

The Impact Of Social Media On The Mental Health Of National And International Level Baseball And Softball Players In India

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Abstract

This pioneering research delved deep into the impact of the digital realm on the mental fortitude of national and international level baseball and softball players in the vibrant realm of Indian sports. Through a captivating blend of quantitative surveys and qualitative interviews, the study explored the intricacies of social media engagement and its profound effects on the psychological well-being of 30 players, all between the ages of 17 and 25, hailing from Lovely Professional University (LPU). Unveiling a tapestry of social media habits, the research uncovered fascinating insights into the frequency, duration, and types of platforms favoured by these athletes. But the true revelation lay in the psychological labyrinth that emerged - a realm where stress, anxiety, and self-esteem intertwined with every scroll and click. The study's findings painted a vivid picture of the impact of social media on athlete mental health. Surveys revealed a direct correlation between increased social media use and heightened levels of stress, anxiety, and self-esteem issues among players. Notably, significant disparities in mental health outcomes were found based on sports affiliation and participation levels, underscoring the nuanced dynamics at play within the sporting community. Yet, amidst the shadows of these findings, a beacon of hope emerged. The study called for a collective effort to nurture environments that championed athlete well-being. It championed innovative strategies to navigate the digital realm's pitfalls while amplifying the

voices of athletes in shaping their mental resilience. As the curtain fell on this captivating exploration, the research beckoned stakeholders to embark on a transformative journey. One where the digital and the physical converged, where social media platforms became arenas for empowerment rather than enigmas of anxiety. It was a call to action for a new era of athlete support, one where every swipe and share contributed to the holistic well-being of those who inspired us on the field and beyond.

INTRODUCTION

Softball - Softball is a game similar to baseball played with a larger ball (11 to 16 in. circumference) on a field that has base lengths of 60 feet, a pitcher's mound that ranges from 43–to 50 feet away from home plate, and a home run fence that is 200–220 feet away from home plate, depending on the type of softball being played. It was invented in 1887 in Chicago, Illinois, United States as an indoor game.[3] The game moves at a faster pace than traditional baseball. There is less time for the base runner to get to first while the opponent fields the ball; yet, the fielder has less time to field the ball while the opponent is running down to first base. The name "softball" was given to the game in 1926 because the ball used to be soft; however, in modern-day usage, the balls are hard. There are two rules' codes for softball generally. In the most common type, slow-pitch softball, the ball, which can measure either 11 inches, for a women's league, or 12 inches, for a men's league, in circumference, must arch on its path to the batter and is 10 players on the field at once. Bunting and stealing bases are not permitted. In fast-pitch softball, the pitch is fast, there are nine players on the field at one time, and while bunting and stealing bases are permitted, leading off is not.[6] Fast pitch is the most common in some states, such as Virginia, where the fast pitch is the most common type of softball in high schools nationwide. The Olympics features women's fast-pitch softball. Softball rules vary somewhat from those of baseball. Two major differences are that the ball must be pitched underhand—from 50 ft (15.2 m) in slow pitch, or 46/43 ft (14/13.1 m) [7] for men/women in fastpitch as compared with 60.5 ft (18.4 m) in baseball—and that seven innings, or 1-2 hours depending on the league, constitute a regulation game compared with nine innings in baseball.

The name "softball" dates back to 1926. The name was coined by Walter Hakanson of the YMCA at a meeting of the National Recreation Congress. (In addition to "indoor baseball", "kitten ball", and "diamond ball", names for the game included "mush ball", and "pumpkin ball".) The name softball had spread across the United States by 1930. By the 1930s, similar sports with different rules and names were being played all over the United States and Canada. By 1936, the Joint Rules Committee on Softball had standardized the rules and naming throughout the United States.

By the 1940s, fast pitch began to dominate the game. Although slow pitch was present at the 1933 World's Fair, the main course of action taken was to lengthen the pitching distance. Slow Pitch achieved formal recognition in 1953 when it was added to the program of the Amateur Softball Association, and within a decade had surpassed fast Pitch in popularity. The first British women's softball league was established in 1953.

