AJSMPH

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Prevalence of Stress and Hair Fall in Medical Students

The Physical, Emotional, and Psychological effects
RAPE, SEXUAL ASSAULT & TEENAGERS

THE PREVALENCE OF ALCOHOL USE AS A STRESS COPING METHOD

Sustainable Communities: Climate Change Recycling Project

THE SLEEPING HABITS OF PRE-MED STUDENTS

THE EFFECTS of SOCIAL MEDIA on the ACADEMIC PRODUCTIVITY of COLLEGE STUDENTS

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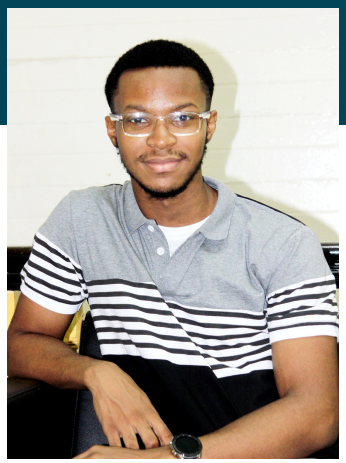
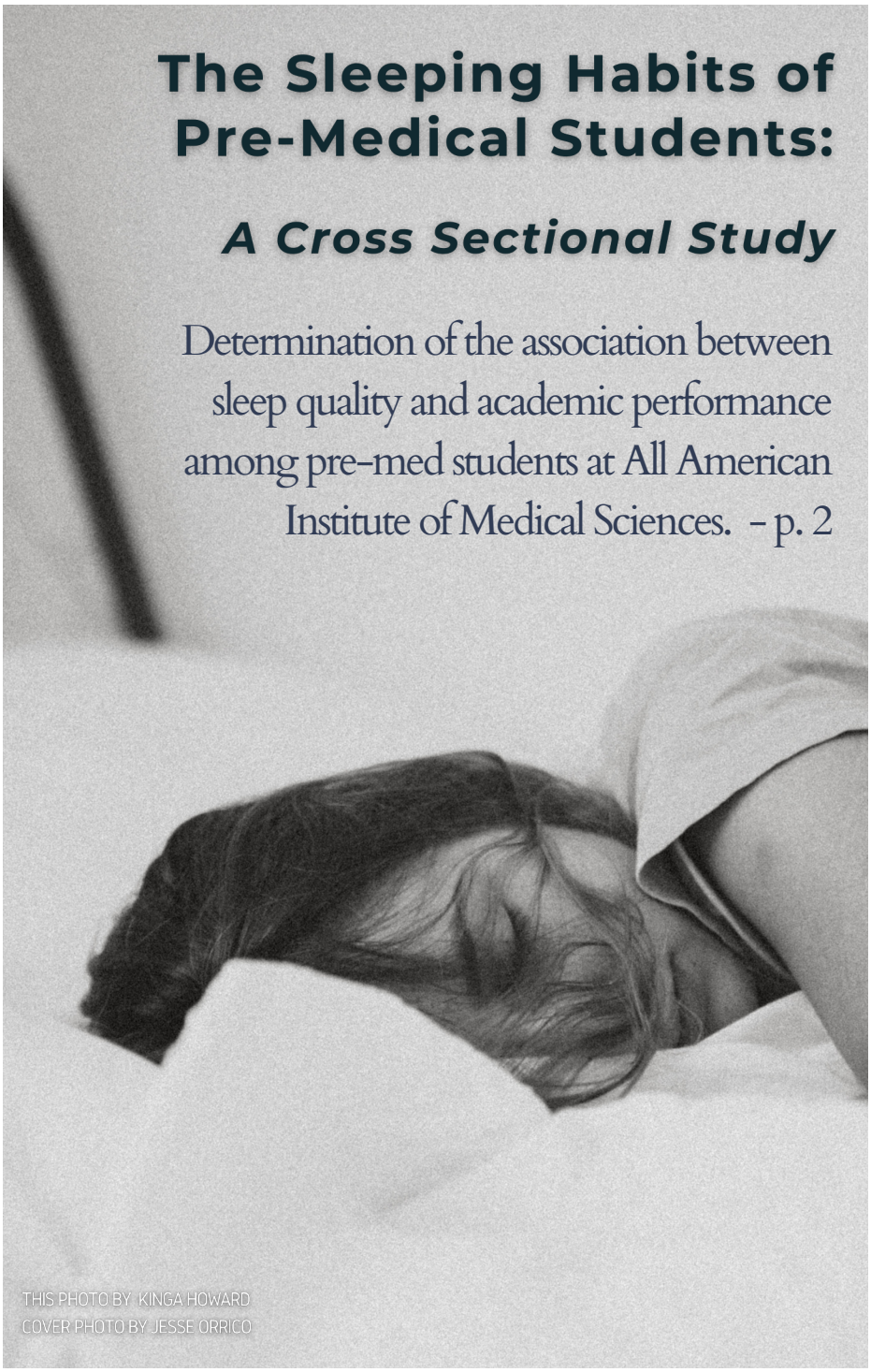
CONTENTS

RESEARCHER SPOTLIGHT: ROVONI SCOTT





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EDITORIAL

Dr. Karyna Davis-Irons
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Dear Readers,

It is with great pleasure that we welcome you to the latest issue of our medical student journal. As aspiring healthcare professionals, it is incumbent upon you to remain well-informed about the latest research and advancements in the field of medical sciences. This journal serves as a platform specifically designed for medical students to showcase their knowledge, expertise, and contribution to the growing body of medical literature.

Medical education is a rigorous journey, challenging students physically, mentally, and emotionally. As future healthcare providers, medical students face a unique set of stressors that can have profound effects on their well-being. The articles presented in this issue cover a broad spectrum of topics, addressing challenges faced by medical students, teenagers, and young adults in the realm of healthcare. By openly discussing these issues and exploring potential interventions, we can foster a healthier and more supportive environment for medical students and young adults alike. We invite you to immerse yourself in these thought-provoking articles, consider the implications, and engage in further research to expand your understanding of these and other complex issues.

Undoubtedly, the significance of rigorous scientific research and evidence-based medicine cannot be emphasized enough. As students, you have a unique perspective that holds the power to shape the future of healthcare. It is your responsibility to leverage this platform and actively engage in ongoing research pertaining to the healthcare system.

In conclusion, we express our sincere appreciation to all the contributors who have been instrumental in bringing this issue to life. Their valuable contributions have been pivotal in creating a meaningful publication. We also extend our heartfelt thanks to our readers, whose unwavering support and enthusiasm drive our pursuit of knowledge.

Dr. Irons

THE SLEEPING HABITS OF PRE-MED STUDENTS AT AAIMS

Determination of the association between sleep quality and academic performance among pre-med students

By Rovoni Scott

ABSTRACT

Sleep deprivation occurs when an individual does not get enough sleep. It is commonly associated with low productivity levels and thus might result in decreased academic performance. It is believed that students who have good sleep hygiene habits such as a pre-bedtime routine, consistent bedtime hours, and get at least 8 hours of sleep are more productive and thus have greater academic performance than students that get less than 8 hours of sleep regularly. The aim of this research is to determine the association between sleep quality and academic performance among pre-med students at the All-American Institute of Medical Sciences. The purpose of this research was to bring awareness to students about the dangers of sleep deprivation and to see if there is a relationship between sleep deprivation and academic performance. It was found that 47.6% of AAIMS pre-med students had poor sleep quality, however, there was no association (p=0.96) between sleep quality and academic performance observed.

Students who are too tired to concentrate during class due to poor sleep quality are more likely to perform worse on weekly quizzes than those who are well-rested. However, due to the fact that some sleep-deprived students spend extra time studying or doing homework late at night, their academic performance is sometimes higher than those who have good sleep hygiene.

Key words: Sleep, academics, students

PHOTO BY CANVA

INTRODUCTION

DETAILS >

According to the National Sleep Foundation guidelines written by Suni (2022), College students and healthy adults are advised to get between seven (7) and nine (9) hours of sleep per night. An inadequate amount or quality of sleep, including voluntary or involuntary sleeplessness and circadian rhythm sleep disorders, is referred to as sleep deprivation (Better Health Channel, 2021).

The human body needs sleep just as much as it needs food and water, yet many people don't get enough of it. Insufficient sleep can negatively affect the nervous system which can result in poor brain function (Muralidhar et al. 2019). Due to this cognitive decline, sleep deprivation is often associated with a decrease in academic performance.

Medical students are often considered a stressful group of students due to extended study years and a high academic load. They are as a result, more vulnerable to poor sleep quality than the general population. Various studies, including the study by Muralidhar et al. (2019) have shown that the prevalence of poor sleep quality among medical students is in the range of 32.5% to 38.6%. Poor sleep quality is often linked back to poor sleep hygiene (Better Health Channel 1999). Poor sleep hygiene refers to insomnia (difficulty falling asleep) caused by poor sleeping habits such as irregular bedtimes, frequent daytime napping, drinking coffee before bedtime, and using electronic devices while trying to sleep (Better Health Channel 1999). Irregular bedtimes disrupt a student's circadian rhythm which makes it hard for them to sleep at the intended time. This results in more time in bed without actually getting sleep. Long and frequent daytime napping usually makes someone feel groggy right after they wake up and can cause difficulties in getting adequate sleep at night. Coffee is a common and widely used stimulant that can make it very difficult for a person to fall asleep. Drinking coffee right before bed can drastically reduce a student's total sleep time leading to sleep deprivation. The screens from electronic devices release a large amount of blue light which has been linked to a decrease in the production of the hormone melatonin (Newsom 2022). This hormone is necessary to control the body's circadian rhythm (sleep-wake cycle) and therefore the use of electronic devices right before bedtime can make it more difficult for a student to fall asleep and wake up the next day.

In this research, the link between sleep deprivation and academic performance will be investigated. It is hypothesized that sleep deprivation will decrease academic performance.

Literature Review

A great deal of research has been done on the sleeping habits of medical students as well as other college students. Studies by Muralidhar et al. (2019) have shown that the prevalence of poor sleep quality is significantly higher among medical compared to non-medical students and the general population. This is a concerning issue because both the academic performance of medical students and their professional performance when they become practitioners are impacted by poor sleep quality. The objective of this study was to determine the prevalence of poor sleep quality among medical students and its determinants and to observe the association with academic performance.

A cross-sectional study was carried out at a Medical College, in Wayanad District, and Kerala between May and November 2018 using all the undergraduate medical students at the college (Muralidhar et al. 2019). The data was collected using a predesigned and pretested self-administered questionnaire (the Pittsburgh Sleep Quality Index). A total of 684 students gave completed responses. 62.4% of the students were observed to have good sleep quality while the other 37.6% had poor sleep quality. It was concluded that poor sleep quality was more prevalent in students that were 17-19 years of age, males, married, Phase I MBBS students, urban origin students, and day scholars (students that attend a boarding school but live at home). Only the phase of MMBS and place of origin were found to have a statistically significant association though.

The prevalence of poor sleep quality was observed to be more among those who had failed the previous university exam/internal assessment when compared to those who had secured distinction/I/II class. However, the association was not found to be statistically significant. This study concluded by stating that there was a significant association between the male sex and Phase I, MBBS with poor sleep quality however, there was no significant association between sleep quality and academic performance (Muralidhar et al. 2019).

Alqarni et al. (2018) also conducted research that showed that there was no statistically significant association between sleep quality and academic performance. Some studies, however, did show an association between sleep quality and academic performance. There is a high prevalence of poor sleep quality among medical students which might be due to improper sleep hygiene behaviors (Yazdi et al. 2010). Poor sleep quality due to poor sleep hygiene is common among medical students and sleep education is often given minimal attention in medical school curriculums (Mazar et al. 2021). For instance, Christodoulou et al. (2021) concluded that French medical students at the Faculty of Paris Didero had poor sleep quality correlating with their academic performance due to the fact that these students had poor knowledge of basic sleep rules thus the students had poor sleep hygiene. The goal of the study was to see if short education interventions could improve sleep knowledge and consequently improve the sleep quality among medical students however, in their study, short educational interventions improved sleep knowledge but failed to enhance the quality of sleep.

