FACTORS AFFECTING POOR SLEEP AMONG SENIOR HIGH SCHOOL LEARNERS: BASIS FOR AN INTERVENTION PROGRAM

JIMMY J. ANTIOLA, EMELYN E. ORIAS, FRANCISCO M. ESPINOSA

Ramon Magsaysay Memorial Colleges, Graduate School
General Santos City, Philippines
giediolarodriguez@gmail.com

Abstract: This study aimed to determine the factors of poor sleep experience among Senior High School learners of General Santos City National High School, Calumpang, General Santos City enrolled during school year 2021-2022 as basis for intervention program. This study employed a cross-sectional approach with 120 participants from grade 11 to grade 12 students. Data gathered were treated using frequency counts and percentage. Based on the result, majority of the respondents who experienced poor sleep were 16 years old, male, having 4 hours of sleep a day and Humanities and Social Sciences (HUMMS) students. Findings revealed that the common factors affecting poor sleep are: in terms of sleep disorder, they resist going to bed even when they are sleepy, and in terms of illness, they cannot sleep because of headache, and in terms of stress, they play computer games until dawn. Nevertheless, age, sex, sleeping hours, and academic stand or track affect the sleeping experience of learners.

Keywords: educational management, poor sleep, senior high school, learners, Philippines

I. INTRODUCTION

A good night's sleep makes one's felt way better. Rest gives the body time to relax and recharge, but it may also be crucial for the mind's ability to analyze and consider past lessons or memory. While the body rests, the brain is busy processing data and forming memories during sleep. If the person is experiencing poor sleep, they are at risk of developing their ability to learn and retain new information may be decreased. Senior high learners in the Philippines face anxiety and depression due to poverty and high family expectations. In this case, it would create sleeping problems that could affect their academic performance (Dewald, Meije, Oort, Kerkhof & Bögels, 2018; Donohue, 2017). Moreover, teenagers frequently experience learning, memory, and academic performance issues due to little sleep, poor sleep quality, and tiredness. Poor sleep, as the name suggests, occurs when one is sleep-deprived. They do not get enough sleep for their bodies and minds to perform at their best and feel awake. Sleep is an imperative need for people to live a healthy lifestyle in which they can perform well and think properly (Boyes, Drakatos, Jarrold, Smith & Steier, 2017; Persky, 2018). However, proper sleep is necessary for keeping these cognitive functions at an optimal level. Unfortunately, not everyone receives adequate sleep to function correctly throughout the day. Poor sleep is an essential hidden factor in lowering the achievement of learners. It may link to the contributing factors of poor sleep, such as the excessive use of gadgets, caffeine intake, and school work. Thus, the researchers gathered data about the impact of poor sleep on the learner's school performance. Idenified senior high school learners in General Santos City National High School encountered poor sleep. This study gives insight into the relative impact of poor sleep experience on the school performance of senior high school learners of General Santos City National High School and the factors that play out in causing them. This study also sought an intervention plan for the said problem.

Research Objective

1. What is the profile of Senior High School learners of General Santos City National High School in terms of:
    1.1. Age;
    1.2. Sex;
    1.3. Sleeping hours;
    1.4. Track/Strand Classification;

2. What are the common factors of poor sleep experiences among the Senior High School learners when analyzed according to their profile?

3. What intervention program can be formulated based on the result of the study?

Conceptual Framework

Figure 1 shows the conceptual framework of the study.

The first box presents the factors affecting poor sleep among senior high school learners and the second box presents the crafted intervention program.

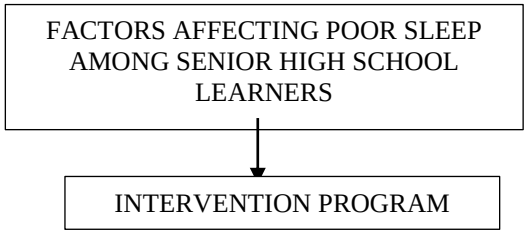

Figure 1. *The Conceptual Framework of the Study*

Theoretical Framework

This study was anchored on The Sleep Theory of Kushida, Littner, Hirshkowitz, Morgenthaler, Alessi, Bailey, & Wise, 2006. Sleep, one of the most conserved behaviors, consumes approximately one-third of a person's life. Sleep's function is still not entirely understood. Researchers primarily examine the effects of sleep

deprivation (SD) and sleep restriction (SR) in humans and animals to comprehend sleep function. At first, it was believed that the primary result of sleep loss was an increase in drowsiness and that its presence explained all of the consequences of sleep loss, including cognitive deficiency. Therefore, the inquiry was not primarily concerned with the potential short- and long-term pathophysiological effects of sleep loss that may impact general health. Early studies concentrated on methods to control and speed up neurobehavioral recovery following sleep loss. The protracted state of shorter or irregular sleep is also referred to as chronic sleep deficit by the American Academy of Sleep Medicine and the Sleep Research Society. They recently expressed worry about population growth and the likely negative health effects. Even though research is putting more of an emphasis on understanding sleep, its purpose is still a mystery. Even though getting enough sleep is essential for optimal health, the relationship(s) between sleep and health are still unknown and challenging to assess with accuracy (Kushida, Littner, Hirshkowitz, Morgenthaler, Alessi, Bailey, & Wise, 2006).

Significance of the Study

The researcher foresaw that the findings of this study could serve as an eye-opener to help the following:

Primarily, the information gathered in this research will benefit education. It could serve as a basis for improving the learners' academic performance in the public education setting with the engagement of parents. The results may help the Department of Education to craft programs and activities that could lessen the number of learners encountering poor sleep.

The outcome of this study will also serve as a guide for the school administrators to see the bigger picture in line with the sleeping experience of the participants, and they will eventually come up with possible solutions to problems embodied in the policies they will craft. Also, teachers may be conscious of the hidden curriculum, such as the impact of poor sleep experience on the learner's school performance, and they might act to improve the situation.

