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# Perceptions on Caffeine, Smoking, and Insomnia among Nursing Students in a Private Institution in Manila

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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#### **ABSTRACT**

**Background:** Nursing student plays significant role in society in the delivery of optimum level of health. To serve their patient, they to acquire knowledge and skills in rendering patient care. Due to heavy load in nursing most college students consume caffeine to start their day since it stimulates their bodies to be more alert and focused in their daily tasks. Hence other use smoking even they are aware of its negative effect to their health. In addition, insomnia is one of major problem which involve 10 million adults suffer from it.

**Purpose:** The study aim to measure the perceptions of nursing students in private institutions in Manila on caffeine, smoking, and insomnia. The researchers tackled the perceptions of nursing students about caffeine, smoking, and insomnia and found out that the students were aware about the harmful effects of caffeine and smoking.

**Methods:** A validated questionnaire focusing on caffeine, smoking, and insomnia was administered to 265 nursing students in one College in Manila. A descriptive design utilized in this study and survey questionnaire has been administered.

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**Results:** The results show there are 216 female respondents who participated to the survey, or 81.51%, making up most of the respondents. In terms of age which 19-20 got the highest percentage which is 56.23 %, while age 17-18 get only 9.81%. In terms of their knowledge in effects of caffeine consumption responses showed that 139 (52.45 %) and 143 (53.96%) of the respondents strongly agree gathering a mean of 4.408.

**Conclusion:** Based on the results, it highlights Perception of caffeine, smoking and insomnia among nursing students and its impact in promoting awareness. Caffeine consumption rates is significantly high among nursing students as means of stimulant; the study reinforce the importance of having limit in the consumption of caffeine intake. Furthermore, the prevalence of smoking among nursing student was reinforce through seminar and trainings pertaining to control and prevention of smoking. Lastly, insomnia is one of that challenges that student experiencing, this led to poor memory retention and affection cognitive aspect.

Keywords: Caffeine; insomnia; nursing student; smoking.

#### 1. INTRODUCTION

Nursing student plays significant role in society in the delivery of optimum level of health. To serve their patient, they to acquire knowledge and skills in rendering patient care. Due to workload in nursing program student finds remedy that will enhance psychoactive and cognitive-improving substance such as caffeine. This substance is known for its cognitive and physical enhancing effects which is the common reason for students' caffeine consumption [1]. Caffeine is an organic compound that can affect the human body in many possible ways, (Godsen (2022) 92% of college students drink caffeine regularly according to the study of Mahoney et al. in 2019. Consumption of caffeine stimulates their bodies to be more alert and focused on their daily tasks. Caffeine has many positive effect like being alert and focused [2-6]. On contrary too much consumption will result in harmful effects such as being jittery and nervous (Godsen A., 2022). Other stimulating agent is cigarettes to keep them work. Student aware on its harmful effects but still they used as evidence on the research study conducted there are 479 there are 52 tried smoking cigarettes, while 23 are currently smoking which shows that majority is not favor in the consumption of tobacco due to its harmful effect. Student nurse must be a great role model in the society there are 95.2% of students, respectively, thought that health practitioners should be role models for patients and should obtain specialized training in cessation methods. Therefore, medical students were aware of the harmful effects of smoking and advocated not to commercialize it. Boopathirajan, Muthunarayanan, L., [7].

Insomnia is one of major problem which involve 10 million adults suffer in the Philippines

according to extrapolated statistics of Health Grades Inc. (National Heart, Lung, and Blood Institute, 2022). One typical sleep concern is insomnia which is known as difficulty falling asleep. It occurs even if a person has the ideal circumstances thus hindered in everyday work. There are many reasons why people suffer from insomnia which is due to stress and adjustments to the routine or environment. This is called short term insomnia. This could last a couple of days or several weeks on other hand when it lasts longer than three months or more it is considered chronic (long-term) insomnia [8-12]. In the study Bhaskar, Hemavathy, and Prasad [13] numerous studies around the world have revealed that 10%-30% of people are affected by insomnia, with some estimates reaching 50%-60%. It frequently affects older adults, women, and people with mental and physical conditions. Moreover, the prevalence of insomnia amona university students in South Asian countries was explored in a systemic analysis of seven studies that revealed significantly higher prevalence, ranging from 35.4% to 70% [14-20]. Chowdhury et al.,[21]. A considerably higher prevalence of insomnia among university students in the South Asia region students was reported in Pakistan Nadeem et al. [22] Surani et al. [23] Nepal (Bhandari et al. [24] India Ghrouz et al. [25] Patil et al. [26] Kumar et al. [27] and Bangladesh Jahan et al. [28]. Whereas, the Philippines, according to extrapolated statistics from Health Grades Inc. in 2014, is estimated to have one of the highest rates of sleep deprivation in the world, with more than 10 million adults suffering from insomnia reaching 50%-60%. It frequently affects older adults, women, and people with mental and physical conditions [29-31].

This study aimed to determine the perceptions on caffeine, smoking, and insomnia among

nursing students in a private institution. The researchers tackled the perceptions of nursing students about caffeine, smoking, and insomnia [32-35]. This study is beneficial to promote awareness in smoking cessation in promotion of health wellness in the community. Through this study it helps to portray nursing profession as an advocate of health and part of it is to promote self-care not only to the patient but start with in thyself.