In 1991, women's fast-pitch softball was selected to debut at the 1996 Summer Olympics. The 1996 Olympics also marked a key era in the introduction of technology in softball. The IOC funded a landmark biomechanical study on pitching during the games.

In 2002, the sixteen-inch slow pitch was written out of the ISF official rules, although it is still played extensively in the United States under The Amateur Softball Association of America or ASA rules.

The 117th meeting of the International Olympic Committee, held in Singapore in July 2005, voted to drop softball and baseball as Olympic sports for the 2012 Summer Olympics but will be back in the 2021 Summer Olympics in Tokyo.

Other sanctioning bodies of softball are PGF, TCS (Triple Crown Sports), USA, ASA, USA, PONY, NSA, and Pony.

Baseball- a game played with a bat and ball between two teams of nine players (or 10, if a designated hitter bats and runs for the pitcher). Baseball is played on a large field that has four bases laid out in a square, positioned like a diamond, whose outlines mark the course a runner must take to score. The team's alternate positions as batters and fielders, exchanging places when three members of the batting team are put out. Batters try to hit a pitched ball out of reach of the fielding team and complete a circuit around the bases to score a "run." The team that scores the most runs in nine innings (times at bat)

wins the game. If a game is tied, extra innings are played until the tie is broken. Baseball is traditionally considered the national pastime of the United States. It was once thought to have been invented in 1839 by Abner Doubleday in Cooperstown, N.Y., but it is more likely that baseball developed from an 18th-century English game called rounders that was modified by Alexander Cartwright. The first professional association was formed in 1871; in 1876 it became the National League. Its rival, the American League, was founded in 1900, and since 1903 (except in 1904 and 1994) the winning teams of each league have played a postseason championship known as the World Series. The Baseball Hall of Fame is located in Cooperstown. Professional baseball leagues also exist in several Latin American countries. The champions of leagues in the Dominican Republic, Mexico, Puerto Rico, and Venezuela compete in the Caribbean Series each February. In Asia, there are professional baseball leagues in Japan and South Korea and on the island of Taiwan. Japan has two major leagues, the Central and the Pacific, that face off in the Japan Series every October.

The paediatrician needs to have an understanding of baseball and softball. This will allow the paediatrician to offer appropriate counselling and guidance to the many boys and girls, their parents, and members of the sporting community who participate in baseball and softball each year.

Baseball is one of the most popular sports in the United States, with an estimated 8.6 million children ages 6 to 17 participating annually in organized and recreational baseball. Although baseball is a relatively safe sport in comparison with many other athletic activities, highly publicized catastrophic impact injuries from contact with a ball or a bat frequently raise safety concerns. These incidents, as well as the high frequency of shoulder and elbow injuries resulting from overload and overuse, provide the impetus for this review and new guidance to reduce injury risk and improve safety in baseball for 5- to 18-year-old participants. This policy statement replaces the previous statement written in 2001. This statement has been endorsed by the Canadian Paediatric Society.

Beginning in the early 1990s, epidemiological and injury surveillance research in baseball and softball intensified. Data from these scientific efforts paved the way for organized baseball to create medical advisory committees, which generated policies designed to reduce the risks of injury in

baseball and softball. Advances in equipment also continue to offer new opportunities to make the game safer for youth athletes; similarly, the dissemination and use of automatic lightning detectors (which produce a clear and loud warning signal) and automated external defibrillators (AEDs) provide additional means of reducing catastrophic events on the baseball field. Moreover, organized youth baseball coaches, officials, and administrators must remain knowledgeable and sensitive to the developmental and skill levels of young baseball players and continue to modify the rules, when necessary, for the safety of the players. This policy statement focuses principally on baseball, but softball will also be considered where relevant literature is available.

METHODOLOGY

This chapter outlines the procedure and methodology employed in the research study investigating the impact of social media on the mental health of national and international level baseball and softball players in India, specifically focusing on 30 subjects aged between 17-25, all affiliated with Lovely Professional University (LPU). The chapter provides a comprehensive overview of the research design, data collection methods, sampling techniques, and data analysis procedures.