Finally, considering the large body of knowledge in terms of the broad scope of studies relevant to education, such as parents would be aware that poor sleep experience can affect the school performance of their son/s and daughter/s. Through this, they can help the learners remember the significance of proper sleep. Moreover, the result of this study might help learners understand the importance of sleeping concerning school performance. The study would help advance future researchers' knowledge of people, especially those involved in this study. This study can be used as a reference for other researchers. Thus, it would serve as reading material and maybe a channel in awakening the persons involved. Furthermore, this study would help the community be aware of this implicit factor in the learner's school performance. This instance plays an important role that will make citizens effective in addressing the learner's needs and problems.

Definition of Terms

For a better understanding of this study, the following terms were defined operationally:

Factors of Poor Sleep Experience. This refers to the influences related to poor sleep of the senior high school learners of GSCNHS.

Intervention Plan. In this study, it refers to the proposed intervention program that will help address poor sleep among the Senior High School students.

Poor Sleep Experience. This study refers to the problem of lack of sleep as to the number of adequate hours needed among the participants of this study.

II. METHODOLOGY

The chapter presents the method and procedure used in the conduct of the study. It includes research design, locale, respondents and sampling techniques, research instrument, and data gathering procedure employed in this study.

Research Design

This analysis utilized a cross-sectional approach to research design. Quantitative-based cross-sectional designs use data to make statistical inferences about the population of interest or to compare subgroups within a society. Cross-sectional studies are referred to as observational studies. These are primarily used to determine prevalence. Prevalence equals the number of cases within a population at a given time. Each person makes all measurements at a single point (Altur, Cinar & Bede, 2021; BaHammam, Alaseem, Alzakri, Almeneessier & Sharif, 2021). The subjects are tested at one point to decide if exposure to the appropriate agent is evident and whether they have the product of interest. It sets the type of study apart from the other observational studies where exposure or issues is prominent. The benefit of such research is that participants are neither intentionally revealed, handled, or untreated and rarely have ethical problems. Data must only have one category and must only use once to assess different results. Several cross-sectional studies were carried out using questionnaires. Alternatively, one can interview each subject (Alotaibi, Alosaimi, Alajlan & Abdulrahman, 2020; Hershner & Chervin, 2017).

Research Locale

This study was conducted at General Santos City National High school, Calumpang, General Santos City. It is considered the most prominent secondary school in Region XII, with approximately 12,000 learners. The school introduces programs like the strengthened Technical – Vocational Education Program (STVED) for those who want to specialize in dressmaking, baking, cosmetology, welding, humanities, and social sciences, and Open High School to cater the potential dropouts in the community.

Research Respondents

The respondents of this study were 120 SHS learners of GSCNHS who experienced poor sleep. They were identified through preliminary surveys, which became the basis for selecting them to participate in the study.

Furthermore, the researcher ensured that strands and tracks in the SHS program were represented to provide the variety of responses gathered for the study.

Sampling Procedure

This study made use of the total enumeration. It would mean that the researcher considered 100% of the population. Complete counts are a complete enumeration (census) of individuals within a sampling unit. Thus, a random sample of quadrats might be drawn, and all the individuals counted on each of the quadrats. (Lieberman and Singh, 2017).

Research Instrument

This study utilized the researcher-made questionnaire based from different sources like books and the internet. It is a two-set instrument, the first set pertains to the profile data based on their age, sex, sleeping hours, and strand/track, and the second was the common sleep factors experienced by the respondents. It was categorized into three indicators, sleep disorder, illness, and stress, having five questions per indicator (DelRosso, Bruni & Ferri, 2018). The researcher gathered related items and was subjected to face and content validation through the hands of the research validators. This study determined the factors affecting poor sleep of the Senior High School learners of General Santos City National High School.

Reliability and Validity of Questionnaires

The experts validated the survey questionnaire before the researcher used it to gather the responses of the respondents to ensure its validity and reliability. Expert validators were chosen because of their expertise in research and in validating the instrument. The validators were professors of the Graduate School of Ramon Magsaysay Memorial Colleges. The expert validators validated it based on the following criteria: (1) clarity of direction of indicators; (2) presentation and organization of indicators; (3) suitability of indicators; (4) adequacy of indicators per category; (5) congruency to the purpose; (6) objectivity of the researcher; and (7) appropriateness of scale and evaluation rating system. The said questionnaire obtained a descriptive rating of excellent.

Data Gathering Procedure

The following steps were observed to ensure the success of the implementation and conduct of the study. To gather the data needed for this study, the researchers sent a letter of permission to the principal of GSCNHS. The researchers provided a copy of the letter of approval of the school principal to the senior high school coordinator, the class adviser, and the learners. Immediately after the request was granted, the researcher identified participants who were fit for the qualifications needed in the study.

Data Analysis

After retrieving the research instruments from the respondents, the researcher tabulated the data. Data were processed quantitively to arrive at scientific analysis and interpretation of results. The researcher made sure that the data matrix wass based on dummy tables suggested by the statistician and adviser to organize, summarize, and analyze the data of the different variables (sleep disorder, illness, and stress) under study.

III. FINDINGS AND DISCUSSION

This chapter deals with the presentation, analysis, and interpretation of the data gathered in the study. Table 1 presents the profile of the respondents when analyzed according to age, sex, sleeping hours, and track/stand. Frequency count and percentage were utilized to treat the data gathered.

Profile of the Respondents According to Age

In terms of age of the 120 respondents, 24 or 20% belongs to 16 years old, 18 or 15% belongs to 17 years old, 21 or 17% belongs to 18 years old, 22 or 18% belong to 19 years old, 15 or 13% belongs to 20 years old, and 20 or 17% belongs to 21 years old. Adolescent sleep has declined significantly during the last two decades. More than half of teenagers aged 15 and up sleep less than seven hours per night, and over 85% sleep less than the recommended 8-10 hours per night. The age of 14-15 appears to be a significant turning point for sleep deprivation, as this is the year when teens' sleep hours drop the most. According to Katherine Keyes, co-author of the study, there has been an adverse change in the proportion of adolescents receiving seven or more hours of sleep during the last 20 years and across all age groups, 12 to 19. According to the new guidelines, teens aged 14 to 17 need 8 to 10 hours of sleep per night (Eliasson, Lettieri & Eliasson, 2020; Evans, 2020; Persky, 2018).

