

ENHANCING SLEEP IN PROFESSIONAL RUGBY PLAYERS: OBSERVATION AND SLEEP INTERVENTIONS



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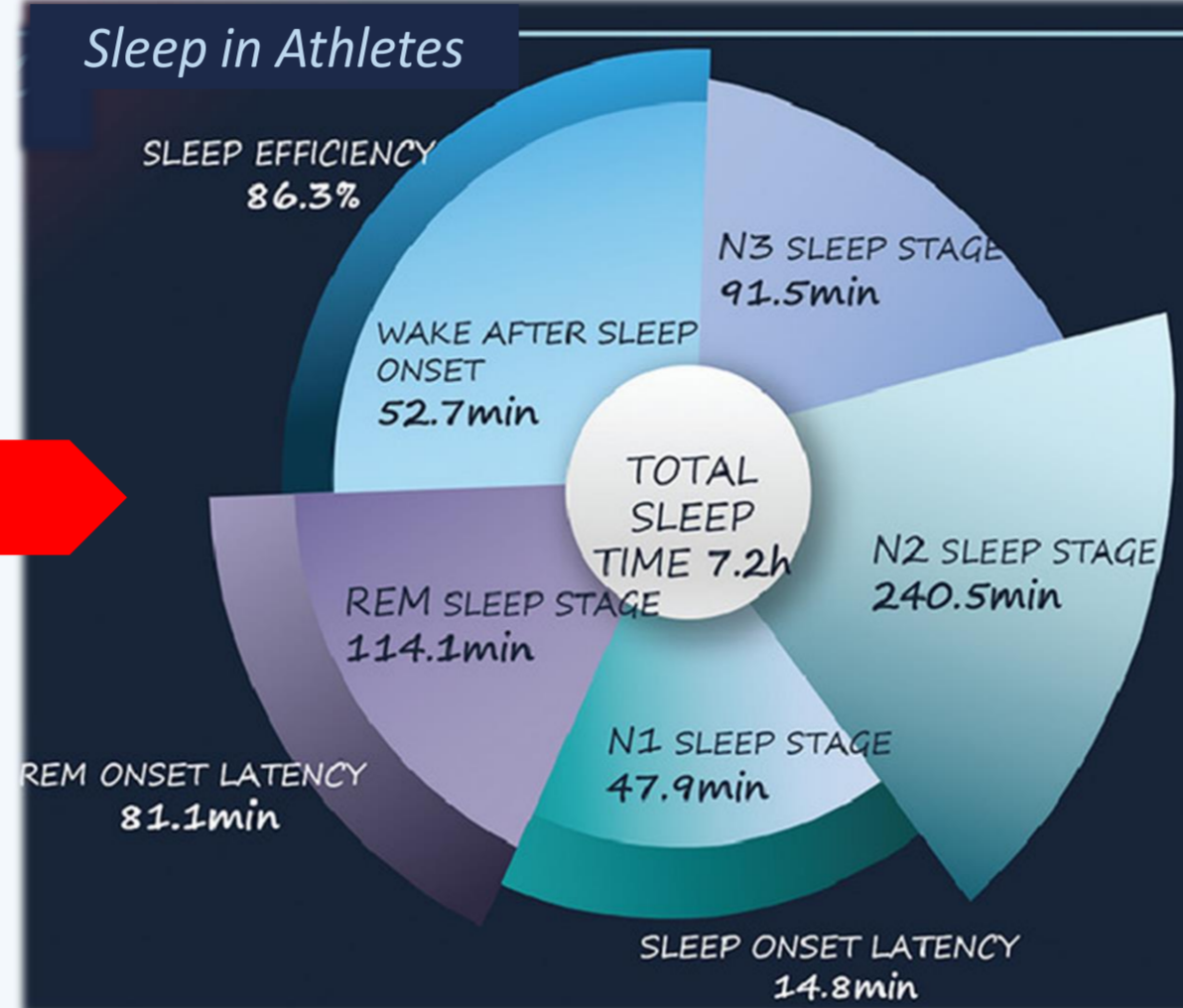
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INTRODUCTION



SLEEP DISTURBANCE
High training loads
Night competition
Early training
Night before competition
Long travel - jetlag
Lifestyle choices
Social demands



Sleep assessment: lack of objective and subjective sleep knowledge in team-sport athletes using valid and reliable assessment approach.

