
A Comparative Study on Effects of Sleeping Habits on College Student Athletes and Non-Athletes

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Abstract:

The motivation behind the study was to analyze the sleep habits between athletes and non-athletes at Government P.G. College, Raipur, Chhattisgarh. The inquiry is whether sleep habits contrasted between men vs. women, and athletes vs. non-athletes. The examination outline for this study was illustrative. The subjects (N=391) comprised of athletes and non-athletes from California University of Pennsylvania. No noteworthy contrasts were found for sleep habits between men vs. women, and athletes vs. non-athletes. The football and men's b-ball groups demonstrated altogether higher DST scores than the men's cross country group. Conclusion: Athletes don't require diverse sleep habits than non-athletes do. Thus, male and females don't require diverse sleep habits.

Key words: sleeping habits, athletes, non-athletes, Raipur, India.

Introduction

Sleep is an essential physical process that is needed for sufficient working in the commonplace life of people. It is a

mental and physiological process that is essential for the human body to recuperate from exercises of day by day living. There is recognition that seven to eight hours of sleep is the fundamental sum required to recoup from a 16 hour waking day. This has been discovered to be the significant cause regarding why in excess of 100 million Americans are sleep deprived.1 actually, look into has found that individuals require 10 hours of sleep to recoup from the anxiety and strain of a full waking day. Our sleep procedure is controlled by a homeostatic sleep drive and our characteristic circadian mood. The homeostatic sleep drive is a process that strives to get enough sleep to capacity throughout the day. Our common circadian beat is our inner clock that looks after particular levels of sharpness for the duration of the day. Through these two methodologies, sleep can undoubtedly be caught on. The human body is mindful of what amount of time is required to recuperate from a full day of exercises and will do whatever it can to guarantee that the recuperation interest is met. This is the reason individuals have a tendency to get tired in the meantime consistently and get up in the meantime in the morning.

Sleep Quality in College Athletes

School level athletes parity study, practice timetables and amusement plans for an effective school profession. The player has control over their methodology to their calendar. It is that juvenile sleep is affected by school plan. Discoveries measuring the sleep nature of youthful grown-up sleep have distinguished variable sleep designs with solid impact from calendars (i.e., social, scholastic, sports). The school player has a convoluted calendar of courses, homework assignments, study calendars and group practice.

Objective of the Study

To study and compare the effects of sleeping habits in college level student athletes and non-athletes based on their gender.

Review of Literature

This article will analyze the sleep habits of Government P.G. College, Raipur, Chattisgarh Student athletes and non-athletes. Sleep is a vital physiological and mental requirement for the human body to perform at an ideal level. As of now, there is very little research available for use with respect to this point. This audit will inspect the flow scrutinize that talks about the impacts of sleep hardship on the physical body.

Sleep is a physiological process that considers the human body to restore itself. It is through this process that the body repairs muscle, saves complex data in our memory banks, and repairs our safe framework from harm endured by trespassers. The genuine physiological methodology of sleep is viewed as a cycle that normally keeps ticking something like 90 minutes in span. A sleep cycle comprises of distinctive stages and the cycle is rehashed a few times in an ordinary sleeping period. A typical sleeping period is recognized to be about 7 to 8 hours which is the normal measure of sleep reported by the all inclusive community. Late research has found that on normal, the overall public ought to attempt to get something like 10 hours of sleep a night. Each of the diverse sleep stages can be distinguished by observing brainwave movement while an individual is sleeping. Through the utilization of a polysomnography, specialists can record an individual's cerebrum action while sleeping. The diverse sleep stages are known as stage 1, stage 2, stage 3, stage 4, and REM stage. Stage 1 sleep is recognized to be light sleep checked by theta cerebrum waves. In this stage our heart rates moderate and our breathing gets shallow yet standard. Stage 1 sleep is when

individuals have a tendency to encounter sudden unwinding of the skeletal muscles bringing about a sudden bastard, arousing them. This stage can keep going anyplace from 10 seconds to 10 minutes. In stage 2 sleep, the theta mind waves start to show what are known as k-complex waves and sleep shafts. These are single waves with high-plentifulness and 12 to 14 cycleper-second waves. In stage 2 sleep scientists say that we get separated from the earliest starting point, sleep. This stage commonly endures something like 10 to 20 minutes. Stage 3 sleep mind movement demonstrates a blending of theta and delta (low recurrence, high-voltage) waves. The theta mind waves vanish in a short measure of time uncovering that stage 4 sleep has been arrived at. Stage 3 and stage 4 sleep have a tendency to be gathered together into one stage on account of the moderately snappy vanishing of the theta mind waves.