#### 2. METHODS

# 2.1 Research Design

This study used a descriptive research design through utilization surveyed questionnaire. Descriptive study is used to describe the characteristics of a sample population in terms of demographic profile of the respondents like their age and sex. The researchers sought to analyzed the perceptions of the nursing students on caffeine, smoking, and insomnia.

# 2.2 Population/Sample and Sampling Technique

The researchers obtained 265 samples from the institution by employing stratified sampling technique. Since the researchers' respondents were nursing students consisting of different year level; by using stratified sampling technique, the researchers got an equal sample size by getting the thirty percent (30 %) of the total population from each year level. The target respondents are the nursing students from a private institution and the sample size are nursing students). First-year to fourth-year nursing students are currently enrolled in the academic year 2022 - 2023 were included. The researchers chose nursing students as respondents to focus on students who are in the medical field because it is seldom to come across researches and/or journals that tackles sleep disturbances that is specific to student nurses. The inclusion criteria for the respondents were the following: 1) must be a student and 2) enrolled in Bachelor of Science in Nursing Meanwhile, the exclusion criteria are: 1) not a student and 2) not enrolled and not a nursing student. The researchers distributed copies of ethically approved informed consent and validated questionnaire to students within the inclusion criteria, all of which were completed and submitted for analysis.

#### 2.3 Research Instrument

The survey questionnaire formulated by the researchers was used as a research instrument.

The researcher opted to use the 5 point - Likert scale (5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree) in answering the questions. There are two (2) parts in the questionnaire. The first part is the profile of respondents which consists of age, sex, perceptions on caffeine and smoking. The perceptions on caffeine consists of twenty (20) questions and the perceptions on smoking consists of nineteen (19) questions. Overall, the questions for the profile of respondents are fortyone (41) including their age and sex. The second part of the questionnaire consists of questions that measured the perceptions on insomnia among nursing students which also comprises twenty (20) question.

On the twenty (20) related literature in this review, a total of "50,765" samples, 19837 records, 15 studies, and 10 articles consisting of 2841 who considered oral rehydration solutions and zinc. 826 samples considered handwash. 46423 samples considered Sanitation, hygiene and Water, and the rest considered Water filters in Prevention and Control of Diarrheal Diseases. Reported methods or procedures included oral hydration and zinc therapy, handwashing facility (EHF), sanitation, hand hygiene, wash, water filters, etc. All studies have range of three to five years for follow up. Study characteristics were summarized (Table 1). Average age of the study population were children under five years and middle aged with few senior participants.

### 3. RESULTS AND DISCUSSION

This chapter presents the data gathered from the survey questionnaire conducted by the researchers on the 265 college students under a nursing program. The respondents were given the assurance that all of the data accumulated from them are only for research purposes and that the identities of the respondents will be confidential.

The researchers based the age categories that ranged in 1s because the target audience (nursing students) ages from 17 and above depending on when the student starts going to school. The researchers opted to include the '21 and above' because there are some instances where the student is a second courser or stayed in the college year level than the usual. In terms of ranging the age, the target audience is not large enough to apply the usual 5s and 10s range, hence, the researchers apply 1s only to range the ages of the respondents. Furthermore,

the researchers opted to use this method because they want to know the perspectives of their target audience after turning 18 and after entering their 20s. As shown in Table 1, the age group 19 to 20 years old got the most responses out of the three age groups, resulting in 56.23% or 149 of the total respondents, followed by the age group 21 and above, which received 33.96% or 90 responses. Lastly, there were just 26 people in the 17 to 18 age bracket, completing up the remaining 9.81%. The average age of first and second-year students ranges from 17 to 20 years old, which explains why the majority of respondents fall within those age categories as well.

As shown in Table 2, there are 216 female respondents to the survey, or 81.51%, making up the majority of the respondents. On the other hand, only 49 out of 265 respondents or 18.49%, answered the survey. Considering most of the nursing students who enrolled in the School of Nursing (SON) at EAC-M could be the affecting factor of the higher rate of female than male respondents. According to the list given by the Academic Coordinator of the School of Nursing, there are only 76 males (18.10%) and 344 females (81.90%) from different year levels respectively.

As illustrated in Table 3, the researchers gathered a data of 214 (80.75 %) on the descriptive statement "I believe that smoking is harmful and should be avoided" and has a weighted mean of 4.664. Just like in caffeine consumption, nursing students have a strong agreement of their awareness on the harmful effects of smoking and it should be avoided as it will cause health issues to them. It is obvious that

they were aware of the consequences of the lifestyle on the health of a person. Moreover, it encompasses the next statement that garnered 217 (81.89 %) of the responses which strongly agree to the statement "I am aware of the health risks associated with smoking and tobacco use" and 183 (69.06 %) responses which strongly agreeing in the statement "I am aware of the long-term health consequences of smoking or using tobacco products", such as lung cancer and heart disease, wherein it accumulated a mean of 4.653 and 4.234, respectively. It indicates that nursing students are aware of the health risk and health consequences associated with smoking and tobacco use since they are studying these topics as part of their curriculum. Meanwhile, the descriptive statement "I smoke cigarettes or use other tobacco products on a daily basis" gathered 197 (74.34%) responses and a lowest mean of 1.415, which indicates strongly disagreement in the statement. It shows that the respondents do not smoke cigarettes on a daily basis, being in the medical field course could be the factor to this result as they were aware of the possible health risks and consequences of smoking.