Profile of the Respondents According to Sex

In terms of the sex of the 120 respondents, 63 or 53% of the respondents were male. While 57 or 47% of the respondents were female. Various sleep problems, such as insomnia, sleep apnea, and restless leg syndrome (RLS), affect women and men differently. Women are much more likely to be diagnosed with sleeplessness than males. In sum, they had a 40% increased lifetime risk of insomnia30. Women are thought to have a higher risk of insomnia due to gender and sex-related variables. In addition to having more severe trouble with insomnia, women also suffer more complex insomnia with numerous symptoms31, whereas males often report one insomnia symptom. Obstructive sleep apnea, a hazardous disorder characterized by pauses in breathing while sleeping, is far more common among men. Between 30 and 70, moderate to severe OSA is expected to afflict 13% of men and 6% of women32 issues (Gaultney, 2020; Patil, Ayappa, Caples, Kimoff, Patel & Harrod, 2019).

Profile of the Respondents According to Sleeping Hours

In terms of sleeping hours among the SHS learners of General Santos City National High School, out of 120 respondents, 18 or 16% slept 3 hours a day, 27 or 22% of the respondents slept 4 hours a day, 25 or 21% slept 5 hours a day, 23 or 19% slept 6 hours a day, and 26 or 22% of the respondents slept 7 hours a day. Most adults typically require at least seven hours of sleep per night. Not all factors should be considered, including the amount of time spent sleeping. If adults want to feel calm when they get up, it is also vital to occasionally sleep well. Consult the doctor if an individual usually has trouble falling asleep or wakes up feeling exhausted. Teenagers need to have between 8 and 10 hours of sleep every night, whereas children in school-age require between 9 and 12

hours, children in preschool require between 10 and 13 hours, toddlers require between 11 and 14 hours, and infants require between 12 and 17 hours (Fiorillo, Puiatti, Papandrea, Ratti, Favaro, Roth & Faraci, 2019; Killgore, 2020; Ming, Koransky, Kang, Buchman & Christina, 2021). In addition, children and teenagers who do not get enough sleep are more likely to be overweight, develop diabetes, suffer injuries, have difficulties with their mental health, and misbehave. Age determines how much sleep a person needs. Children ages 6 to 12 should typically sleep 9 to 12 hours per day, while adolescents ages 13 to 18 need to get 8 to 10 hours per day, according to the American Academy of Sleep Medicine (Killgore, 2020; Ming, Koransky, Kang, Buchman & Christina, 2021).

Profile of the Respondents According to Track/Strand

In terms of Track/Strand among the SHS learners of General Santos City National High School, out of 120 respondents, 18 or 15% belongs to TVL, 21 or 17% belong to STEM, 19 or 16% belong to GAS, 19 or 16% belongs to SPS, 25 or 21% belongs to HUMMS, and 18 or 15% belongs to ABM. Sleep is essential for learning, practicing, and maintaining physical and mental health and is an integral aspect of human health and life. According to studies, getting too little sleep, sleeping for shorter periods more frequently, staying up late, and rising early all impact a person's ability to learn academic performance and neurobehavioral processes. Previous research has shown a link between poor academic performance in children and adults and the amount of sleep reported by people as delayed or inappropriate sleep, waking up too late, especially on the weekends, and daytime sleepiness. Studies have highlighted the link between classes starting later and academic success (Bartel, Scheeren & Gradisar, 2019; Dewald, Meijer, Oort, Kerkhof & Bogels, 2018; Perksky, 2018)

Table 1

Profile of the Respondents

	Frequency	Percentage
Age		
16	24	20
17	18	15
18	21	17.5
19	22	18
20	15	12.5
21	20	17
TOTAL	**120**	**100**
Sex		
Male	63	52.5
Female	57	47.5
TOTAL	**120**	**100**
Sleeping Hours		
3	18	16
4	27	22
5	25	21
6	23	19
7	26	22
TOTAL	**120**	**100**
Track/Strand		
TVL	18	15
STEM	21	17
GAS	19	16
SPS	19	16
HUMMS	25	21
ABM	18	15
TOTAL	**120**	**100**

Common Factors of Poor Sleep when Analyzed According to Age

When analyzed according to age, 21 or 18% of the 16-year-old respondents, 19 or 15% of the 17 years old respondents, 19 or 16% of the 18 years old respondents, 21 or 17% of the 19 years old respondents, 21 or 17% of the 20 years old respondents, and 20 or 17% of the 21 years old respondents experienced poor sleep problems.

Age 16

Data revealed that among the 120 respondents aged 16 years old, 25 or 21% could not sleep alone in the room, 28 or 23% played computer games until dawn and 31 or 26% shared bedrooms with their siblings. Sleep issues can keep some teenagers awake at night, even when they desire to sleep. Teenagers who do not get enough sleep struggle in academics and athletics. They may be grumpy, depressed, or suffering from other emotional issues. Teenagers who drive after not getting enough sleep are more likely to be involved in car accidents (Altun, Cinar & Bede, 2021; Eliasson, Lettieri & Eliasson, 2020).

Age 17

Data revealed that among the 120 respondents aged 17 years old, 20 or 17% have narcolepsy in which they feel exhausted during the day despite getting an adequate amount of rest the previous night, which is why they cannot sleep well, 27 or 22% of the respondents cannot sleep when they are alone in the room and 26 or 22% share bedroom with their siblings. The internal sleep clock of teenagers is reset to fall asleep later at night and wake up later in the morning. Teens' brains produce the sleep hormone melatonin later in the night than children's and adult's brains. As a result, teens have a more difficult time falling asleep. This sleep-wake cycle delay can sometimes be so severe that it interferes with a person's everyday

activities. It is known as "night owl" or delayed sleep phase syndrome (Curcio, Ferrara & De Gennaro, 2016; Donohue, 2017).

