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Coaches' Transformational Leadership and Athlete Motivation in University Team Sports

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Abstract

Background: Coaches' transformational leadership plays an important role in shaping a positive psychological environment and enhancing athletes' motivation in team sports. However, empirical studies examining this relationship among university team sport athletes remain limited, particularly in non-professional sports settings. Objectives: This study aimed to examine the influence of coaches' transformational leadership on the motivation of university team sport athletes. Method: This study employed a quantitative correlational design with an ex post facto approach. The participants consisted of 32 student-athletes from the Universitas Pendidikan Indonesia Hockey Club selected through purposive sampling. Data were collected using the Differentiated Transformational Leadership Inventory (DTLI) and the Sport Motivation Scale II (SMS-II). Result: The findings revealed that coaches' transformational leadership significantly influenced athlete motivation ($p<0.05$). The coefficient of determination ($R^2=0.488$) indicated that transformational leadership explained 48.8% of the variance in athlete motivation. Conclusion: The study demonstrates that transformational leadership contributes positively to the motivation of university team sport athletes. Coaches who provide inspiration, individualized support, and a clear vision may help strengthen athletes' motivation and commitment within the team environment. These findings highlight the importance of applying transformational leadership approaches in university sports programs to support athlete development and performance.

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INTRODUCTION

Motivation is considered one of the most important psychological factors influencing athletes' performance, persistence, and overall development in sports. In team sports, athletes with high levels of motivation tend to demonstrate greater commitment during training, stronger competitive spirit, and better cooperation within the team environment (Ernest Real & Ofrin, 2024). Therefore, maintaining athlete motivation has become a major concern for coaches, particularly in university sports settings where athletes are required to balance academic responsibilities and athletic performance simultaneously. One factor that has been consistently associated with athlete motivation is the leadership style demonstrated by coaches. Among various leadership

approaches, transformational leadership is considered highly relevant in modern sports coaching because it emphasizes inspiration, personal development, and positive interpersonal relationships between coaches and athletes (Turnnidge & Côté, 2018). According to Bass & Riggio (2006), transformational leadership consists of four main dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Through these dimensions, leaders are expected to become role models, motivate team members, encourage critical thinking, and provide individualized support.

In the sports context, coaches who apply transformational leadership are not only responsible for delivering technical instructions but also for creating a positive psychological environment that supports athletes' development (Chis-Manolache Diana, 2022; Marina et al., 2023). Previous studies have shown that transformational leadership can strengthen athletes' self-confidence, improve emotional well-being, and increase intrinsic motivation (Hebard et al., 2023). In addition, transformational coaches are often able to inspire athletes through encouragement, vision, and emotional support, which ultimately contributes to improved performance and cohesion (Erikstad et al., 2021; Gorgulu, 2019). Panjaitan et al., (2024) also emphasized that transformational leadership plays an important role in improving team motivation and performance. Several studies have also confirmed the effectiveness of transformational leadership in fostering athlete motivation and creating a supportive team climate (Fikri et al., 2021; Karayel et al., 2024). However, many previous studies have primarily focused on professional athletes or individual sports contexts. As a result, empirical evidence regarding transformational leadership in university team sports remains relatively limited. This limitation highlights the need for further research examining how transformational leadership functions within student-athlete environments, particularly in team sports that require strong interpersonal interaction and collective coordination. To examine transformational leadership in sports settings, researchers commonly use the Differentiated Transformational Leadership Inventory (DTLI) developed by (Callow et al., 2009), which has been validated in sports contexts by (Vella et al., 2012). The DTLI provides a comprehensive framework for measuring transformational coaching behaviors across several dimensions relevant to athlete development and team dynamics. Despite the availability of this instrument, research utilizing the DTLI in university team sports settings remains scarce, particularly in less frequently studies sports such as hockey.

Motivation in team sports is particularly important because successful performance depends not only on individual ability but also on communication, cooperation, and collective commitment among athletes (Đurović et al., 2020; Moradi et al., 2020). Athletes with higher motivation are more likely to demonstrate persistence during training, maintain discipline during competition, and contribute positively to team cohesion (Jin et al., 2022). Therefore, coaches are expected to function not only as strategist but also as leaders who shape the motivational climate within the team (Farhansyah et al., 2023; Kapitanski, 2022). In addition, effective communication and team cohesion are considered essential elements in maintaining collective performance in team sports

environment (Dobrijević et al., 2020; Özsaydı et al., 2024). Compared with professional athletes, university athletes experience unique challenges that may influence their motivation and perceptions of leadership. Student-athletes must balance academic demands, social responsibilities, and sports participation simultaneously. In addition, factors such as peer relationships, team culture, academic pressure, and limited institutional resources may influence athletes' psychological experiences in sports environments. Consequently, the effectiveness of transformational leadership in university sports contexts may differ from that found in professional settings.

