parents’ perceptions being shaped in the United States during COVID-19-related restrictions? and (2) How do these perceptions differ across US region, community type, race, sex, and household income?

Procedures

Participants

Study participants (N = 2603) were a statistically representative subset of youth sport parents in the United States. In line with study aims, participant quotas were set based on sociodemographic data recently published by the United States Census Bureau (2020) as well as past research on American families with one or more children actively participating
in organized youth sport (Aspen Institute, 2019; Sports & Fitness Industry Association, 2019, Wintergreen Research 2019). Participants were drawn proportionally from all 50 states and the District of Columbia. California was the most represented state in the sample ($n = 222$) and Alaska, Rhode Island, South Dakota, Vermont, and Wyoming were the least represented states ($n = 3$ each). Across the country, participants represented urban (38.1%), suburban (43.8%), and rural (18.1%) communities.

Participants were 1079 fathers and 1520 mothers (four parents identified as non-binary) and ranged in age from 19 to 73 years ($M = 38.72, SD = 8.52$). Parents’ age was normally distributed, as 49.0% of parents were between 34 and 43 years old. In alignment with national distributions, a slight majority of parents ($n = 1477; 56.7\%$) identified as White, $n = 487$ (18.7%) as Hispanic, Latino, or of Spanish Origin, $n = 58$ (13.8%) as Black or African-American, $n = 146$ (5.6%) as Asian, $n = 79$ (3.0%) as multiracial, $n = 34$ (1.3%) as American Indian or Alaskan Native, and $n = 7$ (0.3%) as Native Hawaiian or Pacific Islander (see United States Census Bureau, 2020). Eleven participants preferred not to disclose their race and four selected “other.” Roughly three-quarters of the sample (75.8%) reported living in a two-parent household (either married or cohabitating) and roughly the same proportion (75.7%) reported being employed full-time or part-time in a wage-earning job. In line with present national unemployment statistics provided by the United States Bureau of Labor Statistics (2020), 11.9% of the sample reported being out of work at the time of survey completion, with 62.7% of those attributing their unemployment to COVID-19-related layoffs. Further, in line with publicly available data from the United States Census Bureau (2020), median household income of the study sample was $65,000 (range = $0-$7,500,000). A generally even proportion of parents reported annual household earnings of less than $50,000 ($n = 912; 35.1\%$), between $50,000 and $99,999 ($n = 878; 33.7\%$), and $100,000 or more ($n = 813; 31.2\%$). Across the sample, families reported spending, on average, $927.70 annually ($SD = $2308.33) on their child’s primary sport participation.

Parents reported an average of 2.06 children living in the household ($SD = 1.06$), with 1.60 ($SD = 0.93$) of them having participated regularly in organized youth sport prior to the COVID-19 pandemic (77.7%). The children on whom participants reported were 1471 males and 1131 females (one parent identified their child as non-binary) and ranged in age from 6 to 18 years ($M = 12.22, SD = 3.15$). A roughly even proportion of children were between 6 and 10 years old ($n = 833; 32.0\%$), 11 and 13 years old ($n = 808; 31.0\%$), and 14 and 19 years old ($n = 962; 37.0\%$). Prior to COVID-19-related restrictions, 30.3% of children participated in their primary sport one or two days per week, 63.3% participated three to five days per week, and just 6.4% participated six or seven days per week.

**Procedure**

Procedures were approved by an institutional review board for the protection of human subjects and adhered to APA (7th edition) ethical standards. In all, 6698 respondents were recruited via a paid Qualtrics panel and established industry partners. These respondents were screened by a Qualtrics survey management team based on demographic characteristics and the completeness of responses (i.e., partially completed surveys led to disqualification). The final study sample ($N = 2603$) was comprised of a relatively representative sample of youth sport parents from across the United States. After receiving an email outlining study aims, parent respondents provided informed consent via online interface, and then answered 13 demographic questions about themselves, their oldest sport-participating child, and their family. Last, parents responded to 27 study-designed items assessing their perceptions prior to and during the COVID-19 pandemic, as well as
their expectations for their children’s return to participation when restrictions are lifted. Data were collected between June 1st and June 26th, 2020.

Measures

In the present study, researchers examined parent responses to three descriptive variables: (a) children's weekly hours of sport participation (before and during COVID-19), (b) perceived barriers to resuming regular sport participation (after restrictions are lifted), and (c) comfort with children’s return to organized participation by sport type (after restrictions are lifted). Steps were taken to ensure all items were relatable and concise so the participants understood what information they were being asked to provide. Specifically, items were developed by a research team with expertise in Child Development and Family Studies, Kinesiology, Psychology, Public Health, and Youth Development. Additionally, items were crafted with input from community stakeholders in an effort to best inform policy tied to youth sport and physical activity during the COVID-19 pandemic.

