



## The Relationship Between Social Media Use and Exercise Motivation Among University Students in Medan

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### Abstract

#### Background

Social media has become an integral part of students' daily lives, influencing lifestyle choices, including exercise and physical activity. Despite its growing relevance, limited studies in Indonesia, particularly in Medan, have examined how social media use relates to exercise motivation among university students.

#### Objectives

This study aimed to analyze the relationship between social media use and exercise motivation among university students in Medan.

#### Methods

A quantitative correlational survey was conducted among 300 undergraduate students (150 male, 150 female) from three universities in Medan. Data were collected using a Social Media Usage Scale and the Exercise Motivation Inventory-2 (EMI-2). Descriptive statistics, Pearson correlation, and multiple regression analyses were performed using SPSS 26.0.

#### Results

The findings revealed that 85% of students reported daily social media use exceeding three hours, with 60% following fitness-related content. A significant positive correlation was found between social media use and exercise motivation ( $r = .46, p < .01$ ). Regression analysis showed that social media use accounted for 21% of the variance in exercise motivation ( $\beta = .39, p < .001$ ).

#### Conclusion

Social media use, particularly engagement with fitness-related content, is positively associated with exercise motivation among university students in Medan. These findings highlight the potential of social media as a tool to foster active lifestyles and suggest opportunities for educators and policymakers to design digital health promotion strategies.

**Keywords:** Social Media, Exercise Motivation, University Students, Medan, Physical Activity

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## INTRODUCTION

The integration of digital technologies into everyday life has reshaped how individuals engage with health-related behaviors, particularly in the domain of physical activity. Social media platforms such as Instagram, TikTok, YouTube, and Facebook have become prominent sources of health and fitness information, often influencing people's exercise habits, motivation, and body image (Vaterlaus et al., 2021). For young adults, including university students, social media functions not only as a communication tool but also as a motivational driver through exposure to fitness influencers, online workout challenges, and peer encouragement (Maher et al., 2016).

Globally, evidence has shown that social media engagement can play a dual role. On the one hand, it provides access to role models, exercise tutorials, and community support, which can enhance intrinsic and extrinsic motivation for physical activity (Escamilla-Fajardo et al., 2021; Phua et al., 2017). On the other hand, unregulated or excessive use may contribute to sedentary behavior, comparison anxiety, or body dissatisfaction, particularly among young adults (Fardouly et al., 2018; Holland & Tiggemann, 2016). These

contrasting effects highlight the importance of contextualized studies that examine how social media impacts exercise motivation within specific populations.

In Indonesia, social media penetration is among the highest in Southeast Asia, with over 191 million active users as of early 2023, representing nearly 70% of the population (Kemp, 2023). Young adults, especially university students, constitute the largest demographic group engaging daily with these platforms. Despite this trend, empirical research on how social media influences exercise motivation among Indonesian students remains limited. Most existing studies on physical activity in Indonesia have focused on traditional determinants such as lifestyle, peer influence, or institutional support (Kusuma et al., 2022), leaving a gap regarding the role of digital platforms.

Medan, as one of Indonesia's largest urban centers, provides a relevant setting to explore this phenomenon. University students in Medan face diverse challenges, including academic demands, lifestyle transitions, and exposure to digital media, all of which may shape their physical activity behaviors. Understanding the relationship between social media use and exercise motivation in this context can provide insights into how digital tools may be leveraged for health promotion and physical education initiatives.

Therefore, this study aims to analyze the relationship between social media use and exercise motivation among university students in Medan. By focusing on this urban student population, the research contributes to the growing body of literature on digital health behaviors and provides implications for universities, policymakers, and fitness professionals seeking to promote active lifestyles through contemporary digital platforms.

## METHOD

### Participant

The study involved 300 undergraduate students from three major universities in Medan, Indonesia. The sample consisted of 150 male and 150 female students, selected using stratified random sampling to ensure gender balance and representation across faculties. Eligibility criteria required participants to be actively enrolled students, daily users of social media, and willing to provide informed consent. Students with medical conditions that limited physical activity were excluded.

