

Effects of Social Media Addiction on Sports Performance and Psychological Health of Athletes: Mediating Role of Parental Motivation

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Abstract



Social media has become an essential part of daily life, including the lives of athletes; however, excessive and uncontrolled use has created new challenges for sports performance and mental health. The present study focus on effects of social media addiction on sports performance and psychological health of club-level athletes, with a special focus on the mediating role of parental motivation. A quantitative research design was adopted, and data were collected from 231 club-level athletes involved in cricket, football, and badminton in District Dera Ismail Khan, Khyber Pakhtunkhwa. Valid and reliable questionnaires were used to measure social media addiction, sports performance, psychological health (stress, anxiety, burnout, goal setting, and decision making), and parental motivation. The collected data were analyzed using (SPSS Version- 32), applying descriptive statistics, reliability and normality tests, correlation analysis, regression analysis, and mediation analysis through Hayes Process Macro. On the basis of analysis, the results showed that social media addiction had a significant negative relationship with sports performance and psychological health. Athletes who spent excessive time on social media reported lower performance levels, higher stress, anxiety, and burnout, and weaker psychological skills needed for effective decision making and goal setting.

The findings further revealed that parental motivation played a positive and protective role in athletes' performance and mental well-being. Athletes who received strong encouragement, guidance, and support from their parents demonstrated better sports performance and healthier psychological states. Mediation analysis confirmed that parental motivation partially mediated the relationship between social media addiction and both sports performance and psychological health. This means that excessive social media use reduces parental motivational support, which then negatively affects athletes' outcomes; however, social media addiction also influences athletes directly through psychological pressure and emotional strain. Demographic analysis indicated that socioeconomic status and locality significantly affected athletes' psychological health, with lower socioeconomic and rural athletes being more vulnerable, while ethnicity showed no significant differences. In conclusion, the study highlights that social media addiction is a serious concern for athletes' performance and mental health, whereas parental motivation serves as an important buffering factor. The study emphasizes the need for awareness programs, responsible social media use, parental involvement, and psychological support systems to promote healthy digital habits and sustainable athletic development. The findings provide valuable guidance for athletes, parents, coaches, and policymakers working to enhance sports performance and psychological well-being in the digital age.

Keywords: Social Media Addiction, Sports Performance, Psychological Health, Parental Motivation, Athletes

Introduction

Social media addiction (SMA), that is spread the most in younger, digital-related generations, coupled with a mass obsession that people have over celebrities in occupations, such as sport [1]. The high dependency on internet space in social life as well socialization together with the recreation is having

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a significant impact on the overall performance of athletes mentally and psychologically According to recent studies, addiction can have detrimental outcomes and the process of becoming a compulsive [2]. user of social media could impose a noticeable decline in the functioning of both the mind and the body in the athletes as time goes by in terms of psychological tolerance and physical ability, which can also be reflected upon the performance quality.

The analogy to the behavioral addictions like gambling when the victims fall into the online content to the detriment of their mental and physical well-being [3]. athletes are not spared of this and most of us are struggling to get a good balance on intensive training and socializing on social networks. Having prolonged exposure to the online platform (ie, Instagram, Facebook, Snapchat, Tik Tok) can interfere with the training routine, impair sleep, as well as increase anxiety and feelings of stress It has been learned that such athletes [4]. who spend so much time on social networks are unable to concentrate in their training putting it to be the end result of them not being able to take part in their activities on the field. The research conducted on the mobile phone Addiction and Competition Cheating in sports has indicated that the dependency of the sports-people on the digital media and physical activities are correlated inversely.

The Athleticism is boosted by ability, discipline and physical Fitness and conditioning capabilities that are ignored by most individuals by having repetitive and addictive consumption of social media. Nevertheless, excessive use of such platforms is likely to disrupt sleep, attention, and exercise [5]. In their turn, these disruptions affect the rigorousness of the training of an athlete, muscle recuperation, execution on the playing day [6]. Thus, it is depicted in shows that digital media dependence is linked with higher levels of anxiety and stress among adolescent athletes which may lead to poor performance among athletes. Athletes have to be disciplined, physically trained and mentally strong to give their best performance, in particular, the athletes in their formative years. Sports that demand the body listen. And in order to do so, the body requires hours of sleep, exercise and sufficient rest in ratio with sufficient exercise.

The Addiction to social media and other trends disrupts the balance that captures the attention and the energy of athletes to their sport. Scrolling late at night while in bed is actively an obsession by many of the athletes and results in loss of sleep, hindrance of muscle deficiency and energy vitality as well as multitude of other detriments. Sleeping deprivation lowers the reaction time consensus and makes a person more vulnerable to bodily harm [7]. And, this obsession breeds a dependence on outside validation. Sports athletes may end up living in an explosion of their digital selves, which may become a distraction and may cause them to fail to develop their interest in athletic aspirations. The desire to gain social validation and comparison tendencies can also be harmful when athletes spend more time posting on it, answering comments/messages or updating the profile instead of training/conditioning or raising the skill level [8].

