

INFLUENCE OF COACHES BEHAVIOUR ON ELITE VOLLEYBALL PLAYERS' MOTIVATIONAL CLIMATE AND PERFORMANCE SATISFACTION

Amy Loh Liew Yi^{1*}, Teo Eng Wah¹, and Remco Polman²

¹Sports Centre, Universiti Malaya, Kuala Lumpur

²Queensland University of Technology

*Email: amyloh8@yahoo.com

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Abstract

Introduction. Coaching behaviour, motivational climate and its influence towards performance satisfaction are important in understanding the development and growth of athletes. In general, positive coaching behaviours could help in enhancing the motivational climate and satisfaction of athletes while negative coaching behaviour might have the opposite effect. Therefore, this study explored the influence of volleyball coaches' behaviour on elite volleyball players' motivational climate and performance satisfaction. **Methodology.** Three hundred and twenty-eight elite volleyball players (137 male and 191 female, age: 24.42 ± 8.92 years old) participated in this study. They completed three questionnaires: the Coaching Behaviour Questionnaire (CBQ), Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2), and Athlete Satisfaction Questionnaire (ASQ). These questionnaires were used to assess athletes' perceptions of their coaches' behaviour, to examine the influence of athletes' perceptions of the individual feedback received on their perceptions of the team's motivational climate and to measure the elite volleyball players' satisfaction of their team's performance. **Results & Discussion.** There was a positive relationship between motivational climate and performance satisfaction ($r=0.25$); coaching behaviour and performance satisfaction ($r=0.26$); motivational climate and performance satisfaction ($r=0.40$). For CBQ, the mean score showed that coach support (2.97 ± 0.40) was the most important as compared to negative coaching behaviour (2.44 ± 0.45). For ASQ, the mean score showed that team integration (5.33 ± 1.00) was the most important subscale influencing athlete satisfaction. The lowest rated athlete satisfaction was external agents, example, facilities and supporters (4.56 ± 0.95). For PMCSQ-2, a higher mean was reported for task-involving climate, example, cooperative learning, effort/improvement, important role (5.36 ± 0.89) than ego-involving climate, example, intra-team member rivalry, unequal recognition, punishment for mistakes (4.09 ± 0.95).

Conclusion. Coaches should look into their own coaching behaviour because it is a fundamental aspect in enhancing the performance of athletes with respect to motivational climate and performance satisfaction.

Keywords: Coaches' behaviour; motivational climate; ego-involving motivational climate; task-involving motivational climate

Introduction

An athlete's environment includes behaviours of parents, teammates, sport fans, media, and sport coaches. According to Ehsani, Amiri, and Norouzi (2012), one of the most important factors that could affect athletes is the sport coach. A sport coach often is a role model for athletes and can influence athletes outside of the sport context. Their behaviour and feedback also determines how the athlete will behave in his/her daily life. As such, undesirable coaching behaviours could result in negative outcomes related to sport satisfaction and burnout (Fraser-Thomas & Côté, 2009; Gould, Udry, Tuffey, & Loehr, 1996).

The behaviour of a coach is vital during training and competitions to ensure athletes perform to the best of their ability. To effectively motivate athletes towards success, interpersonal relationship between a coach and his or her athletes are of paramount importance (Olympiou, Jowett, & Duda, 2009).

Therefore, this study aims to examine how coaching behaviour of elite volleyball coaches affects the motivational climate and performance satisfaction of elite volleyball players in a competition setting. This study examines the relationship between a) coaching behaviour and motivational climate; b) coaching behaviour and performance satisfaction during competition and c) relationship between motivational climate and performance satisfaction.

Methods

Participants and procedure

Data was collected in 3 tournaments in Malaysia from July till Dec 2016. Participants were 328 elite volleyball players from Malaysia (137 male, 191 female; SD= 12.77). The participants reported were involved in Sukan Malaysia (Sukma) level (n= 193) and national level (n= 135) competition. The study was approved by the university's ethics committee. The participants completed the CBQ, the PMCSQ-2, and the ASQ (the researcher obtained the consent from the respective coaches of each team).

Questionnaires

The CBQ (Kenow & Williams, 1992) measure athletes' perceptions of coaching behaviour and evaluates their effectiveness in supportiveness/emotional composure. The CBQ

consists of 28 items (21 actual items and 7 non-coaching fillers) with each responded to a 4-point Likert scale of 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree).