Students with poor sleep quality were at an increased risk of excessive daytime sleepiness (Anuradha et al. 2022). Ibrahim et al. (2017) determined that poor sleep quality and excessive daytime sleepiness both negatively affect the academic performance of medical students. The research was carried out to determine the prevalence and predictors of poor sleep quality among medical students at King Abdulaziz University. Researchers observed that students who had poor sleep quality had a low ability to attend education sessions. Their main predictor of poor sleep quality was anxiety. Those with anxiety were four times more liable to poor sleep quality compared to others. For sleep quality improvements in medical students, they recommended sleep educational programs and stress management courses. Pusparini et al. (2022) showed that there was no significant relationship between academic procrastination and sleep quality for students of the Medical Study Program, Faculty of Medicine, Diponegoro University. A study by Wang et al. (2020) demonstrated that physical activity and healthy social relations improve sleep quality in college students while caffeine intake, stress, and irregular sleep-wake patterns decreased sleep quality. Inconsistent results were reported regarding eating habits and sleep knowledge. Medical students have poor sleep quality due to their large academic load and students at a greater risk of poor sleep quality need to be identified early and targeted with programs to improve sleep (Azad et al. 2015).

Self-reported insomnia and depression are common among medical students and increased awareness and greater resources are needed to support the sleep health and emotional well-being of medical students (Duthie et al. 2022). Waqas et al. (2015) observed a high prevalence of academic stress and poor sleep quality among medical students. These academic stressors then contributed significantly to stress and sleep disorders in medical students. Adilla et al. (2021) observed an association between sleep quality and the capacity of working memory in the faculty of Medicine students of Malikussaleh Univerisity. The students that had a poorer quality of sleep had a lower memory capacity than those who had adequate sleep. Mobile phone overuse was significantly associated with poor sleep quality ad excessive daytime sleepiness (Anuradha et al. 2022 and Jenifer et al. 2017). Smartphone addiction and poor sleep quality are two major problems that need to be addressed in order to improve the academic performance of university students as well as their overall health (Rathakrishnan et al. 2021).

Students with a good quality of sleep had better academic performance than students with poor sleep quality (Rathakrishnan et al. 2021).

This was a quantitative, cross-sectional study among pre-med students at the All-American Institute of Medical Sciences

METHOD

The method of data collection was a via survey which included the Pittsburgh Sleep Quality Index (PSQI) as well as additional questions regarding sleep hygiene and academic performance.

The sample size was 21 students, taken from the All American Institute of Medical Sciences (AAIMS) in Black River, Jamaica. 12 (57.1%) students were females while the remaining 9 (42.9%) were males., both of Indian and Jamaican ethnicities. The students were between the ages of 16 and 20 with the mode being 20 years old (42.9%). The survey was filled out and closed by November 17, 2022. The data were analyzed using a chi-squared test from https://www.socscistatistics.com/tests/chisquare2/default2.aspx and a regression analysis using Microsoft Excel 2019.

RESULTS

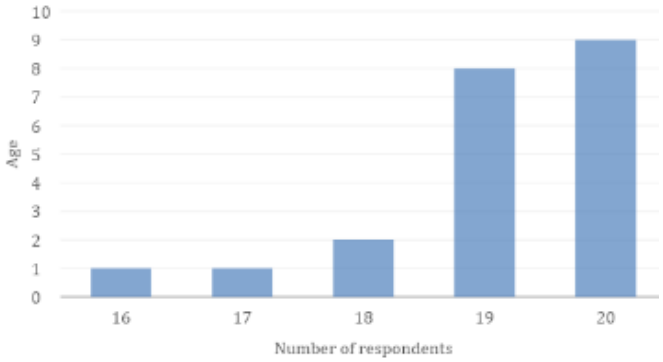

Figure 2: Bar graph showing the age of the respondents

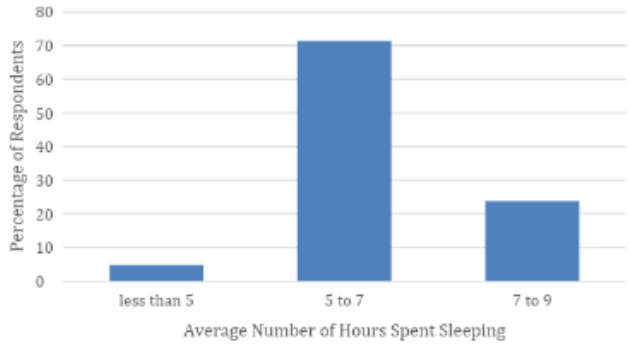

Figure 3. Bar graph showing the average nightly sleep time of students

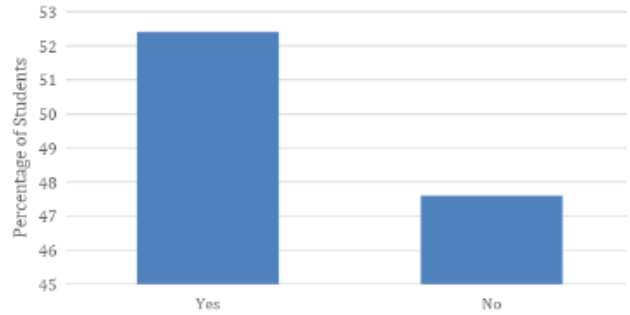

Figure 4. Pie chart showing the percentage of students who have caught themselves sleeping during class time.

100% of the students surveyed use their phones before sleeping.

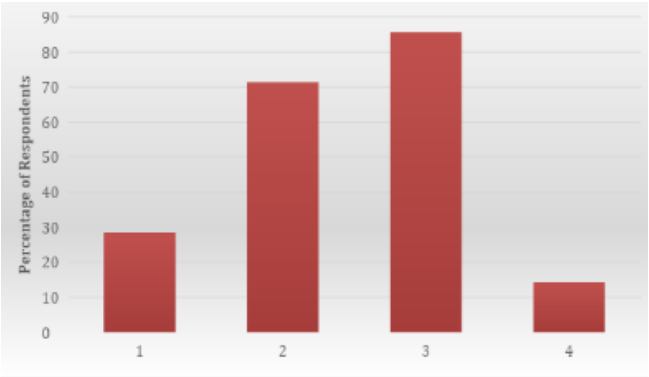

Figure 6. Bar chart showing the percentage of students who consume coffee and the percentage of students who usually stay up late at night to do homework.

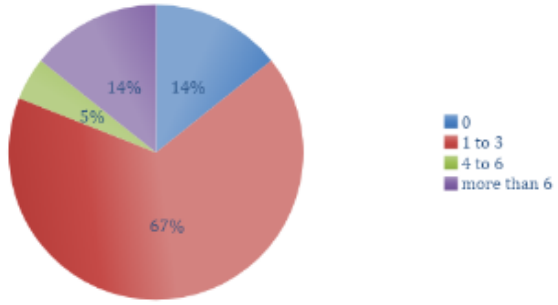

Figure 7. Pie chart showing the estimated number of quizzes students have failed this quarter.

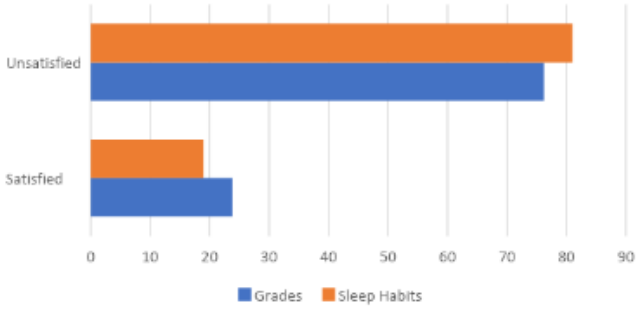

Figure 8. Bar graph showing the satisfaction level of students regarding current grades and their sleep habits

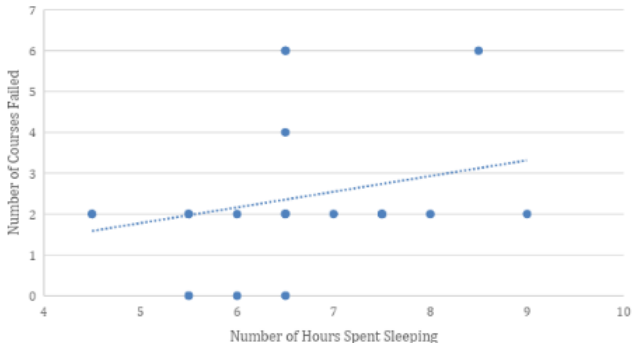

Figure 9. Graph showing the regression of the number of hours spent sleeping on the number of courses failed.

The number of hours spent sleeping is poorly regressed (R2=0.0657) on the number of courses failed. Therefore, the number of hours a student spends sleeping cannot be used to accurately predict the number of courses the student might fail during the quarter.

Table1. Table showing the PSQI scores of the respondents.

PSQI score	Rank	Number of students	Percentage
5 and below	Good sleep quality	11	52.4%
6-10	Signs of sleep disruption (poor sleep quality)	7	33.3%
Above 11	Very poor sleep quality	3	14.3%

Chi-Squared Test

Null hypothesis: There is no association between academic performance and sleep quality.

Alternative hypothesis: There is an association between academic performance and sleep quality.

The chi-square statistic is 0.0776 (4 d.f, n=21) p=0.96192. The result is not significant at p=0.05. The null hypothesis is accepted: There is no association between academic performance and sleep quality. This means there is no association between PSQI scores and the number of courses passed or failed.

DISCUSSION

In this cross-sectional study, 12 (57%) of the pre-med students were females while the other 9(43%) were males. The age of the students ranged from 16-20 years with the majority of the students being 20 years old (42.9%).

The prevalence of poor sleep quality was higher in 19-year-olds. Figure 3, highlights that most students only sleep for about 5-7 hours on average each night. It was observed that the students who slept for more than 7 hours and had a lower PSQI score indicating better sleep quality often failed more quizzes than students who only slept for 5-7 hours each night. However, students who slept for less than 5 hours and had a higher PSQI score indicating poor sleep quality also failed significantly more quizzes than those who slept for 5-7 hours. Based on the data collected, there was no association between sleep quality and academic performance χ^2=0.0776 (d.f.=4, n=21), p=0.96192. The result is not significant at p=0.05. This suggests that too much or too little sleep might have a detrimental effect on school grades. Similarly, shown in figure 9, there was poor regression (R2= 0.0657) of the number of hours spent sleeping on the number of courses failed. Therefore, the number of hours a student spends sleeping cannot be used to accurately predict the number of courses the student might fail during the quarter.

Studies by Alqarni et al. (2018) have also reported that there was no statistically significant association between sleep quality and academic performance. Various studies, including the study by Muralidhar et al. (2019) have shown that the prevalence of poor sleep quality among medical students is in the range of 32.5% to 38.6%. In this study, 47.6% of pre-med students had poor sleep quality which is higher than most other studies.

This could be due to the small sample size that was used. 71.4% of students reported having missed a class or been late to a class because of poor sleep habits.

Figure 4 shows that 52.4% of students have caught themselves sleeping during class time. This underlines the effects poor sleep could have on students. Students who are always present in class and are more active during class time are more likely to remember the information learned and thus perform better on the weekly quizzes. However, too much sleep could also be detrimental due to the fact that students who sleep less can spend more time studying or doing homework than those who prioritize more hours of sleep. Figure 6 shows that 85.7% of students usually stay up late at night to do homework. It was observed that students who scored lower on the PSQI (better sleep quality) often refused to stay up at night to do homework. Coffee is a common stimulant that is used to keep students awake during class time. Consumption of coffee can also make it harder for students to fall asleep at bedtime. This can lead to a cycle which results in poor sleep quality. Figure 6 demonstrates that 71.4% of pre-med students never drink coffee while the other 28.6% consume coffee.

CONCLUSION

The prevalence of poor sleep quality was higher in 19-year-olds. Students who slept less than 5 hours (a sign of very poor sleep quality) and students who slept more than 7 hours (a sign of good sleep quality) per night performed worse than those who slept 5-7 hours (a sign of poor sleep quality) on average each night. There is no association between sleep quality and academic performance χ^2=0.0776 (d.f.=4, n=21), p=0.96192. The result is not significant at p=0.05. There is no association between PSQI scores and the number of courses passed or failed.

There was a mix of students with good PSQI scores and bad PSQI scores failing 6 or more quizzes. Students who failed 0 tests all had a PSQI of 7 which is neither good nor bad. This might suggest that too much or too little sleep may negatively affect a student's grades.

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PREVALENCE OF STRESS AND HAIR FALL IN MEDICAL STUDENTS

AUTHOR >
DINO JOHNSON

ABSTRACT

Hair is the second fastest-growing tissue in the human body. The most common forms of hair loss in humans include Female Pattern Hair Loss (FPHL) or Alopecia. Long-term stress has also been associated with hair loss, however, the causes weren't fully understood. The purpose of this research is to examine the relationship between stress and hair fall in medical students at AAIMS Medical College, Black River, Jamaica.

