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## GENDER DIFFERENCES AND PREVALENCE OF SLEEPING DISORDER AMONG ARTS STUDENTS IN HIGHER LEARNING INSTITUTIONS

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### ABSTRACT

Every human being need a sufficient amount of high-quality sleep. However, according to studies, both men and women are becoming more afflicted by sleep disorders, which are particularly prevalent among university students. Nowadays, sleep problems are a frequent occurrence in people's daily lives. Due to the fact that female students have more difficulty falling asleep and continuously wake up earlier than male students, they are more impacted than their male counterparts. Therefore, the purpose of this paper is to determine the prevalence of sleeping disorders between males and females among Music and Performing Art students in the institutes of higher learning. The survey was conducted online in June 2020. One hundred students from the faculty participated in this cross-sectional study. Simple random sampling used to select the samples. Students who took part in this survey were predominately female, 52% and male, 48%. The study found that here is a statistically significant difference between male and female Music and Performing Art students in the institutes of higher learning when it comes to sleeping disorder. The findings of the study revealed that there is a statistically significant difference in sleeping disorders between males and females' students enrolled in a higher education institution. Hence, male and female

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morphologic differences in the context of sleeping difficulties may be revealed as a result of our study, which may provide information and evidence of such differences. |

## 1.0 INTRODUCTION

SleepFoundation.org's website states that sleeping disorders include a wide range of problems that influence the amount, timing, and quality of sleep, and that they interfere with a person's ability to perform when they are awake. These conditions may lead to further physical conditions, and some may also lead to underlying difficulties in mental health. Musicians have a range of health and sleep challenges. Compared to the general workforce, musicians report a much greater frequency of insomnia symptoms. In their study of full-time musicians, psychological distress, higher scores on extraversion and neuroticism, less social support and more work-related demands were related to insomnia (Saksvik-Lehouillier et. al, 2017). The work pattern of many musicians closely resembles shift work related to health issues due to sleep problems. Gulden and Kubra (2018) found that there are decreasing in sleep quality in younger ages, and it is become a common thing in today's living. In addition, Pantic et al (2012) found out the evidence which showing an increasingly support a link between social media use and various aspects of adolescent wellbeing, including sleep and mental health. Another study by Telzer, Fulgini, Lieberman and Galván (2013) found that poor sleeping quality is prevalent in adolescents and is known to contribute to depression, anxiety and low self-esteem. Woods, H. C., & Scott, H. (2016) also stated that the Internet is increasingly used as it is associated with shorter sleep duration, later bedtimes and rise times. Mokarrar, Mohsen & Afsharmanesh, Aboozar & Afshari, Mahdi & Mohammadi, Fatemeh. (2017), found that in many cases, sleeping disorder is an early stages or signal of developing a psychological disorder and can be negatively affect the normal life of the individual, familial and social levels. The world today is a global market in which the Internet has been used frequently and it is one of the most important sorts of information. With the existence of Internet, young people especially among students trying to grab the opportunities to have their own social media account using their own smartphones, tablets or even laptops. Therefore, students with lower levels of life satisfaction could seek to participate in online networks to increase their personal well-being. The uses of their own gadgets while in bed were associated with delayed time of sleep. That is why students having a sleeping problem which related with their own overusing social media.

Evidence shows that sleep disruptions, including decreased sleep quality and shorter sleep duration, are associated with internet addiction, regardless of geographic location, culture, or ethnicity. According to a study conducted by the Internet Users Survey: Malaysian Communications and Multimedia Commission (MCMC 2018), 24.6 million Malaysians use social media. From that number, 97.3% of the social media users had a Facebook account, followed by an Instagram account (57.0%) and a YouTube account (48.3%). It may be inferred that the majority of that population's social media users are at danger of developing a sleeping problem. The use of sleeping medications is quite common among university students (Al-Naggar et. al, 2010). However, no research regarding insomnia disorder among music students in Malaysia has been done. Therefore, more knowledge pertaining sleep disturbance should be widespread, as it is a common feature in many psychological and physical disorders, and it surely can be prevented and treated. The aim of this study was to find out the difference of sleeping disorder level between male and female of Music and Performing Art students in the institutes of higher learning. This study is significant only to the music students. This study designed to identify the level of sleeping disorder that may or may not affect student's daily life activities. The majority of university students, they prefer to use mobile phones to access the internet such as social media. It is known that poor sleep quality has negative neurobehavioral and psychological consequences that can lead to poor health and academic disability. The findings of this study are expected to contribute to the current body of knowledge about the use of social media and its impact on student sleep problems, which is important because most students do not place a high value on sleep quality. The findings of the research can therefore contribute to efforts by raising awareness among participants that their health needs to be taken care of and the importance of maintaining a more regular sleep schedule. The primary goal of this research project is to investigate the prevalence of sleeping disorders. |

