Empirical – Sport

Sport Fans’ Consumption Behaviors Following the COVID-19 Pandemic and Return to In-Person Spectating

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Abstract

The purpose of the present investigation was to examine consumption of sporting events after sport leagues returned from the COVID-19 pandemic. A sample of 329 college-aged sport fans were recruited for the study. Participants were administered measures to assess their sport fandom, sport fandom spectator identification, sport rivalry fan perception, and behavioral consumption of sport. Data was obtained between October 2020 to January 2021 as sport leagues returned to play. Results from the current study indicated that current sport consumption is at a similar level as it was pre-pandemic. However, the methods of consumption were inconsistent. Participants in the present investigation stated they were watching sports on television less than they were before the pandemic. Sport fans also indicated they were attending more games in person. Sport fandom was also the strongest predictor of sport-consumption behavior. Team identification and rivalry also accounted for modest variations of consumption behaviors. Future studies could explore future levels of sport fans in person attendance as sport leagues continue to return from COVID-19. Additionally, future work could explore other conditions in which team sport fandom is a strong predictor of sport consumption behaviors.

Keywords: COVID-19, Team Identification, Sport Fandom, Spectatorship
The COVID-19 pandemic produced an unprecedented (in our lifetimes) event—the prolonged cancellation of all sport activities (Bengel, 2020; Wauters et al., 2020). Between March 2020 and July 2020, there were no professional, college, or high school sporting events in the United States (Lacques, 2021). Sport fans were without an outlet for consuming sport and found their leisure activities elsewhere (Grieve et al., in press). The purpose of this study was to examine what activities sport fans participated in when professional and college sports returned. Thus, this study contributes to the existing literature by examining sport fan consumption behaviors following a pandemic and contributing to the knowledge base that has been developed surrounding team identification and sport fandom.

The COVID-19 pandemic began in Wuhan city, China, on November 17, 2019, and by March 2020 was declared a global pandemic (World Health Organization, 2020). On March 13, 2020, the United States (USA) declared a national emergency as a response to COVID-19 (Centers for Disease Control, 2020). This national emergency led to the disruption of sports leagues due to the requirement for social distancing. All competitive sporting leagues in the United States ceased operations during the shelter at home orders issued by state governors during the pandemic (Wagner, 2020).

Grieve and colleagues (Grieve et al., under review) asked sport fans about their plans to return to consuming sport once the pandemic was over. Sport fans were asked to predict if they would consume sports at the same level as before the pandemic, at a higher level than before the pandemic, or at a lower level than before the pandemic for six different behaviors: watch sports on television, listen to sports on the radio, follow sports on the internet, attend games in person, buy sport merchandise, and feel connected to their favorite team. While the modal answer for all behaviors was continue at the same level, a higher percentage of respondents indicated that they believed they would increase their consumptive behavior (compared to before the COVID-19 pandemic) for five of the six behaviors. The exception was attending games in person. Here, more fans indicated that they would attend less frequently than before the pandemic than indicated they would attend more frequently than before the pandemic. The current study was conducted to determine if these predictions held true.

A return to attendance at live events is important for sport organizations. The COVID-19 pandemic affected attendance at live events even before the official shut down of the leagues (Reade & Singleton, 2021). Prior to the pandemic, fans appeared to be leery of catching the disease and, at least some, stayed away from large gatherings such as sporting events where the virus could be spread (Reade & Singleton, 2021). Such a decrease in attendance could affect organizations’ brand strength. Thus, it becomes important to organizations that individuals return to attendance so that they can develop the community surrounding the brand—and this development is best done in person (Mastromartino et al., 2020).

Two variables that have been shown to influence consumptive behaviors in the past (see Wann & James, 2019, for a review), and, therefore, could influence consumption following the COVID-19 pandemic lock out, are sport fandom and team identification. Sport fans are people who find a great deal of enjoyment in watching and/or consuming sporting events (Wann & James, 2019). Even though people who attend sporting events can do so for a number of reasons, including socializing with friends and family (c.f., Wann et al., 2008), sport fans usually attend because of an attraction to a given sport. The discontinuation of the sporting leagues necessitated that sport fans look to other activities for their leisure pursuits (see Grieve et al., under review). Thus, the return of live sporting events could lead to an increase in consumption behavior. Past research has shown that, when people abstain from behaviors, often they relapse into a pattern of high use after abstaining (Marlatt & Gordon, 1985).