The PMCSQ-2 (Newton, Duda & Yin, 2000) consists of 33 items. This tool assesses the players' perceptions of the degree to which their respective team's motivational climate is characterized in terms of two higher order dimensions (task and ego-involving climate). Task-involving (mastery-oriented) team climate items reflect a sense that co-operative learning is encouraged, that each player has an important role in the team, and effort/improvement are emphasized. Ego-involving (performance-oriented) items tap the view that mistakes are punished, that recognition by the coach is reserved for the most talented athletes, and that a feeling of intra-team rivalry exists among players on the team. The 33-item inventory was collapsed into 2 main subscales, performance (16 items) and mastery (17 items) motivational climates. Responses were indicated on a 5-point Likert scale ranging 1 to 5 from 'strongly disagree' to 'strongly agree'.

The ASQ (Riemer and Chelladurai, 1997) is composed of 56 items and 15 dimensions. It was used to determine satisfaction towards coach (ability utilization, training strategy, personal treatment), satisfaction towards teammates (team task contribution, team social contribution, team integration, team performance) and self- satisfaction (individual performance and personal dedication) The questionnaires comprised of a 7-point Likert scale ranging 1 to 7 from 'not at all satisfied', 'moderately satisfied', 'extremely satisfied'

Statistical Analysis

The statistical analysis was performed using the IBM Statistical Package for Social Sciences 23.0. Descriptive statistics were computed for demographics data and each questionnaire. Pearson product moment correlations were also computed to evaluate the relationship between variables. Skewness and kurtosis tests were run initially to check for normality. Cronbach alpha test was run initially using a small sample of 50 people to check if the questionnaires are suitable to be used on Malaysian population.

Later, Smart- Partial Least Square Standard Equation Model (Smart-PLS SEM) version 3 was used to calculate path analysis and modelling confirmation purposes. Factor loadings were also yielded. Mediator effects were also computed using Smart-PLS. RMS_theta is the root squared residual covariance matrix of the outer model residuals (Lohmoller, 1989). RMS_theta value below 0.12 indicates a well-fitting model, whereas higher values indicate a lack of fit. (Henseler et al., 2014). Standardized Root Mean Square Residual (SRMR) values that are less than 0.10 is considered a good fit (Hu and Bentler, 1999).

Results of the study

Descriptive statistics of the survey data are reported in Table 1 and Table 2. For the CBQ, the mean score showed that coach support (Mean=2.97, SD=0.40) was the most important as compared to negative coaching behaviours (Mean=2.44, SD=0.45). For the PMCSQ-2, the mean score showed that mastery (Mean=5.36, SD = 0.89) was the most important followed by performance (Mean=4.09, SD=0.95). The means score for performance

(Mean=4.09, SD=0.95) is lower than the mean score for mastery. For the ASQ, the mean score showed that team integration (Mean=5.33, SD=1.00) was the most important subscale influencing athlete satisfaction in elite volleyball teams. The mean score showed that team ethics (Mean=5.20, SD=1.00) was the second highest mean score for athlete satisfaction. The lowest rated athlete satisfaction was agents (Mean=4.56, SD=.95). Composite Reliability (CR) for coaching behaviour (0.57), Motivational Climate (0.89) and Performance satisfaction (0.97) is shown in Figure 1. Correlation between variables is shown in Tables 4. Correlations between motivational climate and performance satisfaction were significant (0.4; see Table 4). Correlations between coaching behaviour and motivational climate were also significant (0.25; see Table 4).

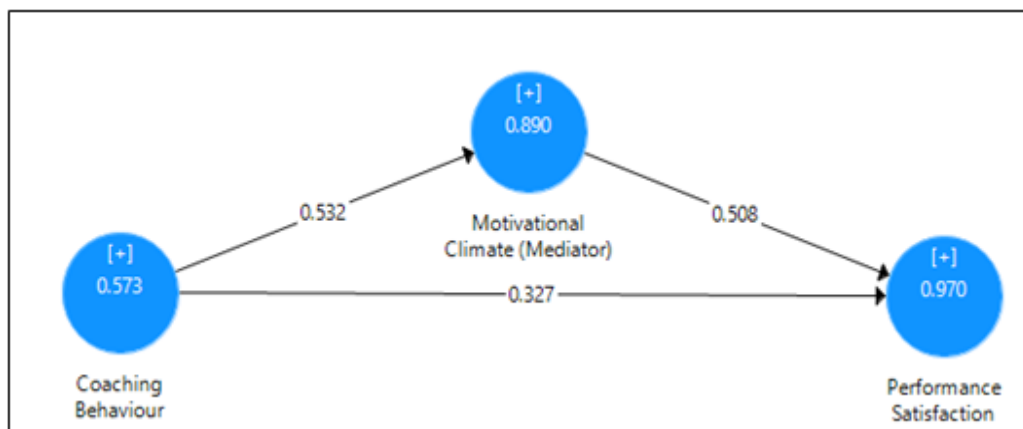


Figure 1: Regression Model

Table 1: Descriptive statistics Coaching Behaviour Questionnaire (CBQ)