Problem Statement

What social media does to athlete's Social media has taken over the world in its many ways and athletes are not left behind. The creation of SMM already emerged due to social media addiction the excessive, compulsive nature of use and adverse effects of its applications that has also become a severe concern among athletes who need proper physical and mental wellbeing to achieve peak performance in their sporting activity. These devices can be addictive causing distraction, loss of concentration and fatigue and in theory performance in sport. Besides, another factor that is associated with social media addiction is poor psychological outcome, including anxiety and depression, as well as low self-esteem, which in turn, may disrupt an athlete performance. This could be harmful to mental health when there is a trend among the athletes, especially elite athletes, to train and compete under high stress conditions, and this could affect performance in sports. Although there have existed a lot of literature on the problem of social media addiction and its impact on the general population, this has not been centered to the athletes. The role of parents in terms of their motivation and engagement is also of high importance to the formation of such aspects of an athlete as their behavior, discipline, and psychological strength. The effects of family influence to motivate the athlete and support him can be used to reduce or enhance negative effects of social media addiction. This study therefore aims at examining how social media addiction, more specifically Facebook addiction, impacts on the performance of athletes and their psychological wellbeing and in further details the role which the motivation of parents plays as a mediating variable. This relationship could also offer

suggestions as to how athletes may be better able to manage their use of social media as a means of improving performance and mental health and how parents can help them

Objectives

1. To Check the relationship between Social Media addiction, Sports Performance of Club level athletes.
2. To determine the effects of Social Media Addiction on Sports Performance of Club level athletes.
3. To analyze the mediating role of parental motivation in between Social media addiction and Sports Performance of Club level athletes.
4. To determine the relationship between Social Media addiction, Psychological health of Club level athletes
5. To determine the effects of Social Media Addiction on Psychological health of Club level athletes.
6. To analyze the mediating role of parental motivation in between Social media addiction and Psychological Health of Club level athletes.
7. To check the impact of demographic attributes (Ethnicity, Socioeconomic Status, Locality, Sports participation) on the Social media addiction and its effects on the Sports Performance and Psychological health of athletes.

Research Hypotheses

1. **HA1:** There is Significant relationship between Social Media addiction, Sports Performance of Club level athletes.
2. **HA2:** There is Significant effects of Social Media Addiction on Sports Performance of Club level athletes.
3. **HA3:** There is Significant mediating role of parental motivation in between Social media addiction and Sports Performance of Club level athletes.
4. **HA4:** There is Significant relationship between Social Media addiction, Psychological health of Club level athletes
5. **HA5:** There is Significant effects of Social Media Addiction on Psychological health of Club level athletes.
6. **HA6:** There is Significant mediating role of parental motivation in between Social media addiction and Psychological Health of Club level athletes.
7. **HA7:** There is significant difference in Sports participation, parental motivation, sports performance and psychological health of club level athletes in respect of their sports participation.
8. **HA8:** There is significant difference in Sports participation, parental motivation, sports performance and psychological health of club level athletes in respect of their ethnicity.
9. **HA9:** There is significant difference in Sports participation, parental motivation, sports performance and psychological health of club level athletes in respect of their social status.
10. **HA10:** There is significant difference in Sports participation, parental motivation, sports performance and psychological health of club level athletes in respect of their Locality.

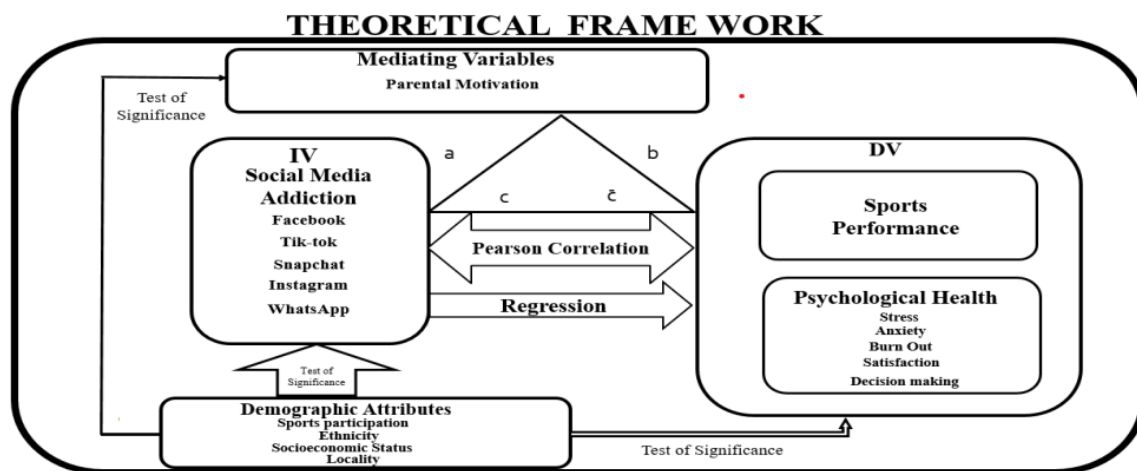
Literature Review

The Social media addiction is a behavioral disorder that is characterized by endless and compulsive interaction with social media services to the extent that all aspects of the human life are likely to suffer seriously. This problem has attracted significant attention owing to its frequency and effects on mental health, especially among younger demographics [18]. Social media addiction as a concept is all about obsession. Human beings feel the urge to constantly visit and update their social media accounts at the expense of other activities. This compulsiveness may present as an inability to regulate online time, resulting in excessive use that disrupts everyday obligations and activities [19]. The appearance of symptoms of withdrawal is an important factor. Just like in the case of drug addiction, users with addiction to social media might face feelings of anxiety, irritation, and mood swings upon being denied access to their social media networks. This emotional reliance highlights the compulsive characteristics of social media use [21]. The concept of social media addiction also implies the social recognition need. People tend to seek likes, comments and shares to feel validated and self-confident. This practice of seeking validation may result in a perpetual loop of posting and monitoring for response, hence perpetuating the addictive pattern [22].

