

## Introduction

- In NCAA Division III athletics sleep is the final frontier for athletic improvement.
- Athletic departments in Division III have spent a great deal of money on coaching and facilities.
- Sleep is the remaining variable.
- Our study investigated the use of a paper sleep log to record data for two weeks at a time.

## Results

- Sleep time for Division III college athletes was  $8.27 \pm 1.42$  hours per night.
- Screen time within 60 minutes of sleep was 348 and no screen time within 60 minutes of sleep was 21
- Table 1 presents more sleep results

## Discussion

- It is surprising to note that the students in this study averaged over 8 hours of sleep per night.
- Contrary to other studies it did not seem that using a screen within an hour of sleep caused a loss of sleep.
- It is possible that this is so common the students are used to it.

## Methods

- Twenty-six college aged participants were recruited.
- All were healthy and completed a pre-participation screening.
- The Central College IRB approved of this study.
- Subjects recorded their sleep values daily on a paper sleep log.
- Questions included:
  - Time to bed
  - Time awake
  - Total sleep time
  - Pre-sleep fatigue
  - Post-sleep fatigue
  - Sleep quality
- Screen use within 60 minutes of sleep
- Total nights reported were 377
- Data was entered into a password protected Microsoft Excel file
- All statistics were completed using Minitab 20 Statistical Software

Table 1. Sleep Results

Variable	Time or Likert Score	Standard Deviation
Sleep Time	8.27 hours	1.42 Hours
Pre-Sleep Fatigue Scale 1 - 7	4.25	1.38
Pre-sleep Alertness Scale 1 - 5	3.07	0.87
Post-Sleep Fatigue Scale 1 - 7	4.18	1.50
Post-Sleep Quality Scale 1 - 5	2.39	0.87

## Practical Application

- This study along with previous work has shown that Division III student-athletes are averaging over 8 hours of sleep per night.
- The messages from the coaching staff and strength and conditioning coaches seems to be working

Example of the Sleep Log used

Date	Bedtime	Get up time	Pre-sleep fatigue level (1= poor and 7= best)	Pre-sleep alertness (very high, high, moderate, low or none)	Post-sleep fatigue level (1= poor and 7= best)	Sleep quality (very good, good, average, poor or very poor)	Daily Caffeine Intake (amount/time)	Caffeine after 6 PM	Correct orthon e use within 1 hour of bedtime	Add any napping done in hours: minutes
:	:	1234567	VH HMLN	1234567	VG GAP VP		Yes	Yes		
:	:	1234567	VH HMLN	1234567	VG GAP VP		No	No		
:	:	1234567	VH HMLN	1234567	VG GAP VP		Yes	Yes		
:	:	1234567	VH HMLN	1234567	VG GAP VP		No	No		
:	:	1234567	VH HMLN	1234567	VG GAP VP		Yes	Yes		
:	:	1234567	VH HMLN	1234567	VG GAP VP		No	No		
:	:	1234567	VH HMLN	1234567	VG GAP VP		Yes	Yes		
:	:	1234567	VH HMLN	1234567	VG GAP VP		No	No		
:	:	1234567	VH HMLN	1234567	VG GAP VP		Yes	Yes		

## Future Work

- Additional research with a student-athletes to determine sleep habits would be beneficial.