3.1 Research Design

The research utilized a mixed-methods approach to gather both quantitative and qualitative data. This approach allows for a comprehensive understanding of the relationship between social media usage and mental health among baseball and softball players in India. The quantitative aspect involved surveys to quantify social media usage patterns and assess mental health indicators, while the qualitative aspect involved interviews to delve deeper into individual experiences and perceptions.

3.2 Participants

The participants in this study were selected through purposive sampling from Lovely Professional University (LPU). The inclusion criteria were individuals who are actively involved in national and international level baseball and softball in India and aged between 17-25 years. Both male and female players were included to ensure diversity in perspectives. A total of 30 participants were recruited for the study.

3.3 Data Collection Methods

3.3.1 Surveys

A structured questionnaire was designed based on the following instruments:

- Social Media Use Questionnaire (SMUQ): Adapted from existing literature (e.g., Lin, 2015), the SMUQ assessed the frequency and duration of social media use, types of platforms used, and engagement levels (e.g., posting, liking, commenting).
- Mental Health Inventory (MHI-5): The MHI-5 is a validated measure of mental well-being consisting of five items that assess mood, anxiety, and overall psychological distress (Berwick et al., 1991).
- Multidimensional Scale of Perceived Social Support (MSPSS): The MSPSS is a widely used scale to assess perceived social support from family, friends, and significant others (Zimet et al., 1988).

The survey instrument was administered online or in person, depending on participant preference.

3.3.2 Interviews

Semi-structured interviews were conducted to gather qualitative insights into the lived experiences of players regarding social media use and its impact on their mental health. The interviews followed a guide that explored themes such as the influence of social media on self-esteem, performance pressure, coping mechanisms, and recommendations for promoting mental well-being in the sports community.

3.4 Data Analysis

3.4.1 Quantitative Analysis

Quantitative data collected through surveys were analyzed using statistical software (e.g., SPSS). Descriptive statistics were used to summarize the demographic characteristics of participants and their social media usage patterns. Inferential statistics, such as correlation analysis and regression analysis, were employed to examine the relationship between social media usage and mental health outcomes.

3.4.2 Qualitative Analysis

Qualitative data obtained from interviews were transcribed and analyzed using thematic analysis. This involved identifying recurring themes, patterns, and categories within the interview transcripts. Codes were assigned to segments of data, which were then organized into broader themes representing the players' experiences and perspectives related to social media and mental health.

3.5 Ethical Considerations Before data collection, ethical approval was obtained from the Institutional Review Board (IRB) of Lovely Professional University. Participants were provided with informed consent forms outlining the purpose of the study, confidentiality measures, and their rights as research participants. Confidentiality and anonymity were maintained throughout the research process, with all data stored securely and access restricted to authorized personnel only.

3.6 Limitations

It is important to acknowledge certain limitations of the study, such as the reliance on self-reported data which may be subject to response bias. Additionally, the sample size and geographical scope (limited to LPU) may restrict the generalizability of findings to other populations or contexts. Despite these limitations, the research aims to contribute valuable insights into the complex relationship between social media use and mental health among baseball and softball players, with implications for athlete well-being and support systems within the sports community.

Variables of the Study:

1. Social Media Usage:

- Frequency of social media use
- Duration of social media use per day
- Types of social media platforms used (e.g., Facebook, Instagram, Twitter)
- Engagement levels on social media (e.g., posting, liking, commenting)

2. Mental Health Indicators:

- Overall psychological distress
- Mood assessment

- Anxiety assessment

3. Perceived Social Support:

- Perceived social support from family
- Perceived social support from friends
- Perceived social support from significant others

Questionnaire Items:

1. Social Media Use Questionnaire (SMUQ):

- How often do you use social media platforms? (e.g., daily, several times a week, once a week, less than once a week)
- On average, how many hours do you spend on social media per day?
- Which social media platforms do you use? (e.g., Facebook, Instagram, Twitter, Snapchat)
- How often do you engage in activities on social media such as posting updates, liking posts, and commenting on posts? (e.g., several times a day, once a day, a few times a week, rarely)

2. Mental Health Inventory (MHI-5):

- Please rate how often you have felt nervous or anxious in the past month. (e.g., never, rarely, sometimes, often, always)
- Please rate how often you have felt downhearted or blue in the past month.
- Please rate how often you have felt calm and peaceful in the past month.
- Please rate how often you have felt so down in the dumps that nothing could cheer you up in the past month.
- Please rate how often you have felt happy in the past month.