CBQ (N=328)	Mean	SD
Negative	2.44	0.45
Supportive	2.97	0.40

Table 2: Descriptive statistics (Perceived Motivational Climate Sport Questionnaire-2)

PMCSQ (N=328)	Mean	SD
Performance-oriented/ego- involving climate	4.09	0.95
Mastery-oriented/task-involving climate	5.36	0.89

Table 3: Descriptive statistics Athlete Satisfaction Questionnaire (ASQ)

ASQ (N=328)	Mean	SD
Individual performance	5.00	1.08
Team Performance	4.82	1.14
Ability	4.97	0.92
Strategy	5.08	0.94
Personal	5.0	1.04
Training	5.19	1.05
Teamtask	4.96	1.08
Social	5.03	0.98
Ethics	5.21	1.01
Integration	5.33	1.00
Dedication	5.15	0.96
Budget	4.66	1.09
Medical	4.61	1.25
Support	4.65	1.02
External agents	4.56	0.95

Table 4: Pearson product moment correlations motivational climate, coaching behaviour, and performance satisfaction

Correlation	r
Motivational Climate- Performance Satisfaction	0.395
Coaching Behaviour – Motivational Climate	0.251
Coaching Behaviour-Performance Satisfaction	0.259

Table 5: Supported evidence of T-value

Relationship	Std Beta	Sample Mean (M)	Standard Error	T value	Decision	R2	F2	LL	UL
Coaching Behaviour -> Motivational Climate	0.532	0.552	0.04	13.235**	Supported	0.0329 (motivational climate)	0.49	0.579	0.707
Coaching Behaviour -> Performance Satisfaction	0.327	0.335	0.053	6.114**	Supported	0.541 (performance satisfaction)	0.128	0.539	0.663
Motivational Climate -> Performance Satisfaction	0.508	0.503	0.052	9.77**	Supported		0.403	0.611	0.747

Table 6: Standardised Root Mean Square Residual (SRMR)

	Saturated Model	Estimated Model
SRMR	0.091	0.091

Table 7: RMS_Theta

RMS Theta	0.116
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The mediation model showed that the model is a good fit (RMS_Theta=0.116)

Discussion

The purpose of the present study was to examine the relationship between coaching behaviour, motivational climate and competition performance satisfaction in volleyball players. The results of the study indicate that there was a significant and positive relationship between coaches' behaviour and motivational climate. There was also a significant relationship between motivational climate and performance satisfaction.

The motivational climate refers to a team's goal structure (e.g., task or ego-oriented) which is a result of the coach's personal goal orientation and behaviours. Athletes will be inclined to adopt a similar goal orientation, depending on the type of climate the coach creates. A higher mean was reported for task-involving climate (5.36) than ego-involving climate (4.09). Athletes need both task and ego-oriented climate as they have the desire to increase their skills and at the same time have a desire to succeed. A mastery-oriented climate offers a cooperative learning environment, and this consequently is a major factor influencing in the athlete's perceptions of their team's motivational climate.

Athletes perceiving the climate as high in mastery and high in performance-oriented criteria reported psychological responses that were more adaptive than those perceiving the climate as low in mastery and high in performance criteria. (Ommundsen, 1999). Mastery-approach goals were positively related to satisfaction and persistence and negatively related to practice avoidance while mastery-avoidance goals were negatively related to satisfaction. (Trenz & Zusho, 2011). Thus, the notion that the volleyball players perceived task orientation higher than ego orientation might be beneficial because it helps in more adaptable psychological responses.

Conclusions

The present study was conducted with several limitations. Firstly, the coaches' behaviour was assessed by the athletes' subjective evaluations. This subjective evaluation may not have yielded the most accurate results because the instruments (questionnaires) were rather lengthy and was given in a non-conductive environment. Since volleyball has so many technical skills, to gauge a potentially good performance, future researchers should consider using the evaluation instrument developed by Raudsepp and Kais (2002) for serve, attack, blocking, reception, setting, and defence. This will show more defined indication of their performance and use it as a gauge of athletes' performance which in turn will

influence their performance satisfaction. In this way, any subjectivity will be removed from the performance measurements. The limitation of the present study is also the use of a one-time assessment, immediately prior to the first tournament played by a particular game. In that way, it is not possible to identify potential changes in the motivational climate of particular elite players at different competitions. As a result, recognizing coaching behaviours and its influence on athletic motivational climate play significant roles in athletic plans, improve the knowledge of the coaches and decrease the anxiety which improves performance. It is recommended that coaches employ adequate leadership behaviour such as positive behaviour/supportiveness to decrease athlete anxiety and use positive feedback to develop athlete performance.