Children’s Weekly Hours of Sport Participation

Children’s weekly hours of sport participation were measured using two parallel study-designed items. First, parents were asked “How many hours a week did your child engage in the following before COVID-19 restrictions?” Parents provided responses for their children’s weekly hours of participation (on a continuous scale, representing weekly hours of participation) in four settings (pickup/free play, virtual training, focused practice or drills, games or competition) and these totals were summed to calculate children’s total weekly hours of sport participation prior to COVID-19-related restrictions. Parents were subsequently asked to report their children’s weekly hours of sport participation (across the same four categories) during COVID-19-related restrictions.

Perceived Barriers to Resuming Regular Sport Participation

To assess parents’ perceptions of potential barriers to their children resuming sports when COVID-19-related restrictions are lifted, parents were asked, “Please indicate your level of agreement with the following statements about potential barriers to your child resuming sports when restrictions are lifted.” Participants were asked to respond on a scale from 1 (strongly disagree) to 5 (strongly agree) regarding the potential impact of the following five barriers: (1) fear of illness - child, (2) fear of illness - parent, (3) schedule conflicts, (4) child not interested, and (5) transportation difficulty.

Comfort with Children’s Return to Organized Participation

One study-designed measure was used to assess parents’ comfort with children’s return to organized sport participation. To understand their concern with the type of sport participation, parents were asked, “How comfortable will you feel allowing your child to return to organized sport after the health and safety issues around COVID-19 are fully resolved?” Participants were asked to respond on a scale from 1 (extremely uncomfortable) to 5 (extremely comfortable) for the following three types of participation: (1) pickup/free play, (2) focused practice or drills, and (3) games or competition.
Data Analysis

Preliminary data were screened in accordance with best practice recommendations for multivariate analyses (Tabachnick & Fidell, 2013). To address the first research question, descriptive statistics (frequencies, means, standard deviations) were calculated across all study variables. In some cases (e.g., child age, family income), continuous variables were recoded into binary or tertiary categorical variables. To address the second research question, t-tests and multivariate analyses of variance (MANOVAs) were conducted. Where appropriate, MANOVAs were followed up with univariate ANOVAs and/or post-hoc inspections of item level differences. All analyses were conducted using SPSS 25.

Results

Descriptive Statistics

In line with our first research question, Descriptive statistics were calculated for the primary study variables. Means, standard deviations, frequencies, and ranges are detailed in the subsections below, as well as in Table 1.

Children’s Weekly Hours of Sport Participation

Parents identified 22 different sport contexts in which their children participated, with an expected distribution of primary sport participation. Prior to COVID-19, children averaged 12.37 (SD = 9.83) weekly hours of sport participation. During the pandemic, sport participation dropped to 6.32 (SD = 8.13) hours per week. Of note, all sub-categories of in-person sport participation (i.e., pickup/free play, focused practice or drills, games or competition) dropped, whereas virtual training saw a marginal increase during the COVID-19 pandemic. Overall, 29.0% of participants said their children would engage in less hours of weekly participation when COVID-19-related restrictions are lifted whereas 12.6% said their children would engage in more hours of weekly participation. When asked why their child may discontinue participation in a particular sport or type of physical activity, participants’ most common responses were health risks (47.6%), developing new interests (22.8%), and family finances (16.1%). A descriptive summary of children’s weekly hours of sport participation can be found in Table 1.

Perceived Barriers to Resuming Regular Sport Participation

In consideration of potential barriers to the resumption of regular sport participation, participants rated fear of child illness and parent illness as most salient (M = 3.57, 3.31; respectively). Of potential concern to youth sport stakeholders, 60.6% of parents either agreed or strongly agreed that a fear of their child’s illness would be a barrier to the resumption of sport participation. A majority (52.7%) also agreed or strongly agreed that a fear of their own illness would be a barrier to the resumption of participation. Of less concern to parents were having to deal with scheduling conflicts (29.0% agreed or strongly agreed), their child no longer being interested in sports (18.5% agreed or strongly agreed), and transportation difficulties (21.1% agreed or strongly agreed) (M = 2.64, 2.24, and 2.33, respectively). A descriptive summary of barriers to resuming regular sport participation can be found in Table 1.
Comfort with Children’s Return to Sport Participation

Parents reported that once health and safety concerns pertaining to COVID-19 are resolved, they would feel “somewhat comfortable” with their children returning to most forms of organized sport participation. Specifically, parents endorsed pickup/free play ($M = 3.76; SD = 1.21$), focused practice or drills ($M = 3.82; SD = 1.14$), and games or competition ($M = 3.71; SD = 1.24$). A descriptive summary of parents’ comfort with children’s return to sport can be found in Table 1.

Table 1. Descriptive Summary of Study Variables.