A cross-sectional study was conducted during the mid to late November 2022. All female medical and pre-medical students were given the opportunity to participate in the study, a total of sixty (60) students did the the Perceived Stress Scale (PSS). Participants were asked not to shampoo their hair for the next 24 hours in order to conduct the Hair Pull Test (HPT). The hair pull test demonstrated that 91% of the students surveyed have no hair fall problems. Hair fall is not common among the medical students of AAIMS Medical College, Black River, Jamaica. It is recommended that further research be done to show the connection between stress and hair loss, with a bigger sample size.

Key words: Hypertension, blood sugar, BMI

INTRODUCTION

Hair is the second fastest-growing tissue in the human body (Murphey, Agarwal and Zito 2022). While some continue to argue that hair is a vestigial evolutionary remnant, there are numerous physiological and psychological functions of hair such as thermoregulation, protection and development of an individual's identity (Murphey, Agarwal and Zito 2022).

PHOTO BY CANVA

DETAIL >

Human hair angiogenesis begins at week ten of gestation. The mature structural unit comprises of the sebaceous gland, the arrector pili muscle and the mature hair follicle (Murphey, Agarwal and Zito 2022).

Normal hair fall is approximately 100 hairs per day (Wali et al. 2013). If hair fall exceeds this limit, then it is called 'Alopecia' or 'Balding' (Mayo Clinic 2022 and Wali et al. 2013). There are many reasons for hair loss in humans. According to research, stress may be the primary reason for unexplained hair loss (Mayo Clinic 2022, Nunez 2019 and Wali et al. 2013).

The most common forms of hair loss in humans include Female Pattern Hair Loss (FPHL) or Alopecia. Hair loss can be temporary or permanent and can affect only the scalp or the entirety of the body. Hair loss could be brought on by hereditary factors, hormonal changes, illnesses, or a natural aspect of aging.

Even though anyone can lose hair on their head, males are more likely to do so. Baldness often refers to a significant loss of scalp hair and becomes more prominent when at least 50% of hair has been lost. However, the most frequent cause of baldness is hereditary hair loss as people age. Some choose to let their hair loss progress naturally without treatment or camouflage. Others may disguise it with hats, scarves, cosmetics, or hairstyles (Mayo Clinic 2022, Nunez 2019, and Wali et al. 2013).

A woman's hair is seen as "essential to one's sense of self" or "body image" (Cash 2001). The physical characteristic of hair "expresses uniqueness and is fundamental to emotions of beauty" for many people. Concern over feeling out of step with what is deemed a "normal" feminine look can arise in women. Studies have shown that FPHL causes women to feel more self-conscious, ugly, shameful, uncomfortable, and emotionally stressed, some of which might cause social isolation (Cash 2001). Healthcare professionals should be aware of the potential influence of a woman's impression of her hair loss because those affected by the condition frequently perceive it more seriously than a dermatologist.

Stress

Stress is the feeling of being overwhelmed or unable to cope with mental or emotional pressure (NIH 2022). Even though there are many reasons for hair fall in humans, research indicates that stress may be a primary reason for unexplained hair loss. People are at risk for a number of health issues when they are under long-term, or chronic, stress. In addition to issues with digestion and sleep, they might also include anxiety and sadness. Long-term stress has also been associated with hair loss, however, the causes weren't fully understood (NIH 2022). Three phases are involved in hair development. As the hair grows (anagen), it penetrates the skin.

Degeneration (catagen) is a condition in which hair stops growing and the follicle at the root of the strand contracts (Schwartzenfeld and Karamikian 2010). When the body is at rest (telogen), hair falls out, and the cycle can start over.

One of the few tissues that may regenerate throughout a mammal's lifetime is hair. The stem cells that live in the hair follicle control the cycle of hair development (Lau 2021). Stem cells divide as the body grows to produce new hair-regenerating cells. The stem cells are dormant during the period of resting. Researchers have now pinpointed the precise mechanism by which prolonged stress damages hair follicle stem cells. The adrenal glands, which in humans and rats respectively generate cortisol and corticosterone, are first tested in terms of their function by the researchers. Mice with their adrenal glands removed experienced quick cycles of hair regrowth. In contrast, to control mice, these mice's hair follicle regeneration didn't slow down as they age. Instead, during the course of the animal's lives, hair follicle stem cells continued to enter the growth phase and replenish hair follicles (Lau 2021)

Telogen Effluvium

Telogen effluvium is hair fall that occurs due to stress (Cordell 2022). It can be acute or chronic. Telogen effluvium is diffuse temporary hair loss that typically manifests 2-3 months after severe stressful events such as childbirth, severe disease, major surgery, crash diets, severe emotional stress, or taking certain drugs. If an individual suddenly starts losing hair the underlying cause might be telogen effluvium. The hair reacts by converting large numbers of anagen (growing) hairs to telogen (thinning) hairs, and the patient will then notice large amounts of shedding, particularly with styling (Cordell 2022).

The Ludwig classification is the most widely used hair loss classification system (Yang et al. 2022). This system of classification is divided into three degrees: Ludwig I – lighter form with thinning on the top of the head; Ludwig II – moderate form; and Ludwig III – severe form (Yang et al. 2022.

METHOD

A cross-sectional study was conducted at AAIMS Medical College, Black River, Jamaica during mid to late November 2022. All female medical and pre-medical students were given the opportunity to participate in the study. A total of sixty (60) students participated. Those who were interested were tested with the help of the Perceived Stress Scale (PSS). This tool, while originally developed in 1983, remains a popular choice for helping researchers understand how different situations affect a person's feelings and perceived stress.

The questions in this scale focus on the participant's feelings and thoughts during the last month. There are several methods to determine hair loss. These include a Wash Test, Hair Pull Test (HPT), Trichogramma, Phototrichogram, and TrichoScan® [9-11]. HPT is a simple in-office test to estimate the activity of hair loss. Participants were asked not to shampoo their hair for the next 24 hours in order to conduct the Hair Pull Test (HPT).

Those who had not shampooed their hair were subjected to the HPT at the time of PSS administration. In a subject who did not wash their hair for over 24 hours before the examination, about 40–60 hairs are grasped between the index finger, middle finger, and thumb. The hairs are then pulled gently but with firm pressure as fingers slide along the hair shaft.

The test is positive when 6 or more hairs remain in the hands of the examiner. The test is positive when 6 or more hairs remain in the hands of the examiner. PSS scores ranging from 0-13 were considered low stress, from 14-26 were regarded as moderate stress, and scores from 27-40 were considered high stress.

SPSS version 20 was used for data analysis. Subjects with more 5 hairs on the HPT were considered to have excessive hair loss. Statistical significance between the two was studied using the Chi-square testfromhttps://www.socscistatistics.com/tests/chisquare2/default2.aspx.
The significance level was set at $p<0.05$.

RESULTS

The result that is obtained from the study of factors on which hypertension depends, is in favor of our hypothesis. The study shows us that with increasing age there is a trend of increase in hypertension. The prevalence of hypertension has been found to show a direct correlation with the trends of blood glucose, and BMI. So according to our results, there is an average increase in blood pressure levels across increasing ages. (fig.-1).

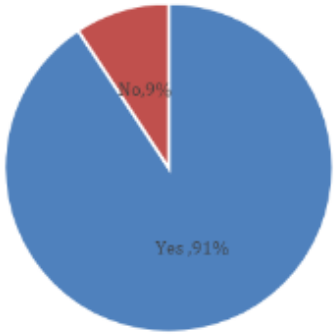

Figure 1. The percentage of respondents who think the amount of hair fall they experience is greater than what is considered to be normal.

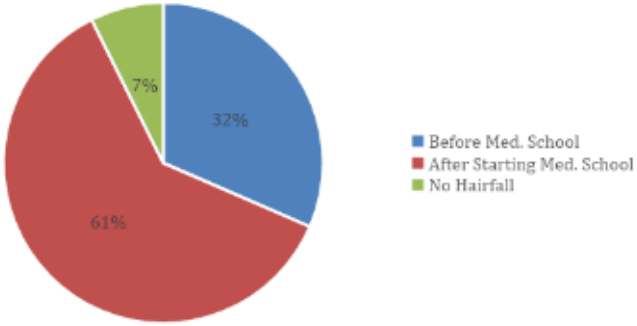

Figure 2. The proportions of respondents who noticed above normal hair fall before and after starting medical school.

Table 1: Table showing the stress grade category of respondents from the perceived stress scale compared to their hair fall category from the hair pull test.

STRESS LEVEL	HAIRFALL		TOTAL
	NORMAL	EXCESSIVE	
LOW	12	0	12
MODERATE	36	4	40
HIGH	7	1	8
TOTAL	55	5	60

A total of 60 students participated in the study. The hair pull test demonstrated that 91% of the students surveyed have no hair fall problems. With the perceived stress scale results, 12 (20%) students fall into the low-stress category, 40 (67%) students fall into the moderate stress category, 8 (13%) students fall into the high-stress category. Most students who have excessive hair fall report having moderate stress (7%). Additionally, the majority of the students who report having moderate stress have normal hair fall (60%).

Table 2: The year of study and perceived stress grade comparison

YEAR OF STUDY	STRESS GRADE			TOTAL
	LOW STRESS	MODERATE STRESS	HIGH STRESS	
PRE-MED	4	18	2	24
MD-1	5	11	4	20
MD-2	2	6	1	9
CLINICALS.	2	3	2	7
TOTAL	13	38	9	60

An unpaired t test carried out on the data in table two showed that, there was no association (p=0.71) between year of study and Level of Stress determined by the Perceived Stress Scale.

DISCUSSION

An unpaired t test carried out on the data in table two showed that, there was no association (p=0.71) between year of study and Level of Stress determined by the Perceived Stress Scale.

The majority (91%) of the female students do not have hair fall problems, according to the results of the hair pull test, however, according to the second survey 91% of respondents self-reported that they think their hair fall is excessive. Women struggle with hair loss since it is viewed as a serious threat to their femininity (Yeshua-Katz, Shvarts, and Segal-Engelchin 2019). This issue has been mostly put aside by health professionals since it is seen as more of an aesthetic problem than a health-related issue (Yeshua-Katz, Shvarts, and Segal-Engelchin 2019).

Of the 91% of students who self-reported excessive hair fall, 61% of students reported that they started to have hair fall problems after joining medical school. However, not all students who either self-reported excessive hair fall or demonstrated having excessive hair fall in the hair pull test perceive themselves to be highly stressed. Based on the results of the Perceived Stress Scale, 80% of students reported themselves to either be moderately or highly stressed. A study that was carried out on medical students in Pakistan showed that there was no association (p=0.221) between stress levels and hair fall (Wali et al. 2013). A chi squared test could not be carried out due to the zero value in one cell of the table comparing PSS results to HPT. A larger sample size would be required to make accurate conclusions. However, based on the values collected from the perceived stress scale and the hair pull test, only one respondent who reported being highly stressed experienced excessive hair fall.

CONCLUSION

Hair fall is not common among the medical students of AAIMS Medical College, Black River, Jamaica. A chi squared test could not be carried out due to the zero value in one cell of the table comparing PSS results to HPT. A larger sample size would be required to make accurate conclusions. However, based on the values collected from the perceived stress scale and the hair pull test, only one respondent who reported being highly stressed experienced excessive hair fall. While the HPT shows that 91% of the female students do not have hair fall problems, according to the second survey 91% of respondents self-reported that they think their hair fall is excessive. There was no significant association (P=0.71) between level of stress and year of study.

In conclusion, the results of the study provide some insight into the trend of hypertension among young to the older generation of Black River, Jamaica. It was observed that the population of Black River is prone to an increase in hypertension as there is an increase in age. That may be due to hereditary reasons or their lifestyle. It is concluded that factors affecting hypertension like blood pressure, BMI and blood sugar are predominantly on an increasing scale with aging. Although there are some peak values in both the groups below the age of 45 and above in each factor, the overall trend increases with age.

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RAPE, SEXUAL ASSAULT & TEENAGERS
THE PHYSICAL, EMOTIONAL, AND PSYCHOLOGICAL EFFECTS

AUTHOR >

Jofia D. Ford

ABSTRACT

This paper examines the effect of sexual assault/rape on teenagers mental, physical, and emotional well-being. Between 2011 and 2020, a total of 6,573 rapes were reported, according to data from the Statistical Institute of Jamaica (STATIN) and the Jamaica Constabulary Force (JCF). Most of these victims experience mental illnesses such as Post Traumatic Stress Disorder (PTSD) or Obsessive Compulsive Disorder (OCD) as well as having thoughts of suicide and self-harm. Incorporating evidence from articles and websites this study demonstrates teenagers who were victims of rape and sexual assault were affected psychologically, physically, and emotionally. The impact on their education will also be examined.