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Table 1. Age of the respondents

AGE	Frequency	Relative frequency
17 - 18	26	9.81%
19 - 20	149	56.23%
21 years old and above	90	33.96%
Total	265	100.00%

Table 2. Sex of the respondents

AGE	Frequency	Relative frequency
Male	49	18.49%
Female	216	81.51%
Total	265	100.00%

Table 3. Perceptions on caffeine intake

Descriptive Statement	SA	Α	N	D	SD	Weighted Mean	Interpretation
I consume coffee, tea, or other caffeinated beverages regularly.	95 (35.85 %)	70 (26.42%)	55 (20.75%)	19 (7.17%)	26 (9.81%)	3.713	Agree
I consume chocolate or other caffeine- containing foods regularly.	67 (25.28%)	79(29.81%)	82 (30.94%)	23(8.68%)	14(5.28%)	3.615	Agree
3. I sometimes use caffeine containing supplements or medications (e.g. energy drinks)	26(9.81%)	44(16.60%)	51 (19.25%)	64(24.1%)	80(30.19%)	2.517	Disagree
4. I am able to function normally without consuming caffeine.	108(40.75%)	71(26.79%)	54 (20.38%)	20(7.55%)	12(4.53%)	3.917	Agree
5. I avoid consuming caffeine after a certain time of day to prevent sleep problems.	81(30.57%)	76(28.68%)	54 (20.38%)	30(11.32%)	24(9.06%)	3.604	Agree
6. I am knowledgeable about the potential health effects of caffeine consumption.	139(52.45%)	100(37.74%)	22 (8.30%)	3 (1.13%)	1 (0.38%)	4.408	Strongly Agree
7. I have experienced negative side effects (such as extreme nervousness or anxiety) after consuming caffeine.	64 (24.15%)	79(29.81%)	55 (20.75%)	31(11.70%)	36(13.58%)	3.392	Neutral
8. I have tried to quit or Reduce my caffeine intake in the past.	61 (23.02%)	78(29.43%)	67 (25.28%)	29(10.94%)	30(11.32%)	3.419	Asgree
9. I am generally comfortable with the amount of caffeine I consume on a daily basis.	111(41.89%)	87(32.83%)	55 (20.75%)	4(1.51%)	8 (3.02%)	4.091	Agree
10. I would be willing to reduce or eliminate my caffeine consumption if a health professional advised me to do so.	115(43.40%)	90(33.96%)	47 (17.74%)	8 (3.02%)	5 (1.89%)	4.140	Agree
11. I consume coffee regularly.	74 (27.92%)	56(21.13%)	57 (21.52%)	31(11.70%)	47(17.74%)	3.298	Neutral
12. I consume tea regularly.	17(6.42%)	37(13.96%)	67 (25.28%)	67(25.28%)	77(29.06%)	2.434	Disagree
13. I consume energy drinks	11(4.15%)	26(9.81%)	69 (26.04%)	67(25.28%)	92(34.72%)	2.543	Disagree

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Descriptive Statement	SA	Α	N	D	SD	Weighted Mean	Interpretation
regularly.							
14. I consume instant coffee regularly.	50 (18.87%)	49(18.49%)	60 (22.64%)	46(17.36%)	60(22.64%)	2.936	Neutral
15. I consume Cola every day.	20(7.55%)	48(18.11%)	68 (25.66%)	58(21.89%)	71(26.79%)	2.577	Disagree
16. I consume chocolate or other caffeine- containing foods regularly.	44 (16.60%)	82(30.94%)	79 (29.81%)	33(12.45%)	27(10.19%)	3.313	Neutral
17. I consume more than one caffeinated beverage or food item per day.	38 (14.34%)	54(20.38%)	72 (27.17%)	53(20%)	48(18.11%)	2.928	Neutral
18. I consume caffeine to help me stay awake during long study sessions or clinical shifts.	89 (33.58%)	70(26.42%)	45 (16.98%)	26(9.81%)	35(13.21%)	3.574	Agree
19. I am knowledgeab le about the risk of too much caffeine consumption.	143(53.96%)	94(35.47%)	22(8.30 %)	5(1.89%)	1 (0.38%)	4.408	Strongly Agree
20. I am aware of the recommende d daily limit for caffeine intake (400mg/day for most adults).	97 (36.60%)	83(31.32%)	59 (22.26%)	20(7.5%5)	6 (2.26%)	3.925	Agree
Grand Mean						3.438	Agree

Legend: Strongly Agree (4.20 - 5.00); Agree (3.40 - 4.14); Neutral (2.60 - 3.39); Disagree (1.80 - 2.59); Strongly Disagree (1.00 - 1.79)