<table>
<thead>
<tr>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children’s Weekly Hours of Sport Participation (Before COVID-19)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pickup/Free Play</td>
<td>3.37</td>
<td>3.86</td>
</tr>
<tr>
<td>Virtual Training</td>
<td>1.29</td>
<td>2.57</td>
</tr>
<tr>
<td>Focused Practice or Drills</td>
<td>4.31</td>
<td>4.49</td>
</tr>
<tr>
<td>Games or Competition</td>
<td>3.39</td>
<td>3.39</td>
</tr>
<tr>
<td>Overall Time Spent</td>
<td>12.37</td>
<td>9.83</td>
</tr>
</tbody>
</table>

| **Children’s Weekly Hours of Sport Participation (During COVID-19)** |
| Pickup/Free Play | 2.24 | 3.89 | 0-24    |
| Virtual Training | 1.45 | 3.03 | 0-30    |
| Focused Practice or Drills | 1.56 | 3.02 | 0-36    |
| Games or Competition | 1.07 | 2.41 | 0-14    |
| Overall Time Spent | 6.32 | 8.13 | 0-44    |

| **Barriers to Resuming Regular Sport Participation (After COVID-19)** |
| Fear of Illness (Child) | 3.57 | 1.33 | 1-5     |
| Fear of Illness (Parent) | 3.31 | 1.31 | 1-5     |
| Schedule Conflicts | 2.64 | 1.32 | 1-5     |
| Child not Interested | 2.24 | 1.28 | 1-5     |
| Transportation Difficulty | 2.33 | 1.28 | 1-5     |

| **Parents’ Comfort with Return to Youth Sport (After COVID-19, by sport type)** |
| Pickup/Free play | 3.76 | 1.21 | 1-5     |
| Focused Practice or Drills | 3.82 | 1.14 | 1-5     |
| Games or Competition | 3.71 | 1.24 | 1-5     |

| **Parents’ Comfort with Return to Youth Sport (After COVID-19, by context)** |
| Individual Pickup Sports | 3.69 | 1.22 | 1-5     |
| Neighborhood Pickup Games | 3.44 | 1.22 | 1-5     |
| Intramural Sports at School | 3.36 | 1.25 | 1-5     |
| Interscholastic School Sports | 3.28 | 1.32 | 1-5     |
| Community Sports | 3.31 | 1.31 | 1-5     |
| Travel/Elite or Club Sport | 3.05 | 1.38 | 1-5     |
Group Differences

In line with our second research question, a variety of group difference tests (e.g., t-tests, ANOVAs, MANOVAs) were conducted to compare participant responses on the three primary study variables across region, community type, race, sex, and household income. Significant differences were found throughout these analyses and are detailed in the subsections below, as well as Tables 2-4.

Differences Across Region

A MANOVA was conducted to assess if there were differences between the five regions on a linear combination of children's hours of participation across different activities both prior to COVID-19 and after restrictions were implemented. A significant difference was found, Wilk's $\Lambda = .982, F(32, 9449.78) = 1.46, p < .05, \eta^2_p = .005$. Follow up univariate ANOVAs indicated that regions were significantly different regarding virtual training prior to restrictions, $F(4, 2590) = 2.95, p < .01$, virtual training during restrictions $F(4, 2590) = 3.17, p < .01$, and games or competition during restrictions $F(4, 2591) = 2.86, p < .01$. Specifically, parents from the Northeast reported significantly higher engagement in virtual training prior to and during restrictions ($M = 1.78$ and $2.09$, respectively) than parents from all other regions.

An ANOVA indicated that regions were significantly different regarding parents' fear of their child becoming ill once resuming sports or physical activities, $F(4, 2593) = 4.46, p < .01$. Specifically, parents from the Northeast and Southeast regions reported significantly higher concern of their child becoming ill ($M = 3.68, 3.59$, respectively) than the Midwest and West regions ($M = 3.36, 3.47$, respectively).

Comparing regions based on comfort of returning to sport resulted in significant differences across regions for focus practices and drills, $F(4, 2598) = 3.08, p < .01$ and games or competitions, $F(4, 2598) = 2.58, p < .01$. Specifically, the Southwest region reported the lowest comfort returning to these types of activities. Conversely, the Northeast region reported the highest level of comfort across both types of activities. Further detail of significant differences among study variables across regions are detailed in Table 2.

Table 2. Univariate F, Effect Size, Means, and Standard Deviations for Dependent Variables.