Furthermore, previous studies have predominantly focused on popular sports such as soccer and basketball at professional or elite levels (Lu & Li, 2021; Sherani & Titus, 2023). Research involving university athletes in less frequently examined team sports, including hockey, remains limited. In addition, most existing studies have emphasized professional athletes, whereas student-athletes face distinct challenges related to balancing academic responsibilities, social adjustment, and athletic commitments (Aydın & Sarı, 2021; Stamatis et al., 2020). These contextual differences may influence how leadership behaviors are perceived and how motivation is developed within university sports environments. Therefore, this study addresses an important gap in the literature by examining the influence of coaches' transformational leadership on motivation among university hockey student-athletes. The significance of this study lies in extending transformational leadership research to a non-professional team sport setting and providing empirical evidence from the university sports context, which remains underrepresented in the existing literature. The findings are expected to contribute both theoretically to the understanding of leadership and motivation in sport psychology and practically to the development of effective coaching strategies in university sports programs.

METHOD

This study employed a quantitative correlational approach using an ex post facto design to examine the influence of coaches' transformational leadership o athlete motivation. The correlational approach was used to identify the relationship between transfromational leadership as the independent variable and athlete motivation as the dependent variable (Hong, 2024). Data were collected through a survey using standardized questionnaires (Bosnjak & Danner, 2015).

The population consisted of 50 student-athletes from the hockey club at Universitas Pendidikan Indonesia. Purposive sampling was applied based on the following criteria: active university student, registered members of the Hockey Student Activity Unit, and actively participating in training and sompetition activities. Basep on these criteria, 32 student-athletes were selected as participants. The sample size was considered adequate for simpl regression analysis and represented more than half of the total population.

Data collection was conducted using questionnaires distributed through Google Froms. The questionnaire link was shared directly with eligible participants through the team communication group under the supervision of the researchers to ensure that only active athletes participated in

the study. Participants completed the questionnaire voluntarily and indeoendently. Prior to data collection, participants were informed about the purpose of the study, confidentiality of responses, and their right to withdraw at any time. Informed consent was obtained electonically from all participants.

The instruments used were the Differentiated Transformational Leadership Inventory (DTLI) developed by (Callow et al., 2009; Vella et al., 2012) and the Sport Motivation Scale II (SMS-II) developed by (Pelletier et al., 2013). The DTLI measures transformational leadership using a 5-point Likert scale and demonstrated excellent reliability in this study (Cronbach's Alpha = 0.929). Meanwhile, the SMS-II measures intrinsic motivation, extrinsic motivation, and amotivation using a 7-point Likert scale, with previous studies reporting good validity and reliability (Pelletier et al., 2013). Data analysis was performed using SPSS version 22. Prior to hypothesis testing, the assumptions of normality and linearity were examined using the Shapiro–Wilk and linearity tests. After the assumptions were satisfied, simple linear regression and coefficient of determination (R^2) analyses were conducted to examine the influence of transformational leadership on athlete motivation.

RESULT AND DISCUSSION

Result

Table 1. Descriptive Statistics

Variable	N	Mean	SD
Transformational Leadership (X)	32	.0000	1.00000
Motivation (Y)	32	.0000	1.00000

Table 1 present the descriptive statistics of the study variables. Both transformational leadership and motivation variables consisted of 32 respondents. The mean value of 0.000 and standard deviation of 1.000 indicate that the data were standardized using z-score prior to analysis to ensure comparability between variables.

Table 2. Normality Test

Variable	Shapiro-Wilk Sig
Transformational Leadership (X)	.444
Motivation (Y)	.626

The Shapiro-Wilk normality test showed significance values greater than 0.05 for both variables, indicating that the data were normally distributed. Therefore, the assumption of normality was satisfied.

Table 3. Linearity Test

Variable	df	Sig
Linearity	1	.000
Deviation from Linearity	20	.119

The linearity test indicated a significant linear relationship between transformational leadership and motivation. The linearity significance value was 0.000 ($p<0.05$), while the deviation from linearity value was 0.119 ($p>0.05$), indicating that the relationship between the variables was linear.

Table 4. Simple Linear Regression Test

Variable	B	Sig
Transformational Leadership	.699	.000

The result of the simple linear regression analysis showed that transformational leadership significantly influenced athlete motivation ($p<0.05$). The regression coefficient value (B=0.699) indicates a positive relationship between the two variables.