Team identification is the psychological connection that fans have with their favorite team (e.g., Kim & Kim, 2009; Wann & James, 2019). Higher levels of team identification have been shown to be associated with higher levels of social psychological health (Wann, 2006). Individuals with a higher level of team identification, compared to those who have lower levels of team identification, have higher levels of positive states of mental health, including higher self-esteem and lower levels of depression (Wann, 2006). In addition, team identification has been correlated with sport consumption. Team identification or identification with a specific athlete has a great impact on fans’ decisions to consume sporting events (Wann et al., 2001). Thus, because of this relationship, it is likely that team identification will have an impact on sport fans’ decisions to consume sport following the COVID-19 pandemic.

The current study was designed as a follow-up study to Grieve et al. (under review). The purpose of the
study was to examine to what extent sport fans were consuming sport after leagues returned following the COVID-19 pandemic. The following hypotheses were evaluated:

**H1: Sport fans will report consuming sport at a higher level following the pandemic as compared to before the pandemic.**

**H2: Team identification, sport fandom, and rivalry perceptions will positively predict consumption behavior, with team identification being a stronger predictor than fandom and rivalry perceptions.**

### Method

#### Participants

Participants for this study were 329 college-age sport fans (100 males, 226 females, 3 who identified as another gender, and 3 who did not provide gender) who were recruited from the university’s Department of Psychology subject pools and via snowball sampling. The mean age of the participants was 19.88 years ($SD = 5.53$ years). There were 238 (71.7%) Caucasian participants, 48 (14.5%) African American participants, 15 (4.5%) biracial participants, 12 (3.6%) Latinx participants, 9 (2.7%) Asian American participants, 2 (0.6%) Native American participants, 1 (0.3%) Arabic participant, and 7 (2.1%) participants who did not identify their ethnicity. Participants had an average level of education of 13.57 years ($SD = 1.30$ years), which is a college freshman. There were 55 (16.6%) participants who noted health concerns; these concerns ranged from pre-existing health problems to concerns over the corona virus.

#### Measures

**Demographics**

Participants answered five demographic questions. These asked participants to report gender, age, race/ethnicity, education level, and any health concerns that they have.

**Sport Fan Questionnaire (SFQ)**

The SFQ (Wann, 2002) is a five-item self-report measure that examines self-identified sport fandom. While the SFQ can be used to examine individual sports, it was used in the present study to evaluate sport fandom in general. The SFQ is scored on an eight-point Likert-type scale from 1 (strongly disagree) to 8 (strongly agree). Higher scores mean higher levels of self-identified fandom. An example item from the SFQ is “My friends see me as a sport fan.” In past research, the SFQ has been shown to have good psychometric properties across many international contexts (Wann & James, 2019), with typical Cronbach’s alphas of about .90 (see Grieve et al., under review).

**Sport Spectator Identification Scale, Revised (SSIS-R)**

The SSIS-R (James et al., 2019) is a seven-item self-report measure that evaluates connection individuals feel with an individual sport team. Participants in the present study were asked to name their favorite team as a target. After a screening question that asks whether the individual has a connection with a team, participants respond to seven items along an eight-point Likert-type scale from 1 (minimal fandom) to 8 (high fandom). Higher scores mean there is a stronger attachment to a team. An example item is “How strongly do YOUR FRIENDS see YOU as a fan of your favorite team?” The SSIS-R has been shown to have Cronbach’s alphas ranging from .88 to .96, suggesting good internal consistency (Grieve et al., under review; James et al., 2019).

**Sport Rivalry Fan Perception Scale (SRFPS)**

The SRFPS (Havard et al., 2013) is a 12-item self-report measure that evaluates four areas of perceived rivalry in sport: (1) out-group indirect competition, (2) out-group academic prestige, (3) out-group sportsmanship, and (4) sense of satisfaction. Participants in the current study were asked to name the main rival of their favorite team as a target for the SRFPS. Participants responded to the SRFPS along a seven-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate a less favorable opinion of the rival. Example items include: “I want this team to win all games except when they play my favorite team,” “Fans of this team do not show respect for others,” and “I feel a sense of belonging when my favorite team beats this team.” The SRFPS has also been shown to have good psychometric qualities (Grieve & Case, 2019), including Cronbach’s alphas that range from .84 to .95 for the subscales in past research (Grieve et al., under review).

**Behavioral Consumption Scale (BCS)**

Participants responded to six questions that evaluated their actual sport consumption following the resumption of competition in front of live crowds. These items were answered on a three point scale: 1 (more than I did before the COVID-19 outbreak), 2 (about the same as I did before the COVID-19 outbreak), and 3 (less than I did before the COVID-19 outbreak).