<table>
<thead>
<tr>
<th></th>
<th>$F$</th>
<th>$\eta^2_p$</th>
<th>Northeast M (SD)</th>
<th>Southeast M (SD)</th>
<th>Midwest M (SD)</th>
<th>Southwest M (SD)</th>
<th>West M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Training (Before)</td>
<td>$F(4, 2590) = 2.95$</td>
<td>.005</td>
<td>1.78 (2.86)$^a$</td>
<td>1.59 (3.21)$^a$</td>
<td>1.23 (2.93)$^a$</td>
<td>1.35 (3.21)$^a$</td>
<td>1.29 (2.89)$^a$</td>
</tr>
<tr>
<td>Virtual Training (During)</td>
<td>$F(4, 2590) = 3.17$</td>
<td>.005</td>
<td>2.09 (3.84)$^a$</td>
<td>1.89 (4.26)$^a$</td>
<td>1.44 (3.70)$^a$</td>
<td>1.54 (3.73)$^a$</td>
<td>1.40 (3.17)$^a$</td>
</tr>
<tr>
<td>Games or Competition (During)</td>
<td>$F(4, 2591) = 2.86$</td>
<td>.005</td>
<td>1.55 (3.01)$^a$</td>
<td>1.24 (2.74)$^a$</td>
<td>0.99 (2.56)$^a$</td>
<td>1.20 (2.79)$^a$</td>
<td>1.11 (2.69)$^a$</td>
</tr>
<tr>
<td>Fear of Illness – Child (After)</td>
<td>$F(4, 2593) = 4.46$</td>
<td>.007</td>
<td>3.68 (1.28)$^a$</td>
<td>3.59 (1.31)$^a$</td>
<td>3.36 (1.37)$^a$</td>
<td>3.54 (1.30)$^a$</td>
<td>3.47 (1.56)$^a$</td>
</tr>
<tr>
<td>Comfort with Focused Practice</td>
<td>$F(4, 2598) = 3.08$</td>
<td>.005</td>
<td>3.91 (1.06)$^a$</td>
<td>3.77 (1.17)$^a$</td>
<td>3.88 (1.09)$^a$</td>
<td>3.67 (1.24)$^a$</td>
<td>3.82 (1.15)$^a$</td>
</tr>
<tr>
<td>Comfort with Games &amp; Competition</td>
<td>$F(4, 2598) = 2.58$</td>
<td>.004</td>
<td>3.83 (1.17)$^a$</td>
<td>3.69 (1.25)$^a$</td>
<td>3.76 (1.22)$^a$</td>
<td>3.55 (1.28)$^a$</td>
<td>3.70 (1.25)$^a$</td>
</tr>
</tbody>
</table>

Notes: LSD post-hoc comparisons conducted for variables with significant univariate $F$. Significant mean differences ($p < .05$) on variable scores indicated by different superscripts.
Differences Across Community Types

A MANOVA was conducted to assess if there were differences between the three community types on children’s hours of participation across different activities both prior to COVID-19 and after restrictions were implemented. A significant difference was found, Wilk’s $\Lambda = .95$, $F(16, 5128) = 8.69$, $p < .01$, $\eta^2_p = .026$. Examination of the coefficients for the linear combinations distinguishing community types indicated that time spent on virtual training (both before and during restrictions), focused training or practices (both before and during restrictions), games or competition during the pandemic, and overall time spent on activities during the pandemic contributed most to distinguishing the groups. Follow up univariate ANOVAs indicated that communities were significantly different regarding virtual training prior to restrictions, $F(2, 2597) = 26.13$, $p < .01$, virtual training during restrictions $F(2, 2594) = 13.51$, $p < .01$, focused training and practice prior to restrictions $F(2, 2597) = 7.00$, $p < .01$, focused training and practices during restrictions $F(2, 2594) = 3.74$, $p < .05$, games or competition during restrictions $F(2, 2598) = 23.20$, $p < .01$, and the overall spent on activities during the restrictions, $F(2, 2583) = 8.71$, $p < .01$. Across the various activities, urban communities engaged in significantly more virtual training than suburban and rural communities. Also, suburban communities engaged in significantly more virtual training (prior to and during COVID restrictions) than rural communities.

An ANOVA indicated that communities were significantly different regarding parents fear of their child becoming ill once resuming sports or physical activities, $F(2, 2600) = 27.58$, $p < .01$. Specifically, urban community members reported being significantly more concerned about their child becoming ill than suburban and rural participants.

Comparing communities based on comfort of returning to sport resulted in significant differences concerning games or competitions, $F(2, 2600) = 4.82$, $p < .01$. Specifically, urban communities reported the highest comfort ($M = 3.80$), while suburban communities reported the least comfort ($M = 3.63$) returning to games and competitions. Statistically significant differences among study variables across community types are detailed in Table 3.

Differences Across Annual Household Income

A MANOVA was conducted to assess if there were differences between the three household income brackets on children’s hours of participation across different activities both prior to COVID-19 and after restrictions were implemented. A significant difference was found, Wilk’s $\Lambda = .98$, $F(16, 5128) = 4.10$, $p < .001$, $\eta^2_p = .013$. Follow up univariate ANOVAs indicated that income brackets were significantly different regarding free play and pick-up activities during restrictions, $F(2, 2594) = 3.25$, $p < .05$, virtual training prior to restrictions, $F(2, 2597) = 11.77$, $p < .01$, virtual training during restrictions $F(2, 2597) = 15.96$, $p < .01$, focused training during restrictions $F(2, 2594) = 5.63$, $p < .01$, games or competition during restrictions $F(2, 2598) = 11.04$, $p < .01$, and the overall time spent on activities during the restrictions, $F(2, 2583) = 14.91$, $p < .01$.