This is the deepest phase of every last one of phases of sleep. In this sleep stage circulatory strain drops, beat and breath rate back off, and muscle unwinding happens. This sleep stage endures anyplace between 30 to 40 minutes. Stage 4 sleep is such a significant phase of sleep in light of the fact that it is the point at which the body restores, develops, and looks after our general wellbeing. Blood stream to the muscles is expanded, body temperature diminishes, metabolic movement is reduced and development hormone is discharged by the pituitary organ. These physiological changes that happen in our body permit us to moderate vitality and develop and repair tissue. Additionally in this sleep organize, two cytokines are discharged in the body to help restore the insusceptible framework. Cytokines are chemicals discharged in the body that sign distinctive physiological progressions. These two cytokines that are discharged in the body throughout stage 4 are interleukin and tumor corruption variable. After something like 90 to 110 minutes have passed since nodding off, we start to move rearward through the sleep stages from 4 to 2. From this indicate the body starts experience a thoughtful apprehensive

incitement that causes an expansion in blood stream to the cerebrum, and in beat rate, breath rate, and pulse. The eyes start to move around rapidly while the eyelids are shut. This stage is known as stage 1 REM (fast eye-movement) sleep.

An extraordinary measure of time and exertion has been used studying sleep habits and how they influence our regular life. An absence of sleep can undoubtedly be identified in an individual by an absence of sharpness, vitality and centering. The individuals who may not encounter exhaustion or absence of center are still at an extraordinary danger of getting to be sleep denied. Our sleep need is managed by a homeostatic drive so it guarantees that we get enough sleep to permit us to capacity appropriately throughout the day. A normal waking day will comprise of 16 hours, so our homeostatic sleep drive will guarantee that we sleep for 8 hours to recuperate. Sleep obligation is created from day by day exercises. A full day of attentiveness enduring 16 hours creates a sleep obligation of 8 hours which must be paid to guarantee ideal execution for the one day from now. By staying up 18 or 20 hours in a day, that expands the sleep obligation by 2 or 4 hours. Creating a sleep obligation not just disturbs an individual's level of sharpness, body temperature, or hormonal cycles. It additionally can keep the body's capacity to capacity at a high or ideal level of execution. A sleep obligation can even exasperate glucose digestion system, weakening execution and recuperation further. Early distinguishment and treatment of sleep issue are greatly vital in light of the fact that incessant ailments have prompted genuine issues. As an aftereffect of daytime sleepiness; state of mind movements, weight increase, torpidity, and diminished gainfulness are influences of sleep hardship.

Research Design

An unmistakable outline was utilized for this study. The ward variables were the Daytime Sleepiness Scale (DST) score and

the Sleep-Wake Behavior Problems Scale (SWBT) score. The DST comprises of inquiries inquiring as to whether they battled to stay astir in 10 separate circumstances. The SWBT is made up of 15 things, 10 that are markers of recurrence of inconsistent sleep-wake conduct in the course of the most recent 2 weeks. The free variables were sexual orientation (male or female) and player versus non-competitor. The ward variables were the scores accepted on the two sleep scales. The quality of this study originated from the amount of subjects utilized, the amount of distinctive games utilized for the study, and the dependability of the instruments. A confinement of this study was utilizing just from one establishment.

Selection of Population for Sample

The subjects (N=391) in this study were chosen through an accommodation example of athletes and non-athletes from an establishment. Roughly (n=207) male athletes and (n=184) female athletes were studied from different games, for example, b-ball, football, track & field, swimming, tennis, volleyball, and cricket (n=7 for male games, n=5 for female games) at Government P.G. College, Raipur, Chhattisgarh. The non-athlete subjects were school people in wellbeing instruction classes (n= 144). The subjects were overviewed about their age, sex, class rank, and sleeping habits.