References

- Chelladurai, P. (1990). Leadership in sports: A review. *International Journal of Sport Psychology*, 21, 328-354.
- Creswell, J. W. 2012. *Educational Research. Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (Fourth Edition). Boston: Pearson Education Inc.
- Ehsani, M., Amiri, M., & Norouzi S. H. R. (2012). The Relationship between Leadership Styles of Coaches with Coaching Efficacy among Elite Iranian Judokas. *International Journal of Sport Studies*, 2(8), 399-405.
- Fraser-Thomas, J. & Côté, J. (2009). Understanding adolescents' positive and negative developmental experiences in sport. *The Sport Psychologist*, 23, 3–23.
- Gould, D., Greenleaf, C., & Krane, V. (2002). *Arousal-anxiety and sport behavior*. In T.S. Horn (Ed.) *Advances in sport psychology* (2nd ed.), 207-280. Champaign, IL: Human Kinetics.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. M., Calantone, R. J. (2014). Common Beliefs and Reality About PLS: Comments on Ronkko and Evermann (2013). *Organizational Research Methods*, 17(2), 182-209.
- Hu, L. & Bentler, P.M. (1998). Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453. <http://doi.org/10.1037/1082-989X.3.4.424>
- Kenow, L. J. & Williams, J. M. (1992). Relationship between anxiety, self-confidence, and evaluation of coaching behaviors. *The Sport Psychologist*, 6, 344-357.
- Lohmoller, J. B. (1989). *Latent Variable Path Modelling with Partial Least Squares*. Physica, Heidelberg.

- Newton, M. & Duda, J. L. (1993). The Perceived Motivational Climate of Sport Questionnaire-2: Construct and predictive validity. *Journal of Sport and Exercise Psychology*, 15, S59.
- Newton, M., Duda, J. L., & Yin, Z. (2000). Examination of the psychometric properties of the perceived motivational climate in sport questionnaire-2 in a sample of female athletes. *Journal of Sports Sciences*, 18, 275-290.
- Olympiou, A., Jowett, S., & Duda, J. L. (2008). The psychological interface between the coach-created motivational climate and the coach-athlete relationship in team sports. *The Sport Psychologist*, 22, 423-438.
- Ommundsen, Y. & Roberts, G. C. (1999). Effect of motivational climate profiles on motivational indices in team sport. *Scandinavian Journal of Medicine & Science in Sports*, 9(6), 389-397.
- Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Mumtaz, A. M. (2016). *Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS 3.0: An Updated Practical Guide to Statistical Analysis* (Basic Level; First Edition). Pearson.
- Ramezani, R., Kshtan, H., & Ehsani, M. (2007). The relationship between leadership styles of coaches and team cohesion of football Pro league team of Iran. *Journal of Olympics*, 18(49), 57-68.
- Raudsepp, L. & Kais, K. (2002). The relationship between state anxiety and performance in beach volleyball players. *Journal of Human Movement Studies*, 43(5).
- Riener, H. & Chelladurai, P. (1995). Leadership and satisfaction in athletics. *Journal of Sport and Exercise Psychology*, 17, 276-293.
- Riener, H. & Chelladurai, P. (1998). Development of the athlete satisfaction questionnaire (ASQ). *Journal of Sport and Exercise Psychology*, 20(2), 127-156.
- Smith, A. L., Balaguer, L., & Duda, J. L. (2006). Goal orientation profile differences on perceived motivational climate, perceived peer relationships and motivation-related responses of youth athletes. *Journal of Sport Sciences*, 24, 1315-1327.
- Tsai, Y. M. & Chen, L. H. (2009). Relation of motivational climate and fear of failure in Taiwanese adolescent athletes. *Psychological Reports*, 2, 627-632.
- Trenz, R. C. & Zusho, A. (2011). Competitive perception of motivational climate and their personal achievement goals. *International Journal of Sports Science & Coaching*, 6(3), 433-443.
- Walling, N., Duda, J. L., & Chi, L. (1993). The perceived motivational climate in sport questionnaire: Construct and predictive validity. *Journal of Sport & Exercise Psychology*, 15, 172-183.