An ANOVA indicated that income brackets were significantly different regarding parents fear of their child becoming ill once resuming sports or physical activities, $F(2, 2600) = 3.98$, $p < .05$. Specifically, high income families reported being significantly more concerned about their child becoming ill than middle income families ($M_{high} = 3.63$, $M_{mid} = 3.45$).

Comparing income brackets regarding their comfort returning to sport resulted in significant differences concerning pickup and free play, $F(2, 2600) = 33.26$, $p < .01$, focused practice and drills, $F(2, 2600) = 28.84$, $p < .01$, and games or competitions, $F(2, 2600) = 39.29$, $p < .01$. Across the activity types each income level was significantly different from
High income families reported the highest comfort ($M = 4.01$, $M = 4.04$, $M = 4.01$), while low income families reported the lowest levels of comfort ($M = 3.54$, $M = 3.63$, $M = 3.49$). Statistically significant differences among study variables across household income brackets are detailed in Table 3.

### Table 3. Univariate F, Effect Size, Means, and Standard Deviations for Dependent Variables.

Notes: LSD post-hoc comparisons conducted for variables with significant univariate $F$. Significant mean differences ($p < .05$) on variable scores indicated by different superscripts.

<table>
<thead>
<tr>
<th></th>
<th>$F$</th>
<th>$\eta^2$</th>
<th>Urban M (SD)</th>
<th>Suburban M (SD)</th>
<th>Rural M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Training (Before)</td>
<td>$F(2, 2597) = 26.13$</td>
<td>.020</td>
<td>2.01 (2.37)$^a$</td>
<td>1.24 (2.92)$^a$</td>
<td>0.90 (2.57)$^a$</td>
</tr>
<tr>
<td>Virtual Training (During)</td>
<td>$F(2, 2594) = 13.51$</td>
<td>.011</td>
<td>2.12 (3.73)$^b$</td>
<td>1.65 (4.07)$^b$</td>
<td>0.98 (3.27)$^b$</td>
</tr>
<tr>
<td>Focused Practice or Drills (Before)</td>
<td>$F(2, 2597) = 7.00$</td>
<td>.005</td>
<td>4.13 (4.60)$^a$</td>
<td>4.87 (5.19)$^a$</td>
<td>4.87 (5.16)$^a$</td>
</tr>
<tr>
<td>Focused Practice or Drills (During)</td>
<td>$F(2, 2594) = 3.74$</td>
<td>.003</td>
<td>2.09 (3.73)$^b$</td>
<td>1.69 (3.79)$^b$</td>
<td>1.57 (4.26)$^b$</td>
</tr>
<tr>
<td>Games or Competition (During)</td>
<td>$F(2, 2598) = 23.20$</td>
<td>.018</td>
<td>1.68 (3.06)$^b$</td>
<td>0.98 (2.56)$^b$</td>
<td>0.82 (2.38)$^b$</td>
</tr>
<tr>
<td>Total Time Spent in Sport (During)</td>
<td>$F(2, 2583) = 8.71$</td>
<td>.007</td>
<td>8.34 (11.27)$^a$</td>
<td>6.68 (10.30)$^a$</td>
<td>6.11 (10.40)$^a$</td>
</tr>
<tr>
<td>Fear of Illness – Child (After)</td>
<td>$F(2, 2600) = 27.56$</td>
<td>.021</td>
<td>3.77 (1.26)$^b$</td>
<td>3.41 (1.33)$^b$</td>
<td>3.33 (1.35)$^b$</td>
</tr>
<tr>
<td>Comfort with Games &amp; Competition</td>
<td>$F(2, 2600) = 4.82$</td>
<td>.004</td>
<td>3.80 (1.22)$^b$</td>
<td>3.63 (1.25)$^b$</td>
<td>3.73 (1.22)$^b$</td>
</tr>
</tbody>
</table>

### Differences Across Race

Multiple $t$-tests were conducted to better understand the differences that may exist based on racial minority status. On average, White and all other races reported significant differences regarding pickup/free play during the pandemic restrictions, $t(2513.84) = 2.46$, $p < .05$. Specifically, White participants reported more pickup/free play activities ($M = 2.64$) than all other races ($M = 2.22$). All other types of sport participations were not significantly different based on race.

On average, White and all other races reported significantly different regarding their fear of their child becoming ill once they resume sport participation, $t(2596) = -4.77$, $p < .01$. Specifically, all other race participants reported more concern regarding their child becoming ill ($M = 3.67$) than White participants ($M = 3.43$).