Age 18

Data revealed that among the 120 respondents aged 18, 22, or 18% resist going to bed because they overthink a lot, 21 or 17% cannot sleep alone in the room, and 24 or 20% watch television shows until midnight. Many teenagers have trouble winding down before bedtime. It may make it difficult for them to get 8 to 10 hours of sleep each night. Many of the teenagers I speak with express trouble concentrating at school and afternoon sleepiness and exhaustion. Teens have more difficulty falling asleep than they did when they were younger. Sleep can be disrupted by rapid physical changes, especially throughout adolescence. It occurs when their circadian rhythm—the body's internal clock—resets during their growth phase, postponing their sleep cycle (Forquer, Camden, Gabriau & Johnon, 2019; Humphries, Bath & Burton, 2022).

Age 19

Data revealed that respondents aged 19 years old, 27 or 22% browse social media from early at night until dawn. 26 or 22% have narcolepsy, in which they feel exhausted during the day even after getting enough rest the previous night, which is why they cannot sleep well, and 24 or 20% resist going to bed because they overthink a lot. Other typical causes of sleep disorders include stress, anxiety, and worry. Teens are dealing with more significant stress lately, interfering with sleep and recovery. Late-night phone and social media use, as well as sports or other physical activity around bedtime, might make falling asleep more difficult. Health disorders such as iron insufficiency can also induce sleep problems. Teens deficient in this mineral may experience cramps and involuntary movements in their legs, which can cause them to wake up from sleep. If the doctor suspects the child has this problem, hemoglobin, ferritin, and iron test panel will be ordered (Lack, Bailey, Lovato & Wright, 2019; Luyster, Strollo, Zee & Walsh, 2021).

Age 20

Data revealed that among the 120 respondents aged 20 years old, 25 or 21% browse their social media from early at night until dawn, 27 or 22% find it challenging to sleep when the lights are on, and 30 or 25% are fond of drinking caffeinated drinks such as coffee and soda. Sleep is vital for every individual, significantly growing children and teenagers. Kids with adequate sleep have more robust immune systems, more significant memory, academic achievement, and mental wellness. Difficulty concentrating, paying attention, remembering things, crankiness and low energy, mood changes such as depression, high blood pressure, weight problems and obesity, headaches, and behavior difficulties are all possible consequences of not getting enough sleep. A region of a teen's developing brain that helps control impulses can be affected by a lack of sleep. It could explain why sleep deprivation is associated with higher rates of risky conduct among teenagers, including texting while driving, arguing, substance abuse, and unsafe sexual behavior (Paris, 2018; Persky, 2018).

Age 21

Data revealed that among the 120 respondents aged 21 years old, 26 or 22% do plenty of bedtime routines before sleeping, 26 or 22% play computer games until dawn, and 32 or 27% are fond of drinking caffeinated drinks such as coffee and soda. Everyone has an internal clock that controls their circadian rhythms, or the cycle of sleep and wakefulness. Teenagers' internal clocks undergo adjustments during puberty. Their circadian cycles may alter spontaneously, causing them to fall asleep 2 hours later. Melatonin production by teenagers could be one reason. It is a hormone that lets people sleep later at night than youngsters or adults. It could encourage them to stay up later. We know that adolescent behavior is influenced by the profound changes that occur during this time, including massive hormone shifts and significant brain development. Chronic sleep deprivation seriously affects one's body, mind, and behavior. We must understand the effects of denying them the necessary (ideal) nine hours of sleep per night. Between 60 and 70 percent of American youths suffer from mild to severe sleep debt (Rogers & Barber, 2019; Toyong, 2020).

Table 2

Common Factors of Poor Sleep when analyzed According to Age

Statement	Age											
	16		17		18		19		20		21	
	F	P	F	P	F	P	F	P	F	P	F	P
Sleep Disorder												
1. I do plenty of bedtimes routines before sleeping.	14	12	16	13	18	15	22	18	24	20	26	22
2. I browse my social media from early at night until dawn.	21	18	19	16	18	15	27	22	25	21	10	8
3. I resist going to bed even when I am sleepy.	24	20	19	16	16	13	23	19	21	18	17	14
4. I find it difficult to sleep when the lights are out.	23	19	18	15	19	16	16	13	21	18	23	19
5. I find it difficult to sleep when the lights are on.	20	17	18	15	19	16	17	14	27	22	25	21
Illness												

6. I cannot sleep because of headache.	21	18	18	15	18	15	23	19	19	16	21	18
7. I find it difficult to sleep because of sleep apnea.	18	15	17	14	19	16	23	19	19	16	24	20
8. I have narcolepsy (I feel exhausted during the day, despite getting an adequate amount of rest the previous night) that's why I cannot sleep well.	17	14	20	17	19	16	26	22	21	17	17	14
9. I cannot sleep because of family problems.	24	20	19	16	19	16	23	19	17	14	18	15
10. I resist going to bed because I overthink a lot.	17	14	19	16	22	18	24	20	19	16	19	16
Stress												
11. I cannot sleep when I am alone in the room.	24	20	27	22	21	17	16	14	18	15	14	12
12. I play computer games until dawn.	28	23	11	9	15	12	19	16	21	18	26	22
13. I watch television shows until midnight.	23	19	19	16	24	20	20	17	16	13	18	15
14. I am fond of drinking caffeinated drinks such as coffee and soda.	11	9	12	10	16	13	18	15	30	25	32	27
15. I share the bedroom with my sibling/s.	31	26	26	22	22	18	19	16	13	11	9	7
TOTAL	316	264	278	232	285	236	316	263	311	260	299	250
TOTAL MEAN	21	18	19	15	19	16	21	17	21	17	20	17

Common Factors of Poor Sleep when analyzed According to Sex

When analyzed according to the sex of the respondents, 72 or 60% of male respondents and 48 or 40% of female respondents experienced poor sleeping problems.