Reformed rape laws should be enforced; notwithstanding rape law improvements, many criminal justice decision-makers continue to practice under pre-reform standards; attorneys who violate such standards as rape shield laws must be held accountable.

KEYWORDS: Menstrual hygiene, Sanitary pad, Jamaica.

INTRODUCTION

DETAIL >

Rape may be defined as illegal sexual activity and, more commonly, sexual intercourse performed forcibly or under threat of injury against a person's will, or with a person under a certain age or incapable of valid consent due to mental illness, mental deficiency, intoxication, unconsciousness, or deception (Merriam-Webster 2022). According to the National Institute for Health and Care Research (2022), the danger of sexual assault is highest among adolescents, compared to all other age groups. Many teenagers over the world experience this and the effect it has on their life are devastating.

Young people may be more vulnerable to sexual assault if they experience social hardship and learning difficulties (National Institute for Health and Care Research 2022).

The most common mental effects are Post-Traumatic Stress Disorder (PTSD), depression, anxiety, flashbacks and suicidal thoughts (Kilpatrick 2000 and Joyful Heart Foundation 2022). Moreover, common emotional effects are trust issues, anger, self-hate, self-blame, and lastly, some common physical effects are pregnancy, self-harm, sexually transmitted infections or diseases, bleeding, or bruising. There is strong evidence that rape victims consume drugs and alcohol at higher rates than non-victims and were more likely to experience issues connected to these substances (Kilpatrick 2000 and Joyful Heart Foundation 2022).

Dissociation, whereby the victim's mind disconnects itself from the body is the process of disconnecting from physical reality and is a trick to reduce trauma (Golshahani et al. 2021). It manifests as difficulty concentrating on tasks at work or school and a lack of awareness of the current moment in normal settings (Golshani et al. 2021). A survivor could grow pessimistic and believe they are "damaged" or unworthy of a better life. Additionally, women may experience issues with their fertility and menstrual cycle. Survivors could go through sexual dysfunction, chronic fatigue, involuntary shaking, and shortness of breath (Joyful Heart Foundation 2022).

The long-term effects of the assault on academic performance are little understood. Teenagers who report sexual assault are more likely to have a poor year of attendance in school. This is a result of sleep issues and mental health issues.

Photo by Canva

According to the study which was carried out in the three National Health Service (NHS) sexual assault referral clinics serving Greater London (the Havens), schools need support for implementing instructions as well as more assistance in supporting students who have reported a sexual assault (Kings College Hospital 2015).

Research shows that 1 in 6 people aged 11 to 17 reported having been sexually abused. When the brain is still developing, the teenage years are when trauma may manifest in numerous ways (National Institute for Health and Care Research 2022).

METHOD

To gather information to carry out this project, a search was carried out in the eight (8) databases of The Guardian, Joyful Heart Foundation, National Violence Against the Women Prevention Research Center Medical University of South Carolina, National Institute for Health and Care Research, Rape, Abuse & Incest National Network (RAINN), Healthy Place, The National Child Traumatic Stress Network and Washington Coalition of Sexual Assault Programs (WCSAP). The study included English papers that are related to the impact of sexual assault or rape on the physical, mental and emotional health of teenagers. The search was carried out from October 20 to November 15, 2022. The analysis included a total of 8 English papers. Statistics for Jamaica were obtained from reports by The Star and The Gleaner newspapers published in 2021.

RESULTS

Between 2011 and 2020, a total of 6,573 rapes were reported, according to data from the Statistical Institute of Jamaica (STATIN) and the Jamaica Constabulary Force (JCF) (Lyons 2021). The year 2012 saw the highest rape reports during the period, at 948 cases. In 2011, there were 845 documented cases. The year 2013, there were 814 documented instances that year. According to the JCF's Statistics and Information Management Unit, as of November 30th, 370 rape cases had been registered. Furthermore, rape has decreased by 25% when compared to the same period last year (Lyons 2021).

Additionally, it was found that during the COVID-19 pandemic in 2021, at an increasing rate, young people are being sexually molested which was research conducted by Northern Caribbean University (NCU) (McLean 2021). The study, titled: "An Inquiry into Sexual Assault Among Young Jamaicans", discovered that roughly four out of every ten Jamaicans have been sexually assaulted while following official stay-at-home orders issued by the government under the Disaster Risk Management Act (DRMA). The NCU survey found that the majority of sexual assaults are committed by people the victim knows. These include a friend/family friend (38.5%), a family member (excluding father/stepfather -25.6%), and a father/stepfather (4.5%). 'A stranger' accounts for 14.7% of perpetrators, followed by taxi drivers (4.5%). According to the NCU study, 46 percent of sexually abused people were intimidated after the sexual contact, 31.6 percent were physically assaulted, and 52 percent told someone about the sexual encounter. According to the survey, the vast majority of sexually molested people (95%) did not report the incident to the authorities. (McLean 2021).

Psychological Effects

At the end of a study carried out by The National Institute for Health and Care Research (2022), almost half of the teenagers who were sexually assaulted in the past year had PTSD symptoms. After one year, 72% of teenagers had PTSD symptoms (down from 90% at the beginning) and 54% had depressive symptoms. Kilpatrick (2000) from the National Violence Against Women Prevention Research Center at the Medical University of South Carolina and Rape and the Abuse and Incest National Network (2022) found that Rape victims were 6.2 times more likely than women who had never been victims of crime to develop PTSD. He further stated that rape victims are three times more likely to have experienced a major depressive episode (30% vs 10%) than non-victims of crime. The findings of The Joyful Heart Foundation (2022) similarly, determined that some common mental effects on rape victims are PTSD, which includes nightmares, flashbacks, extreme anxiety, and uncontrollable thoughts. Depression includes symptoms like persistent melancholy, a sense of hopelessness, inexplicable sobbing, weight gain or loss, lack of energy, or interest in once-enjoyed activities as well as attempted or contemplated suicide. Campbell (2018) reported that four out of every five adolescent girls who have been sexually assaulted suffer from crippling mental health problems months after the assault. Four to five months after being sexually assaulted, victims are found to have anxiety, depression, post-traumatic stress disorder, and other serious conditions. Several of the girls (4%) became pregnant after being assaulted and 12% had a sexually transmitted infection.

Physical Effects

Kilpatrick (2018) highlighted that self-harm was more common among teens who had been victims of physical or sexual assault than those who had self-harmed (the intentional damage of one's own body, such as slashing or burning oneself. It is not usually intended as a suicide attempt. Self-harm is a dangerous approach to cope with emotional pain, despair, anger, and stress) in the year before or after the assault. Common physical effects of sexual rape and assault are bruising, bleeding (vaginal or anal), difficulty walking, soreness, broken or dislocated bones, pregnancy, sexually transmitted infections, and diseases (Joyful Heart Foundation 2022). Rape-related pregnancy (RRP) refers to a pregnancy that a rape survivor blames on the rape. Reproductive coercion is a type of intimate partner violence (IPV) in which power and control over reproduction are exercised through interference with contraceptive use and pregnancy pressure. Sexually transmitted infections/diseases are caused by Neisseria gonorrhoeae (gonorrhea), cytomegalovirus (sexual contact, including anal receptive contact, is a danger for this transmission, but salivary interaction, i.e., kissing, may also allow cross infection. Sexual transmission may result in reinfection with another strain(s) of CMV), Chlamydia trachomatis (Chlamydia), Trichomonas vaginalis (trichomoniasis), herpes simplex virus (Herpes), Treponema pallidum (Syphilis), and the human immunodeficiency virus type 1 (HIV-1; and bacterial vaginosis).

Emotional Effects

The Joyful Heart Foundation (2022), stated that common emotional effects are trust issues, anger, and blame, shock, dissociation, self-blame/guilt for "allowing" the crime, feeling that these reactions are a sign of weakness. After being sexually assaulted or raped, a survivor may face new challenges. A survivor may develop a negative attitude and believe they are "damaged" or unworthy of a better life. Survivors who believe they are awful, incorrect, dirty, or have a permanent fault. Survivors who believe the abuse was their fault. It is extremely difficult for survivors to cast blame on the perpetrator. Often, the offender is someone close to them whom they wish to protect.

In contrast, it is possible that by blaming the offender, they feel helpless. Sexual assault is a violation of trust. Most survivors struggle to trust others as well as themselves and their perceptions. On the other hand, they may invest an excessive amount of faith in everyone. During the sexual assault that occurred, a survivor may have dissociated. During the abuse, they may recall "flying up out of their body" or "seeing over their shoulder." Even if the victim is not being raped or abused, an event or recollection might bring up feelings that cause dissociation (Washington Coalition of Sexual Assault Programs (WCSAP), n.d.).

Academic Performance

At the end of a study carried out by The National Institute for Health and Care Research (2022), it was found that education of the victims was disrupted: long absences from school (over 30 days) more than doubled (from 22% to 47%) during the study period. Many abused children are unhappy, worried, afraid, and depressed. This dissatisfaction may lead to inappropriate behavior at school. Sexual abuse can result in emotional and cognitive deficits that affect a child's ability to concentrate in school, lowering his or her academic achievement (McWherter 2005). Adolescents who have been abused may have difficulty sleeping, resulting in an inability to concentrate in school. They may also feel as though they don't care about things as much as they used to and, as a result, ignore their schoolwork (Pledge, 2004).

DISCUSSION

Rape's consequences can include both immediate physical trauma and long-term psychological trauma. Teenagers who were victims of rape/sexual assault mentally and emotionally suffer from depression, PTSD, flashbacks, guilt, self-blame, and disorientation. The Rape, Abuse and Incest National Network (2022) stated that one of the most common signs of a person who is sexually assaulted or raped is depression. Some may have flashbacks that make the individual feel as though they're reliving the event.

The website also stated PTSD is one of the main signs where they change their behavior intentionally or unintentionally to avoid scenarios associated with the event or lose interest in activities they used to enjoy as well as getting hyper-aroused their feeling constantly "on edge," having trouble sleeping, being easily startled, or prone to sudden outbursts. Likewise, Gluck (2021) also stated rape has both short and long-term psychological effects on victims. Self-blame is one of the most common psychological consequences of rape. Victims use self-blame as an avoidance strategy. Self-blame slows or stops the healing process in many cases. Rape also has several common emotional and psychological consequences such as PTSD, depression, flashbacks, personality disorders, anger, trust issues, and feeling of personal powerlessness as well as guilt.

Teenage rape/sexual assault victims are affected physically for instance if they are forced then bruises would be seen all over their bodies. The individual could possibly become pregnant from being raped if that predator did not want to use protection. Additionally, the individual could contract sexually transmitted diseases (STD's) or urinary tract infections (UTI's). They could even have difficulty walking if the predator was too rough. Similarly, Gluck (2021) stated that rape can have physical consequences from both forced sexual assault and those that do not involve the forcible submission, such as drug-assisted date rape. Forced sexual assault frequently results in visible bruising or bleeding in and around the vaginal or anal area, as well as bruises on other parts of the body. However, both forced and other types of rape can have a wide range of physical consequences such as painful intercourse, UTI, uterine fibroids, pregnancy, and STD. Moreover, according to The National Child Traumatic Stress Network (2018), young children may engage in traumatic play in which they re-enact some aspect of their experience. A child, for example, may repeatedly act out running away from a "bad man." However, the play may or may not be about sexual abuse. Other signs of stress may include an increase in oppositional or withdrawn behavior, tantrums, or nightmares. The child may engage in sexual behavior that is inappropriate for his or her age, such as attempting to engage another child in oral-genital contact or simulated intercourse. The child may refer to her body as "hurt" or "dirty." As children enter adolescence and gain more independence, the problems they may encounter become more serious. Teenagers may be more prone to substance abuse or high-risk behaviors, such as indiscriminate sexual behavior.

A teen who avoids traumatic reminiscences may withdraw socially. This is a major concern for adult survivors. Many people believe that they are unworthy of help, that they are tainted, and that others will not want to be their friends or partners. A survivor's culture and (lack of) community connections might exacerbate feelings of isolation at times. Because of their disclosure, survivors may have been stigmatized or ignored by their families and/or communities. The survivors' perception of safety has been affected; they may regard risky situations as safe and safe situations as threatening. It is critical to examine what feels safe with a survivor by asking specific safety questions. Adolescents are also more likely to engage in self-harm and suicidal behavior.