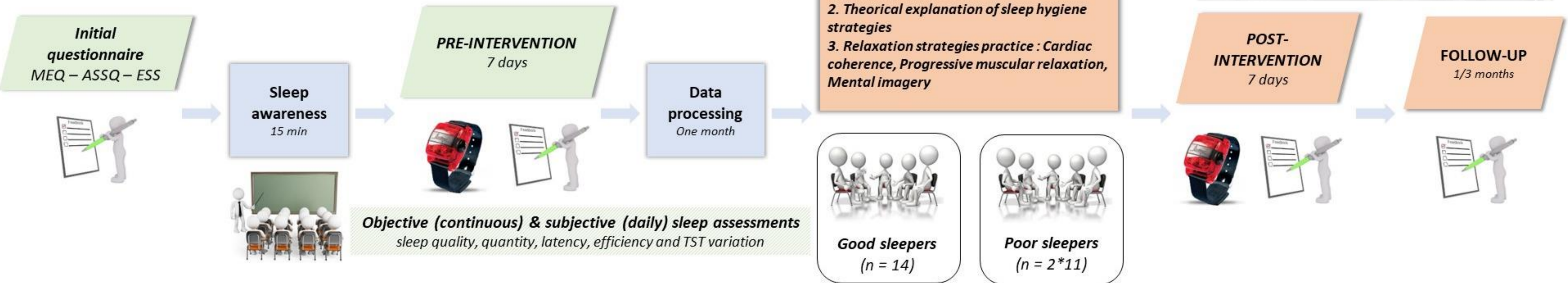
Sleep interventions: set of approaches used to improve sleep, includes sleep education based on sleep hygiene recommendations and relaxation strategies.

Athletes: poor sleep quantity while 8h-9h/night is recommended for optimal performance and psychophysiological restoration.

- Quantitative and qualitative sleep examination among team-sport athletes during a week
- Evaluate the short and long-term effects of one sleep education intervention

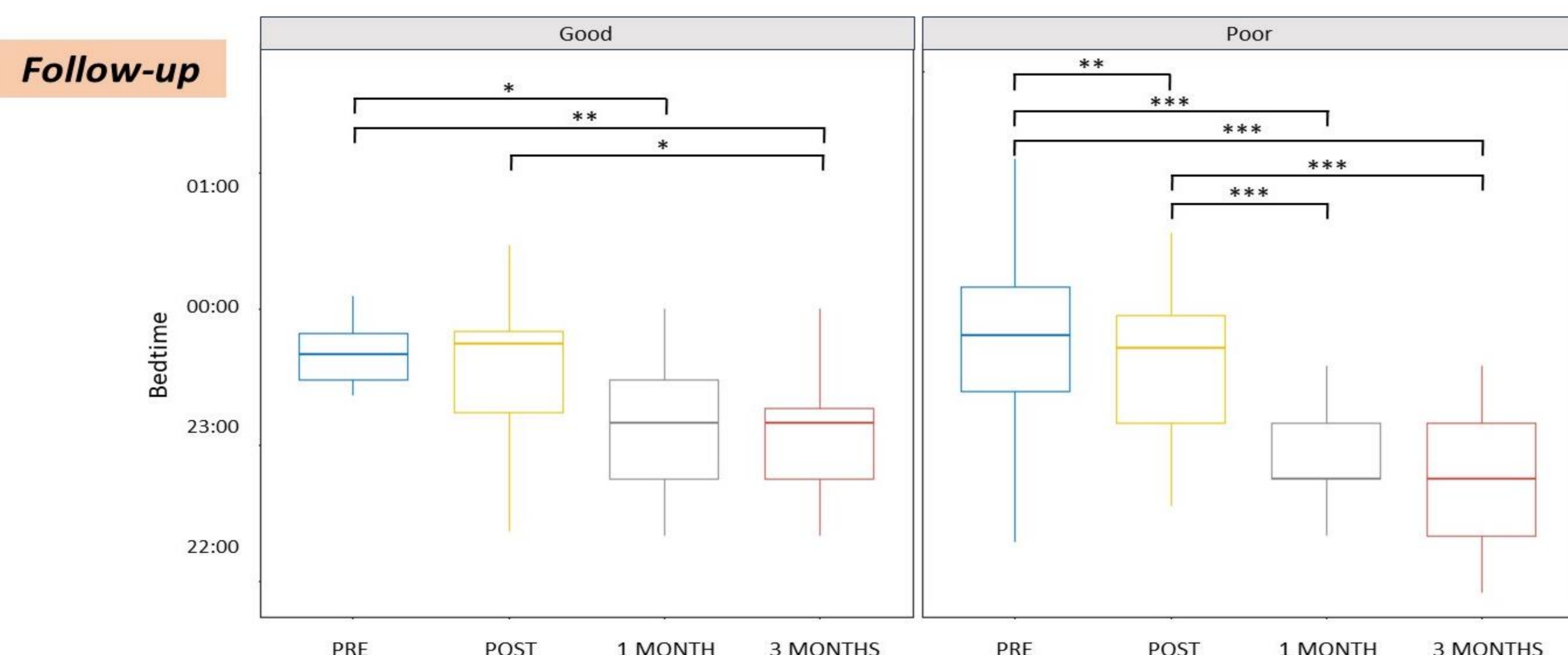
POPULATION	n = 36	Mean ± SD
Age (year)		27.7 ± 4.6
Height (cm)		183.8 ± 6.9
Body weight (kg)		100.2 ± 13.3
BMI (kg·m ⁻²)		29.1 ± 3.1
Chronotype		58.2 ± 8.2
Sleepiness		7.0 ± 3.8