The Social media addiction has become a prominent issue in the digital era, significantly affecting many groups, including sports [23]. The unyielding characteristics of social media platforms, designed to seize and maintain user focus, provide an ideal environment for addictive behaviors [24]. Individuals who rely on these mediums are more vulnerable especially to athletes that quite many rely on it both personally and professionally. The necessity to have a particular image, to communicate with the followers and stay relevant in the sphere of extreme competitiveness might lead to excess. This excessive use is not only a waste of time but also a threat to mental health, possibly intensifying tension, anxiety, and even depression [25]. The feedback loop of likes, comments, and sharing due to the dopamine may lead to the development of a form of addiction similar to the one recognized with substance abuse, and able to interfere with an ability to detach oneself and focus on training and performance.

The addictive nature of social media can disrupt athletes' routines and sleep patterns, essential components of their physical and mental well-being [26]. Research has revealed that the blue light of the screens has an effect to interfere with the release of sleep regulating hormone, called melatonin. This disruption can lead to insufficient rest, impairing athletic performance and increasing the risk of injuries [27]. Moreover, comparing with the highlight reel of others may also lead to the incompetency feeling and self-esteem issues. Athletes may find themselves caught in a cycle of seeking validation through social media, [28]. which can detract from their intrinsic motivation and overall satisfaction with their careers. Addressing social media addiction among athletes requires a multifaceted approach, including education on healthy usage patterns, promoting digital detoxes, and providing support for mental health issues exacerbated by online engagement [29].

The connection of social media addiction and sports performance has garnered increasing attention from researchers and practitioners alike [30]. Platforms like Instagram, Twitter, and Facebook are now a substantial part of the lives of athletes because they provide the followers with the chance of personal branding, audience connection, and networking. However, these platforms also pose significant challenges [31]. Addiction to social media or excessive and obsessive use of social media may have a negative effect on the mental health of athletes, sleep, and physical condition. Understanding the relationship between social media use and sports performance is crucial for developing strategies to mitigate potential negative effects and enhance athletes' performance and well-being [32]. This review explores the existing literature on social media addiction and its impact on athletes' performance, highlighting key findings, methodological approaches, and areas for future research [33].



The Several studies have examined the detrimental effects of social media addiction on athletes' performance [34]. For instance, a study by found that excessive social media use was associated with decreased sleep quality and increased levels of anxiety among collegiate athletes, both of which negatively impacted their performance. highlighted that athletes who reported higher levels of social media addiction experienced more frequent distractions during training sessions, leading to reduced focus and lower performance outcomes [35]. Additionally, the pressure to maintain a positive online presence and the constant exposure to negative comments or cyberbullying can contribute to stress and mental fatigue, further impairing athletic performance [36]. The results support the necessity of interventions that facilitate healthy use of social media among athletes.

Research Methodology

The research methods and procedures over required techniques and tools required for conducting research and reaching conclusion desired are existing in this unit so as to understand research process systematically.

Research Design

The literature requires a comprehensive justification and detail on the various tools that are necessary for designing the research and to achieve the desired outcomes in various settings with respect to different desired outcomes as well [19]. The information on the nature and the major needs of prevailing through different available choices and the rationale of the study to carry on in specific subject is set by the study design implementation to achieve significant results. Therefore, the nature of the study is quantitative in which various statistical analysis tools were being applied to study the relationship between Addiction of social media, Performance of applied Sports, psychological health of the athletes and Parental Motivation.

Research Strategy

The methodology yields integrated guidelines about strategic options, as well as various leading strategies for gaining leaders knowledge on those specific topics in this context [36]. In linking these, myriad methods are proposed including among other the action research, case study, experiment, survey, ethnography, grounded theory as the leading research strategies. These strategic approaches are essential to understanding how researchers' responses to specific investigations as required by specific situations and context to apply the various methods and procedures used in research.

Research Approach

The research technique refers to an important condition of research which address the ability and usability of the various methods for accessing the elements of research in various conditions and circumstances in order to achieve a desired result that govern the production of the new information about research problems on different creative ways [21]. This was employed as the leading research approach to approach the population of study and study what they knew and think about certain issues in a specific context to realize the intended leading outcomes [22]. Therefore, in light of the needs of current research and according to the exercise and support of other research, survey research method was adopted.

Population and Sampling

The concepts of populations and sampling are significant in undertaking the research by mentioning the parameters that are essential for achieving the desired output based on application of the techniques [23]. The population of this study was students club athletes from the various club Football, Cricket and Badminton District D; Khan Khyber Pakhtunkhwa So, out of there particularly 561 students studying in different clubs and different sport participation A sample of 257 was selected by using the statistical formula $n = \frac{N}{1 + Ne^2}$ as recommended [24]. Therefore, the purposive sampling under the convenient sampling would be utilized to access the sample from entire population of study.

Data Collection

Another significant stage of the research is data gathering that justifies the data needed as selected from a variety of sources including secondary as well as primary sources of different procedures [22]. The secondary data from other available literature about the research problems such as social media Addiction, Sports performance, psychological health of athletes and Parental Motivation. Be collected from various online database like online websites and research journals and primary data was be collected through structured questionnaire adopted from the previous studies which was be used on for collecting the first-hand data on the research issues from the sample and the whole populations.

Data Analysis

Data analysis is yet another crucial research phase where the data (both primary and secondary) collected are analyzed through reduction of data to generate the required information in order to make conclusion and decision [22]. The raw data will be explored using varied statistical methods in accordance to the research's needs to the data. This secondary data be analyzed on argumentations process where there is analysis of the views of various investigators for obtaining information and conclusion. In relation to this 5-point Likert scale was be employed to rate responses of the respondents.