The sexual assault resulted in poor academic performance, an increase in mental health issues, and social exclusion. Attendance, concentration, and performance were all affected by mental health issues. Sleep issues make it difficult to get out of bed, and panic attacks and agoraphobia (a fear of being in situations where escape may be difficult or where help may be unavailable if something goes wrong) rendered some immobile and housebound. Attendance was disrupted by absences for court hearings and other appointments, and where the assailant was a fellow student, the young person was hesitant to attend school with them or their peers (for fear of repercussions). Lethargy, lack of motivation, and inability to concentrate compounded by feelings of worthlessness and low self-esteem, hampered educational progress and attainment once in school or college.

CONCLUSION

The current research aimed to identify the effect of rape/sexual assault on teenagers physically, emotionally, and psychologically as well as their education. This research would contribute greatly to society in ways such as making others aware of what people or individuals who were victims of rape or sexual assault go through as well as I hope that even if the individual who will be reading this would tell others about what happened so that it could help them avoid effects such as depression. Regarding rape, one suggestion is to review state rape laws to ensure that marital rape is included

. The second rape recommendation is to enforce reformed rape laws; despite rape law changes, many criminal justice decision-makers continue to practice under pre-reform standards; attorneys who violate such standards as rape shield laws must be held accountable. Some limitations were that there weren't enough sources that have information differently, and the majority of the sources were in agreement that rape/sexually assaulted victims have several common emotional and psychological consequences such as PTSD, depression, flashbacks, personality disorders, anger, trust issues, and feeling of personal powerlessness as well as guilt. Self-blame is one of the most common psychological consequences of rape. Some physical consequences were self-harm, suicide attempt, pregnancy, and sexually transmitted diseases/infections.

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ALCOHOL & STRESS

The Prevalence of Alcohol use as a Stress Coping Method Among College Students

AUTHOR >

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ABSTRACT

Alcohol consumption results in changes in brain function which has the ability to lead to disordered cognitive functioning disrupted emotions and behavioral changes (Ma and Zhu 2014). A national survey carried out in the United States showed that almost 55% of college students aged 18-22 drank alcohol within the last month while 37% engaged in a binge (4 or more drinks in a single occasion). Data collected through a questionnaire was used to examine the use of drinking as a coping method among college students. Questionnaires were sent out to college students and a total of 26 responses were collected. Based on the results from the questionnaire conducted in this research it can be concluded that 19% of students have a hard time coping with college workload while 31% are not sure if they are managing as well as they are expected to (Figure 1). Even though 54% of the college feel like they have ample time to practice other coping activities, and 35% sometimes have time to practice other coping methods 26.9% of students choose alcohol consumption as a stress coping method.

Key words: Alcohol, stress, students,

INTRODUCTION

The discovery of fermented grain, fruit, and honey to produce alcohol/ ethanol can be dated as far back as the Egyptian civilization and around 7000 BCE in China, where alcohol residue has been found in clay pots (Drug-Free World 2022). Alcohol has multiple uses such as in industrial methylated spirits, fuel, and as an industrial solvent. The major use of alcohol is consumed as alcoholic beverages (O'Neil 2013).

Alcohol is a psychoactive substance (World Health Organization (WHO) 2022 and Newman 2022). This means that alcohol can directly impact the brain by causing changes in an individual's mood, awareness, thoughts, and behavior.

DETAILS

Ethanol is a liposoluble neurotropic (toxin that affects the nervous system) substance that penetrates the blood-brain barrier and inhibits central nervous system function (Ma and Zhu 2014). High concentrations of alcohol are toxic to the brain. The etiology and pathology of alcohol dependence are the outcome of a complex interplay of biological, psychological, and socio-environmental factors (Ma and Zhu 2014).

Alcohol consumption results in changes in brain function which has the ability to lead to disordered cognitive functioning, disrupted emotions, and behavioral changes (Ma and Zhu 2014). Neurological changes produced by the intake of alcohol are important contributing factors to the development of alcohol use disorders such as acute intoxication, long-term misuse, and intoxication (Ma and Zhu 2014, Newman 2022 and WHO 2022). According to a 2004 survey sponsored by the WHO, approximately 50% of the world's adult population drank alcohol and 76 million individuals met the criteria for one or more of the 60 different alcohol-related mental or behavioral disorders listed in the 10th Revision of the International Statistical Classification of Diseases and Related Health Problems (Ma and Zhu 2014).

The compulsive consumption of alcohol is called alcohol addiction (WHO 2022 and Newman 2022). People who suffer from alcohol addiction are referred to as alcoholics (Newman 2022). Factors that cause people to become alcoholics are genetics and family history, underage drinking, mental health conditions, social factors, and trauma history.

Although these factors may act as the initial driving force for alcoholism, dopamine is the real reason people become addicted to alcohol (Ma and Zhu 2014). According to a 2020 study in the Journal of Neuroscience, dopamine, a reward system hormone, and serotonin, a hormone that plays a substantial role in sleep and mood are released due to the stimulation of alcohol.

Coping is defined as the behavioral response to external or internal stressful situations (Mally 2022). Coping can also be described as a defense mechanism to stress. Adaptive coping skills are the methods practiced by individuals to reduce stress. Alcoholism is categorized as having low-level adaptive coping skills. Even though the awareness of the health risks that alcohol poses is at an all-time high, thanks to the accessibility of vast amounts of information from the internet, people still consume alcohol on a regular basis. In American Culture, particularly, alcohol consumption is celebrated as a means of relaxing and relieving stress at the end of the day, relieving sorrow when life is difficult, and celebrating in social settings. Excessive alcohol consumption has temporary ‘positive’ effects with long-term negative consequences on health, relationships, and decision-making while intoxicated (Mally 2022).

LITERATURE REVIEW

College students are the largest demographic group involved in alcohol consumption (Aldrige-Gerry et al. 2011). Alcohol consumption in the college years is seen as a rite of passage that students view as a part of their higher education experience (National Institute on Alcohol Abuse and Alcoholism (NIAAA) 2022). While some students already have an established drinking problem before starting college, others are encouraged to drink due to the college environment. A national survey carried out in the United States showed that almost 55% of college students aged 18-22 drank alcohol within the last month while 37% engaged in a binge (4 or more drinks on a single occasion for males and 4 or more drinks on one occasion for females) drinking during that time period. For some high-intensity drinkers, alcohol is consumed at a rate of twice the minimum defined for binge drinking. The NIAAA (2022) defines binge drinking as a pattern of consuming alcohol such that the blood alcohol concentration reaches 0.08% or 0.08 grams of alcohol per deciliter or a higher concentration.

Drinking includes consequences such as poor academic performance, higher risky sexual behavior, and negative effects on psychological health (Aldrige-Gerry et al. 2011). Statistics from the NIAAA (2022) estimate that approximately 1,519 college students aged 18-24 years die in motor vehicle accidents. About 69,600 are assaulted by drunk students. Sexual assault stemming from alcohol use is under-reported, however, it is estimated that about 1 in 5 college women experience sexual assault during their time at college. It is not clear what proportion is directly related to alcohol use.

A 2018 survey revealed that about 11% of college students met the criteria for Alcohol Use Disorder in the past year (NIAAA 2022).

College students are likely to indulge in drinking due to unstructured time, high alcohol availability, inconsistent encouragement of underage drinking laws, and limited interaction with parents and other authoritative figures (NIAAA 2022). Drinking leads to short-term positive feelings (Merrill and Thomas 2012). This is because alcohol produces a dosage-dependent dopamine response (Ma and Zhu 2014). A study by Yim and colleagues highlighted that extracellular dopamine levels did not respond to ethanol in a linear fashion with high doses. The dopamine level returned to baseline within 90 minutes while the ethanol level was still elevated. This suggests acute tolerance to ethanol-induced dopamine release and that ethanol-induced dopamine release is dependent on the concentration of ethanol (Ma and Zhu 2014).

The Stress Vulnerability Model reveals drinking to cope is mainly done to escape from a negative emotional state (Aldrige-Gerry et al. 2011). Specific behavioral responses to stress or problems exhibited by people are called coping skills. Several methods of coping mechanisms have been exhibited and studied. These coping skills can be categorized into adaptive coping skills and maladaptive coping skills. Drinking alcohol is generally caused by low levels of adaptive coping. and high coping motives. In short individuals with not many adapting coping ways tend to resort to drinking as their coping way to high coping motives.

The medication that may cause this is a sulfur powder which coagulates the blood to prevent bleeding, dry out wounds to prevent infection, and speed the healing process. Maggots are very sensitive to moisture and will attempt to migrate to suitable environments hence the appearance of maggots outside of the wound. It should be noted that maggots can survive a wide range of pH ranging from 3.2 to 8.0. This would rule out the diluted boric acid powder as a potential killer for the maggots in the wound but it can be used as an antiseptic.

Interactive impacts of adaptive coping and coping reasons must be applicable to the context of stressors (Maddux 1995). One key detail of social gaining knowledge of theories is differential reinforcement, an idea that shows that conduct can be reinforced in a few conditions and no longer others. Individuals who propose excessive coping reasons for consuming alcohol can also additionally enjoy alcohol as a greater effective reinforcer following stress than people with different reasons for consuming alcohol. Coping-influenced drinking is conducted probably fortified by continuous alcohol consumption when the individual experiences negative feelings, with the hope of removing these feelings through alcohol intoxication (Maddux 1995).

Alcohol slows down the central nervous system, creating the feeling of relaxation while reducing inhibition, judgment, and memory (Mally 2022). Continued avoidance of life stresses and lack of a coping mechanism could facilitate alcohol abuse problems in the future. Effective positive coping skills include: Seeking support from social groups, physical activity, mindful practices such as yoga, distractions such as watching TV, therapy, breathing exercises, practicing social skills and making jewelry (Mally 2022).

There are also many other, better adaptive coping skills such as: problem-focused coping, religious coping, meaning making.

METHOD

Data collected through questionnaire was used to examine the use of drinking as a coping method among college students. Questionnaires were sent out to college students Mid November 2022 through Google Forms, Gmail, WhatsApp and Instagram where college students are known to be most active. A total of 26 responses were collected. The data was summarized through charts and graphs using Microsoft Excel 2016.

RESULTS

Data collected through a questionnaire was used to examine the use of drinking as a coping method among college students. Questionnaires were sent out to college students Mid November 2022 through Google Forms, Gmail, WhatsApp and Instagram where college students are known to be most active. A total of 26 responses were collected. The data was summarized through charts and graphs using Microsoft Excel 2016.

Figure 1. College student's self-assessment on their ability to manage their current courseload.

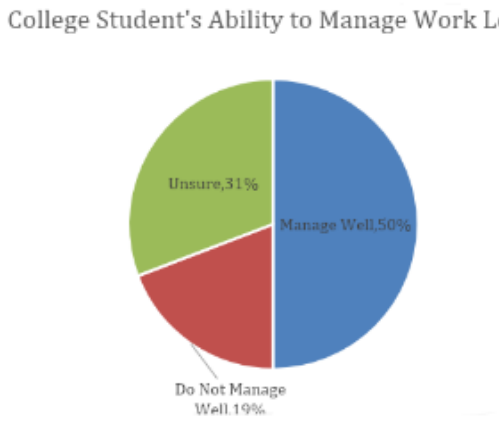


Figure 2. Pie chart showing college student's awareness of negative effects of alcohol consumption

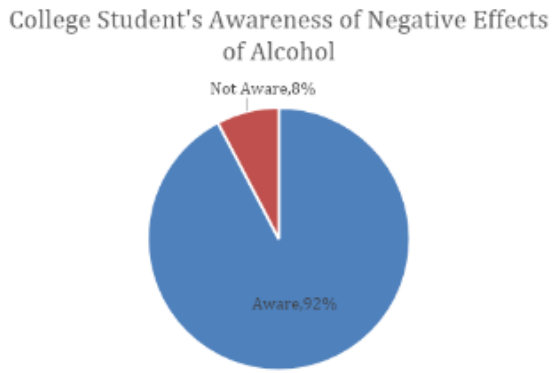


Figure 3. The percentage of college students who use alcohol to cope with stress.