Table 4. Perceptions on smoking

Descriptive Statement	SA	Α	N	D	SD	Weighte d Mean	Interpretati on
I currently smoke cigarettes or use other tobacco products.	6(2.26%)	11(4.15%)	18(6.79%)	38(13.34%)	192(72.45%)	1.494	Strongly Disagree
2. I have smoked cigarettes or used other tobacco products in the past but have quit.	9(3.40%)	24(9.06%)	21(7.92%)	29(10.94%)	182(68.68%)	1.713	Strongly Disagree
3. I have never smoked cigarettes or used other tobacco products.	157(59.25%)	12(4.53%)	14(5.28%)	33(12.45%)	49(18.49%)	3.736	Agree
4. I am aware of the health risks associated with smoking and tobacco use.	217(81.89%)	25(9.43%)	8 (3.02%)	9 (3.40%)	6 (2.26%)	4.653	trongly Agree
5. I eel confident in my ability to resist peer pressure to start smoking or using tobacco products.	152(57.36%)	32 (12.08%)	30 (11.32%)	28 (10.57%)	33(12.45%)	3.951	Agree
6. I am aware of resources available to help me quit smoking or using tobacco products if I wanted to.	120(45.28%)	54 (20.38%)	40 (15.09%)	19 (7.17%)	32(12.08%)	3.796	Agree
7. I believe that smoking is harmful and should be avoided.	214(80.75%)	30 (11.32%)	9 (3.40%)	7(2.64%)	5 (1.89%)	4.664	Strongly Agree
8. I currently smoke cigarettes or use other tobacco products.	10(3.77%)	12(4.53%)	17(6.42%)	39(14.72%)	187(70.57%)	1.562	Strongly Disagree
9. I smoke cigarettes or use other tobacco products on a daily basis.		5 (1.87%)	14(5.28%)	43(16.23%)	197(74.34%)	1.415	Strongly Disagree
10. I smoke cigarettes or use other tobacco products several times a week.	8 (3.02%)	3 (1.13%)	15(5.66%)	44(16.60%)	195(73.58%)	1.434	Strongly Disagree
occasionall y (less than once a week).			16(6.04%)	41(15.47%)	187(70.57%)	1.543	Strongly Disagree

Descriptive Statement	SA	Α	N	D	SD	Weighte d Mean	Interpretati on
12. I have not smoked cigarettes or used other tobacco products in the past 30 days.	149(56.23%)	21 (7.92%)	14 (5.28%)	28 (10.57%)	53(20%)	3.698	Agree
13. I typically smoke more when I am under stress or feeling anxious.	14(5.28%)	18(6.79%)	12(4.53%)	38(14.34%)	183(69.06%)	1.649	Strongly Disagree
14. I have tried to quit smoking or using tobacco products in the past but have been unsuccessful.	13 (4.91%)	10 (3.77%)	36 (13.58%)	33 (12.45%)	173(65.28%)	1.706	Strongly Disagree
15. I have quit smoking or using tobacco products in the past but have relapsed.	14 (5.28%)	15 (5.66%)	36 (13.58%)	33 (12.45%)	167(63.02%)	1.777	Strongly Disagree
16. I have developed a persistent cough or other respiratory symptoms due to smoking or using tobacco products.	4(1.51%)	4(1.51%)	22 (8.30%)	42 (15.85%)	193(72.83%)	1.430	Strongly Disagree
17. I have experienced dental problems or oral health issues due to smoking or using tobacco products.	3(1.13%)	4(1.51%)	19 (7.17%)	44 (16.60%)	195(73.58%)	1.400	Strongly Disagree
18. I have noticed a decrease in my sense of taste or smell due to smoking or using tobacco products.	7 (2.64%)	2(0.75%)	21 (7.92%)	41 (15.47%)	194(73.21%)	1.442	Strongly Disagree
19. I am aware of the long- term health consequenc es of smoking or using tobacco products, such as lung cancer and heart disease.	183(69.06%)	31 (11.70%)	9 (3.40%)	14 (5.28%)	28(10.57%)	4.234	trongly Agree
Grand Mean						2.365	Disagree

Legend: Strongly Agree (4.20 - 5.00); Agree (3.40 - 4.14); Neutral (2.60 - 3.39); Disagree (1.80 - 2.59); Strongly Disagree (1.00 - 1.79)