Comparing racial groups based on comfort in returning to sport resulted in significant differences across pick up and freeplay, $t(2295.02) = 8.29$, $p < .01$, focused practice and drills, $t(2305.62) = 6.87$, $p < .01$, and games or competitions, $t(2317.19) = 7.62$, $p < .01$. Specifically, White participants reported significantly greater comfort across the three activity types ($M = 3.93$, $M = 3.95$, $M = 3.87$, respectively). Statistically significant differences among study variables across community types are detailed in Table 4.
Differences Across Child Sex

Multiple t-tests were conducted to better understand the differences that may exist on an array of outcome variables based on child sex. On average, parents of males and females reported a significantly different number of hours engaged in free play and pick up activities prior to the pandemic, \( t(2591) = 3.37, p < .01 \), games or competition prior to restrictions, \( t(2507.071) = 3.56, p < .01 \), and overall time in activities prior to \( t(2584) = 3.19, p = .05 \), and during restrictions, \( t(2580) = 4.79, p < .01 \). Specifically, male participants reported more time spent on free play and pick up activities prior pandemic restrictions (\( M_{\text{male}} = 3.85; M_{\text{female}} = 3.30 \)), greater time spent on games or competition during restrictions (\( M_{\text{male}} = 3.93; M_{\text{female}} = 3.33 \)), and greater overall time spent on sport activities prior to (\( M_{\text{male}} = 14.02; M_{\text{female}} = 12.48 \)).

Comparing parents of either male or female children based on comfort in returning to sport resulted in significant differences concerning pick up and freeplay, \( t(2340) = 3.89, p < .01 \), focused practice and drills, \( t(2332.64) = 3.91, p < .01 \), and games or competitions, \( t(2376.13) = 3.97, p < .01 \). Specifically, parents of male participants reported significantly greater comfort across the three activity types (\( M = 3.84, M = 3.90, M = 3.80 \), respectively). Significant differences among study variables across child sex are detailed in Table 4.

**Discussion**

The purpose of this study was to better understand parent perceptions of the current state of youth sport in the United States amidst the backdrop of the COVID-19 pandemic. In pursuing this aim, we sought to address two research questions: (1) How are sport parents' perceptions being shaped in the United States during COVID-19-related restrictions? and (2) How do these perceptions differ across region, community type, race, sex, and household income? In addressing these questions, we sought to better understand parent perceptions of the current state of youth sport amidst the backdrop of the pandemic and its related youth sport restrictions, as well as their perceptions of how various

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**Table 4. t-test, Effect Size, Means, and Standard Deviations for Dependent Variables.**

<table>
<thead>
<tr>
<th></th>
<th>( t )</th>
<th>( d )</th>
<th>White ( M (SD) )</th>
<th>All Other ( M (SD) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pickup/Free Play (During)</td>
<td>( t(2513.84) = 2.46 )</td>
<td>.10</td>
<td>2.65 (4.45)</td>
<td>2.22 (4.03)</td>
</tr>
<tr>
<td>Fear of Illness – Child (After)</td>
<td>( t(2596) = 4.77 )</td>
<td>.19</td>
<td>3.42 (1.35)</td>
<td>3.67 (1.28)</td>
</tr>
<tr>
<td>Pick Up and Free Play Comfort</td>
<td>( t(2295.02) = 8.29 )</td>
<td>.32</td>
<td>3.93 (1.14)</td>
<td>3.54 (1.26)</td>
</tr>
<tr>
<td>Focused Practice Comfort</td>
<td>( t(2305.62) = 6.87 )</td>
<td>.27</td>
<td>3.95 (1.09)</td>
<td>3.64 (1.19)</td>
</tr>
<tr>
<td>Games &amp; Competition Comfort</td>
<td>( t(2317.19) = 7.62 )</td>
<td>.30</td>
<td>3.87 (1.18)</td>
<td>3.50 (1.28)</td>
</tr>
<tr>
<td></td>
<td>( t(2591) = 3.37 )</td>
<td>.13</td>
<td>3.85 (4.22)</td>
<td>3.30 (4.29)</td>
</tr>
<tr>
<td>Games or Competition (Before)</td>
<td>( t(2507.071) = 3.56 )</td>
<td>.14</td>
<td>3.93 (4.41)</td>
<td>3.33 (4.07)</td>
</tr>
<tr>
<td>Total Time Spent in Sport (Before)</td>
<td>( t(2584) = 3.19 )</td>
<td>.13</td>
<td>14.02 (12.38)</td>
<td>12.48 (11.73)</td>
</tr>
<tr>
<td>Pick Up and Free Play Comfort</td>
<td>( t(2340) = 3.89 )</td>
<td>.16</td>
<td>3.84 (1.17)</td>
<td>3.65 (1.25)</td>
</tr>
<tr>
<td>Focused Practice Comfort</td>
<td>( t(2332.64) = 3.91 )</td>
<td>.16</td>
<td>3.90 (1.10)</td>
<td>3.72 (1.19)</td>
</tr>
<tr>
<td>Games and Competition Comfort</td>
<td>( t(2376.13) = 3.97 )</td>
<td>.16</td>
<td>3.80 (1.21)</td>
<td>3.60 (1.26)</td>
</tr>
</tbody>
</table>

*Note: Only variables with significant differences \( (p < .05) \) have been included.*
organizational, community, and sociodemographic factors may impact how youth sport may return to normal. In examining the primary study variables, three generalizations were drawn. These are explicated in the subsequent subsections.