Male

Data revealed that among the 120 male respondents, 88 or 73% find it challenging to sleep when the lights are on, 94 or 78% sleep because of sleep apnea, and 93 or 78% play computer games until dawn. After adolescence, gender disparities in sleep become noticeable. Sleep architecture can be affected by menstrual cycles, pregnancy, and menopause. Sleep disorders such as obstructive sleep apnea, insomnia, and restless legs syndrome have gender-related differences in prevalence, pathogenesis, clinical presentation, and therapeutic response. Numerous sleep disorders, including insomnia, sleep apnea, and restless leg syndrome (RLS), affect women and men at different rates (Bartel, Scheeren & Gradisar, 2019; Boyes, Drakatos, Jarrold, Smith & Steier, 2017). In addition, women are diagnosed with sleeplessness more frequently than men. Their lifetime risk of insomnia is 40% higher than those in their 30s. It is believed that factors based on sex and gender influence the higher occurrence of insomnia in women. Women are also more likely to experience complex sleeplessness, which encompasses 31 symptoms, compared to males, who often report only one insomnia symptom (Bergin, Christi & Bergin, 2020; Fucci, Scanniello, Romano & Juristo, 2018).

Female

Data revealed that among the 120 female respondents, 71 or 59% could not sleep alone in the room, 64 or 53% watched television shows until midnight, and 61 or 51% shared the bedroom with their siblings. Compared to men, women had more excellent sleep quality, with more extended sleep periods, shorter sleep onset latency, and higher sleep efficiency. Despite this, women complain about sleep more than men. In both men and women, slow-wave rest declines with age. Sleep patterns are altered throughout normal physiologic stages such as puberty, menstruation, pregnancy, and menopause. The observed disparities in the risk of sleep disorders may be due to gender differences in normal sleep. Insomnia studies show a female predominance, with a growing gap in incidence between men and women as people get older. Gender variations in obstructive sleep apnea have recently been discovered due to differences in local neuromuscular reflexes and central ventilatory control (Short, Gradisar, Lack & Wright, 2019; Water, Chiu, Atkinson & Blom, 2018). Additionally, after adolescence, gender disparities in sleep become noticeable. Sleep architecture can be affected by menstrual cycles, pregnancy, and menopause. Sleep disorders such as obstructive sleep apnea, insomnia, and restless legs syndrome have gender-related differences in prevalence, pathogenesis, clinical presentation, and therapeutic response (Segarens, 2018; Ziporyn, Owens, Wahlstrom, Wolfson, Troxel, Saletin & Carkadon, 2022).

Table 3
Common Factors of Poor Sleep when analyzed According to Sex

Statement	Sex			
	Male		Female	
	F	P	F	P
Sleep Disorder				
1. I do plenty of bedtime routines before sleeping.	67	56	53	44
2. I browse my social media from early at night until dawn.	72	60	48	40
3. I resist going to bed even when I am sleepy.	64	53	56	47
4. I find it difficult to sleep when the lights are out.	71	59	49	41
5. I find it difficult to sleep when the lights are on.	88	73	32	27
Illness				
6. I cannot sleep because of headache.	76	63	44	37
7. I find it difficult to sleep because of sleep apnea.	94	78	26	22
8. I have narcolepsy (feel excessively tired during the day despite getting an adequate amount of rest the previous night) that's why I cannot sleep well.	69	58	51	42
9. I cannot sleep because of family problems.	67	56	53	44
10. I resist going to bed because I overthink lot.	81	68	39	32
Stress				
11. I cannot sleep when I am alone in the room.	49	41	71	59
12. I play computer games until dawn.	93	78	27	22
13. I watch television shows until midnight.	56	47	64	53
14. I am fond of drinking caffeinated drinks such as coffee and soda.	73	61	47	39
15. I share the bedroom with my sibling/s.	59	49	61	51
TOTAL	**1, 079**	**900**	**721**	**600**
TOTAL MEAN	**72**	**60**	**48**	**40**

Common Factors of Poor Sleep when analyzed according to the Number of Sleeping Hours.
When analyzed according to the sleeping hours of the respondents, 28 or 23% had three sleeping hours, 26 or 22% had four sleeping hours, 25 or 21% had five sleeping hours, 21 or 18% had six sleeping hours, and 19 or 16% had seven sleeping hours.

3 Sleeping Hours
Data revealed that for respondents with three sleeping hours, 34 or 28% resist sleep even when they are sleepy. 35 or 29% have narcolepsy, wherein they feel exhausted during the daytime even after getting adequate rest the previous night, which is why they cannot sleep well, and 37 or 31% are fond of drinking caffeinated drinks such as coffee and soda.

First and foremost, while some individuals believe this procedure has some significant benefits, there may also be some risks to be aware of. A decline in cognitive function and proper decision-making could severely affect this. Accidents, irritability, depression, and memory loss may result. Sleep deprivation could have various bodily consequences. Some people have experienced weight gain, decreased sexual desire, and aesthetic changes, including dark circles under their eyes. If the body doesn't get enough sleep, other issues like diabetes or heart disease could arise (Bendak & Rashid, 2020; Gilbert & Weaver, 2020). On the other hand, the serenity and quiet of alone time, which our busy schedules and frantic lifestyles frequently deny us, is one of the critical advantages of this method. Sleeping at regular intervals may cause the sleeper to be awake while others still sleep. It could be an excellent time to indulge in personal

interests or focus on job activities without interruptions. A person could learn new abilities that would ordinarily be afraid to try, taking comfort in the alone to take a chance. It is an excellent time to use meditation, contemplative activities, or yoga to help people relax and cleanse their thoughts.

4 Sleeping Hours

Data revealed that among the 120 respondents with four sleeping hours, 30 or 25% resist going to bed even when sleepy, 30 or 25% cannot sleep because of headaches, and 31 or 26% are fond of drinking caffeinated drinks such as coffee and soda. No matter how well they sleep, most people require more than 4 hours of sleep per night to feel rested and awake. There is no evidence to support the common assumption that the body can adjust to ongoing sleep deprivation. Regular exercisers also need more time than recommended to allow their bodies to recover from the additional physical stress. A 2018 research of more than 10,000 people's sleep patterns discovered that having 4 hours of sleep every night was the equivalent of adding eight years to the participants' brains (Hershner & Chervin, 2017; Killgore, 2020).

