

Introduction

The staff of Sport Psychology Centre (SPC) was providing service to athletes during closed-camp arrangement. SPC administered a series of questionnaires via an online platform directly after the first (25 March to 6 May 2020) and second (29 July to 18 September 2020) closed-camp settings to explore mental condition of athletes who have participated and stayed in the campus.

Methodology

Participants and Procedure

The participating athletes were engaged in various sports, including athletics, badminton, billiard sports, cycling, fencing, gymnastics, karate, rowing, squash, swimming, table tennis, tennis, tenpin bowling, windsurfing and wushu. The questionnaires were completed by all athletes directly after the two closed-camp periods. The first intake (directly after the first closed camp) included 74 athletes, and the second included 76 athletes. The athletes' ages ranged from 11 to 35 years.

Instruments

The instruments used in this study included the Athletic Training State Monitor Scale ^[1], which has eight subscales (emotional stress, self-perception, physical fatigue, self-efficacy, self-adjustment, physical recovery, mental exhaustion and mental fatigue) scoring from 4 to 28; the Brunel Mood Scale ^[2], which has six subscales (anger, confusion, depression, fatigue, tension and vigor) scoring from 0 to 92 as total; and the Pittsburgh Sleep Quality Index ^[3], which has eight items scoring from 0 to 15 as total.

Results

Athletic training state and mood state

Our comparison of the overall data between the two closed-camp periods showed that the significant values across all eight subscales of athletes' training state were above .05 (0.148 - 0.771) and indicated insignificance. For mood state, the total score were 30.68 of the first intake and 29.86 for the second. The difference was also insignificant (sig. = 0.741). There was no significant difference between genders too. (sig. 0.069 - 0.989). See table 1 for further information.

Table 1. Subscales average scores of athletes across two closed camp period

Closed camp order	MS	ES	SP	PF	SE	SA	PR	ME	MF
Score range	0 - 92	4 - 28	4 - 28	4 - 28	4 - 28	4 - 28	4 - 28	4 - 28	4 - 28
1st Closed camp	30.68	14.70	17.26	15.64	16.97	19.32	18.00	10.78	13.07
2nd Closed camp	29.86	15.26	17.03	16.22	16.50	18.72	17.00	11.17	14.05
F	0.109	0.347	0.085	0.620	0.450	0.799	2.118	0.251	1.897
Sig.	0.741	0.557	0.771	0.432	0.503	0.373	0.148	0.617	0.170

Remarks: BRUMS—MS: Mood State, higher scores indicate worse conditions. Athletic Training State Monitor Scale—ES: Emotional Stress, higher scores indicate worse emotional stress conditions; SP: Self-Perception, higher scores indicate better self-perception; PF: Physical Fatigue, higher scores indicate worse condition of physical fatigue.; SE: Self-Efficacy, higher scores indicate higher level of self-efficacy; SA: Self-Adjustment higher scores indicate better self-adjustment; PR: Physical Recovery, higher scores indicate better physical recovery; ME: Mental Exhaustion, higher scores indicate worse condition of mental exhaustion; MF: Mental Fatigue, higher scores indicate worse condition of mental fatigue.

Sleep Quality

The Pittsburgh Sleep Quality Index was administered only in the second intake. The average score of athletes' sleep quality was 5.47. Male athletes scored 5.60 (n = 35), while female athletes scored 5.37 (n = 41). Both groups were not significantly different ($p = 0.752$). Our comparison among sports showed that those who were engaged in karate, windsurfing and badminton scored lower (i.e., lower score implies better quality) ($X = 3.64, 3.80, \& 3.83$).

Conclusion

In general, athletes' mood states during two closed camp settings scored much lower than medium. It can be interpreted as relatively stable mood state. Their training condition in both periods, across subscales, scored about medium. It implied relatively stable condition. Athletes' sleep quality was much below medium and it implied stable sleeping quality too.

Reference

1. Yan, N. (2003). *The development of the Athletic Training State Monitor Scale. (Master's thesis). Beijing Sports University.*
2. Zhang, C. Q., Si, G. Y., Chung, P. K., Du, M. M., & Terry, P. C. (2014). Psychometric properties of the Brunel Mood Scale in Chinese adolescents and adults. *Journal of Sports Sciences, 32*:15, 1465-1476. DOI: 10.1080/02640414.2014.898184
3. Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index (PSQI): A new instrument for psychiatric research and practice. *Psychiatry Research, 28*, 193-213. DOI: 10.1016/0165-1781(89)90047-4