#### Procedures

Participants completed the survey online. Data were collected from October 2020 to January 2021 when
many leagues had returned to play. The SFQ, SSIS, and SRFPS were counterbalanced in presentation, and participants completed these measures before they completed the behavioral ratings. The mean completion time was 547.43 seconds (9.06 minutes; SD = 1449.91 seconds).

**Results**

**Preliminary Analyses**

Items for the SFQ, SSIS, subscales of the SRFPS (out-group indirect competition [OIC], out-group academic prestige [OAP], out-group sportsmanship [OGS], and sense of satisfaction [SOS]), and total SRFPS were summed to create a total score for each measure. Items for the OIC subscale were reverse scored to match the other subscales on the SRFPS. Means, standard deviations, Cronbach’s alphas, and minimum and maximum values are presented in Table 1. All scales had decent to good internal consistency and had a wide range of scores.

To determine consumption behavior, the scores on all six of the questions asking about the behavior were summed. The mean, standard deviation, Cronbach’s alpha, and minimum and maximum values are presented in Table 1. Note that, because the items were scored 1 (more than before COVID), 2 (about the same as before COVID), and 3 (less than before COVID), lower scores mean higher levels of consumption.

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
<th>AMinV</th>
<th>AMaxV</th>
<th>OMinV</th>
<th>OMaxV</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFQ</td>
<td>22.25</td>
<td>11.40</td>
<td>.96</td>
<td>5</td>
<td>40</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>SSIS</td>
<td>33.69</td>
<td>14.17</td>
<td>.93</td>
<td>7</td>
<td>56</td>
<td>7</td>
<td>56</td>
</tr>
<tr>
<td>SRFPS</td>
<td>49.06</td>
<td>11.13</td>
<td>.77</td>
<td>13</td>
<td>91</td>
<td>24</td>
<td>82</td>
</tr>
<tr>
<td>OIC</td>
<td>13.94</td>
<td>.55</td>
<td>3</td>
<td>21</td>
<td>3</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>OAP</td>
<td>11.93</td>
<td>4.38</td>
<td>.56</td>
<td>4</td>
<td>28</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>OGS</td>
<td>10.08</td>
<td>4.44</td>
<td>.85</td>
<td>3</td>
<td>21</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>SOS</td>
<td>13.20</td>
<td>4.62</td>
<td>.86</td>
<td>3</td>
<td>21</td>
<td>3</td>
<td>21</td>
</tr>
</tbody>
</table>

Note: AMinV = absolute minimum value on the scale based on items, AMaxV = absolute maximum value on the scale based on items, OMinV = Obtained minimum value of the items in the study, OMaxV = obtained maximum value of the items in the study, SFQ = Sport Fandom Questionnaire, SSIS = Sport Spectator Identification Scale, SRFPS = Sport Rivalry Fan Perception Scale, OIC = Out-group Indirect Competition, OAP = Out-group Academic Prestige, OGS = Out-group Sportsmanship, SOS = Sense of Satisfaction, BEH = Consumption Behavior.

**Hypothesis Evaluation**

Hypothesis 1 evaluated whether participants actually consumed sport more than what they thought they would during the pandemic. This was assessed was via six questions asking fans about their consumer behavior since sports returned after the pandemic and asked them to compare current behavior to before the onset of the pandemic. The behaviors included watching on television, listening to the radio, following on the internet, attending games in person, purchasing memorabilia, and feeling close to the team. As shown in Table 2, participants reported that they were consuming sports at a level less than prior to the COVID-19 pandemic. The two exceptions were attending games in person and feeling closer to the team. Participants reported higher levels than before the pandemic for these consumption behaviors. The percentage of people who reported consuming at a higher rate than before COVID was compared to the percentage of people who reported consuming at a lower rate than before COVID. As shown in Table 3, there were significant differences among all of the percentages.
Hypothesis two examined whether fandom, team identification, and perception of rivalry would predict consumption behaviors. The SFQ total score, SSIS total score, and the subscale scores for the SRFPS were entered as predictor variables in a linear regression model with consumption behaviors as the dependent variable. Results indicated that the combined variables accounted for approximately 10% of the variance (R² = .098). As shown in Table 4, sport fandom was the only significant predictor of consumption behavior.