MATERIALS & METHODS



RESULTS

- 61 % of rugby players have poor sleep quality and quantity
- Sleep interventions resulted in both objective and subjective sleep improvements, especially in poor sleepers



- Benefits remained effective 3 months after interventions

INTERVENTION	ENTIRE GROUPE	GOOD SLEEPERS n = 14			POOR SLEEPERS n = 22		
		PRE	POST	P value	PRE	POST	P value
Subjective data							
ASSQ - SDS	5.7 ± 2.2	4.0 ± 1.7	3.8 ± 1.9	.8	6.8 ± 1.8	6.5 ± 2.3	.5
Sleep quality	3.2 ± 0.8	2.6 ± 0.6	2.4 ± 0.7	.4	3.7 ± 0.5	3.4 ± 0.6	.08
Sleep quantity	4.7 ± 0.7	4.2 ± 0.6	3.7 ± 0.8	.007***	5.1 ± 0.6	4.8 ± 0.8	.04*
Sleep latency	2.3 ± 0.8	2.9 ± 0.4	2.1 ± 0.8	.5	2.5 ± 0.9	2.2 ± 0.9	.09
Daily subjective sleep	10.3 ± 1.7	8.7 ± 0.9	8.3 ± 1.8	.2	11.3 ± 1.3	10.5 ± 1.7	.003**
Hooper total	21.0 ± 3.8	17.4 ± 2.9	14.3 ± 3.7	.001***	23.2 ± 2.5	18.8 ± 2.6	<.001**
Screen time exposure (min)	03:53 ± 01:25	03:48 ± 01:20	04:23 ± 01:23	.03*	03:56 ± 01:32	03:35 ± 01:26	.2
Objectives data							
Bedtime (hh:mm)	23:43 ± 00:45	23:33 ± 00:35	23:27 ± 00:47	.5	23:48 ± 00:54	23:29 ± 00:39	.004**
Wake-up time (hh:mm)	07:35 ± 00:34	07:46 ± 00:31	07:45 ± 00:31	.9	07:30 ± 00:34	07:29 ± 00:37	.9
Sleep efficiency (%)	89.4 ± 4.4	90.5 ± 3.3	88.3 ± 4.5	.006**	88.7 ± 4.9	88.8 ± 4.5	.8
Total sleep time (min)	421.3 ± 42.5	446.6 ± 40.6	441.0 ± 29.9	.5	405.2 ± 36.0	425.9 ± 39.1	.004**
Time in bed (min)	472.5 ± 39.4	492.5 ± 31.3	499.8 ± 35.9	.2	459.7 ± 39.2	480.1 ± 42.0	.02*
Wake after sleep onset (min)	49.7 ± 20.4	45.8 ± 14.2	57.8 ± 24.5	.01**	52.1 ± 23.5	53.3 ± 22.7	.7

DISCUSSION

- Multidimensional sleep assessment provides a better understanding of team-sport athletes sleep over a match-week allowing to identify sleep issues to be managed
- Sleep intervention improved short- and long-term sleep quality in poor sleepers, with a moderate impact in good sleepers.

Main used recommendations: Going to bed earlier in accordance with one's own chronotype (here intermediate), nap and sleep extension

REFERENCES

- Walsh et al. (2021) Br J Sports Med. Vlahoyiannis et al. (2021), J Sport Health Sci.
 Buysse (2014), Sleep. 2014;37(1):9-17. Bonnar et al. 2018, Sports Med., 48(3):683-703.

CONTACT INFORMATION



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