5 Sleeping Hours

Data revealed that among the 120 respondents with five sleeping hours, 299 or 24% do plenty of bedtime routines before sleeping, 30 or 25% browse social media from early at night until dawn, and 32 or 27% find it challenging to sleep when the lights are off. There are various reasons why people sleep for five hours, some by choice and some by necessity. Perhaps people believe that sleeping less will allow them to do more. Maybe people regard short sleeping as a badge of honor. Similarly, a busy job schedule or a teething baby may prevent them from getting enough sleep. The point is that they believe they can get by on five hours of sleep. Unfortunately, people are doing themselves a huge disservice, and not in the way they think. Short-circuiting every element of people's life by denying themselves the sleep they require and collecting sleep debt is the surest method to do so (Maheshwari & Shaukat, 2019; Mirghani, Ahmed & Elbadawi, 2016).

6 Sleeping Hours

Data revealed that among the 120 respondents with six sleeping hours, 22 or 37% find it challenging to sleep when the lights are on, 24 or 20% find it difficult to sleep because of sleep apnea, and 28 or 23% play computer games until dawn. Although people can get by on six hours of sleep, it is not healthy for their long-term health. Sleep deprivation and sleep disorders can raise their risk of falls and road accidents. Thus, getting less sleep can make them tired. Most individuals, according to doctors, require seven to nine hours of sleep to sustain good mental health. Sleeping for six hours or fewer has a variety of short- and long-term health consequences. Having trouble getting out of bed in the morning, feeling drowsy or lazy in the afternoon, nodding off in meetings, falling asleep while watching TV, and having the want to sleep for extended amounts of time on weekends are all signs of sleep deprivation (Ranaisinghe, Gayathri & Vishnu Priya, 2018; Sumi & Sonumol, 2017).

7 Sleeping Hours

Data revealed that among the 120 respondents with seven sleeping hours, 44 or 37% find it challenging to sleep when the lights are on, 25 or 21% find it difficult to sleep because of sleep apnea, and 24 or 20% cannot sleep when they are alone in the room. Science has proven that sleep is essential for everyone at any age. Sleep strengthens all physical systems, restores the body, and renews the mind. The National Sleep Foundation estimates that healthy adults need between 7 and 9 sleep per night. Babies, young children, and teenagers require much more sleep for growth and development. The first step is understanding the broad guidelines for how much sleep is recommended. It is crucial to consider their specific needs in light of factors like the level of exercise and general health (Sampasa-Kanyinga, Hamilton & Chaput, 2018; Smith, 2018). Furthermore, the quality of people's overnight sleep directly impacts their daytime mood, physical and mental health, and how well they feel. Sleep affects immunity, creativity, vitality, weight, emotional balance, brain and heart health, productivity, and other factors. Rest is more than just a moment when their body switches off. Their brain works while they sleep, overseeing biological maintenance that keeps their body in peak shape and prepares them for the day ahead. They would not be able to work, learn, create, or communicate at a level even near their capacity unless they get adequate restorative sleep (Toyong, 2020; Yeo, Jos, Erwin, Lee, Lee, Ko & Ko Gooley, 2019).

Table 4

Common Factors of Poor Sleep when analyzed according to the Number of Sleeping Hours

Statement	Sleeping Hours									
	3		4		5		6		7	
	F	P	F	P	F	P	F	P	F	P
Sleep Disorder										
1. I do plenty of bedtimes routines before sleeping.	27	22	24	20	29	24	21	18	19	16
2. I browse my social media from early at night until dawn.	29	24	26	22	30	25	18	15	17	14
3. I resist going to bed even when I am sleepy.	34	28	30	25	26	22	17	14	13	11
4. I find it difficult to sleep when the lights are out.	26	22	28	23	32	27	19	16	15	12

5. I find it difficult to sleep when the lights are on.	11	9	13	11	8	6	44	37	44	37
Illnesses										
6. I cannot sleep because of headache.	38	32	30	25	27	23	13	11	11	9
7. I find it difficult to sleep because of sleep apnea.	26	22	23	19	22	18	24	20	25	21
8. I have narcolepsy (I feel exhausted during the day despite getting adequate rest the previous night), which is why I cannot sleep well.	35	29	26	22	25	21	18	15	16	13
9. I cannot sleep because of family problems.	26	21.5	29	24	24	20	21	18	20	17
10. I resist going to bed because I overthink a lot.	29	24	27	22	27	23	20	17	17	14
Stress										
11. I cannot sleep when I am alone in the room.	23	19	24	20	27	23	22	18	24	20
12. I play computer games until dawn.	25	21	27	23	23	19	28	23	17	14
13. I watch television shows until midnight.	29	24	27	23	24	20	21	16	19	16
14. I am fond of drinking caffeinated drinks such as coffee and soda.	37	31	31	26	28	23	14	12	10	8
15. I share the bedroom with my sibling/s.	24	20	25	21	28	23	23	19	20	17
TOTAL	**416**	**348**	**390**	**326**	**380**	**317**	**323**	**269**	**287**	**239**
TOTAL MEAN	**28**	**23**	**26**	**22**	**25**	**21**	**21**	**18**	**19**	**16**

Common Factors of Poor Sleep when analyzed according to Track/Strand Classification

When analyzed according to track/strand, 20 or 17% TVL learners, 19 or 16% STEM learners, 19 or 16% GAS learners, 20 or 17% SPS learners, 21 or 18% HUMMS learners, and 21 or 18% ABM learners experienced poor sleeping problems.