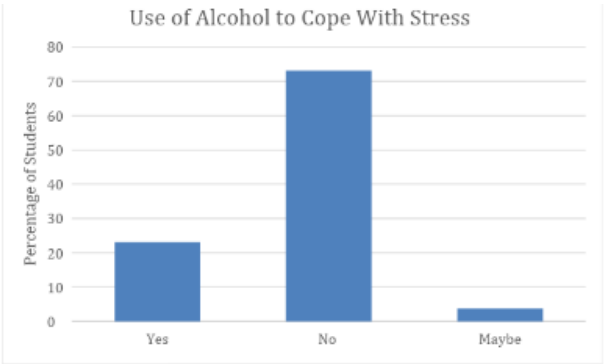


Figure 4. Bar graph of college student's self-perception towards the amount of alcohol they consume.

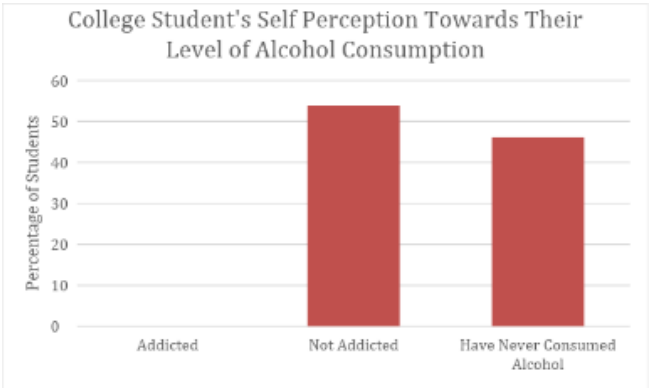


Figure 5. Student's availability to practise stress coping methods other than alcohol consumption.

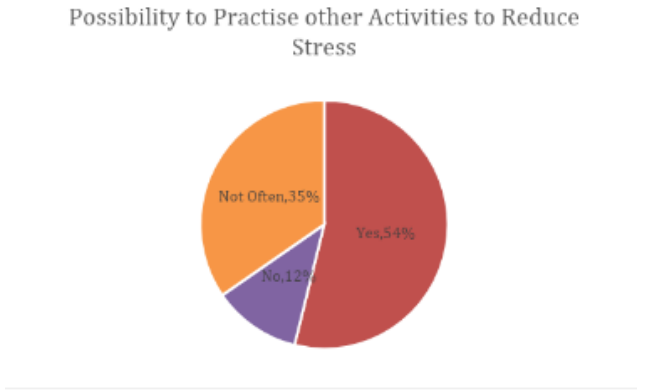


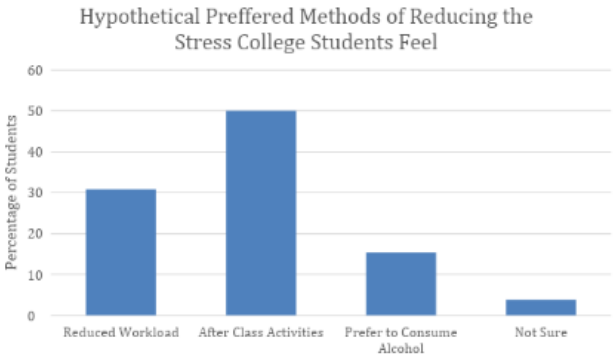
Table 1. The stress coping method practiced by students who report that they do not consume alcohol

Stress Coping Method	Percentage of Students/%
Exercising	42.3
Meditating	15.4
No Specific Method	23.1
Yoga	0
Watching Movies	3.84
Smoking	3.84
Gaming	3.84
Playing Sports	3.84
Listening to music	3.84

Table 2. Reasons were given by college students who consume alcohol for choosing to consume alcohol even when other stress-coping options are available.

Reason For Choosing Alcohol	Percentage of Students/%
Lack of Motivation	50
Lack of Peers	25
Alcohol Addiction	8.3
Alcohol Induced Euphoria	8.3
For Fun	8.3

Figure 6. The hypothetical preferred methods of reducing the stress for the college students surveyed.



DISCUSSION

The objective of this research paper was to determine the prevalence of the consumption of alcohol as a coping mechanism despite the awareness of its adverse effects on human health among college students. There are many studies that support the use of alcohol among college students however the main reason for drinking among college students was cited as peer pressure, alcohol availability, and college culture. Most studies do not state that the leading reason for alcohol consumption among college students is coping.

Based on the results from the questionnaire conducted in this research it can be concluded that 19% of students have a hard time coping with college workload while 31% are not sure if they are managing as well as they are expected to (Figure 1). Even though 54% of the college feel like they have ample time to practice other coping activities, and 35% sometimes have time to practice other coping methods (Figure 5), 26.9% (Figure 3) of students choose alcohol consumption as a stress coping method. According to the data shown in Figure 4, none of the students who were questioned for the interview consider themselves to be addicted to alcohol, however, Table 2 shows the reasons given by college students who consume alcohol for choosing to consume alcohol even when other stress coping options are available, 8.3% of respondents gave alcohol addiction as the reason for consuming alcohol.

CONCLUSION

From this research, we can conclude that 19% of college students have a hard time coping with college workloads. Even though 54% of the college feel like they have ample time to practice other coping activities, and 35% sometimes have time to practice other coping methods 26.9% of students choose alcohol consumption as a stress coping method. 8.3% of respondents gave alcohol addiction as the reason for consuming alcohol. Nearly half the students wanted the college to conduct interesting after-class activities that will give the students better ways of coping other than the consumption of alcohol.

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EFFECTS OF SOCIAL MEDIA ON THE ACADEMIC PRODUCTIVITY OF COLLEGE STUDENTS

AUTHOR >

Abitha Pragatheeswarakumar

ABSTRACT

The purpose of this research paper is to determine the impact of social media on college student's academic productivity. By definition, social media includes any online platform used for the distribution of user-generated content. This includes but is not limited to, blogs, discussion forums, microblogs, social networking sites, and virtual worlds. College students' usage of social media may have both positive and negative effects. This study will pay particular attention to how social media affects students' mental health and academic progress. The study will also look into how college students utilize social media. Social media, for instance, may give college students a means to interact with other students and form social bonds. It was found that the majority of students make an effort to avoid social media if they believe their academic performance is being impacted (p=0.016).

KEY WORDS: Social Media, mental health, academic.

A total of 85 students (75%) responded either yes or maybe to avoiding social media while 29 students (25%) absolutely do not avoid social media, even if it impacts their academic performance. The drawbacks of social media include the disruption of academics, a rise in procrastination, and a decline in face-to-face social engagement.

Photo by Canva

DETAIL >

INTRODUCTION

For many people, especially young adults, social media has ingrained itself into everyday life in recent years (Bono 2019). The average person spends two hours daily on social media (Broad and Search 2022). In recent years, social media use has grown in popularity among college students (Bono 2019). Users may express themselves, exchange information and experiences, and stay in touch with friends and family through social media sites like Facebook, Twitter, and Instagram. Social media is particularly popular among college students, who use it for a range of activities including keeping in touch with friends and family, exchanging news and experiences, and looking for knowledge and guidance. Social media may connect children with materials that can benefit them

intellectually, which is an advantage of using social media. Students can use social media to remain up to date on events both on their campus and throughout the world. On the other hand, social media may distract students from schoolwork, and can also result in cyberbullying and other types of harassment (Bono 2019).

College students who use social media more often report more networking chances, improved learning opportunities, and increased communication and cooperation (Ibrahim 2018). Social media may be used to network and further one's profession, as well as to link students with classmates who have similar interests. Social media may facilitate communication and encourage self-expression. Social media may also be used to link students with college staff and faculty members as well as to promote campus events and activities (Stop Bullying 2022).

College students who use social media more often tend to be less focused, less productive, procrastinate more and engage in fewer interpersonal interactions (Bono 2019 and Wang, Chen and Liang 2011). Young adults are increasingly preoccupied with documenting themselves living 'their best lives' and incessantly comparing it to that of their peers (Bono 2019 and Ibrahim 2018). This results in feelings of jealousy or envy among peers (Ibrahim 2018). Social media perpetuates the idea that others are leading a better quality of life and are having better life experiences. This results in idealized versions of everyday life being put on display and the mental struggle of separating the idealized version of virtual life from real life. Therefore, while social media can assist college students in making new friends and keeping in touch with existing ones, it can also result in social isolation and worry (Ibrahim 2018).

Excessive use of social media is linked to decreased academic performance and grades (Ibrahim 2018). Social media can also be a time waster and manifest as a form of addiction. The results of many studies on how social media affects college students have come to quite varied conclusions. While some studies found no convincing connection between social media usage and academic success, others found that it is associated with worse academic performance (Ibrahim 2018). Some studies have shown that excessive use of social media is related to drug use, drinking and deciding not to study for exams or work on assignments, and deciding not to pay attention in the classroom due to preoccupation with social media (Ibrahim 2018 and Zwart 2021). Assignments may be left unfinished, or done in a substandard fashion. Academic performance is also reduced by lack of sleep from late-night online activity (Zwart 2021).

Using social media is linked to higher levels of anxiety and sadness. Social media can contribute to depression and other mental health issues due to the constant comparison of idealized lifestyles (Ibrahim 2018 and Zwart 2021). Constantly trying to get likes and approval from peers takes a toll on the emotional well-being of the individual (Zwart 2021). Real-life friendships are sometimes sacrificed to make way for online relationships (Zwart 2021). This research paper is aimed to give a broad summary of how social media affects the academic productivity of college students.

METHOD

A survey was conducted using a questionnaire asked such: How many hours do you spend on social media each day? Which social media platform do you use the most? Do you accept a friend request from an unknown person? When did you open your first social media account? Do you check social media after just after waking up? Do you think social media affect your sleep-wake cycle? When you receive a notification while studying, will you check the next second or maybe later? Do you think that social media has taught you anything new? Do you have any addictions to social platforms? (Game, Anime, Series, Movies, reels, TikTok, Porn, others) Did social media have an impact on your life or someone you know? Do you use any social media platforms for your study purpose? Do you think social media affect your studies? Did you take any efforts to avoid it? if it interferes with your academic performance? Do you consider social media to be helpful? To understand their mental health and their opinion about social media. The questionnaires were sent out in early November 2022. A total of 114 responses were collected. Carts and graphs were constructed using Microsoft Excel 2016. Chi-Squared Statistical Analysis was carried out using the website https://www.socscistatistics.com/tests/chisquare2/default2.aspx.

RESULTS

114 college students who have not yet earned their degrees were surveyed. Questions were asked to better understand their views on social media.

Figure 1: Pie chart showing the number of hours per day on social media.

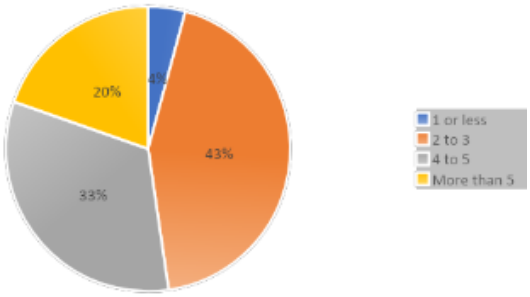
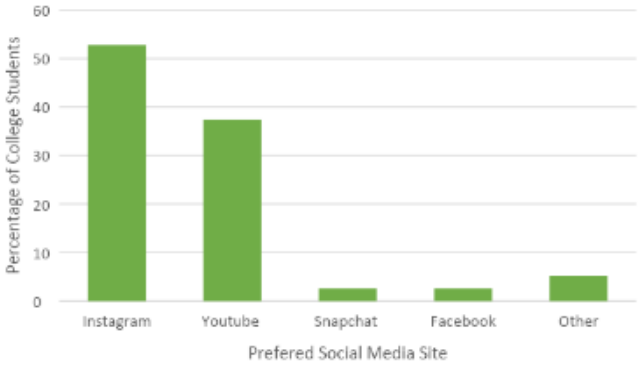


Figure 2. Bar chart showing the social media site preference of the respondents surveyed.



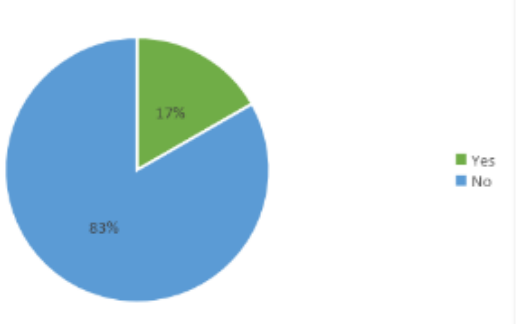


Fig 3. Pie chart showing the proportions of college students who accept friend requests from strangers.