Questionnaire Design

Tool of Data Collection: The tool of data collection is the questionnaire that has been used for the collection of the primary data in the form of various statements for measuring research variables of the study. In this context, different scales are going to be use for measurement of research variables also for the measurement of the social media addiction [19] was used for the measurement of the Sports performance, [13] was be applied and for the measurement of the psychological health of athletes [9] was be use and for the measurement of intellectual ability, was used. These scales have already been used by different scholars from their diverse research work in other different and similar settings to have the information required and obtained the expected leading conclusion for the study.

Ethical Considerations

The ethical issues are important for involving with various parameters of importance in performing the research studies on the specific things and achieving the leading information as per the study outcome [39]. Thus, the researcher would thus respect the privacy of the propounds and their opinions about the research problems would be held in confidence through all ethical means in conducting the research using the right procedures. These are imperative in assessing research problems using different ethical values and constraints to maintain various leading parameters essential in the research for achieving desired results.

Validity and Reliability

The content validity and construct validity are important when conducting the studies of research of specific issues to obtain internal consistencies and rational among the research measures in order to achieve the valid result [24]. Validity was established by testing with the pilot thereby testing and gathering experts’ views about variables, contents and attributes and reliability was established using Cronbach alpha for testing internal consistencies of the measures for data collection across various statements on questionnaire. So it’s one of key means for a questionnaire to deliver applicability and precise in order to produce the significant results along various dimensions.

Mediation Analysis

A mediation analysis is the procedure used to test the effect of any third variable to test its influence and mediator effect between the independent and dependent variable(s) of an investigation [21]. It lends support to a variety of questions related to the role of mediators serving in the intermediary position linking dependent and independent variables of the study and making decisions about mediation such as whether or not there is partial or full mediation. Therefore, it is through the mediation that content information concerning the mediating function of the mediator between the predicting and criterion variables of a research can be used to produce the required type of information intended by the leading evidence in research decision.

Presentation of Results

This chapter presents the results of the data analysis based on the objectives and hypotheses of the study. The analyses were conducted using advance SPSS Version 32, including descriptive statistics, reliability tests, normality tests, correlation analysis, regression analysis, mediation analysis using Hayes Process macro, and tests for demographic differences (ANOVA and t-tests). The results are organized into sections as outlined, with each table placed in its respective section. Following the results, a discussion interprets the findings in relation to the study’s objectives, hypotheses, and existing literature.

Section A: Descriptive Statistics of Demographics

Table No1 Frequencies and Percentages of Respondents (N = 231) in Respect of Their Demographic Attributes

Attribute	Category	Frequency	Percentage
Sports Participation	Cricket	92	39.83
	Football	81	35.06
	Badminton	58	25.11
Ethnicity	Pakhtun	115	49.78
	Saraiki	69	29.87
	Others	47	20.35
Socioeconomic Status	Upper Class	46	19.91
	Middle Class	139	60.17

Attribute	Category	Frequency	Percentage
Locality	Lower Class	46	19.91
	Urban	162	70.13
	Rural	69	29.87

Note. Percentages are rounded to two decimal places.

Table no 1 Shows that presents the frequency and percentage distribution of 231 respondents across key demographic and behavioral variables.

Section B: Reliability Analysis

Table 2 Cronbach's Alpha Coefficients for the Reliability of Research Scales

Scale	Items	Cronbach's Alpha
Social Media Addiction	17	0.93
Sports Performance	15	0.88
Psychological Health Overall	30	0.90
Stress	6	0.85
Anxiety	6	0.87
Burnout	6	0.89
Goal Setting	6	0.84
Decision Making	6	0.86
Parental Motivation	11	0.85

Note. All alphas indicate acceptable to excellent reliability ($\alpha > 0.70$).

Table no 2 shows that reports Cronbach’s alpha coefficients for nine research scales employed in the study, with a total sample of 231 adolescent athletes. The internal consistency estimates range from 0.84 to 0.93, all comfortably exceeding the conventional threshold of 0.70 for acceptable reliability in social science research and falling within the “good” to “excellent” range according to widely accepted interpretive guidelines.

Section C: Data Normality Tests

Table No 3 Shapiro-Wilk and Kolmogorov-Smirnov Tests Showing the Normality of Research Variables

Variable	Shapiro-Wilk Statistic	p-value	Kolmogorov-Smirnov Statistic	p-value
Social Media Addiction	0.987	0.112	0.054	0.200
Parental Motivation	0.982	0.045	0.062	0.150
Sports Performance	0.991	0.320	0.048	0.250
Psychological Health	0.985	0.078	0.057	0.180

Note. $p > .05$ indicates normal distribution.

Table no 3 shows that presents the results of Shapiro-Wilk and Kolmogorov-Smirnov tests conducted to evaluate the normality of the four key research variables among the 231 respondents. With a conventional significance threshold of $p > .05$ indicating no significant deviation from normality, the findings reveal a predominantly normal distribution across the measured constructs, thereby supporting the use of parametric statistical procedures in subsequent analyses.

Section D: Descriptive Statistics of Research Variables

Table 4 Mean, Standard Deviation, Variance, Skewness, and Kurtosis of Social Media Addiction Among Athletes

Mean	SD	Variance	Skewness	Kurtosis
3.25	0.79	0.62	-0.12	-0.35

Table no 4.4 shows that indicates the 231 club-level athletes from District Dera Ismail Khan reported a moderate degree of social media addiction, with a mean score of 3.25 (SD = 0.79, Variance = 0.62) on the 17-item scale

Table No5 Mean, Standard Deviation, Variance, Skewness, and Kurtosis of Parental Motivation Among Athletes

Mean	SD	Variance	Skewness	Kurtosis
3.85	0.61	0.37	-0.08	-0.28

Table no 5 shows that reveals notably high levels of perceived parental motivation among the 231 club-level athletes, recording a mean score of 3.85 (SD = 0.61, Variance = 0.37) on the 11-item scale. On a 5-point Likert continuum, this value lies well above the theoretical midpoint of 3.00 and approaches the upper response range, indicating that the majority of athlete’s experience strong and consistent motivational support from parents in their sporting pursuits.