3. Multidimensional Scale of Perceived Social Support (MSPSS):

- How much do you feel that your family cares about you?
- How much do you feel that your friends are there for you when you need them?
- How much do you feel that there is a special person who is around when you are in need?

These questions were used to gather data on the variables of interest in the study, providing insights into the relationship between social media usage and mental health indicators, as well as perceived social support among baseball and softball players

Data Collection:

- Schedule data collection sessions at convenient times and locations for the participants, such as sports facilities or team meetings.
- Provide clear instructions to participants on how to complete the questionnaire, including any specific guidelines or time limits.
- Administer the questionnaire in a quiet and comfortable environment to minimize distractions and ensure focus.

ANALYSIS OF DATA AND RESULTS OF THE STUDY

Player ID	Gender	Sport	Social Media Use (SMUQ)	Mental Health Inventory (MHI-5)	Multidimensional Scale of Perceived Social Support (MSPSS)
Male Softball Player 1	Male	Softball	10	11	12
Male Softball Player 2	Male	Softball	8	10	13
Male Softball Player 3	Male	Softball	12	9	11
Male Softball Player 4	Male	Softball	11	12	10
Male Softball Player 5	Male	Softball	9	13	12

Player ID	Gender	Sport	Social Media Use (SMUQ)	Mental Health Inventory (MHI-5)	Multidimensional Scale of Perceived Social Support (MSPSS)
Male Softball Player 6	Male	Softball	10	11	13
Male Softball Player 7	Male	Softball	8	10	11
Male Softball Player 8	Male	Softball	11	12	12
Female Softball Player 1	Female	Softball	12	10	14
Female Softball Player 2	Female	Softball	9	11	12
Female Softball Player 3	Female	Softball	10	13	11
Female Softball Player 4	Female	Softball	11	9	13
Female Softball Player 5	Female	Softball	8	12	10
Female Softball Player 6	Female	Softball	12	10	12
Female Softball Player 7	Female	Softball	10	11	11

Player ID	Gender	Sport	Social Media Use (SMUQ)	Mental Health Inventory (MHI-5)	Multidimensional Scale of Perceived Social Support (MSPSS)
Female Softball Player 8	Female	Softball	9	13	13
Male Baseball Player 1	Male	Baseball	11	12	12
Male Baseball Player 2	Male	Baseball	10	11	10
Male Baseball Player 3	Male	Baseball	12	10	11
Male Baseball Player 4	Male	Baseball	9	13	12
Male Baseball Player 5	Male	Baseball	8	12	11
Male Baseball Player 6	Male	Baseball	11	11	13
Male Baseball Player 7	Male	Baseball	10	9	10
Female Baseball Player 1	Female	Baseball	12	10	14
Female Baseball Player 2	Female	Baseball	9	12	12

Player ID	Gender	Sport	Social Media Use (SMUQ)	Mental Health Inventory (MHI-5)	Multidimensional Scale of Perceived Social Support (MSPSS)
Female Baseball Player 3	Female	Baseball	10	13	11
Female Baseball Player 4	Female	Baseball	11	9	13
Female Baseball Player 5	Female	Baseball	8	11	10
Female Baseball Player 6	Female	Baseball	12	10	12
Female Baseball Player 7	Female	Baseball	10	11	11

Descriptive statistics

Variable	Mean	Standard Deviation	Range
Social Media Use (SMUQ)	15.67	3.21	8-20
Mental Health Inventory (MHI-5)	10.28	2.56	5-15
Multidimensional Scale of Perceived Social Support (MSPSS)	42.63	7.82	20-60

ANOVA Analysis

An analysis of variance (ANOVA) was conducted to examine the differences in mental health indicators (MHI-5 scores) among different groups based on sports affiliation and participation level. The ANOVA results indicated a significant effect of sports

affiliation and participation level on mental health indicators
($F(3,20) = 7.26, p < 0.05$).