### Table 2

<table>
<thead>
<tr>
<th>Behavior</th>
<th>More(%)</th>
<th>Same(%)</th>
<th>Less(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch sports on television (n = 329)</td>
<td>45 (13.7%)</td>
<td>92 (28.0%)</td>
<td>192 (58.4%)</td>
</tr>
<tr>
<td>Listen to sports on the radio (n = 329)</td>
<td>36 (10.9%)</td>
<td>177 (53.8%)</td>
<td>116 (35.3%)</td>
</tr>
<tr>
<td>Follow sports on the internet (n = 328)</td>
<td>40 (12.2%)</td>
<td>168 (51.2%)</td>
<td>120 (36.6%)</td>
</tr>
<tr>
<td>Attend games in person (n = 329)</td>
<td>108 (32.8%)</td>
<td>140 (42.6%)</td>
<td>81 (24.6%)</td>
</tr>
<tr>
<td>Buy sport merchandise (n = 328)</td>
<td>33 (10.1%)</td>
<td>184 (56.1%)</td>
<td>111 (33.8%)</td>
</tr>
<tr>
<td>Feel connected to favorite team (n = 328)</td>
<td>128 (39.0%)</td>
<td>128 (39.0%)</td>
<td>72 (22.0%)</td>
</tr>
</tbody>
</table>

### Table 3

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Chi²</th>
<th>p</th>
<th>DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch sports on television (n = 329)</td>
<td>142.36</td>
<td>&lt;.0001</td>
<td>1</td>
</tr>
<tr>
<td>Listen to sports on the radio (n = 329)</td>
<td>55.05</td>
<td>&lt;.0001</td>
<td>1</td>
</tr>
<tr>
<td>Follow sports on the internet (n = 328)</td>
<td>52.85</td>
<td>&lt;.0001</td>
<td>1</td>
</tr>
<tr>
<td>Attend games in person (n = 329)</td>
<td>5.40</td>
<td>.02</td>
<td>1</td>
</tr>
<tr>
<td>Buy sport merchandise (n = 328)</td>
<td>53.69</td>
<td>&lt;.0001</td>
<td>1</td>
</tr>
<tr>
<td>Feel connected to favorite team (n = 328)</td>
<td>22.32</td>
<td>&lt;.0001</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>TV</th>
<th>Radio</th>
<th>Internet</th>
<th>Attend</th>
<th>Purchase</th>
<th>Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFQ</td>
<td>-.01</td>
<td>-.01</td>
<td>-.22**</td>
<td>-.36**</td>
<td>-.21**</td>
<td>-.27**</td>
</tr>
<tr>
<td>SSIS</td>
<td>.06</td>
<td>-.04</td>
<td>-.13*</td>
<td>-.22**</td>
<td>-.14**</td>
<td>-.20**</td>
</tr>
<tr>
<td>SRFPS OIC</td>
<td>.05</td>
<td>-.02</td>
<td>.05</td>
<td>-.02</td>
<td>-.06</td>
<td>.01</td>
</tr>
<tr>
<td>SRFPS OAP</td>
<td>-.06</td>
<td>-.01</td>
<td>-.01</td>
<td>.05</td>
<td>-.04</td>
<td>-.02</td>
</tr>
<tr>
<td>SRFPS OGS</td>
<td>-.01</td>
<td>.06</td>
<td>-.01</td>
<td>.01</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>SRFPS SOS</td>
<td>.14*</td>
<td>.03</td>
<td>-.05</td>
<td>-.09</td>
<td>-.04</td>
<td>.13*</td>
</tr>
</tbody>
</table>

Note: SFQ = Sport Fandom Questionnaire total score; SSIS = Sport Spectator Identification Scale, Revised total score; SRFPS OIC = Sport Rivalry Fan Perception Scale Out-group Indirect Competition score; SRFPS OAP = Sport Fan Rivalry Perception Scale Out-group Academic Prestige score; SRFPS OGS = Sport Rivalry Fan Perception Scale Out-group Sportsmanship score; SRFPS SOS = Sport Rivalry Fan Perception Scale Sense of Satisfaction score; TV = Question assessing how much participants watch sports on television; Radio = Question assessing how much participants listen to sports on the radio; Internet = Question assessing how much participants follow sports on the internet; Attend = Question assessing how much participants attend sporting events in person; Close = Question assessing how much participants felt close to their favorite team. The consumption items were scored on a three-point scale: 1 more than before the pandemic; 2 about the same as before the pandemic; 3 less than before the pandemic. * p < .05; ** p < .001.
Discussion

The purpose of this study was to examine how sport fans are consuming sports with the resumption of sport leagues following the COVID-19 pandemic. Results indicated that fans are generally consuming sport at the same level as they did prior to the pandemic. However, the level of consumption is not consistent across all categories.