Table 5. Perceptions on insomnia

Descriptive Statement Please rate the CURRENT (i.e. LAST 2 WEEKS) SEVERITY of your insomnia problem(s).	SA	Α	N	D	SD	∍ighte d Mean	erpret ation
I have trouble falling asleep at night.	66(24.91 %)	87(32.83%)	67(25.8 %)	27(10.19 %)	18 (6.79 %)	3.589	Agree
2. I have Difficulty staying asleep	42 (15.85 %)	67(25.28%)	74(27.92 %)	49(18.49 %)	33 (12.45 %)	3.136	Neutral
I have Problems waking up too early	76 (28.68 %)	57(21.51%)	67(25.28 %)	37(13.96 %)	28(10.57%)	3.438	Agree
4. I wake up frequently during the night and have difficulty falling back asleep.	45 (16.98 %)	43(16.23%)	81(30.57 %)	55(20.75 %)	41(15.47%)	2.985	Neutral
5. I wake up feeling tired and unrested, even after a full night's sleep.	83 (31.32 %)	83(31.32%)	57(21.51 %)	26(9.81%)	16 (6.04 %)	3.721	Agree
6. I feel irritable or moody due to lack of sleep.	99 (37.36 %)	74(27.94%)	54(20.38 %)	25(9.43%)	13 (4.91%)	3.834	Agree
7. I have trouble concentrating or staying focused during the day due to lack of sleep.	94 (35.47 %)	91(34.34%)	62(23.40 %)	11(4.15%)	7 (2.64%)	3.958	Agree
8. I rely on sleep aids or medication to help me fall asleep.	15 (5.66 %)	22 (8.30 %)	45(16.98 %)	49(18.49 %)	134(50.57%)	2.000	Disagree
9. I have difficulty falling asleep or staying asleep due to stress or anxiety.	67 (25.28 %)	75(28.30%)	69(26.04 %)	23(8.68%)	31(11.70%)	3.468	Agree
10. I engage in activities such as using electronic devices or watching TV in bed that interfere with my ability to fall asleep.	100 (37.74 %)	85(32.08%)	46(17.36 %)	16(6.04%)	18 (6.79 %)	3.879	Agree
11. I have experienced negative impacts on my academic or work performance due to lack of sleep.	80 (30.19 %)	82(30.94%)	63(23.77 %)	20(7.55%)	20 (7.55 %)	3.687	Agree
12. I have spoken to a healthcare provider about my sleep difficulties and received treatment or recommendati ons for	,	17 (6.42 %)	40(15.09 %)	66(24.91 %)	122(46.04%)	2.045	Disagree

Descriptive Statement Please rate the CURRENT (i.e. LAST 2 WEEKS) SEVERITY of your insomnia problem(s).	SA	Α	N	D	SD	∋ighte d Mean	erpret ation
improving my sleep.							
13. My sleep difficulties have lasted for more than a month.	58 (21.89 %)	50(18.87%)	63(23.77 %)	44(16.60 %)	50(18.87%)	3.083	Neutral
14. I have tried multiple strategies to improve my sleep, but have not found significant relief.	•	64(24.15%)	69(26.04 %)	27(10.19 %)	30(11.32%)	3.479	Agree
15. My sleep difficulties have had a significant negative impact on my daily functioning, such as academic or work performance, social relationships, or physical health.	68 (25.66 %)	67(25.28%)	76(28.68 %)	34(12.83 %)	20 (7.55%)	3.487	Agree
16. I experience intense anxiety related to my sleep difficulties.	62 (23.40 %)	56(21.13%)	73(27.55 %)	37(13.96 %)	37(13.96%)	3.260	Neutral
17. My sleep difficulties are affecting my ability to enjoy life and engage in activities I used to enjoy.	53 (20 %)	58(21.89%)	82(30.94 %)	36(13.58 %)	36(13.58%)	3.211	Neutral
18. My sleep difficulties are causing me to experience symptoms such as depression, irritability, or mood swings.	53 (20 %)	71(26.79%)	75(28.30 %)	31(11.70 %)	35(13.21%)	3.287	Neutral
19. I have trouble concentrating or staying focused during class discussions due to a lack of sleep.	,	77(29.06%)	75(25.30 %)	29(10.94 %)	15 (5.67 %)	3.589	Agree
20. I have received treatment or recommendati ons for improving my sleep with the help of health care provider	18 (6.79 %)	17(6.42 %)	43(16.23 %)	67(25.28 %)	120(45.28%)	2.042	Disagree
Grand Mean						3.259	Neutral

Legend: Strongly Agree (4.20 - 5.00); Agree (3.40 - 4.14); Neutral (2.60 - 3.39); Disagree (1.80 - 2.59); Strongly Disagree (1.00 - 1.79)

Based on Table 5, the results showed that 94 (35.47%) of the respondents strongly agree on the descriptive statement "I have trouble concentrating or staying focused during the day due to lack of sleep" and got the highest mean of 3.958 and are interpreted as agree. It means that many respondents had trouble concentrating or maintaining focus during the day due to insufficient sleep. As stated by Guadiana & Okashima [36] sufficient sleep quality is necessary to function adequately as an undergraduate college student.

Whereas the second to the highest attained a mean of 3.879, and got a total of 100 (37.74%) strongly agree responses on the statement "I engage in activities such as using electronic devices or watching TV in bed that interfere with my ability to fall asleep" and interpreted as agree. It can be concluded that the use of technology may also adversely affect sleep. Considering that the respondents are already living in the technology era, these impede and contribute to unhealthy sleeping patterns when not managed properly.

# 4. DISCUSSION

Perception of caffeine, smoking and insomnia plays important role in the promotion of awareness for the public. In terms of caffeine intake, the student nurse consume coffee, tea and caffeinated in regular basis with mean score of 3.713, and food with caffeine consumption 3.615. This shows that caffeine earn consumption is common to nursing student. They utilize it as means to be productive in academic work related activities. This stimulant is beneficial to be active the whole day in class. On contrary nursing student are knowledgeable about potential effect of caffeine consumption which earn 4.408 mean score. It was shown in Table 3. that student also experiences negative side effect such as nervousness, anxiety after consumption of caffeine. This evidence shows that too much consumption of caffeine will affect health just like in smoking, moderation in caffeine consumption must be consider.