TVL

Data revealed that among the 120 respondents under TVL, 24 or 20% find it challenging to sleep when the lights are on, 24 or 20% watch television shows until midnight, and 28 or 23% are fond of drinking caffeinated drinks such as coffee and soda. TVL Strand is intended to help learners build abilities that will be relevant in their future careers and technical projects. It offers a program that combines Core Courses with specialized hands-on training to meet TESD's competency-based evaluation requirements. TVL or Technical Vocational Livelihood Track / Strand usually has problems when it comes to sleeping. Inadequate sleep hygiene also includes using electronics before going to bed. Because few studies have focused on college learners, relevant data must typically be derived from literature on teenagers. The 2011 Sleep in America Poll looked into technology in the bedroom. Before going to bed, "Generation Y'ers" (adults aged 19–29) are heavy consumers of technology: 67 percent use cell phones, 43 percent use music devices, 60 percent use laptops, and 18 percent use video games. Most people (51%) say they rarely get a good night's sleep and often wake up tired (Alotaibi, Alosaimi, Alajlan & Abdulrahman, 2020; Bolin, 2019).

STEM

Data revealed that among the 120 respondents under STEM, 27 or 22% resist going to bed even when sleepy, 24 or 20% cannot sleep because of sleep apnea, and 27 or 22% watch television shows until midnight. STEM stands for science, technology, engineering, and mathematics, all closely related fields of study. The areas are frequently linked because of their theoretical and practical parallels. Most STEM positions are in high demand, but there are not enough competent candidates to fill them. STEM is essential for economic growth and global competitiveness. STEM learners have lousy sleeping habits due to the numerous issues they face. STEM learners meet the following cases: overly procedural thinking, inability to convert mathematical meaning to real-world meaning, inability to make estimates or estimations, and inability to solve multi-step problems (Dewald, Meijer, Oort, Kerkhof, and Bogels, 2018; Gavidia, Dunietz, O'Brien, Schutz, Spector, Swiecicki & Chervin, 2022).

GAS

Data revealed that under GAS, 23 or 19% browse social media from early at night until dawn, 21 or 19% resist going to bed even when sleepy, and 24 or 20% share bedrooms with their siblings. The abbreviation GAS refers to General Academic Strand. Senior high school learners are exposed to many courses through the GAS to make a more educated decision about their future professional route. This strand, like any other, will not be as difficult as it appears if they are passionate and happy about the subject and the people around them. GAS also investigates core subjects that can be found in other strands. Some learners dislike GAS because it does not concentrate on a

single issue. That was the Gas strand's one drawback, but they would not grasp it unless they knew everything about it. There are numerous benefits to the General Academic Strand (Segaren, 2018; Smith, 2018; Yang, Fu, Liao & Li, 2020). Furthermore, recent studies have revealed that getting enough sleep is critical for feeling awake and attentive, staying healthy, and performing at their best. Learners feel as bad and function as poorly as someone who has gone 48 hours without sleep after two weeks of sleeping six hours or fewer per night. Sleep is also essential for learning and memory, according to new studies. Ls who got enough sleep performed better on memory and motor activities than learners who didn't get enough sleep (Donohue, 2017; Gaultney, 2020; Patil, Ayappa, Caples, Kimoff, Patel & Harrod, 2019).

SPS

Data revealed that among the 120 respondents under SPS, 24 or 20% find it difficult to sleep because of sleep apnea, 23 or 21% cannot sleep because of family problems, and 27 or 22% play computer games until dawn. The Department of Education (DepEd) implemented the Special Program in Sports (SPS) at regular high schools that have the potential to implement and sustain the program in terms of trained teachers, facilities, and equipment to meet the needs of talented learners in various sports disciplines. The Special Curriculum for Sports (SPS) is a unique program designed to provide learners with an interest, talent, and aptitude in sports with the basis for a profession and support for a vocation. The program's policies and procedures are outlined in DepEd Order No. 25, section 1. 2015 (Altun, Cinar & Dede, 2021; Humphries, Bath & Burton, 2022; Killgore, 2020). Moreover, provincial and national teams pull athletes in different directions due to some problems faced by SPS learners, such as failure to reach optimal performance levels in international competitions, poor movement abilities, lack of proper fitness, poor skill development, and bad habits developed from over-competition focused on winning, undeveloped and unrefined skills due to under-training (Eliasson, Lettieri & Eliasson, 2020; Hershner & Chervin, 2017; Paris, 2018).

HUMMS

Data revealed that among the 120 respondents under HUMMS, 25 or 21% resist going to bed even when they are sleeping, and 27 or 22% have narcolepsy, wherein they feel exhausted during the daytime even after getting an adequate amount of rest the previous night that is why they cannot sleep well, and 25 or 21% play computer games until dawn. HUMSS is an acronym for humanities and social sciences. Humanities studies the human condition mainly through analytical, critical, or speculative means. Anthropology, education, linguistics, political science and international relations, sociology, geography, law, and psychology are social science subjects that use more empirical approaches to analyze society and human behavior. Through the study of social scientific theories and concepts, community-based realities, the study of culture, community, and politics, and discussion of moral issues, learners in HUMSS develop the necessary knowledge and abilities for bringing about constructive change (Bolin, 2019; Redeker, Caruso, Hashmi, Mullington, Grandner & Morgenthaler, 2019; Toyong, 2020). Furthermore, HUMSS is a complex strand like any other, but what sets the course apart is that we, the HUMSS learners, are the future shapers of our country. Writing, public speaking, statistics, and all other areas should be vital for a HUMSS learner. In other words, they must be well-versed in all aspects of humanity, including laws, culture, religion, science, and language. People must question their views. Being a HUMSS learner will test their beliefs. HUMSS learners are required to have strong communication and interpersonal skills. One of the difficulties in this strand is completing the reading and writing assignments (Evans, 2021; Gaultney, 2020; Ziporyn, Owens, Wahlstrom, Wolfson, Rroxel, Saletin & Carskadon, 2022).