Instrument Used For Data Collection

The instrument utilized for this examination was a Sleep Habits Survey (SHS). The SHS is a 10-thing survey that surveys a people sleep habits in two parts, the DST and SWBT. The DST has a moderate inside unwavering quality, with a coefficient alpha of .70. The SWBT additionally has a moderate inner dependability, with a coefficient alpha of .75. A piece of the SSSH comprised of a demographic area, a percentage of the

inquiries were with respect to age, sexual orientation, class rank, racial/ethnic foundation, and current wellbeing status. The SHS survey comprises of 18 things and is partitioned into two areas. The primary segment incorporates the demographic/foundation data. Second, is the DST that exhibits 10 inquiries relating to whether the player battled to stay astir. The inquiries were replied by filling in plain rings comparing to four separate reactions; no (0) stayed up and about (1) nodded off once in a while (2) both battled to stay wakeful and nodded off (3) neglected to stay conscious and nodded off. Total conceivable scores for the SWBT extended from 1 to 10 with higher scores showing more excellent recurrence of sporadic sleep conduct.

Presentation and Analysis of Data

The specimen comprised of athletes (n = 250, 63.9%) and non-athletes (n = 141, 36.1%) from Government P.G. College, Raipur, Chhattisgarh, for what added up to 391 subjects. Inside the example about 53% were males (n = 207) and 47% spoke to females (n = 184). Table 1 portrays the qualities of the members from the study.

Table 1. Characteristics of Participants as per criteria

Characteristic	Range	Mean \pm SD
Age	18-28	19.78 \pm 1.56
Height	59-80	68.86 \pm 4.37
Weight	93-350	170.03 \pm 45.10
BMI	17.0-41.95	24.88 \pm 4.71
GPA	1.3-4.0	3.03 \pm .58

A frequency table for the opinion of the health of the population is shown in Table 2.

Table 2. Opinion of Health

Quality	Frequency	Percent (%)
Poor	3	0.8

Fair	31	7.9
Good	244	62.6
Excellent	112	28.7

A frequency table representing the number of times the subjects' wake ups during the night is included as Table 3.

Table 3. Number of Times wake ups at Night

Number of Times	Frequency	Percent
Never	71	18.4
once	166	43.1
2 or 3 Times	114	29.6
More Than 3 Times	21	5.5
I Have No Idea	13	3.4

A frequency table to represent the subject's opinion of the duration and quality of sleep achieved is included in Table 4.

Table 4. Opinion of Sleep Quality based on duration

Quality of Sleep	Frequency	Percent
Too Much Sleep	13	3.4
Enough Sleep	210	54.1
Too Little Sleep	164	42.1

Table 5. Data Table for Each Sports' Mean and Number of Subjects for DST Score

Sport	N	M	SD
Men's Cross Country	6	16.33	2.73
Men's Track & Field	8	19.38	6.05
Women's Track & Field	8	8	10.55
Women's Tennis	8	8	4.69
Swimming	9	22.78	8.12
Volleyball	11	25.55	7.38
Women's Basketball	12	26.25	10.62
Football	67	28.01	10.98
Men's Basketball	14	28.21	6.77

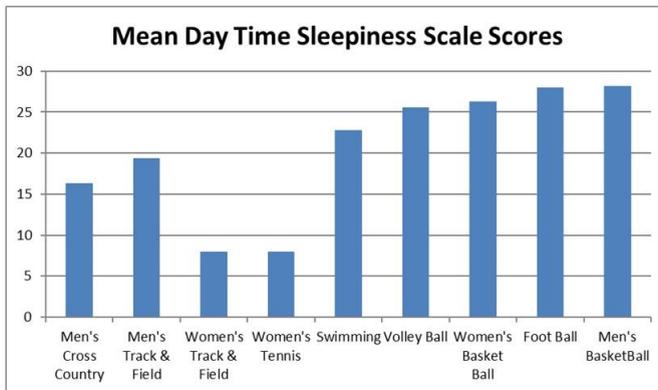
The following table shows the results of the testing using a MANOVA*.