**Sport and Physical Activity Opportunities Have Been Limited During the COVID-19 Pandemic**

As expected, parents reported lower levels of sport participation during COVID-19. Specifically, findings demonstrate almost a 50% decline in involvement (from 12.37 hours/week before COVID-19 to 6.32 hours/week). Parents reported lower participation rates among nearly all categories of involvement (e.g., pick up/free play, focused practice or drills, games or competition) except virtual training. Given the rapid proliferation of the pandemic in 2020, it was unsurprising that parents’ fears related to child and parent illness were the most common barriers highlighted by respondents. These findings suggest youth involvement in sport has been impacted significantly by the pandemic. With less participation in sport overall, there may be lasting impacts on children’s physical, social, and emotional well-being, as well as desire to continue sport participation.

Recent findings suggest that, in the absence of organized youth sport opportunities during the pandemic, about two-thirds of children are engaging in free play in the house or the yard, or riding bikes and taking walks (Dorsch & Blazo, 2020). The same survey suggests that a majority of American children have tried a new sport or physical activity during the pandemic, with the majority of these stating their child would continue that activity. Indeed, there may be some benefits to the pandemic, given parents are reporting their children are engaging in new unstructured physical activities by sampling other sports or activities. In fact, additional empirical research suggests these actions may guard against attrition by limiting sport-related injuries and promoting more enjoyable experiences (Côté et al., 2009). Other studies suggest that lifespan physical activities such as biking and walking often lead to increased long-term physical activity (Laine et al., 2014), perhaps another positive outcome if involvement continues post-pandemic.

**COVID-19 is Affecting Different Groups in Different Ways with Regard to Sport Participation**

Findings here and elsewhere demonstrate how perceptions vary among groups of parents from different backgrounds and circumstances (e.g., Harwood et al., 2019). Parents of boys reported greater levels of free play and overall sport involvement prior to the pandemic. They also indicated that their children spent more times in games or competition during restrictions. Rates of participation prior to and during the COVID-19 pandemic also were explored by region and community type. Both prior to and during the pandemic, parents from urban settings reported that significantly more of their children’s time was spent in focused training and practice, games or competition, virtual training and overall sport than parents from rural and suburban areas. Parents from rural settings were significantly less likely to report their children were involved in virtual training and also spent significantly less money on sports than the other two groups. These findings are not surprising given the existence of common barriers to participation such as cost, transportation, and access more prevalent in certain communities (Hardy et al., 2010; Holt et al., 2011).

There also were differences in parental fears about their child becoming ill by region, with parents from the Northeast and Southeast reporting greater concerns than those
parents from the Midwest and West regions. Additionally, parents from urban settings were more concerned about their child becoming ill than those from suburban or rural settings. Although parents in the Northeast exhibited relatively high concerns of their child becoming ill, the same subset of parents reported the highest levels of comfort in their children returning to practice/training and games/competition. This highlights the difficult calculus parents have engaged in when weighing health and safety concerns with the known positive outcomes associated with youth sport participation.

Privilege was noted when examining racial differences, as White participants were more likely to report their child participated in free play and pick up activities and were less likely to report concerns with their child becoming ill once participation resumes. There were anomalies, however, as parents from the highest income reported more fears than those from middle income levels. This suggests that it may not be only a matter of race, but a combination of race and affluence that predicted children’s physical activity and parents’ concerns with their child becoming ill during the pandemic. Moving forward, theory-driven research that examines the intersectionality of race and affluence in youth sport is needed. Specifically, scholarsh should examine sociodemographic factors such as race and affluence independently and in combination when assessing population-level outcomes in youth sport. Beyond the empirical understanding such would generate, it would address a number of practical considerations. Particularly, it may inform the ways communities and organizations design and deliver youth sport experiences as return-to-play protocols are put into place.

One of the most interesting takeaways from the findings was the widening gap in time spent playing sports across the three household income strata. Prior to COVID-related restrictions, children from families reporting income of more than $100,000 engaged in about 40 more minutes of sport per week than those from families reporting household income of less than $50,000. During the pandemic, the gap has widened to 2.5 hours. Future research is needed to explore the forces and factors contributing to this and other group differences, as well as parents’ perceptions of barriers to the resumption of sport participation.

Parents Vary Regarding Their Comfort in Letting Their Children Return to Sport After the Pandemic

Findings provide some indication about the degree to which parents felt comfortable with their children returning to participation once restrictions were lifted. Most parents reported their child would participate in sport at similar rates as before the pandemic. In general, parents also were fairly comfortable with most forms of return to play post-pandemic. When digging deeper, however, findings suggest these parents were more comfortable with the return to less competitive sport settings, such as pickup games and intramurals. Interestingly, of the parents who reported their children would discontinue their sport participation, nearly half (47.6%) said this would happen due to health risks. Yet a quarter (22.8%) reported this would happen because their child developed new interests. These data may support contentions raised by The Aspen Institute (Farrey, 2020), as perhaps the pandemic may afford a “reset” of youth sports and allow for less value to be placed on specialization and elite travel teams and more on sport-for-all through quality and affordable community-based options.