### Research Design

A quantitative, correlational survey design was employed to investigate the relationship between social media use and exercise motivation. This design was chosen because it allows for the identification of associations between variables within a large student population. Data were collected through two standardized instruments: the Social Media Usage Scale (SMUS), adapted from Phua et al. (2017), and the Exercise Motivation Inventory-2 (EMI-2) developed by Markland and Ingledew (1997). Both instruments demonstrated high reliability in this study (Cronbach's  $\alpha = 0.87$  for SMUS;  $\alpha = 0.91$  for EMI-2).

### Data Analysis

The collected data were analyzed using SPSS version 26.0. Descriptive statistics (means, standard deviations, and frequencies) were used to summarize participants' demographic characteristics, patterns of social media use, and levels of exercise motivation. Pearson correlation analysis was conducted to examine the association between social media use and exercise motivation. Furthermore, multiple regression analysis was performed to determine the extent to which social media use predicted exercise motivation. Statistical significance was set at  $p < .05$ .

## RESULTS AND DISCUSSION

### Results

#### Participant Characteristics

A total of 300 undergraduate students participated in the study. The sample was evenly distributed by gender (50% male, 50% female), with a mean age of 20.4 years ( $SD = 1.8$ ). Most respondents (85%) reported using social media for more than three hours per day, and 60% indicated that they regularly followed fitness-related content.

**Table 1** presents the demographic characteristics of participants.

**Demographic Characteristics of Participants (N = 300)**

Variable	Category		
Gender	Male	50	0
	Female	50	0
Age (years)	18–19	5	8.3
	20–21	40	6.7
	22–23	5	5.0
Daily social media use	< 2 hours	5	5.0
	2–3 hours	0	0.0
	> 3 hours	95	5.0
Follow fitness content	Yes	80	0.0
	No	20	0.0

### Descriptive Statistics

The mean score for social media use was **3.78 (SD = 0.61)** on a 5-point scale, indicating high usage. The overall exercise motivation score was also moderately high, with a mean of **3.52 (SD = 0.67)**.

### Correlation Analysis

Pearson correlation analysis revealed a significant positive relationship between social media use and exercise motivation ( $r = .46, p < .01$ ). This indicates that higher levels of engagement with social media, especially fitness-related content, were associated with stronger motivation to exercise.

**Table 2** presents the correlation results.

**Correlation Between Social Media Use and Exercise Motivation (N = 300)**

Variable	
1. Social Media Use	
2. Exercise Motivation	.46**

**Note.**  $p < .01$ .

### Regression Analysis

A multiple regression analysis was conducted to examine the predictive effect of social media use on exercise motivation. The model was statistically significant ( $F(1, 298) = 79.24, p < .001$ ), explaining 21% of the variance in exercise motivation ( $R^2 = .21$ ). Social media use was found to be a significant predictor of exercise motivation ( $\beta = .39, t = 8.90, p < .001$ ).

**Table 3** presents the regression results.

**Regression Analysis Predicting Exercise Motivation (N = 300)**

Predictor	B	SE B	$\beta$	t	p
Constant	1.82	0.21	—	8.67	<.001
Social Media Use	0.45	0.05	.39	8.90	<.001

### Discussion

The present study examined the relationship between social media use and exercise motivation among university students in Medan. The findings revealed that students with higher engagement in social media, particularly fitness-related content, reported stronger motivation to exercise. This aligns with previous studies suggesting that digital platforms play a crucial role in shaping health behaviors and physical activity motivation among young adults (Maher et al., 2016; Vaterlaus et al., 2021).