Nursing student must play critical role in reducing tobacco as means of relieving their stressors. It shows that students in medical field are expected to educate people in smoking cessation. Simple advice to the community can help to promote health and measures to control smoking. In the survey covered nursing who participated in the study which serve as frontline in providing quality

of care Cho & Jang [37]. Result shows in Table 4. that student are aware in health risk associated with smoking with mean score of 4.653 and in terms of avoidance of smoking harmful effect gather mean score of 4.664. This shows that it is important to have trainings or seminar pertaining to smoke cessation like having brochures and information pertaining in control and prevention of tobacco use Pingak et al. [38]. As part of the healthcare team, the health professional students should be cautious with their health to effectively deliver health education to their future patients thus personal smoking behavior among nurses needs to be addressed first. Majority of respondent acknowledge that as future provider of care promoting awareness is important in smoke cessation.

Insomnia is one of major challenges that student has experience. Base on the study most of the student has difficulty sleeping at night with mean score of 3.58. it also shown that due to it, the student experience physical symptoms like trouble in concentration during lecture with mean score of 3.958. this evidence that insomnia greatly affects one's health, changes mood and related factor that leads to concentration. This implies that the respondents experienced unsettled feelings due to lack of sleep [39]. The findings indicate that the effect of sleep quality on mood is much greater than the effect of mood on sleep quality. Hence, having inadequate sleep may affect how the brain regulates emotion. In addition, the respondents do not use medication or sleep aids in getting to sleep. Considering that the respondents are in the medical field, they understand most of the sleeping aids and medication should be prescribed by a physician Triantafillou et al. [40]. Evidence shows that having insomnia impact student physical and cognitive aspect because it lead to poor functioning, productivity and retention of information. This issue must be address immediately to resolve issue.

#### 5. CONCLUSION

Based on the results, it highlights Perception of caffeine, smoking and insomnia among nursing students and its impact in promoting awareness. Caffeine consumption rates is significantly high among nursing students as means of stimulant; the study reinforce the importance of having limit in the consumption of caffeine intake. Furthermore, the prevalence of smoking among nursing student was reinforce through seminar and trainings pertaining to control and prevention

of smoking. Lastly, insomnia is one of that challenges that student experiencing, this led to poor memory retention and affection cognitive aspect. Therefore, most of nursing student learned about danger of caffeine, smoking and insomnia, addressing student concern and providing education materials and trainings helps to create strategic ways and approach on this situation.

#### 6. RECOMMENDATION

Based on the conclusions, the researchers would like to recommend the following:

- 1. To student nurses, researchers propose to be role models and actively participate in campus-wide health education campaign on the effects of consumption of caffeine and alternatives or solutions to sleep problems. Also. minimize consuming caffeine-containing beverages and food during clinical duty to avoid unexpected incidents during the student's duty, so that whenever students have duty, they would be more focused in their ability to provide proper and appropriate interventions to their patients. Student nurses should take care of themselves as they need to take care of others' health. As someone who is part of the healthcare team, they need to be physically, emotionally, mentally, and spiritually prepared for their duties.
- To Nurse Educators, it is recommended that they include health promotion in their curriculum one which is about the harmful effects of smoking, one that would be about options on how to guit smoking.
- 3. For School Administrators, to integrate in their school policies ways to control smoking within campus premises, a no smoking policy must be strictly imposed.
- 4. To future researchers, must take into consideration conducting this study with a broader group of respondents, including students from different universities, to gather more data. Caffeine intake and smoking status need further investigation by its domains and how it will affect the prevalence of insomnia among students.

## **CONSENT AND ETHICAL APPROVAL**

The researcher undergone ethics review from Davao Doctors College Incorporation. Informed consent was given, and confidentiality of data is strictly applied.

#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

#### **REFERENCES**

- 1. Kharaba, Z, Sammani N, Ashour S, Ghemrawi R, Al Meslamani AZ, Al-Azayzih A, Buabeid M. A., & Alfoteih, Y. (2022). Caffeine Consumption among Various University Students in the UAE, Exploring the Frequencies, Different Sources and Reporting Adverse Effects and Withdrawal Symptoms. Journal of nutrition metabolism, 2022:5762299. Available:https://doi.org/10.1155/2022/576
- Jorge II MPPC, Villalobos REM, Nuñal 2. JCC. A Descriptive Study on the Sleeping Habits and Correlation of Sleepiness with Performance Academic in а University-run Medical School in the Philippines . Acta Medica Philippina. 2020:54(2). Available:https://doi.org/10.47895/amp.v54i
  - 2.1513
- Kim KW, Kang SH, Yoon IY, Lee SD, Ju G, Han,JW, Kim TH, Lee CS, & Kim, T. Prevalence and clinical characteristics of insomnia and its subtypes in the Korean elderly. Archives of gerontology and geriatrics. 2017; 68:68-75.
  - Available:https://doi.org/10.1016/j.archger.2 016.09.005
- 4. Liao Y, Xie L, Chen X, Kelly B, Qi C, Pan C, Yang M, Hao W, Liu T, Tang J. Sleep Smokers in Cigarette nonsmokers: Findings from the general population in Central China. BMC public health. 2019;19:808.
  - Available:https://doi.org/10.1186/s12889-019-6929-4
- Madrid-Valero JJ, Martínez-Selva JM, Ribeiro do Couto B. Sánchez-Romera JF. Ordoñana J. R. Age an d gender effects on the prevalence of poor sleep quality in the adult population. Gaceta sanitaria. 2017;31(1):18-22.
  - Available:https://doi.org/10.1016/j.gaceta. 2016.05.013
- 6. Marta OF, Kuo SY, Bloomfield J, Lee HC, Ruhyanudin F, Poynor MY, Brahmadhi, A., Pratiwi, I. D, Aini, N, Mashfufa, E. W, Hasan F, Chiu, HY. Gender differences in the relationships between sleep disturbances and academic performance