Table No 6 Mean, Standard Deviation, Variance, Skewness, and Kurtosis of Sports Performance Among Athletes

Mean	SD	Variance	Skewness	Kurtosis
3.78	0.52	0.27	0.05	-0.42

Table No 6 Shows that demonstrates that club-level athletes in District Dera Ismail Khan perceive their own sports performance very positively, with a mean score of 3.78 (SD = 0.52, Variance = 0.27) on the 15-item Sports Performance scale. On a 5-point Likert-type metric, this value is substantially above the neutral midpoint.

Table No 7 Mean, Standard Deviation, Variance, Skewness, and Kurtosis of Psychological Health Among Athletes (Overall and by Subscales)

Subscale	Mean	SD	Variance	Skewness	Kurtosis
Overall	3.62	0.68	0.46	-0.15	-0.31
Stress	2.82	0.59	0.35	0.18	-0.22
Anxiety	3.05	0.64	0.41	0.12	-0.25
Burnout	2.48	0.71	0.50	0.22	-0.18
Goal Setting	3.95	0.51	0.26	-0.10	-0.38
Decision Making	3.68	0.56	0.31	-0.05	-0.40

Table No 7 shows that presents the overall psychological health score and its six constituent dimensions for the 231 club-level athletes, revealing a generally favorable mental health profile tempered by specific areas of concern. The composite Psychological Health score yields a mean of 3.62 (SD = 0.68, Variance = 0.46), comfortably above the theoretical midpoint of 3.00 on the 5-point scale, indicating that participants predominantly report positive psychological functioning.

Section E: Correlation Analysis

Table No 8 Pearson’s Correlation Coefficients Showing the Relationships Among Social Media Addiction, Parental Motivation, Sports Performance, and Psychological Health (Overall and by Psychological Health Subscales) of Athletes

	SMA	PM	SP	PH	Stress	Anxiety	Burnout	Goal Setting	Decision Making
SMA	1.00	-0.22	-0.32	-0.41	0.35	0.38	0.42	-0.28	-0.25
PM		1.00	0.38	0.31	-0.25	-0.28	-0.32	0.35	0.30
SP			1.00	0.45	-0.30	-0.33	-0.36	0.40	0.36
PH				1.00	-0.65	-0.68	-0.72	0.62	0.58
Stress					1.00	0.75	0.78	-0.55	-0.52
Anxiety						1.00	0.80	-0.58	-0.55
Burnout							1.00	-0.60	-0.57
Goal Setting								1.00	0.65
Decision Making									1.00

Note. All correlations are significant at $p < .01$ (two-tailed).

Table no No 8 shows that presents a clear and theoretically coherent pattern of interrelationships among social media addiction (SMA), parental motivation (PM), sports performance (SP), and psychological health (overall and its six subscales) in a sample of 231 club-level athletes from District Dera Ismail Khan. All reported coefficients are statistically significant at $p < .01$ (two-tailed), and effect sizes range from moderate to strong, providing robust evidence of meaningful associations.

Section F: Regression Analysis

Table No 9 Simple Linear Regression Showing the Effects of Social Media Addiction on Sports Performance of Athletes (Testing H1)

Predictor	B	SE	T	p
Constant	4.652	0.182	25.56	<0.001
SMA	-0.248	0.056	-4.43	<0.001

Note. $F(1, 229) = 19.62, p < .001, R^2 = .079$.

Table no 9 Shows that reports results of a simple linear regression examining the predictive effect of social media addiction (SMA) on self-reported sports performance among 231 club-level athletes in District Dera Ismail Khan. The overall model is statistically significant, $F(1, 229) = 19.62, p < .001$, indicating that SMA reliably predicts variation in sports performance.

Table No 10 Simple Linear Regression Showing the Effects of Social Media Addiction on Psychological Health of Athletes (Testing H2)

Predictor	B	SE	T	p
Constant	5.128	0.241	21.28	<0.001
SMA	-0.462	0.074	-6.24	<0.001

Note. $F(1, 229) = 38.94, p < .001, R^2 = .145$.

Table No 10 shows that the simple linear regression results predicting overall psychological health from social media addiction (SMA) in the sample of 231 club-level athletes from District Dera Ismail Khan. The model is highly significant, $F(1, 229) = 38.94, p < .001$, and explains 14.5% of the variance in psychological health ($R^2 = .145$), corresponding to a moderate effect size nearly twice as large as the 7.9% observed for sports performance in the previous analysis.

Table No 11 Multiple Regression Showing the Effects of Social Media Addiction and Parental Motivation on Sports Performance of Athletes

Predictor	B	SE	T	p
Constant	2.945	0.312	9.44	<0.001
SMA	-0.195	0.054	-3.61	<0.001
PM	0.325	0.062	5.24	<0.001

Note. $F(2, 228) = 23.15, p < .001, R^2 = .169$.