ABM

Data revealed that in ABM, 25 or 21% have narcolepsy. They feel exhausted during the daytime even after getting an adequate amount of rest the previous night, which is why they cannot sleep well. 26 or 22% cannot sleep when they are alone in the room, and 26 or 22% are fond of drinking caffeinated drinks such as coffee and soda. Learners are given business career preparation through the Accounting, Business, and Management (ABM) track. Learners should enroll in this senior high school strand to be business leaders and entrepreneurs. The managerial, numeracy, and literacy abilities needed to meet the competencies and requirements of globally competitive entrepreneurship are what the ABM strand attempts to give learners. This strand comprises classes in management, marketing, finance, and accounting. In addition, learners who are taking the ABM strand confront a variety of challenges. The Department of Education's senior high academic track includes ABM as one of the components. It includes courses in accounting, business, and management that prepare learners for careers in the corporate world. Some learners picked ABM as their course of study, while others followed in the footsteps of their friends who chose ABM. As a result, pupils face challenges, which allow the researcher to conduct research (Benfield, 2018; Peper, Wilson, Martin, Rosegard & Harvey, 2021). Furthermore, the obstacles faced by ABM learners were discovered to be time management, problem-solving, and schoolwork. Moreover, this research found that learners faced challenges due to worry about subject themes lacking information and methods to address the issue. Social anxiety, general anxiety, test anxiety, panic attacks, family expectations, problems, depression, lack of energy or motivation, hopelessness, overwhelm, low self-esteem, nostalgia, loneliness, relationship difficulties (emotional and physical aspects of intimate relationships), eating problems or body image issues, and lack of confidence, confidence, and self-esteem are also common issues faced by ABM learners (Ranasinghe, Gayathri & Vishnu Priya, 2018; Reimann, Spiegelhalder, Feige, Voderholzer, Berger Perlis & Nissin, 2020).

Table 5

Common Factors of Poor Sleep when analyzed according to Track/Strand Classification

Statement	Track/Strand Classification											
	TVL		STEM		GAS		SPS		HUMMS		ABM	
	F	P	F	P	F	P	F	P	F	P	F	P
Sleep Disorder												
1. I do plenty of bedtime routines before sleeping.	19	16	20	17	21	18	19	16	18	15	22	18
2. I browse my social Media from early at night until dawn.	19	16	21	18	23	19	17	14	24	20	16	13
3. I resist going to bed even when I am sleepy.	13	11	27	22	21	18	16	13	25	21	18	15
4. I find it difficult to sleep when the lights are out.	18	15	17	14	19	16	23	19	19	16	24	20
5. I find it difficult to sleep when the lights are on.	24	20	19	16	19	16	23	19	17	14	18	15
Illness												
6. I cannot sleep because of a headache.	20	17	24	20	15	12	17	14	21	18	23	19
7. I find it difficult to sleep because of sleep apnea.	17	14	19	16	22	18	24	20	19	16	19	16
8. I have narcolepsy (I feel exhausted during the day, even getting enough amount of rest the previous night) that's why I cannot sleep well.	20	17	18	15	19	16	17	14	27	22	25	21
9. I cannot sleep because of family problems.	21	18	18	15	18	15	23	19	19	16	21	18
10. I resist going to bed because I overthink a lot.	18	15	17	14	19	16	23	19	19	16	24	20
Stress												
11. I cannot sleep when I am alone in the room.	14	12	16	13	18	15	22	18	24	20	26	22
12. I play computer games until dawn.	21	18	19	16	18	15	27	22	25	21	10	8
13. I watch television Show until midnight.	24	20	27	22	21	17	16	14	18	15	14	12
14. I am fond of drinking caffeinated drinks such as coffee and soda.	28	23	11	9	15	12	19	16	21	18	26	22
15. I share the bedroom with my sibling/s.	23	19	19	16	24	20	20	17	16	13	18	15
TOTAL	**299**	**251**	**292**	**243**	**292**	**243**	**306**	**254**	**312**	**261**	**305**	**254**
TOTAL MEAN	**20**	**17**	**19**	**16**	**19**	**16**	**20**	**17**	**21**	**17**	**21**	**17**

IV. CONCLUSIONS AND RECOMMENDATIONS

This chapter represents the conclusions and recommendations of the study.

Conclusions

The following conclusions were made based on the results of the study.

1. Majority of the respondents were 16 years old, male, and had 4 hours of sleep, and Humanities and Social Sciences (HUMMS) as their track/strand.
2. The common factors of poor sleep experienced among Senior High School learners were the following:

In terms of age, the majority of the respondents aged 16 years old share a bedroom with their siblings. Seventeen years old respondents cannot sleep alone in the room, 18 years old respondents watch television shows until dawn, and 19- and 20-year-old respondents are fond of drinking caffeinated drinks such as coffee and soda.

In terms of sex, the majority of male respondents find it difficult to sleep because of sleep apnea, while female respondents cannot sleep when they are alone in the room. Regarding Sleeping Hours, the majority of respondents with three sleeping hours cannot sleep because of headaches, and respondents with four are fond of drinking caffeinated drinks such as coffee and soda. Respondents with five sleeping hours find it challenging to sleep when the lights are out, while respondents with 6-7 hours find it challenging to sleep when the lights are on. Regarding Track/Strand Classification, most TVL respondents are fond of drinking caffeinated drinks such as coffee and soda. STEM respondents resist going to bed even when sleepy and watch television shows until dawn. GAS respondents share a bedroom with their siblings. SPS respondents play computer games until morning, HUMMS respondents have narcolepsy, and they feel exhausted during the day despite getting adequate rest the previous night, which is why they cannot sleep well, while ABM respondents cannot sleep when they are alone in the room. They are fond of drinking caffeinated drinks such as coffee and soda.

Recommendations

Based on the conclusions, it is recommended that:

1. The school guidance coordinator may develop a good sleeping habit program addressing the issues of poor sleep among Senior High School learners.

2. The teachers may conduct a seminar-workshop on good sleeping habits among Senior High School learners.
3. The school principal may focus on and give financial and moral support to the excellent sleeping habit program to address issues and problems in the learner's sleeping experiences.
4. The school guidance counselor may conduct an orientation among the parents on a good sleeping habit program to solve their children's problems.
5. Similar studies are highly recommended to address relevant issues on poor sleeping habits.

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