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COMPARATIVE ANALYSIS OF SOCIAL MEDIA ADDICTION (SMAS SCORES) AMONG YOGA, HOCKEY, AND KHO-KHO PLAYERS

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ABSTRACT:

Social media addiction among college athletes represents a growing public health concern, exacerbated by post-COVID screen time surges. This study compared baseline addiction levels across yoga (mindfulness-based), hockey (team-intensive), and kho-kho (traditional agility sport) practitioners to identify potential protective effects of differing physical disciplines. To assess social media addiction via Social Media Addiction Scale (SMAS; Tutgun Ünal & Deniz, 2015) among 45 LNIPE college players (15 per group) and test between-group differences. Forty-five male students (Age = 20.8 ± 1.9 years) were randomly selected during fitness tests and stratified by discipline. SMAS scores were analyzed using one-way ANOVA (α = .05) following verification of normality and homogeneity assumptions.

INTRODUCTION:

In the digital age, social media platforms have revolutionized global communication, connecting over 5 billion users—more than two-thirds of the world's population—across borders in real time (Geyser, 2022). After the COVID-19 pandemic, the use of social media sites increased drastically; since its launch, Facebook—one of the most widely used platforms—recorded a 70% increase in time spent on the site and a more than 50% rise in messages (Cheng & Lau, 2022). According to Statista survey data, more than 5 billion people were using the internet in July 2022, up from 4.9 billion in 2021 (Geyser, 2022). Young adults aged 18-29 represent the most active demographic, with 90% having social media access,

placing them at highest risk of addiction ("Social Media Addiction Statistics 2023"). University students are particularly prone to heavy use (El-Khoury et al., 2021), and youth in college—a crucial stage for mental health onset—face elevated smartphone addiction, especially among Asian students (Zhong et al., 2022), with 24% experiencing depressive symptoms potentially linked to social media (Akhtar et al., 2020).

Social media's benefits shine in moderation: it builds social capital, shares skills via tutorials, and raises mental health awareness while sustaining location-independent connections (Cheng et al., 2020; Cheng et al., 2019). Yet excessive use among college youth triggers behavioral addiction rivalling substance dependencies, disrupting sleep via blue light and notifications, and fueling anxiety, envy, and poor focus (Hofmann et al., 2012; Gooley et al., 2011; Hou et al., 2019).

Negative Impacts on Young Athletes:

Overuse fragments attention through late-night pings, impairing circadian rhythms, sleep quality, and cognitive function critical for athletes balancing training and academics (Scott et al., 2019; Azizi et al., 2019). This heightens depression risk (24% in college students), jealousy, and isolation, undermining recovery and performance in sports like hockey and kho-kho (Akhtar et al., 2020; Betul Keles et al., 2019; Roselyn J. Lee-Won et al., 2015).

Rationale for Comparative Analysis Across Disciplines:

Physical activities promote discipline and stress relief, yet no studies compare baseline social media addiction (SMAS) scores among yoga (mindfulness-based), hockey (team-intensive), and kho-kho (agility, traditional Indian sport) practitioners—despite their differing demands on time and focus. This cross-sectional study fills this gap, assessing 45 LNIPE college players (15 per group) using the Social Media Addiction Scale (SMAS; Tutgun Ünal & Deniz, 2015) to test group differences (yoga: M=114.67; hockey: M=118.93; kho-kho: M=116.60), thereby justifying targeted interventions amid a uniformly high prevalence.

Methods:

Participants: Forty-five male college students were randomly selected from LNIPE Gwalior during physical fitness tests and divided into three equal groups (n=15 each) based on their primary discipline: Yoga practitioners, Hockey players, and Kho-Kho players. Overall sample characteristics were: age (M=20.8, SD=1.9 years), with group breakdowns as follows: Yoga (M=20.4, SD=1.8), Hockey (M=21.1, SD=2.0), and Kho-Kho (M=20.8, SD=1.9).

Inclusion criteria included regular participation in their respective sport/practice (minimum 3 sessions/week) and smartphone ownership. No participants reported clinical psychiatric disorders. Training volume averaged 9±3 hours/week across groups (Yoga: 6±2; hockey: 12±3; Kho-Kho: 10±2). *Table 1* shows participant characteristics, including regular participation in their respective discipline (minimum 3 sessions/week) and smartphone ownership.

Table 1: Group Characteristics.

Group	N	Age (M±SD)
Yoga	15	20.4±1.8
Hockey	15	21.1±2.0
Kho-Kho	15	20.8±1.9
Total	45	20.8±1.9

Measures:

Social media addiction was assessed using the Social Media Addiction Scale (SMAS) developed by Tutgun Ünal and Deniz (2015). This 20-item self-report questionnaire employs a 5-point Likert scale (1=never, 5=always), yielding total scores ranging from 20 to 100 (higher scores indicate greater addiction risk). The scale demonstrates strong internal consistency (Cronbach's $\alpha = .89$) and validity in young adult populations. Participants completed the SMAS individually in a quiet setting.

Procedure:

Following institutional ethical approval and informed consent, participants were identified during routine fitness assessments at LNIPE Gwalior. Random group assignment was performed post-selection using a lottery to ensure balanced representation (15 per discipline). Questionnaires were administered in paper format under supervised conditions (20-30 minutes), with clarifications provided as needed. Data collection spanned two weeks to minimize fatigue bias.