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## 2.0 LITERATURE REVIEW

According to research conducted by Mallampalli and Carter (2014), differences in sex and gender cause men and women to sleep in different ways, which may explain why men and women have a higher risk of developing sleeping disorders. Female sleep disturbances are more common than male sleep disturbances, according to a new study published in the journal *Proceedings of the National Academy of Sciences (PNAS)* in the September issue. Silva A, et al. (2019) found that men and women have different sleep patterns and are more likely to suffer from sleeping disorders in the general population, highlighting this issue.

Men and women report different symptoms of OSA; men frequently report snoring, snorting, gasping, and sleepiness, whereas women report unrefreshing sleep, fatigue, insomnia, and depression, among other symptoms. Amaral, Maria et al (2016), state that scientific evidence has shown that sleep problems and disturbances are associated with gender and age, and that this is supported by the findings of their study. Despite the fact that the evidence is not unanimous, the majority of experts believe that sleep problems and disorders (such as insomnia, dissatisfaction with sleep, insufficient sleep, and sleep phase delay syndrome, among others) are more common in females and that the prevalence increases with age.

Tang et al. (2017) found that men may rate their sleep quality higher than women, and when taking into account a line of evidence on morphologic differences between males and females in circadian clock genes, respiratory control, the action of sex hormones, stress responses on sleep and mechanisms, as well as social patterning of behaviors that affect sleep, the difference in sleep quality between men and women appears to be significant.

According to Luca et al, (2015), gender is an important factor influencing the modulation of sleep. However, when compared to elderly men, previous studies have found that women have poorer subjective sleep quality, but polysomnographic data have revealed that they have a better sleep structure in terms of higher SWS and lower WASO. When it comes to sleeping disorders, women typically complain of difficulty falling asleep, whereas men complain of difficulty maintaining sleep, getting enough sleep, and having more sleep – related breathing disorders.

Silva A, et al. (2019) provide evidence to support this claim, stating that while the prevalence of sleep disturbance has been documented primarily in men, women have reported significantly more sleep problems than men in sleep surveys. Women are more likely than men to experience sleep problems, according to research conducted by Fatima, Y., et al (2016). Gender is one of the non-modifiable factors that can be seen to play a significant role, as many studies report a higher rate of sleep problems in women.

Amaral, Maria et al (2016), discussed how girls and older adolescents go to bed later in the night, wake up earlier in the morning, and, as a result, sleep fewer hours per night than boys and younger adolescents in a similar study. The same study also revealed that sleep problems, particularly insomnia and insufficient sleep, are more common among females and increase with age, particularly in the teenage years. Because of their increased sense of sleepiness during the day, the girls are going to bed later and getting up earlier, as evidenced by this actively illustrative trend.

## SLEEPING DISORDER AMONG STUDENTS

In his 2018 article, Xie Chun, stated that sleep is essential not only for work but also for everyday life. A similar study conducted by Reisi M et al. provides additional support for this claim (2017). Other research from Luca et al (2015) stated that sleep is an essential biological function, and that its structure, duration, and quality are altered in a variety of conditions, particularly with ageing, according to the authors. Amaral, Maria et al (2016), also stated that sleep is a critical factor in overall health and well-being, and that it should be prioritized. It is essential for the physical, behavioral, emotional, and cognitive development of children and adolescents, particularly in the early years of life. In addition, research has shown that approximately 45 percent and 85 percent of 6th – 12th grade students report sleeping less than the recommended amount of time during high school nights, depending on the study.

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According to research, sleeping disorders can manifest themselves in a variety of ways, ranging from difficulty falling asleep to waking up frequently during the night. Cleveland Clinic (2015) asserted that sleeping disorders can impair the quality and quantity of sleep, as well as make it difficult to maintain a normal level of wakefulness, as additional evidence. The consequences of this include impaired daytime functioning as well as a variety of medical, psychiatric, and psychosocial issues.

Several researchers, including Mokarrar, Mohsen & Afsharmanesh, Aboozar & Afshari, Mahdi & Mohammadi, Fatemeh. (2017), define sleeping disorder as a pattern of irregular sleep with abnormal quality and quantity that results in impairment of everyday functioning. There are several types of insomnia, including early or late insomnia, extreme sleepiness, sleep and waking schedule problems, and parasomnia, among others. In general, sleeping disorders occur as a result of physical, psychological, or environmental factors that include age, gender, job, lifestyle, and emotional tensions, among other things.