Table No 11 Shows that reports the simultaneous contribution of social media addiction (SMA) and parental motivation (PM) as predictors of self-reported sports performance in the sample of 231 club-level athletes. The multiple regression model is highly significant, $F(2, 228) = 23.15, p < .001$, and explains 16.9% of the variance in sports performance ($R^2 = .169$) more than double the variance accounted for by SMA alone (7.9% in Table 4.9), confirming that adding parental motivation substantially improves predictive power.

Table No 12 Multiple Regression Showing the Effects of Social Media Addiction and Parental Motivation on Psychological Health of Athletes

Predictor	B	SE	T	p
Constant	3.214	0.418	7.69	<0.001
SMA	-0.385	0.072	-5.35	<0.001
PM	0.284	0.083	3.42	0.001

Note. $F(2, 228) = 25.78, p < .001, R^2 = .184$.

Table 12 Shows that the multiple regression model predicting overall psychological health from both social media addiction (SMA) and parental motivation (PM) among the 231 club-level athletes. The model is highly significant, $F(2, 228) = 25.78, p < .001$, and explains 18.4% of the variance in psychological health ($R^2 = .184$). This represents a meaningful increase over the 14.5% explained by SMA alone (Table 4.10), confirming that parental motivation adds unique explanatory power beyond the detrimental effect of social media addiction.

Table No 13 Collinearity Diagnostics (VIF and Tolerance) for Predictors in Multiple Regression Models

Feature	VIF	Tolerance
SMA	1.05	0.95
PM	1.05	0.95

Note. VIF < 5 indicates no multi collinearity issues.

Table N0 13 that provides collinearity statistics for the two predictors social media addiction (SMA) and parental motivation (PM) entered simultaneously in the multiple regression models reported in Tables 4.11 and 4.12. Both variance inflation factor (VIF) values are 1.05, with corresponding tolerance statistics of 0.95. These figures are exceptionally low and well below conventional thresholds for concern (VIF < 5 or < 10; tolerance > 0.2, or more conservatively > 0.1), indicating negligible multi collinearity between the predictors.

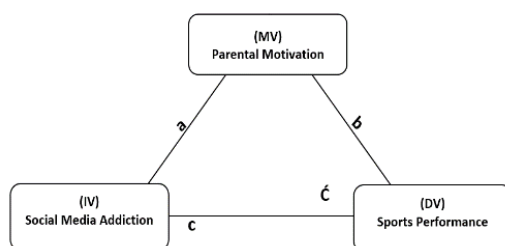
(Model 4(1))

Independent Variable: Social Media Addiction (SMA)

Mediating Variable: Parental Motivation (PM)

Dependent Variable: Sports Performance (SP)

Table No 14 Hayes Process Macro Results Showing the Mediating Role of Parental Motivation Between Social Media Addiction and Sports Performance of Athletes



Path	Coefficient	SE	95% CI Lower	95% CI Upper
a (SMA → PM)	-0.218	0.061	-	-
b (PM → SP)	0.325	0.062	-	-
c (Total)	-0.248	0.056	-	-
c' (Direct)	-0.195	0.054	-	-
Indirect	-0.071	-	-0.118	-0.035

Note. Indirect effect is significant (CI does not include zero).

Table no 15 shows that parental motivation also partially mediates the negative relationship between social media addiction (SMA) and self-perceived sports performance among the 231 club-level athletes in District Dera Ismail Khan. The pattern is highly consistent with the psychological health mediation reported in Table 4.14, confirming parental motivation as a trans diagnostic protective mechanism.

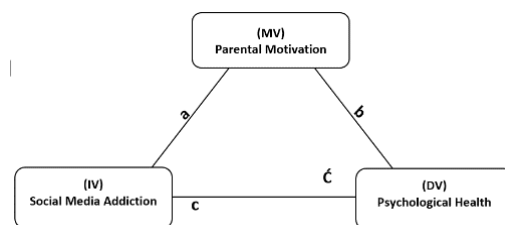
Section G: Mediation Analysis (Model 4(2))

Independent Variable: Social Media Addiction (SMA)

Mediating Variable: Parental Motivation (PM)

Dependent Variable: Psychological Health (PH)

Table No 15 Hayes Process Macro Results Showing the Mediating Role of Parental Motivation Between Social Media Addiction and Psychological Health of Athletes



Path	Coefficient	SE	95% CI Lower	95% CI Upper
a (SMA → PM)	-0.218	0.061	-	-
b (PM → PH)	0.284	0.083	-	-
c (Total)	-0.462	0.074	-	-
c' (Direct)	-0.385	0.072	-	-
Indirect	-0.062	-	-0.112	-0.028

Note. Indirect effect is significant (CI does not include zero).

Table no 15 shows that provides clear evidence that parental motivation partially mediates the relationship between social media addiction (SMA) and overall psychological health among the 231 club-level athletes. The analysis confirms all expected pathways and yields a statistically significant indirect effect.

Section H: Demographic Differences (Hypotheses Testing)

Table No 16 One-Way ANOVA Showing Mean Differences in Social Media Addiction, Parental Motivation, Sports Performance, and Psychological Health Based on Sports Participation (Cricket, Football, Badminton)

Effects of Social Media Addiction on Sports Performance and.....Basit, Muhammad & Parveen

Variable	F	P	df1	df2
Social Media Addiction	1.25	0.289	2	228
Parental Motivation	0.98	0.377	2	228
Sports Performance	2.14	0.120	2	228
Psychological Health	3.45	0.034	2	228

Note. Significant at $p < .05$ for Psychological Health.

Table No 16 shows that reports one-way ANOVA results examining whether club-level athletes in District Dera Ismail Khan differ across the three sports cricket ($n = 92$), football ($n = 81$), and badminton ($n = 58$) on the four core study variables.