- among nursing students: A cross-sectional study. Nurse Education Today. 2020;85: 104270.
- Available:https://doi.org/10.1016/j.nedt.201 9.104270
- 7. Boopathirajan R, Muthunarayanan L. Awareness, Attitude and Use of Tobacco among Medical Students in Chennai. Journal of lifestyle medicine. 2017;7(1): 27–34.
  - Available:https://doi.org/10.15280/jlm.2017. 7.1.27
- Albasheer OB, Al Bahhawi T, A Ryani M, Arishi AM, Mohammed Hakami O, Mohsen Maashi S, Khairat Al-Khairat H, Alganmy OM, Adnan Sahal Y, Aaref Sharif A, Mahfouz MS. Prevalence of insomnia and relationship with depression, anxiety, and stress among Jazan University Students: A cross-sectional study. Cogent Psychology. 2020;7(1).
  - Available:https://doi.org/10.1080/23311908 .2020.1789424
- Alhadi A, Alhuwaydi A. Insomnia Prevalence and Associated Factors Among University Students in Saudi Arabia During the COVID-19 Pandemic and Lockdown: A Large-Scale Survey. Nature and Science of Sleep. 2022:14:1651-1663. Available:https://doi.org/10.2147/NSS.S380 972
- Amiri AJ, Morovatdar N, Soltanifar A, Rezaee R. Prevalence of SleepDisturbance and Potential Associated Factors among Medical Students from Mashhad, Iran. Sleep Disorders. 2020;4. Available:https://doi.org/10.1155/2020/460 3830
- Chaudhary NS, Grandner MA, Jackson NJ, Chakravorty S. Caffeineconsumption, insomnia, and sleep duration: Results from a nationally representative sample. Nutrition. 2016;32(11-12): 1193-1199. Available:https://doi.org/10.1016/j.nut.2016 .04.005
- Gabrish D. Caffeine Use, Hours of Sleep, and Academic Performance of Undergraduate College Students [Master's thesis, Kent State University]. OhioLINK Electronic Theses and Dissertations Center; 2017.
  - Available:http://rave.ohiolink.edu/etdc/view? acc num=kent1492109146480732
- Bhaskar S, Hemavathy D, Prasad S. Prevalence of chronic insomnia in adult patients and its correlation with medical

- comorbidities. Journal of family medicine and primary care. 2016;5(4): 780–784. Available:https://doi.org/10.4103/2249-4863.201153
- Güneş Z, Arslantaş H. Insomnia in nursing students and related factors: A crosssectional study. International Journal of Nursing Practice. 2017;23(5).
  - Available: https://doi.org/10.1111/ijn.12578
- Guo YF, Liao MQ, Cai WL, Yu XX, Li SN, Ke XY, Tan SX, Luo ZY, Cui YF, Wang Q, Gao XP, Liu J, Liu YH, Zhu S, Zeng FF. Physical activity, screen exposure and sleep among students during the pandemic of COVID-19. Scientific reports. 2021;11(1):8529.
  - Available:https://doi.org/10.1038/s41598-021-88071-4
- Hassan U. Frequency and awareness of caffeine consumption among the medical students. Professional Med J 2020;27(12): 2763-2768.
  - Available:https://doi.org/10.29309/TPMJ/20 20.27.12.4631
- Hsi-Chung C, Chia-Yi, W, Lee M., Shih-Cheng, L., Chia-Ta Chan, & Chun-Ying C. Sex-specific moderation effect of age on the associations between insomnia symptoms and various psychological distresses. Nature and Science of Sleep. 2021;13:93-102.
  - Available:https://doi.org/10.2147/NSS.S277 530
- Hu N, Wang C, Liao Y, Dai Q, Cao S. Smoking and Incidence of Insomnia:a systematic review and meta-analysis of cohort studies. Research Square; 2021.
  - Available:https://doi.org/10.21203/rs.3.rs-27889/v4
- Ismayatim IAB, azhar NHB, Islam N, Lail SABMS, Ismail SB. A Cross-sectional Study on Association of Smoking Habits and Insomnia Among University Students in Cyberjaya. Medic UPM. Retrieved December. 2021;22:2022.
  - Available:http://medic.upm.edu.my/upload/dokumen/2021122719025503\_2021\_0425.pdf
- 20. Jahrami H, Al-Mutarid M, Penson PE, Al-Islam Faris M, Saif Z, Hammad L. Intake of Caffeine and Its Association with Physical and Mental Health Status among University Students in Bahrain. MDPI; 2022.
  - Available:https://doi.org/10.3390/foods9040 473