## GENDER DIFFERENCES IN THE PREVALENCE OF SLEEPING DISORDERS

Several aspects of successful communication have been shown to be impaired by sleep loss, according to Holding, B.C et al (2019). These impairments range from poorer linguistic comprehension to alterations in speech prosody, among other things. Furthermore, it has been demonstrated that sleep deprivation results in poorer performance on verbal fluency tasks as well as a decrease in auditory and linguistic understanding. This research also demonstrates that individuals who are sleep deprived have poorer understanding of grammatical structure as well as poorer language comprehension when performing long tasks. Because of this, sleep deprivation reduces the ability to comprehend what others are saying, at least in longer tasks or situations where speech is less distinct.

In studies conducted by Farmani HR and Khatoonabadi AR (2020), it was discovered that people who have been deprived of sleep perform worse on a verbal fluency task that requires both language and executive function ability. In addition to the previously stated findings, people who are sleep deprived have demonstrated impaired language comprehension, which appears to be an inescapable consequence of the lack of sleep. |

## 3.0 METHODOLOGY

This research is being carried out with students from of Music and Performing Art students in the institutes of higher learning in Malaysia. A final sample of 100 students (52 percent female and 48 percent male) between the ages of 21 and 24 years old who are single and not in a committed relationship was selected. The students are currently enrolled in associated programs of Music and Performing Arts, which include diploma and degree programs. Students participated in the survey, which was conducted by distributing an online questionnaire describing their sleeping disorder questions, as well as demographic information and social media usage questions. The study design (Figure 1) consisted of an online questionnaire about sleeping disorder level questions that was developed and answered in a Google form before being distributed online through social networking sites such as WhatsApp and Telegram. The questionnaire was based on nine questions on Part 1 and eight questions on Part 2 and consisted of nine questions on each part.

The correlation between gender differences in sleeping disorder prevalence was examined using descriptive statistics and inferential analysis in this study. Following the completion of the research, all inferences can be made based on the data provided. All statistical tests were computed using the Statistical Package for Social Science (SPSS) version 22 for data processing and analysis.

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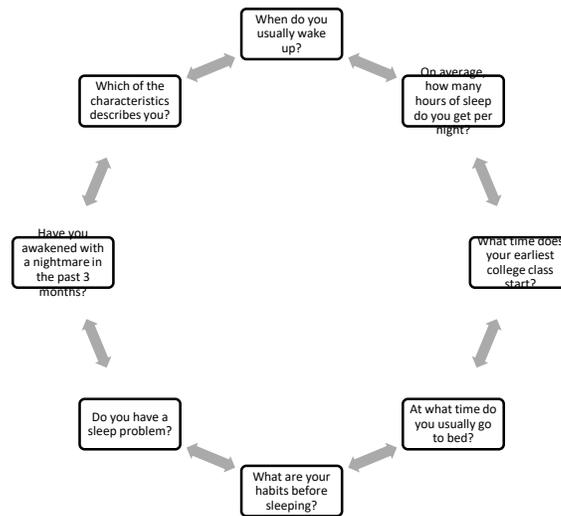


Figure 1. Questions of sleeping disorder level

#### 4.0 FINDINGS AND DISCUSSION

In accordance with the findings in Table 1, male students (48%) are almost equal to female students (52%). All of the respondents are single, with the majority of them being Malay, who account for 54 percent of the total, while other ethnic groups such as Bumiputeras from Sabah and Sarawak and others make up the remaining 33 percent of the population. The majority of respondents who responded to the survey are under the age of 21 years.

Table 1: Descriptive statistics of students' profile (n=100)

Variables	Frequency	Percentage (%)
<b>Gender</b>		
Male	48	48.0
Female	52	52.0
<b>Marital Status</b>		
Single	100	100.0
<b>Ethnicity</b>		
Malay	54	54.0
Chinese	12	12.0
Indian	1	1.0
Other	33	33.0
<b>Age (years old)</b>		
20	31	31.0
21	35	35.0
22	23	23.0
23	8	8.0
24	3	3.0

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According to Table 2, 40% of sleeping disorders are classified as low intensity, 52% as moderate intensity, and 8% as severe. The aggregated mean is 1.68, with a standard deviation of .618. The most logical explanation for this could be that sleeping disorders are not caused by a single factor, but are linked to a variety of factors that influence one's overall well-being, as demonstrated by Pantic et al (2012), who discovered evidence that shows an increasingly strong link between social media use, including sleep, and mental health. Even if the proportion indicates that 8% of respondents have a severe sleeping problem, this is still a worrisome finding, especially because some respondents are ready to admit that they only receive one to two hours of sleep each night.