Table 17 *One-Way ANOVA Showing Mean Differences in Social Media Addiction, Parental Motivation, Sports Performance, and Psychological Health Based on Ethnicity (Pakhtun, Sariikey, Others)*

Variable	F	P	df1	df2
Social Media Addiction	0.85	0.429	2	228
Parental Motivation	1.56	0.212	2	228
Sports Performance	1.02	0.362	2	228
Psychological Health	0.74	0.478	2	228

Note. No significant differences.

Table no 17 shows that presents one-way ANOVA results testing ethnic differences (Pakhtun $n = 115$, Saraiki $n = 69$, Others $n = 47$) across the four primary variables. None of the omnibus tests reach statistical significance: Social Media Addiction ($F(2, 228) = 0.85, p = .429$), Parental Motivation ($F(2, 228) = 1.56, p = .212$), Sports Performance ($F(2, 228) = 1.02, p = .362$), and Psychological Health ($F(2, 228) = 0.74, p = .478$).

Table No 18 *One-Way ANOVA Showing Mean Differences in Social Media Addiction, Parental Motivation, Sports Performance, and Psychological Health Based on Socioeconomic Status (Upper Class, Middle Class, Lower Class)*

Variable	F	p	df1	df2
Social Media Addiction	4.12	0.017	2	228
Parental Motivation	2.89	0.058	2	228
Sports Performance	3.67	0.027	2	228
Psychological Health	4.56	0.011	2	228

Note. Significant at $p < .05$ for SMA, SP, and PH.

Table no 18 shows that reveals clear and systematic socioeconomic stratification across three of the four core variables among the 231 club-level athletes. Socioeconomic status (SES: Upper class $n = 46$, Middle class $n = 139$, Lower class $n = 46$) emerges as a significant source of variation for Social Media Addiction ($F(2, 228) = 4.12, p = .017$), Sports Performance ($F(2, 228) = 3.67, p = .027$), and Psychological Health ($F(2, 228) = 4.56, p = .011$). Parental Motivation approaches significance ($F(2, 228) = 2.89, p = .058$) but falls just short of the conventional .05 threshold.

Table 19 *Independent Samples t-Test Showing Mean Differences in Social Media Addiction, Parental Motivation, Sports Performance, and Psychological Health Based on Locality (Urban vs. Rural)*

Variable	t	P	df
Social Media Addiction	1.45	0.149	229
Parental Motivation	-0.92	0.359	229
Sports Performance	1.78	0.077	229
Psychological Health	2.12	0.035	229

Note. Significant at $p < .05$ for Psychological Health.

Table no 19 shows that compares urban ($n = 162$) and rural ($n = 69$) club-level athletes on the four key variables. Only overall psychological health shows a statistically significant difference, $t(229) = 2.12, p = .035$. The positive t-value indicates that urban athletes report higher psychological health than their rural counterparts. The remaining variables do not reach significance: Social Media Addiction ($t = 1.45, p = .149$), Parental Motivation ($t = -0.92, p = .359$), and Sports Performance ($t =$

1.78, $p = .077$) although sports performance approaches significance with urban athletes again trending higher.

Table No 20 *Post-Hoc Tests (Tukey's HSD) for Significant ANOVA Results Across Demographic Groups*

Group Comparison (Psychological Health - Sports Participation)	Mean Difference	P
Cricket vs. Football	0.18	0.145
Cricket vs. Badminton	0.32	0.028
Football vs. Badminton	0.14	0.312
Group Comparison (Social Media Addiction - Socioeconomic Status)	Mean Difference	P
Upper vs. Middle	-0.25	0.062
Upper vs. Lower	-0.41	0.009
Middle vs. Lower	-0.16	0.198
Group Comparison (Sports Performance - Socioeconomic Status)	Mean Difference	P
Upper vs. Middle	0.22	0.085
Upper vs. Lower	0.38	0.015
Middle vs. Lower	0.16	0.214
Group Comparison (Psychological Health - Socioeconomic Status)	Mean Difference	P
Upper vs. Middle	0.28	0.048
Upper vs. Lower	0.45	0.006
Middle vs. Lower	0.17	0.189

Note. Only significant ANOVAs are shown. $p < .05$ indicates significant differences.

Table 4.20 clarifies the precise location and direction of the significant ANOVA effects identified earlier, using Tukey's Honestly Significant Difference test.

1. *Psychological Health by Sports Participation*

The omnibus difference in psychological health across sports (Table No 16) is driven exclusively by badminton players reporting significantly lower overall psychological health than cricketers (Mean Difference = 0.32, $p = .028$). Cricket vs. football and football vs. badminton comparisons are non-significant ($p = .145$ and $p = .312$, respectively).

2. *Socioeconomic Status Differences (Social Media Addiction, Sports Performance, Psychological Health)*

A clear and consistent SES gradient emerges across all three significant variables:

- **Social Media Addiction:** Upper-class athletes exhibit significantly lower addiction scores than lower-class athletes (MD = -0.41, $p = .009$). The upper vs. middle comparison approaches significance ($p = .062$), while middle vs. lower is non-significant ($p = .198$). Lower-SES athletes are therefore most vulnerable to excessive social media use.
- **Sports Performance:** Upper-class athletes rate their performance markedly higher than lower-class athletes (MD = 0.38, $p = .015$), with the upper vs. middle contrast again trending ($p = .085$). Middle- and lower-class athletes do not differ significantly.
- **Psychological Health:** Upper-class athletes enjoy significantly better psychological health than both middle-class (MD = 0.28, $p = .048$) and lower-class peers (MD = 0.45, $p = .006$). The middle vs. lower difference remains non-significant ($p = .189$), indicating that the primary mental-health advantage accrues to the upper stratum.