Table 5. Coefficient of Determination Test

Variable	R	R Square
Transformational leadership*Motivation	.699	.488

The coefficient of determination analysis produced an R^2 value of 0.488, indicating that transformational leadership explained 48.8% of the variance in athlete motivation. Meanwhile, the remaining 51.2% was influenced by other variables not examined in this study.

Discussion

The findings of this study indicate that coaches' transformational leadership positively influences the motivation of university team sport athletes. This result supports previous studies showing that transformational leadership contributed to athletes' intrinsic motivation, psychological well-being, and engagement in sports participation (Liu et al., 2023). These findings can be explained through the dimensions of transformational leadership proposed by (Bass & Riggio, 2006), namely idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Through these dimensions, coaches may strengthen athletes' confidence, commitment, and emotional attachment to the team. Coaches who demonstrate inspirational and supportive leadership behaviors are more likely to create a positive motivational climate within the team environment (Adiloğulları et al., 2025).

In team sport, motivation is closely associated with communication, cooperation, and collective commitment among athletes. Therefore, transformational leadership may help foster stronger team cohesion and encourage athletes to remain engaged during training and competition (Bin Hassan & Bin Nazarudin, 2023). This finding is consistence with previous studies suggesting that transformational leadership contributes not only to individual motivation but also to team dynamics and interpersonal relationships within sports environment (Donnelly et al., 2024). This role becomes increasingly important in university sports settings, where student-athletes must balance academic responsibilities, social adjustment, and athletic demands simultaneously. In addition, factors such as peer relationship, team culture, family support, and self-confidence may also influence athletes' motivation and psychological experiences in sports participation (Choi & Smith, 2024).

The relatively strong influence of transformational leadership observed in this study may be explained by the unique characteristics of student-athletes. Unlike professional athletes, student-athletes operate within multiple performance domains, including academics, social life, and sport participation. Consequently, they often encounter competing demands that can challenge their

motivation and commitment to sport. In this context, transformational coaches may serve not only as technical instructors but also as important sources of psychological support, guidance, and encouragement (Dängeli, 2023). Through individualized consideration and inspirational motivation, coaches can help student-athletes develop a stronger sense of purpose, competence, and belonging within the team. These psychological resources are particularly important for maintaining motivation when athletes experience academic pressure or other non-sport-related challenges. Therefore, the influence of transformational leadership in university sports settings may extend beyond performance enhancement and contribute to athletes' overall adaptation and persistence within the dual career environment.

The coefficient of determination obtained in this study (R^2=0.488) indicates that transformational leadership accounted for nearly half of the variance in athlete motivation. While this finding demonstrates the substantial importance of leadership behaviors, it also suggests that motivation is a multidimensional construct influenced by various additional factors. Elements such as team cohesion, perceived competence, autonomy support, peer relationships, and family support may also play important roles in shaping athletes' motivational experiences. This finding highlights that transformational leadership should not be viewed as a single determinant of motivation but rather as one of several interacting factors within the broader psychosocial sport environment. Consequently, future research should consider integrating multiple psychological and environmental variables to develop a more comprehensive understanding of athlete motivation in university sports contexts.

This study contributes to the existing literature by extending research on transformational leadership into the context of university team sports, particularly among hockey student-athletes. Practically, the findings highlight the importance of applying transformational leadership approaches in university sports programs to support athlete motivation, engagement, and development. Nevertheless, this study involved a relatively small sample from a single university sports club, which may limit the generalizability of the findings. Therefore, future studies are recommended to involve larger samples, different sports contexts, and additional psychological variables to provide a more comprehensive understanding of athlete motivation.

CONCLUSION

This study demonstrates that coaches' transformational leadership positively influences the motivation of university team sport athletes. More importantly, the findings provide empirical evidence that transformational leadership remains a significant predictor of motivation within a university sports environment, particularly among hockey student-athletes, a population that has received limited attention in previous research. The study contributes to the sport psychology literature by extending transformational leadership research beyond professional and elite sport settings and highlighting its relevance within the student-athlete context. Practically, the findings suggest that coaches who demonstrate inspirational, supportive, and individualized leadership behaviors may enhance athlete motivation, engagement, and commitment. Future studies are

encouraged to involve larger and more diverse samples and examine additional psychological variables to further explain motivation in university sport environment.

AI DISCLOSURE STATEMENT

The authors declare that no generative AI tools were used to generate, analyze, interpret, synthesize, or write the scientific content of this manuscript.

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