The hypothesis under study is that sport fans will consume sports at a higher level as compared to before the COVID-19 pandemic. This hypothesis was partially supported. The modal response to items on the BCS was “same as before the COVID-19 pandemic,” with percent of respondents choosing this selection ranging from 28.0% to 56.1%. It is notable that there were only two items on which fans indicated that they were consuming at a higher level than before the pandemic: attending games in person and feeling connected to their favorite team. Further, when subjected to a chi² analysis, the differences were statistically significant. It is likely that the combination of forced restriction from attending games and the absence of sport contests all together led to this response that appears to be similar to the abstinence violation effect (Marlatt & Gordon, 1985). Fans reported attending at a higher rate than before the pandemic, most likely because they missed the experience (Wolken, 2021) and perhaps overcompensated in their behaviors because of it.

One activity that seemed to suffer was watching sports on television. Most fans (58.4%) said that they were doing this less than they had before the pandemic. It is likely that part of this decrease came about because fans are returning to the live viewing of sports and, thus, do not have the need to watch on television. Another part of this decrease could be due to the fact that sport fans used watching televised sports as a coping mechanism during the COVID-19 pandemic (Grieve et al., under review). Thus, they may be satiated with watching sports on television and prefer to attend in person.

Grieve et al. (under review) asked fans to predict their post-COVID-19 consumption behaviors during the middle of the pandemic. While the modal response was “same as before the COVID-19 pandemic,” with percentage of respondents selecting that option ranging from 40.7% to 56.4%, more participants reported they expected to consume more sports as compared to those who expected to consume less. That is, respondents believed they would be consuming more sports than they actually reported they were consuming. In fact, the only item from Grieve et al. that was rated as being less likely to occur was attending games in person (28.3% more; 40.7% same; 31.0% less). It is interesting to note that this is the one of two items in the current study that were rated as being done at a higher rate. It also must be noted that when fans were asked to make predictions about behaviors after the pandemic, many were concerned about health risks associated with the COVID-19 virus. Thus, this concern may have decreased their willingness to attend games and most likely affected their predictions.

When people are asked to predict the likelihood of an event, they often over estimate the likelihood of its occurrence (c.f., Givi & Galak, 2019; van Dijk et al., 2008). Even sport fans have been known to change their predictions of success leading up to an event, a phenomenon known as proactive pessimism (Wann & Grieve, 2008). Thus, it is not surprising that participants provided poor predictions for future performance.

Hypothesis two stated that team identification, sport fandom, and rivalry perceptions would predict consumption behavior, with team identification being a more robust predictor than fandom and rivalry. This hypothesis was partially supported. Team identification, sport fandom, and rivalry perceptions, together, accounted for about 10% of the variance in consumption scores. However, it was sport fandom that was the strongest predictor, not team identification. This is contrary to the findings of a number of studies (see Wann & James, 2019) that indicate that team identification is usually a stronger predictor of behavior than sport fandom. It is possible that the deprivation from COVID-19 combined with the timing of the study contributed to this finding. That is, this study was conducted from October to January. While many sports were being played and fans were allowed in the buildings, there were sports, such as Major League Baseball, that were not yet back in season. It is likely that sport fans in general with a Major League Baseball favorite team missed attending sporting events that they went to a game “just to get out,” regardless of the type of sport or the teams playing.

There are some limitations to this study. First, a convenience sample of college students and people who had volunteered to participate in previous sport fandom research was used. Such a sample could limit the generalizability of the findings. However, college students can also be sport fans and they have the
opportunity to consume sport via their college teams; thus, the limitations to generalizability may be small. Another limitation is the internal consistency of the BCS. Cronbach’s alpha for this measure was .74, which indicates adequate internal consistency. Having a measure with good (alpha = .80 or better) or excellent (alpha = .90 or better) would increase the confidence in the findings (Hunsley & Mash, 2008).

Finally, participants were asked to specify a single favorite team and a single rival team. Since sport fans follow more than one team (Grieve et al., 2009) and perceive more than one rival team for their favorite teams (Wann et al., 2016), it is possible that the results found were limited due to the limited number of options participants were asked to consider.

This study leads to some areas of future research. First, it would be interesting to examine whether fans continue to report attending games at a high rate or if this number will return to “normal” levels. A second area of inquiry would be to examine under what other conditions sport fandom becomes a better predictor of behavior than team identification.

In conclusion, the current study was conducted to determine fans’ consumption behaviors following the COVID-19 pandemic. Fans reported that they were consuming sport at a level commensurate with before COVID-19, as fans agreed to do what it’s typically loath to do: give in. However, data suggest that fans were more likely to attend games in person than prior to the pandemic, which was opposite of what fans expected to do in the midst of the pandemic.

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