Table 2: Frequency distribution of sleeping disorder level (n=100)

Variables	%	Mean	SD
Level of Sleeping Disorder		1.68	.618
Low (1 ± 2.33)	40.0		
Moderate (2.34 ± 3.66)	52.0		
High (3.67 ± 5)	8.0		

There was a significant difference in the level of sleeping disorder scores between males and females, with a mean of 2.78 and 2.48 and standard deviations of .640 and .564, respectively. Level of sleeping disorder has a value of  $t = 2.525$  and  $sig-t = .013$ . This indicates that the level of sleeping disorders is statistically significant between male and female students of music and performing arts at the .05 level of significance. Based on the findings that have been obtained, it can be concluded that there is a significant difference between gender differences and prevalence of sleeping disorder at a 0.05 level of significance. It is possible that art students have greater obligations and burdens towards their studies, performances, assignments, and practices, which has resulted in sleeping disorders when compared to students in other programmed, which is a reasonable explanation for this outcome of the study.

Table 3: Results of Independent Sample t-test (n=100)

Variables	n	Mean	SD	t	sig-t
Sleeping disorder Level				2.525	.013
Gender					
Male	48	2.78	.640		
Female	52	2.48	.564		

Furthermore, all of the respondents are current students enrolled at a tertiary institution of higher learning. As a result, they have a greater chance of getting a sleeping disorder. According to Amaral, Maria et al (2016), about 45 percent to 85 percent of 6th to 12th grade kids report sleeping less than the required amount of time during high school evenings, depending on the research, which may corroborate this claim.

Moreover, according to a recent research published in the September edition of the journal Proceedings of the National Academy of Sciences (PNAS), female sleep disorders are considered to be more prevalent than male sleep disturbances in the population. According to the author, the proportion of female respondents in this research was greater than the percentage of male respondents. In addition, the results of Tang et al. (2017) showing women's sleep quality is worse than men's sleep quality, with evidence of morphologic differences, seem to be strengthened by this discovery, which makes the gender difference in sleep quality appear substantial.

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## DISCUSSION

Despite apparent variations in the students' characteristics such as gender, marital status, ethnicity, and age, researchers were able to demonstrate the existence of this phenomena in the published literature of the present study. Based on the results of the analysis, the majority of those who reported having a sleeping problem were females between the ages of 20 and 24 years old. Assuming that all of the respondents are music or performing arts students, the number of hours spent in class, the quantity of assignments, and in particular the obligation to practice are all rationally attributed to the sleeping problem. According to research conducted by Mokarrar, Mohsen & Afsharmanesh, Aboozar & Afshari, Mahdi & Mohammadi, Fatemeh. (2017), there are many kinds of insomnia, including early or late insomnia, excessive drowsiness, sleep and waking schedule difficulties, and parasomnia, to name a few. As a result of their findings, Luca V and colleagues (2015) concluded that female students had worse sleep quality than male students, which is consistent with previous studies that claimed girls and women have greater difficulty falling asleep than boys.

## 5.0 CONCLUSION

The findings of this study revealed that, at the .05 level of significance, there is a statistically significant difference between male and female of art students in terms of sleeping disorder level. Many limitations limit the ability to interpret the findings presented in the current study. We do not have information on the presence of clinically diagnosed sleeping disorders among arts students, nor do we have information based on other methods about the level of sleeping disorders among them, either among males or among females, which may provide additional information for future studies in this field of study. Poor sleep can have a negative impact on a person's physical and emotional well-being. The amount of sleep a person gets can also have an impact on his or her ability to make decisions. According to previous research conducted by Alhola and Polo-Kantola (2007), women are better able to cope with continuous wakefulness than men. According to the same studies, women of all ages report more sleeping problems than men, and one recovery night of nine hours would be sufficient to restore waking EEG activity in men, but not in women, according to the findings. Men and women differ in their attitudes, behaviors, and lifestyle choices, which are primarily influenced by socialization and gender stereotypes. Taking into consideration the findings of this study, the following recommendations are made, according to which the university administration should develop policies that encourage students to be productive while also maintaining healthy sleeping habits. Students' innovative use of media platforms for educational purposes such as group discussions, group research projects, etc should be encouraged, while also ensuring that they do not suffer from sleep deprivation throughout the semester.

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