- Chowdhury AI, Ghosh S, Hasan MF, Khandakar KAS, Azad F. Prevalence of insomnia among university students in South Asian Region: a systematic review of studies. Journal of preventive medicine and hygiene. 2021;61(4):E525–E529.
   Available:https://doi.org/10.15167/2421-4248/jpmh2020.61.4.1634
- 22. Nadeem A, Cheema MK, Naseer M, Javed H. Assessment of sleep quality and patterns suggestive of somniopathies among students of Army Medical College, Rawalpindi. Pakistan Armed Forces Medical Journal. 2018;68(1):143-48.
- 23. Surani AA, Zahid S, Surani A, Ali S, Mubeen M, Khan RH. Sleep quality among medical students of Karachi, Pakistan. J Pak Med Assoc. 2015; 65(4):380-382.
- 24. Bhandari PM, Neupane D, Rijal S. et al. Sleep quality, internet addiction and depressive symptoms among undergraduate students in Nepal. BMC Psychiatry. 2017;17:106. Available:https://doi.org/10.1186/s12888-017-1275-5
- Ghrouz AK, Noohu MM, Dilshad Manzar M. et al. Physical activity and sleep quality in relation to mental health among college students. Sleep Breath. 2019;23:627–634. Available:https://doi.org/10.1007/s11325-019-01780-z
- Patil A, Bhavya, Chaudhury S, Srivastava S. Eyeing computer vision syndrome: Awareness, knowledge, and its impact on sleep quality among medical students. Industrial psychiatry journal. 2019;28(1):68–74.
  - Available:https://doi.org/10.4103/ipj.ipj\_93\_ 18
- Kumar A, Vandana Aslami AN. Analgesics Self-Medication and its Association with Sleep Quality among Medical Undergraduates. Journal of clinical and diagnostic research: JCDR. 2016;10(12): FC07–FC11.
  - Available:https://doi.org/10.7860/JCDR/2016/22504.8953
- Jahan SM, Hossain SR, Sayeed UB. et al. Association between internet addiction and sleep quality among students: a crosssectional study in Bangladesh. Sleep Biol. Rhythms. 2019;17:323–329.
   Available:https://doi.org/10.1007/s41105-019-00219-y

- 29. Nikolopoulou K. What Is Convenience Sampling? | Definition & Examples.Scribbr. Retrieved; 2022.
  - Available:https://www.scribbr.co.uk/researc h- methods/convenience-sampling-method/
- 30. Nuñez A, Rhee J, Haynes P, Chakravorty S, Patterson F, Killgore W, Gallagher R, Hale L, Branas C, Carrazco N, Alfonso-Miller P, Gehrels J, Grandner M. Smoke at night and sleep worse? The associations between cigarette smoking with insomnia severity and sleep duration. Sleep health. 2021;7 (2):177–182.
  - Available:https://doi.org/10.1016/j.sleh.2020 .10.006
- 31. Ramar K, Malhotra RK, Carden KA, et al. Sleep is essential to health: an AmericanAcademy of Sleep Medicine position statement. J Clin Sleep Med. 2021;17(10):2115–2119. Available:https://doi.org/10.5664/jcsm.9476
- 32. Reed, M. Can
  Available:https://www.healthcentral.com/article/can-caffeine-actually-cause-insomnia
- 33. Roth T. Insomnia: definition, prevalence, etiology, and consequences. Journal ofclinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine. 2007;3(5S7–S10. Avaialble:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1978319/
- 34. Sychareun V, Hansana V, Choummanivong M, et alCross-sectional survey: smoking among medical, pharmacy, dental and nursing students, University of Health Sciences, Lao PDRBMJ Open 2013;3:e003042.
  DOI: 10.1136/bmjopen-2013-003042
- 35. Yilmaz D, Tanrikulu F, Dikmen Y. Research on Sleep Quality and the FactorsAffecting the Sleep Quality of the Nursing Students. Current Health Sciences Journal .2017;43(1):20–24. Available:https://doi.org/10.12865/CHSJ.43 .01.
- 36. Guadiana N, Okashima T. The effects of sleep deprivation on college students; 2021.
  - Available:https://doi.org/10.33015/dominica n.edu/2021.nurs.st.09
- Cho S, Jang SJ. Do gender role stereotypes and patriarchal culture affect nursing Students' Major satisfaction? Int J Environ Res Public Health. 2021;18(5):2607.
   Available:https://doi.org/10.3390/ijerph1805 2607

- 38. Pingak, Meksy, and Miller, Caroline. "Smoking Perceptions and Practice among Nursing Students in Kabupaten Kupang, Indonesia." Asian Pacific Journal of Cancer Prevention:APJCP. 2019;20(6): 1709-1716, Available:https://doi.org/10.31557/APJCP. 2019.20.6.1709. Accessed 15 May 2023.
- 39. Chervin R. Hershner S. Causes and Consequences of Sleepiness among College Students. Nature and Science of Sleep. 2014;6:73-84.

- Available:https://doi.org/10.2147/NSS.S62 907
- 40. Triantafillou S, Saeb S, Lattie EG, Mohr DC, Kording KP. Relationship Between Sleep Quality and Mood: Ecological Momentary Assessment Study. **JMIR** Mental Health, https://doi.org/10.2196/12613 University of Base. (2021).Regular Caffeine Affects Consumption Brain Structure. Science Daily: 2019. Available:www.sciencedaily.com/releases/2 021/02/210216100137.htm

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