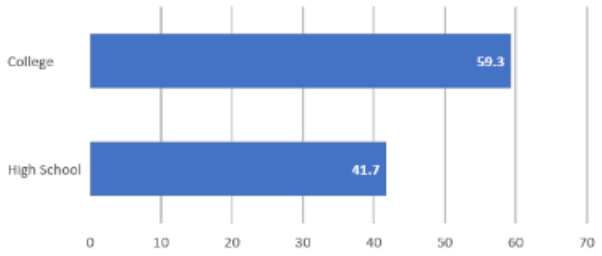


Fig 4. Bar Graph showing the time at which the participants opened their first social media account.

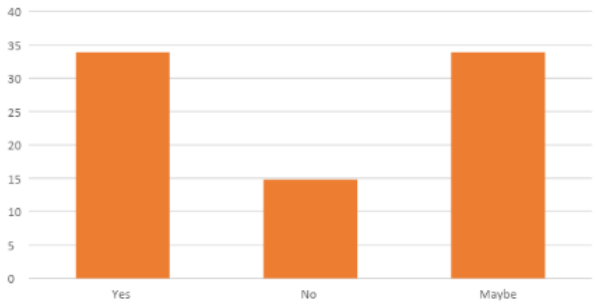


Figure 5. Bar graph showing the proportions of college students who check their phones immediately after waking up in the morning.

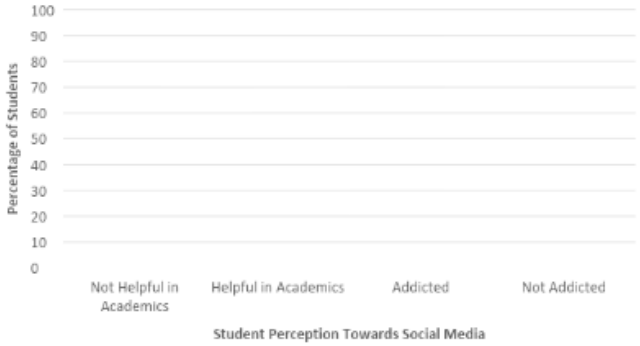


Fig 6. Bar graph showing students personal perception toward social media in academics and social media addiction.

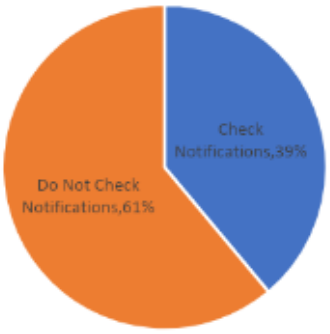


Figure 7. Pie chart showing the proportions of students who check notifications from social media while studying.

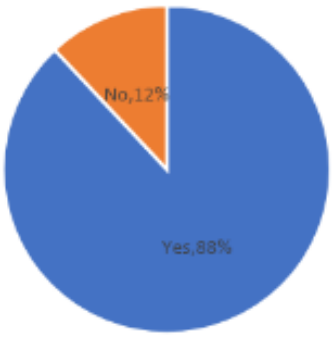


Figure 8. The proportions of students who believe social media has positively impacted their academic performance.

Table 1. Table showing the number of students who make an effort to avoid social media if they believe it is affecting their academic performance.

Does Social Media Affect Your Studies?	Do you take any efforts to avoid social media if it interferes with your academic performance?	
	Yes	No
Yes	31	11
No	13	11
Maybe	41	7

Chi Squared Tests (χ^2)

The proportions of students who try to avoid social media if they think it interferes with their studies are not the same (p=0.016) as those who do not avoid it if it interferes with their studies. Table 1 shows that the majority of students make an effort to avoid social media if they believe their academic performance is being impacted. 75% of students responded either yes or maybe to avoiding social media while 25% of students absolutely do not avoid social media if it impacts their academic performance.

A Chi-Squared test was carried out to determine whether there is an association between the number of hours spent on social media and the type of social media platform preferred. There was no association (p=0.34) between the number of hours spent online and college student's social media website preference.

DISCUSSION

Some of the most frequent users of social media are college students. According to the results of this study, 95% of the college students surveyed utilize social media. As shown in Figure 2, the most popular sites are Instagram (52.8 %), YouTube (37 %), Snapchat (2.9%), and Facebook (1.9 %). For people who live far away from their friends and family, it may be a terrific way to remain in touch. It may also be a beneficial tool for networking and developing business connections. The news, current events, and other things that interest you may all be kept up to date through social media.

Social networking has certain drawbacks as well. The amount of time that individuals spend on social media is one of the main worries. As shown in Figure 1, the majority of students, 43% spend 2-3 hours on social media, followed by 33 % who spent 4-5 hours, and 20% spent more than 5 hours. The amount of time reported by the students is higher than the two-hour average recorded by Broad and Search (2022). A study carried out at the University of California (UCLA) showed that college students spend more than six hours per week on social media (Li Creative Technologies 2022). In this study, only 5% of students spend one hour or less on social media (About 7 hours or less in total per week) on social media.

We can readily see that social media may easily impact school children based on the fact that 59.3 % of respondents opened their social media accounts during their high school days (Figure 4). However, only 17 % of respondents accept friend requests from people they have never met in real life (Figure 3). Social media has an impact on the sleep-wake cycle of around 65.7% of the college students surveyed. This is in agreement with the publication by Zwart (2021) who reports that the academic performance of students is reduced due to shorter sleep times because of time spent online late at night scrolling social media when the student should be sleeping. As shown in Figure 5, only 15% of students do not check their phones first thing after waking up in the morning. Of those surveyed, 39% of students will check their phones for notifications and messages while studying (figure 7). This could be to prevent the fear of missing out on updates on social media sites that occurred while sleeping or to check on new comments and posts made on the pictures or videos posted by the user.

Of the students surveyed, 88 % said they use social media for academic purposes (figure 8). This could be in the form of educational videos or written articles or getting advice from friends or relatives on a subject matter through social media. Only 37% of students claimed that social media had an impact on their academic performance. Chi-Squared Tests were conducted to determine whether or not students avoid social media when the use of social media seems to impact their academic performance. The proportions of students who try to avoid social media if they think it interferes with their studies are not the same ($p=0.016$) as those who do not avoid it if it interferes with their studies. Based on the values in Table 1, above, the majority of students make an effort to avoid social media if they believe their academic performance is being impacted.

A total of 85 students (75%) responded either yes or maybe to avoiding social media while 29 students (25%) absolutely do not avoid social media, even if it impacts their academic performance. An additional Chi-Squared test was carried out to determine whether there is an association between the number of hours spent on social media and the type of social media platform preferred i.e. YouTube, Facebook, Instagram, Snapchat, or other social platforms. There was no association ($p=0.34$) between the number of hours spent online and college students' social media website preferences. The majority of students, 92.6% believe that social media is a useful part of their daily lives. Students can use social media to establish and maintain connections with their peers, instructors, and professionals in their industry.

DISCUSSION

Social media has an impact on college students in both positive and bad ways, according to this study paper's findings. Positive aspects include improved chances for academic and professional growth, access to a larger variety of information and viewpoints, and more communication and connectedness. Social media may also be utilized as a learning tool, giving students a platform to exchange materials and ideas and get feedback on their assignments. The drawbacks of social media include the disruption of academics, a rise in procrastination, and a decline in face-to-face social engagement. Social media may also foster thoughts of competitiveness and comparison, which can result in feelings of inferiority and jealousy.

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"SUSTAINABLE COMMUNITIES CLIMATE CHANGE RECYCLING PROJECT"

Community Member's Participation in the Climate Change Adaptation Fund's in Treasure Beach

ABSTRACT

The aim of this project was to determine whether or not community members were participating in the Climate Change Adaptation Fund Sustainable Communities Climate Change Recycling Project in the community of Treasure Beach, St. Elizabeth, Jamaica. The objectives were to identify the number of individuals who believe that recycling is important to their community and the percentage of community members who actively practice recycling by carrying out a survey in Treasure Beach. Observations were made of the amount of waste materials being disposed of in public areas. A total of 25 residents responded to the fifteen-question questionnaire which were sent at random using the simple random selection. The results identified that while 100% of respondents agree that recycling should be mandatory in communities yet only 43% actually practiced recycling consistently while 14% report that they sometimes practice recycling. The majority of the littering was perpetuated by the youths of the community. The government can improve recycling participation in this agreement through programs that sensitize more community members on the topic of recycling in schools and community businesses, as well as making the practice mandatory, providing more garbage trucks, and supplying more equipment in public areas such as implementing bins for different types of waste.

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KEY WORDS: Sustainable, community, climate change, Treasure beach

DETAIL >

INTRODUCTION

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit the community and the environment. Many can start practicing recycling by organic composting, segregating wet and dry waste, reusing home-delivered newspapers, as well as replacing single-use plastic items.

The economy of the rural coastal community of Treasure Beach depends on fishing, farming, and community-based tourism (The Gleaner 2018). Treasure Beach offers visitors the opportunity to visit with the understanding that they will respect the town by traveling responsibly and by contributing to the improvement in the quality of life of the local community (Road Affairs 2022). Treasure Beach in St. Elizabeth is a gem on Jamaica's south coast. Its idyllic scenery, its long six-mile stretch of golden sand, and, most importantly, its authentic Jamaican vibe, takes this beach into the top five best-kept secrets on the island (Road Affairs 2022). Beyond being a tourist hotspot, the beaches are coastal destinations and also serve as important wildlife habitats. Beaches provide homes for sand-dwelling critters like crabs and clams. Their sandy shores also act as nesting grounds where sea turtles and shorebirds come to lay their eggs, which makes Treasure Beach the ideal place to carry out this research (Things To Do in Jamaica 2022). The investigation was carried out to determine how recycling can be beneficial to the community of Treasure Beach through economic returns from recycling plastic bottles. In order to successfully complete this investigation, the following tasks were carried out:

The study was designed and conducted from August 12th to August 26th in 2020.

The research design was that of a Cross-sectional study of pre-selected students who play online games on a regular basis.

40 questionnaires were used to obtain data for this research. Questionnaires were issued to both males (20), females (20) of AAIMS.

Sampling unit: Students between the age group 17-21 years.

- A community survey in Treasure Beach.
- Observational checks on the amount of waste materials being disposed of in public areas.
- Statistical analysis on the information gathered from a questionnaire.

Literature Review

According to Asmatulu and Asmatulu (2011), the use of recyclable materials continues to increase worldwide due to economic, environmental, and technological developments. Without reusing recyclable materials, the materials will be degraded or corroded, and then completely destroyed by nature, thus representing a waste of resources and much environmental damage (Asmatulu and Asmatulu 2011).

It is estimated that Global primary plastic production is 270 million tons annually, while global plastic waste was 275 million tons (Ritchie and Roser 2018).

This is because waste produced in previous years is incorporated into waste generated in a single year. Total coastal plastic waste is estimated to be 99.5 million tons per year. This leads to 31.9 million tons of inappropriately disposed of plastic waste, 8 million tons of which ends up in the oceans (Ritchie and Roser 2018).

In Jamaica, the tourism industry generates enormous quantities of food waste which is sent to landfills (Lue and Adewunmi 2018). Recent trends in renewable energy, recycling, and sustainability aim to turn this waste into environmentally-beneficial resources. CaribShare Biogas is a Jamaican small business whose goal is turning organic waste from hotels and farms into biogas and fertilizer which, are in turn sold to help solve the challenges of clean energy, climate resilience, and rural poverty in Jamaica (Lue and Adewunmi 2018).

Treasure Beach is one of the first communities to initiate the Caribbean Smart Track Climate Accelerator's challenge to become a climate-conscious community (The Gleaner 2018). In an effort to encourage more Jamaicans to be enthused about recycling plastic waste, the Jamaican Government recently announced that it would be committing $75 million towards the implementation of a plastic bottle-deposit scheme in the community of Treasure Beach (The Star 2018). Daryl Vaz of the Ministry of Economic Growth and Job Creation pointed out that the money would go to the 'Nuh Dutty Up Jamaica' campaign, which will receive financial support of $25 million per year over a three-year period. The Chief Executive Office of the Jamaica Environment Trust, Suzanne Stanley, believes that if the money is paid to persons for the plastic bottles they bring in, more people would be interested in making the environment cleaner. She said: "Of course, if the payout is higher, yes, it will encourage more persons to bring in the plastic bottles.

But we don't know yet what the deposit refund scheme is going to look like, so we are waiting on the details before we comment on the amount that people are getting" (The Star 2018).

