



OBJECTIVES

To investigate the intervention effects of Mindfulness-Based Stress Reduction (MBSR) on mindfulness level, depression, anxiety, sleep quality, and attention concentration level of Chinese skeleton athletes.

METHODS

Participants

Total 21 athletes from Chinese skeleton team were trained once a week for 8 weeks.

Measurements

Five Facet Mindfulness Questionnaire (FFMQ), Self-Rating Depression Scale (SDS), State-Trait Anxiety Inventory (TSAI), and Pittsburgh Sleep Quality Index (PSQI) were measured four times at baseline (pre-test, T1), 4 weeks after the intervention start (middle test, T2), 8 weeks after the intervention start (post-test, T3), and 4 weeks after the end of the intervention (tracing test, T4), to evaluate the intervention effects of MBSR on mindfulness level, depression, anxiety, and sleep quality of skeleton athletes respectively.

The Cancellation tasks was tested at baseline (pre-test, T1) and 8 weeks after the intervention (post-test, T3) to assess the effect of the MBSR on attention concentration level of skeleton athletes.

RESULTS

- 1) MBSR can promote the mindfulness level of skeleton athletes, but this kind of hysteresis effect could be found after the end of intervention.
- 2) MBSR can significantly reduce the depression of skeleton athletes, and this kind of intervention effect could also be found after four weeks of the intervention.
- 3) MBSR can significantly decrease the anxiety of skeleton athletes, including trait anxiety and state anxiety, and this kind of intervention effect could also be found after four weeks of the intervention.
- 4) MBSR can improve the sleep quality of skeleton athletes, and the intervention effect could be found four weeks after the start, and there is a long term effect four weeks after the end of training.
- 5) MBSR has a significant intervention effect on concentration of skeleton athletes.

CONCLUSIONS

- 1) MBSR training could improve the mindfulness level, decrease the depression & anxiety level, increase the sleep quality, enhance the attentional concentration of skeleton athletes.
- 2) As an effective psychological skills training, MBSR can continued to be used in the future on skeleton athletes.

Measurement		Pretest-T1 (<i>M±SD</i>)	Middle Test-T2 (<i>M±SD</i>)	Post Test-T3 (<i>M±SD</i>)	Following Test-T4 (<i>M±SD</i>)	<i>F</i>	<i>p</i>	η^2_p
Mindfulness	FFMQ	117.33±11.07	117.24±10.06	117.86±11.34	119.43±13.08	0.724	0.542	0.035
	Observing	22.67±5.64	21.29±6.46	23.14±5.51	21.76±6.64	1.435	0.250	0.067
	Describing	24.62±4.80	23.67±4.29	23.90±4.47	24.76±4.38	0.759	0.522	0.037
	Acting with Awareness	27.00±3.95	29.05±4.11	27.76±4.05	28.86±4.63	2.883*	0.043	0.126
	Nonjudging	24.43±3.09	26.05±4.01	25.10±4.11	25.90±4.59	1.283	0.289	0.060
	Nonreactivity	18.62±2.73	17.19±3.42	17.95±3.57	18.14±3.55	1.353	0.266	0.063
Depression	SDS	41.71±8.27	39.62±5.67	38.76±5.74	38.57±6.56	3.218**	0.029	0.139
Anxiety	T-AI	47.95±9.44	43.95±6.37	44.48±6.62	44.95±8.33	3.243*	0.028	0.140
	S-AI	43.10±8.90	40.71±8.47	39.14±6.02	40.43±9.58	1.241	0.303	0.058
Sleep Quality	PSQI	10.14±4.35	8.95±3.15	7.90±3.46	7.90±3.78	5.922**	0.001	0.228
Concentration	Cancellation tasks	430.52±99.59		462.43±89.03		-2.392**	0.027	0.502

* < .05; ** < .01