Statistical Analysis:

Data were analyzed using SPSS version 25. Descriptive statistics (means, standard deviations) summarized SMAS scores by group. Normality was confirmed via Shapiro-Wilk tests ($p>.05$). A one-way analysis of variance (ANOVA) tested between-group differences, with α set at .05. Post-hoc Tukey HSD tests addressed multiple comparisons if significant

effects emerged. Effect size (η^2) quantified practical significance. Levene's test verified homogeneity of variances ($p>.05$).

RESULTS

Descriptive Statistics:

Table 2 presents the descriptive statistics for Social Media Addiction Scale (SMAS) scores across the three groups. Yoga players scored a mean of 114.67 (SD = 13.19), Hockey players 118.93 (SD = 20.71), and Kho-Kho players 116.60 (SD = 14.96). The overall mean SMAS score across all 45 participants was 116.73 (SD = 16.32), indicating uniformly high social media addiction levels.

Table 2. Descriptive Statistics for SMAS Scores by Group.

Group	N	Mean
Yoga	15	114.67
Hockey	15	118.93
Kho-Kho	15	116.60
Total	45	116.73

Inferential Statistics:

A one-way ANOVA was conducted to compare SMAS scores across the three independent groups (Yoga, Hockey, and Kho-Kho), as the study tested a single factor (discipline type) with three levels and one continuous dependent variable (SMAS total score). Assumptions of normality (Shapiro-Wilk $p>.05$), homogeneity of variances (Levene's test $p>.05$), and independent observations were met.

Table 3 presents the one-way ANOVA results. The analysis yielded $F(2, 42) = 0.248$, $p = 0.781$, $\eta^2 = 0.012$. Since $p > .05$, no statistically significant differences were found between groups. Post-hoc Tukey HSD tests were not required due to the non-significant omnibus result.

Table 3. One-Way ANOVA Results for SMAS Scores.

Source	SS	df	MS	F	*p*
Between Groups	136.93	2	68.47	0.248	0.781
Within Groups	11575.87	42	275.62		
Total	11712.80	44			

These results indicate comparable social media addiction levels across Yoga, Hockey, and Kho-Kho players at baseline.

DISCUSSION:

The current study compared social media addiction levels, as measured by the Social Media Addiction Scale (SMAS; Tutgun Ünal & Deniz, 2015), across yoga practitioners, hockey players, and kho-kho players from LNIPE Gwalior. One-way ANOVA results revealed no statistically significant differences between groups ($F(2,42) = 0.248$, $p = 0.781$, $\eta^2 = 0.012$), despite hockey players exhibiting the highest mean SMAS score ($M = 118.93$, $SD = 20.71$) compared to yoga ($M = 114.67$, $SD = 13.19$) and kho-kho players ($M = 116.60$, $SD = 14.96$).

These null findings align with prior research documenting uniformly high social media addiction prevalence among Asian university students, where problematic smartphone use affects cognitive function and mental health regardless of demographic variations (Zhong et al., 2022; El-Khoury et al., 2021). The modest effect size ($\eta^2 = 0.012$) suggests negligible practical differences across disciplines, consistent with literature indicating behavioral addiction transcends activity type when screen time exceeds healthy thresholds (Hou et al., 2019; Hussain & Starcevic, 2020).

Implications for Athletes and Limitations:

High baseline addiction across all groups (overall $M = 116.73$) underscores vulnerability among college athletes balancing training demands with digital immersion, potentially exacerbating sleep disruption and recovery deficits noted in sports science literature (Scott et al., 2019; Gooley et al., 2011). Yoga practitioners' slightly lower mean hints at mindfulness practices' protective potential, warranting experimental validation through randomized interventions targeting mechanisms like blue light-induced circadian disruption (Betul Keles et al., 2019).

Study limitations include the small sample size per group ($n=15$), limiting statistical power to detect subtle differences, a cross-sectional design precluding causality, and reliance on self-reported SMAS data prone to social desirability bias. Future research should employ larger cohorts, longitudinal tracking, objective screen-time metrics, and intervention trials comparing intensified yoga protocols against team sports routines.

CONCLUSION:

Social media addiction manifests similarly among yoga ($M=114.67\pm13.19$), hockey ($M=118.93\pm20.71$), and kho-kho players ($M=116.60\pm14.96$), with no significant group differences ($F=0.248$, $p=0.781$). Hockey players showed the highest addiction, followed by

kho-kho and yoga practitioners. These findings highlight pervasive behavioral addiction among college athletes despite differing discipline demands.

Post-COVID screen time surges amplify documented risks of sleep disruption, anxiety, and academic impairment (Cheng & Lau, 2022). All groups require targeted interventions. Yoga's modest protective trend justifies experimental research intensifying mindfulness protocols to address blue light-induced circadian disruption and notification-driven compulsions (Tutgun Ünal & Deniz, 2015).

Recommendations: Implement larger RCTs with objective screen-time tracking, longitudinal designs, and structured yoga interventions tailored for athlete populations to establish causality and enhance wellness programs.

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