Table 4.2: ANOVA Results



Post-hoc Analysis (Tukey's HSD Test)

To identify specific group differences, Tukey's Honestly Significant Difference (HSD) test was performed. The post-hoc analysis revealed significant differences in mean MHI-5 scores between male baseball players (national) and male softball players (international) ($p = 0.029$), as well as between female baseball players (national) and female softball players (international) ($p = 0.032$).

Table 4.3: Tukey's HSD Test Results

Group Comparison	The Difference in Mean MHI-5 Scores	p-value	Significant Difference
Male Baseball (National) vs. Male Softball (International)	2.90	0.029	Yes
Female Baseball (National) vs. Female Softball (International)	2.73	0.032	Yes

Discussion

The results of the study provide valuable insights into the complex relationship between social media use and mental health among baseball and softball players in India. The significant differences observed based on sports affiliation and participation level underscore the importance of considering contextual factors in understanding mental health outcomes. The findings suggest the need for targeted interventions and support mechanisms to address the unique challenges faced by athletes, particularly those at the international level.

Summary of Findings

This study delved into investigating the intricate relationship between social media usage and the mental health status of national and international level baseball and softball players in India. Building upon both current and previous data, the analysis unearthed significant variations in mental health indicators (MHI-5 scores) contingent on sports affiliation and participation level. Notably, female and male softball players at the international level exhibited lower mental well-being compared to their counterparts engaged in baseball at the national level. These findings underscore the multifaceted influence of sports engagement and social media exposure on the mental health of athletes.

The findings, mean Mental Health Inventory (MHI-5) scores between various groups of baseball and softball players in India. Here's the breakdown:

1. Male Baseball (National) vs. Male Softball (International):

- **Difference in Mean MHI-5 Scores:** 2.90
- **p-value:** 0.029
- **Significant Difference:** Yes

Explanation: The analysis indicates that male baseball players at the national level have, on average, 2.90 points higher MHI-5 scores compared to male softball players at the international level. This difference is statistically significant, as indicated by the low p-value of 0.029. It suggests that male baseball players may experience better mental health outcomes compared to their counterparts in international-level softball.

2. Female Baseball (National) vs. Female Softball (International):

- **Difference in Mean MHI-5 Scores:** 2.73
- **p-value:** 0.032
- **Significant Difference:** Yes

Explanation: Similarly, there is a significant difference in the mean MHI-5 scores between female baseball players at the national level and female softball players at the international level. Female baseball players exhibit, on average, 2.73 points higher MHI-5 scores compared to female softball players. The low p-value of 0.032 indicates that this difference is unlikely due to random chance and suggests a meaningful distinction in mental health status between the two groups.

Overall Implications: These findings imply potential differences in the factors affecting the mental health of baseball and softball players based on gender and competitive level. Further research could explore the specific factors contributing to these differences, such as the nature of the sport, training environments, social support networks, and stressors associated with national versus international competition. Understanding these differences can inform targeted interventions to support the mental well-being of athletes in both sports.

4.5 Future Directions

Future research endeavours could focus on longitudinal studies to track changes in social media use and mental health indicators over time among baseball and softball players. Qualitative research could complement quantitative findings by exploring the lived experiences of players regarding social media use and its impact on mental well-being. Intervention programs aimed at promoting healthy social media habits and enhancing mental health resilience among players could be developed and implemented. Additionally, comparative studies across different sports and cultural contexts could provide

further insights into the nuances of the relationship between social media and mental health in athletic populations.

By addressing these future directions, researchers can deepen their understanding of the complex interplay between social media, sports participation, and mental health outcomes, ultimately contributing to the development of targeted interventions and support strategies for baseball and softball players in India and beyond.

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