Table 6. MANOVA* test for Gender and Athlete vs. Non-athlete on SWBT and DST Scores.

Source	Dependent Variable	Type 3 Sum of Squares	df	MS	F	P
Gender	SWBT #	34.14	1	34.14	0.36	0.55
	DST ##	221.40	1	221.40	2.94	0.09
Athelete Vs Non-Athlete	SWBT	0.08	1	0.08	0.01	0.98
	DST	175.05	1	175.05	2.32	0.13

* MANOVA (Multivariate analysis of variance test), # SWBT (Sleep-Wake Behavior Problems Scale Score), ## DST (Daytime Sleepiness Scale Score)

Figure 1. Graph representing Mean Daytime Sleepiness Scale Scores (DST) among Sports



Discussion of Results

This study concentrated on sleep habits of students of Government P.G. College, Raipur, Chhattisgarh through an examination to figure out whether any contrasts existed between sex and player versus non-competitor status. Sleep is a vital physical process that the human body requires for satisfactory working in ordinary life. The mental and physiological procedure of sleep gives a period in which the body can recover from the anxiety it perseveres throughout waking hours. Absence of sleep will prompt the development of a sleep obligation. The collection of sleep misfortune will result

in the sleep obligation to develop permitting the open door for genuine issues to happen. Sleep hardship has been interfaced straightforwardly to abatements in execution.

Athletes manage a far more terrific measure of anxiety to their bodies than non-athletes in the school setting. As an aftereffect of this anxiety, whether it is physical, mental, or passionate, athletes oblige a more amazing measure of sleep or time to recover their body. This conviction is the inspiration for this examination about the sleep habits of athletes and non-athletes. At the foundation where the subject's were utilized, there was no contrast in the measure of sleep acquired by athletes and non-athletes. On the off chance that athletes are getting the same measure of sleep as the non-competitor subjects, then they may not be getting enough sleep to recover from the burdens they maintain. Football is a game that puts the body through an incredible arrangement of physical, mental, and enthusiastic hassles, that are practically identical yet diverse to the anxieties managed in cross country. Football players reported fundamentally higher Daytime Sleepiness Scale (DST) Scores than the men's cross-country athletes did. Higher DST Scores mean a more terrific measure of sleep hardship which demonstrates that athletes who require more sleep are not getting it. The men's b-ball group likewise indicated fundamentally higher DST scores than the men's cross country group. Cross-country is a game that obliges an incredible arrangement of commitment year round. These athletes are never genuinely out of season in light of the fact that they are continually running unimaginably long separations to stay fit as a fiddle. Both b-ball and Volleyball are games that oblige a more terrific arrangement of physical sturdiness. As a consequence of the physical toll that a game like crosscountry has on its athletes, it is vital they are never at danger for sleep hardship. This study found that sex does not have any influence on the result of sleep hardship. This discovering is exceptionally essential in light of the fact that it

demonstrates that not men or women are more able to sleep hardship. An alternate noteworthy correspondence that the study discovered was the subjects who reported more terrific measures of time as their perfect measure of sleep, had easier DST scores. The study likewise found that subjects with higher GPA's were found to have more level DST Scores. Besides, an imperative connection in this study was the subjects with higher measures of time that they generally sleep have a tendency to have easier DST scores. Research has indicated that the body needs 10 hours and not 8 hours of sleep to recoup from a full day of attentiveness.

Conclusion

This study exhibited that the sleep habits of athletes are no not the same as those of non-athletes at the same establishment. These discoveries are imperative on the grounds that it indicates that athletes don't oblige more sleep than non-athletes do. Besides, this study found that there are no contrasts in sleep habits between sexual orientations. All people are at danger of getting to be sleep denied and need to be made mindful of it. An overall instruction program needs to be implemented to illuminate whatever number individuals as could be expected under the circumstances about the essentialness of sleep and the shortfalls in execution that can create as an aftereffect of absence of sleep.

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