While it is difficult to fully predict what true effect the COVID-19 pandemic will have on youth sport, this study highlights parents’ perceptions of how the pandemic has impacted their families and perhaps allows for potential projections about how these and other families might re-engage with youth sport moving forward. The majority of parents sampled
suggested that they will seek increased amounts of free, unsupervised, and recreational play for their children, perhaps in close-to-home environments and with known contacts. Our data suggest that there may be attrition from competitive youth sports and that the parents of discontinuing youth may seek more recreational or self-defined sport opportunities, or even less structured forms of physical activity. Despite these apparent trends, a small subset of parents suggested that their families will fully re-engage in youth sport, including travel team opportunities and competitive and specialized training models. Across both pathways, there appears to be an appetite among parents and athletes for increases in virtual training opportunities. These could take the form of individual or small group training that occurs remotely. Our data suggest that the cost, convenience, and minimal health risk of virtual training may be the primary reasons parents and families seek these opportunities. Finally, our data suggest that nearly 1 in 5 children who were actively engaged in one or more youth sports prior to the pandemic are not interested in returning. However, what remains unclear is whether this is a temporary or long-term lull in motivation. Moving forward, qualitative research could be designed to better understand these post-pandemic “trajectories” as well as the perspectives and perceptions of those who follow them.

Limitations and Future Directions

Despite the contributions made by this study to early understanding of the state of youth sport in the United States amidst the COVID-19 pandemic, our findings should be framed by study limitations. First, our research was atheoretical in its design, having been conducted in an effort to provide broad descriptive data while also highlighting a range of perspectives and perceptions across conceptually important subgroups. Future work could use established theories from the sport psychology, family studies, or epidemiology literatures to test specific hypotheses on these or other variables of interest. This work should incorporate psychometrically sound measures with established validity and reliability across the targeted youth sport settings.

A second limitation was that our respondents comprised a self-selected sample of youth sport parents from across the United States. Although we recruited a statistically representative subset of American youth sport parents from all 50 states and the District of Columbia, the sample is likely biased toward parents whose children remain (or desire to remain) involved in youth sport and who have access to a reliable internet connection at home or at work. Moreover, our study was conducted exclusively in English, which limits the number of migrant parents who may have otherwise responded. Future work could target the impact of COVID-19-related restrictions on these families, perhaps targeting unique barriers that compound the difficulties associated with navigating an already difficult American youth sport system.

Finally, a subset of our data was gathered by asking parents to project what barriers might exist to their child’s resumptions of regular sport participation as well as their comfort with a child’s return to various sport types and sport contexts after COVID-19-related restrictions are lifted. While valuable, these data only offer insight into parents’ hypothetical behaviors when COVID-19-related restrictions are lifted. It will be important for researchers to survey parents as restrictions are lifted and as states and municipalities begin to return to normal. Of particular interest will be whether the nation approaches this process collectively or whether re-opening is achieved in a fragmented, community-specific way. Although the present research was not framed in extant theory, future scholars are encouraged to adopt a more holistic approach to understanding youth sport in post-pandemic America. Of particular value may be Dorsch and colleagues’ (2020) integrated
model of the youth sport system, which delineates the interdependent persons and contexts that influence and are influenced by an athlete in youth sport. A second theory that could potentially be used to frame families’ decision-making processes is the theory of planned behavior (Ajzen, 1985). This theory has been used in a number of contexts to predict an individual or group’s intention to engage in a specific action (e.g., engaging in sport or physical activity). Work utilizing one or both of these frameworks would be well-positioned to help researchers understand children’s return to youth sport in a post-pandemic America.

Conclusions

American youth sport has always been dynamic, with supply- and demand-side constraints driving its design and delivery. This has become more apparent amidst the backdrop of COVID-19, as youth sport has been differentially impacted -- and participated in -- across the country. The present research provides community leaders, sport organizations, coaches, and families with an opportunity to better understand the state of youth sport in the United States amidst the backdrop of COVID-19. An important takeaway is that stake holding organizations and individuals should engage in purposeful dialog and policymaking regarding the roles and goals of youth sport in America. To do so effectively, key stakeholders must aim to better understand the structural, social, and health-related barriers that may be limiting families’ perceived comfort in return-to-play. The present study offers an important foundation for this understanding and therefore has the potential to shape the when and the how of the ongoing return-to-youth sport narrative in the United States. Moving forward, discussions among thought leaders and the organizations tasked with the design and delivery of youth sport should be grounded in an understanding that decisions around return-to-play are likely to differ across regions, community types, races, sexes, and household income levels. These intersectional considerations should be attended to in greater depth in future empirical and community-level work.

Patents

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Conflicts of Interest: The authors acknowledge that the funders had a primary role in the design of the online questionnaire used in this study.
References