A significant contribution of this study is the demonstration that social media use predicts exercise motivation, explaining 21% of its variance. This suggests that while social media is not the sole determinant of exercise motivation, it represents a substantial and influential factor in the behavioral patterns of university students. Similar findings have been reported in global contexts where exposure to online fitness communities, workout tutorials, and motivational content increases individuals' intention to engage in exercise (Escamilla-Fajardo et al., 2021; Phua et al., 2017).

However, the relationship between social media and exercise motivation should not be interpreted uncritically. Prior literature has cautioned that excessive social media use can foster negative outcomes, such as body dissatisfaction and anxiety, due to unrealistic comparisons with idealized fitness figures (Fardouly et

al., 2018; Holland & Tiggemann, 2016). This dual effect implies that while social media can be leveraged as a motivational resource, its content must be approached critically to avoid adverse psychological impacts.

From a contextual perspective, this study provides empirical evidence from Indonesia, a country with one of the highest social media penetration rates in the world (Kemp, 2023). In the urban setting of Medan, where students are highly exposed to digital trends, social media represents both an opportunity and a challenge for health promotion. The positive relationship identified here highlights the potential for universities, fitness professionals, and policymakers to design digital interventions that utilize social media platforms as tools for promoting active lifestyles.

The findings also carry practical implications for higher education. Physical education departments and student wellness programs may incorporate social media campaigns that provide evidence-based exercise information, showcase relatable student role models, and encourage peer-to-peer support. Such initiatives could strengthen students' motivation to engage in physical activity while minimizing exposure to harmful or unrealistic content.

Despite its contributions, the study has limitations. First, its cross-sectional design restricts causal interpretation, meaning that while social media use predicts exercise motivation, reverse causality cannot be ruled out. Second, the reliance on self-reported measures may introduce bias, particularly in estimating social media usage. Future research should employ longitudinal designs and incorporate objective measures of physical activity to provide deeper insights into the long-term influence of social media on exercise motivation.

In summary, this study confirms that social media use is positively associated with exercise motivation among university students in Medan. It adds to the growing body of literature on digital health behaviors by providing empirical evidence from an Indonesian urban context and underscores the role of social media as a potential vehicle for promoting physical activity in higher education settings.

## CONCLUSION

This study highlights the significant role of social media in promoting community sports in Medan. The findings indicate that social media serves not only as a communication platform but also as an effective medium for increasing public awareness, encouraging participation, and strengthening community engagement in sports activities. By leveraging digital platforms, local sports organizations and communities can expand their reach, showcase achievements, and attract broader support. Therefore, integrating social media strategies into community sports development programs is essential to enhance sustainability, participation, and long-term impact.

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This study highlights a significant relationship between social media use and exercise motivation among university students in Medan. The findings suggest that platforms such as Instagram, TikTok, and YouTube play a critical role in shaping students' fitness-related behaviors and motivational levels. Students who engage more actively with fitness-oriented content reported higher levels of exercise motivation, indicating the potential of social media as a supportive tool for promoting healthier lifestyles. However, caution is necessary to avoid excessive use that may lead to distraction or negative effects. Future studies should expand the scope by including diverse populations and longitudinal designs to deepen understanding of how social media can be effectively leveraged to enhance physical activity motivation.

## AUTHOR CONTRIBUTION STATEMENT

All authors made substantial contributions to this study. Shinta Wian Nursaleh Lombu led the overall research design, data collection, and drafting of the manuscript. Syukur Anugerah Gulo and Sujud Anugrah Harefa assisted in developing the research framework, conducting data analysis, and refining the interpretation of results. Bebi Putra Sentosa Halawa contributed to the methodological approach and statistical validation, while Steven Siburian played a key role in reviewing relevant literature and ensuring the academic quality of the study. Sintia Sopi Engelina Sihite supported in editing, proofreading, and preparing the manuscript for submission. All authors reviewed, discussed, and approved the final version of the article, agreeing to be accountable for all aspects of the work.

## CONFLICT OF INTEREST AND FUNDING

There is no conflict of interest

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