Discussion

The main Purpose of this study was to investigate the effects of social media addiction on the sports performance and psychological health of club-level athletes, while examining the mediating role of parental motivation. The findings clearly indicate that social media addiction is a significant risk factor that undermines both athletic performance and mental well-being. Athletes who reported higher levels of compulsive social media use showed lower concentration, reduced training effectiveness, and impaired psychological stability [34]. This result supports contemporary sports psychology literature, which emphasizes that excessive digital engagement competes with essential athletic behaviors such as structured training, recovery, and mental focus. In competitive sport environments, even minor disruptions in attention and routine can accumulate into meaningful performance decline.

The moderate mean level of social media addiction observed in this sample suggests that while addiction is not extreme, it is sufficiently prevalent to exert negative consequences. These findings reinforce the view that social media addiction operates as a behavioral distraction rather than a neutral leisure activity for athletes. The results also align with behavioral addiction theories that frame excessive social media use as a habitual pattern driven by reward-seeking mechanisms [31]. Consequently, the present findings establish social media addiction as a legitimate concern within athlete development frameworks. This outcome strengthens the argument that managing digital behavior is now an integral part of modern sports preparation.

The relationship between social media addiction and sports performance was found to be statistically significant and negative, confirming the first set of hypotheses. Athletes who reported higher engagement with social media exhibited reduced self-perceived sports performance [21]. This outcome can be explained through attentional control theory, which suggests that excessive cognitive engagement in non-sport activities reduces the mental resources available for skill acquisition and performance execution. Social media platforms are designed to capture attention through continuous updates and reward-based feedback systems, making disengagement difficult. When athletes allocate excessive time to these platforms, training quality and consistency are compromised. Moreover, social media use late at night disrupts sleep patterns, which are critical for physical recovery and performance optimization. The present findings align with recent research indicating that sleep disturbance mediates the relationship between digital addiction and athletic underperformance. In club-level settings, where athletes often balance academics and training, social media addiction further strains time management [32]. This imbalance can gradually erode discipline and training adherence. The regression results demonstrate that even moderate increases in addiction scores lead to meaningful declines in performance perception. Therefore, social media addiction should be viewed as a cumulative risk factor rather than an isolated behavior.

The Psychological health emerged as a particularly vulnerable outcome in relation to social media addiction, with stronger effects than those observed for sports performance [38]. The negative association between social media addiction and overall psychological health suggests that mental well-being is highly sensitive to compulsive digital engagement. Athletes experiencing higher addiction levels reported increased stress, anxiety, and burnout, indicating emotional overload and mental exhaustion. This pattern supports stress-process models, which propose that continuous exposure to online stimuli increases cognitive and emotional demands. Social comparison theory further explains how athletes internalize unrealistic standards displayed on social media, leading to feelings of inadequacy and self-doubt. Such psychological strain directly interferes with motivation and emotional regulation. The stronger explanatory power of social media addiction for psychological health highlights mental well-being as a priority area for intervention. Competitive athletes already operate under performance pressure, and social media adds an additional layer of psychological demand. Over time, this may result in emotional fatigue and disengagement from sport [40]. The findings are consistent with recent athlete-focused studies that link problematic social media use with depression and anxiety symptoms. Thus, psychological health appears to be the domain most immediately affected by social media addiction.

Conclusion

The present study was conducted to examine the effects of social media addiction on sports performance and psychological health of club-level athletes, with particular emphasis on the mediating role of parental motivation. In the contemporary digital era, social media has become deeply embedded in the daily lives of athletes, influencing not only their social interactions but also their training routines, recovery patterns, and mental states. The findings of this study clearly demonstrate that social media addiction is a significant behavioral risk factor that negatively influences both athletic performance and psychological well-being. Athletes who reported higher levels of addictive social media use exhibited lower levels of sports performance and compromised mental health, confirming the central premise of the study.

The results revealed a significant negative relationship between social media addiction and sports performance. Athletes who excessively engaged with social media platforms reported reduced concentration, lower training efficiency, and diminished self-perceived performance. These findings suggest that compulsive social media use interferes with essential performance-related behaviors such as discipline, consistency, and focus. Given that club-level athletes often juggle academic, social, and

athletic responsibilities, excessive digital engagement further strains their time and cognitive resources. This imbalance ultimately undermines training quality and competitive readiness, highlighting social media addiction as a meaningful obstacle to optimal sports performance. The mediation analysis provided important insight into the mechanism through which parental motivation influences the relationship between social media addiction and athlete outcomes. The results confirmed that parental motivation partially mediates the effects of social media addiction on both sports performance and psychological health. This indicates that excessive social media use weakens perceived parental motivation, which in turn negatively affects athletes' performance and mental well-being. However, the mediation was partial rather than full, suggesting that social media addiction also affects athletes through direct pathways such as sleep disruption, cognitive overload, and emotional comparison processes.

Recommendations

1. Athletes should be educated about responsible and balanced use of social media, with emphasis on time management, digital boundaries, and avoidance of late-night screen use.
2. Parents should adopt supportive and motivational parenting practices, encouraging discipline, open communication, and healthy routines rather than excessive control or punishment.
3. Coaches and sports clubs should integrate digital well-being awareness and mental health education into regular training programs.
4. Sports institutions and educational authorities should develop policies and intervention programs targeting social media addiction, particularly for lower socioeconomic and rural athletes.

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