Currently, the highest price being offered to persons who bring empty plastic bottles to recycling companies is JMD5.00 (The Star 2018). At Jamaica Recyclers, very clean bottles will fetch up to JMD4.00-5.00 per pound depending on the condition of the empty waste material. The Recycling Partners of Jamaica pays JMD4.00 per pound for empty plastic bottles. This implies that persons would have to dedicate long hours to collecting and cleaning plastic bottles in order to earn a small compensation, since a full bag, weighing approximately 20 pounds would fetch a return of between JMD80.00 and JMD100.00. However, at some other local recyclers, people are encouraged to drop off large piles of plastic bottles in order to keep the environment clean without expecting compensation for their effort (The Star 2018).

Nevertheless, Stanley believes that in order to get more persons actively participating in making the environment cleaner, public education should play a major role (The Star 2018). She said: "You need to educate people about the benefits of bringing their plastics and separating their garbage to make the deposit refund scheme work in the first place. And of course, support that with other solid-waste strategies, which is what the 'Nuh Dutty Up Jamaica' campaign does", she said (The Star 2018).

Through the Special Climate Change Adaptation Fund, Do Good Jamaica received a grant from the Environmental Foundation of Jamaica (EFJ) (The Gleaner 2018)? Currently, the grant has facilitated the creation of a vulnerability and capacity assessment and disaster risk management plan. This was conducted by professional environmental consultants.

Because of the recent announcement of the Caribbean Climate-Smart Accelerator (CCSA) initiative to make the region the world's first climate-smart zone, the project is timely as the objectives of the Accelerator align with the community's vision of sustainability. According to Rebecca Wiersma, chairman of the Treasure Beach Destination Management Organization and Owner of Treasure Tours Ltd: "As Jamaica's home of community tourism, Treasure Beach embraces initiatives that maintain its allure for Jamaican and overseas visitors. Most recently, Treasure Beach became one of Jamaica's first recycling communities. The conscious traveler knows the significance of recycling and conservation and values those programs in a destination. We are fully on board!". The next step in the project will see Do Good Jamaica accelerating climate-change awareness with outreach tailored to each of Treasure Beach's diverse demographic groups (The Gleaner 2018).

Plastics are essential materials in modern civilization, and many products are manufactured from plastics in numerous cases, they promote risks to human health and the environment (Proshad et al. 2018). Plastics contain many chemical and hazardous substances such as Bisphenol A (BPA), phthalates, antiminitroxide, brominated flame retardants, and poly-fluorinated chemicals which are serious risk factors for human health and the environment. Plastics cause toxic effects on human health and the environment, and different human health problems like irritation in the eye, vision failure, breathing difficulties, respiratory problems, liver dysfunction, cancers, skin diseases, lungs problems, headache, dizziness, birth effect, reproductive, cardiovascular, genotoxic, and gastrointestinal causes for using toxic plastics.

Plastics cause serious environmental pollution such as soil pollution, water pollution, and air pollution. Application of proper rules and regulations for the production and use of plastics can reduce toxic effects of plastics on human health and environment (Proshad et al. 2018).

Due to its resistance to degradation, most plastic debris will persist in the environment for centuries and may be transported far from its source, including great distances out to sea (Li, Tse and Fok 2016). Land- and ocean-based sources are the major sources of plastic entering the environment, with domestic, industrial and fishing activities being the most important contributors. Ocean gyres are particular hotspots of plastic waste accumulation. Both macro plastics and microplastics pose a risk to organisms in the natural environment, for example, through ingestion or entanglement in the plastic. Many studies have investigated the potential uptake of hydrophobic contaminants, which can then bioaccumulate in the food chain, from plastic waste by organisms. To address the issue of plastic pollution in the marine environment, governments should first play an active role in addressing the issue of plastic waste by introducing legislation to control the sources of plastic debris and the use of plastic additives. In addition, plastics industries should take responsibility for the end-of-life of their products by introducing plastic recycling or upgrading programs (Lee, Tse and Fok 2016).

METHOD

A survey of 15 questions was sent to 30 residents who permanently resided in Treasure Beach during the month of October 2022. The residents were given sufficient time to complete the survey. The questionnaire was completed in full by 25 residents. Graphs and charts were created using Microsoft Excel 2019.

RESULTS

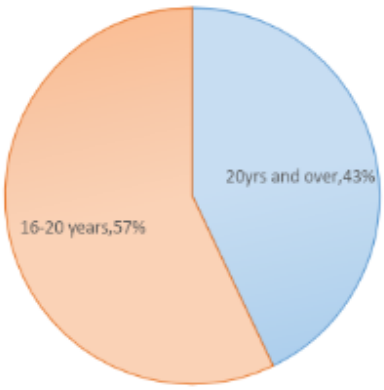


Figure 1. Pie chart showing the age comparison of respondents

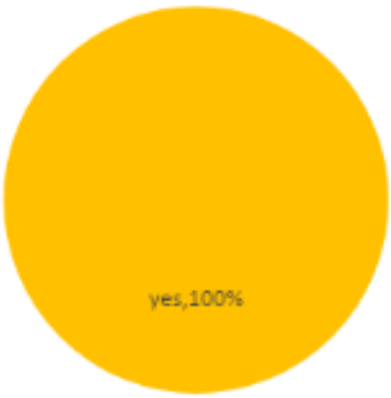


Figure 2. Pie chart showing the percentage of respondents who understand the concept of recycling

Figure 3. Pie chart showing the comparison of the number of individuals who actively practice recycling.

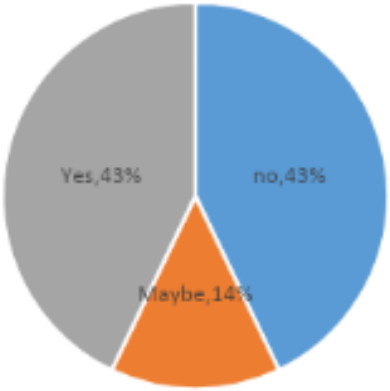
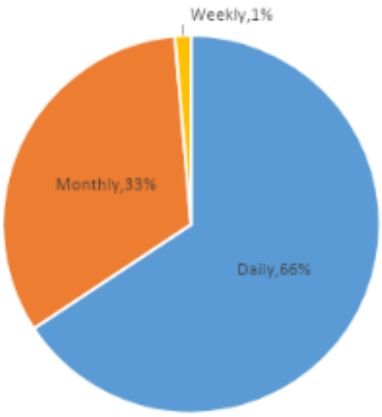


Figure 4. Pie chart showing comparison of how often the individuals recycle.



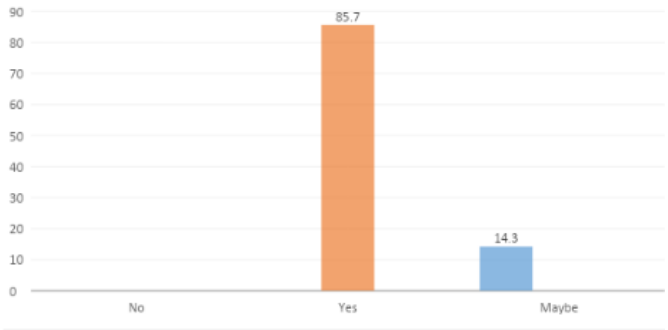


Figure 5. Column chart showing comparison on the number of participants that thought recycling is effective in reducing pollution.

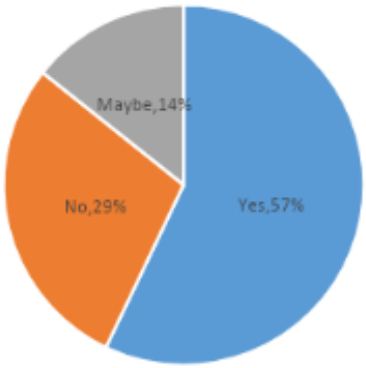


Figure 6. Pie chart highlighting the number of respondents who are aware of any signs/forms of recycling being carried out in the community.

Figure 7. Bar chart showing the response to the question "Do you think it is costly?" 42.9% believed that recycling is costly while 51.7% disagree with this claim.

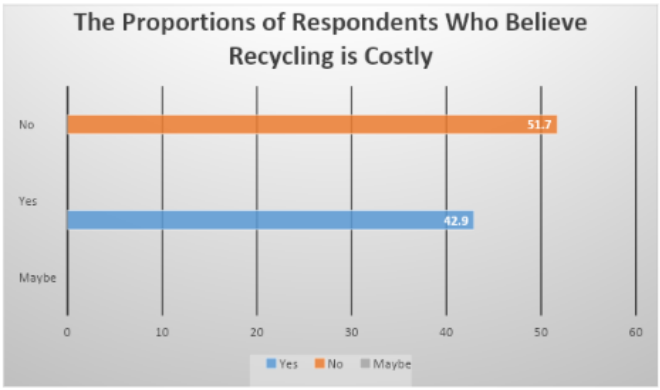


Figure 8. Pie chart showing the response to the question "Is there a majority of Plastics, Cans, or E-waste on the roads of your community?"

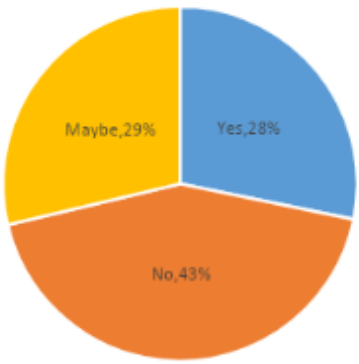


Figure 9. Pie chart showing response to the question "Should residents/civilians be educated on recycling?"

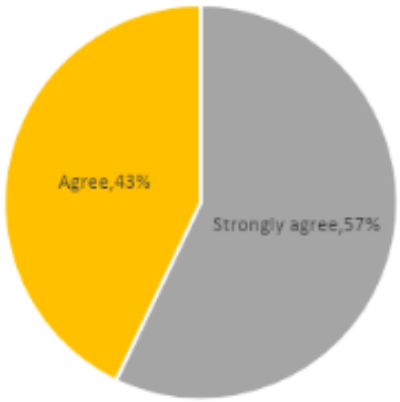


Figure 10. Bar chart showing comparison to the number of individuals who thinks recycling can be financially beneficial to the country.

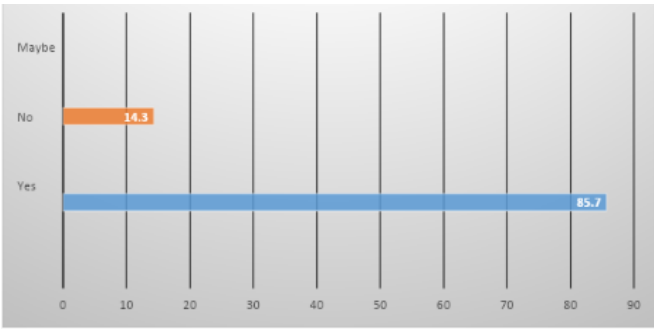
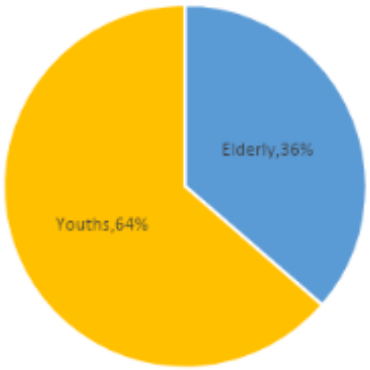


Figure 11. Pie chart showing comparison on which individuals contributes to littering the most.



The picture above shows the first sign/form of recycling as you enter Treasure Beach created by the stakeholders of treasure beach.

The following pictures below emphasize the practice of recycling in business, which shows ordinary garbage bins as well as recycling bins for the residents, a very common sign/ form of recycling is the "recycling fish" implemented by the MP of the area, Mr. Floyd Green.

Recycling fish is placed at the entrance of the lane, leading to an international boutique hotel and restaurant known as "Lashings", located in the district, Sandy Bank in Treasure Beach.
The image above shows a recycling bin placed out front of a resort called "Sunset Resort", located in the district, Calabash Bay of Treasure Beach.

Fig 4 above shows both a recycling bin and a bin for other waste materials placed under a bus stop shed owned by 'Jakes' located in the district Frenchman's Bay in Treasure Beach.

Fig 5 above shows a recycling fish placed a mile away from the local beach in the district of Calabash Bay in Treasure Beach.

DISCUSSION

Based on the data gathered from the survey, all participants were knowledgeable of the theoretical concept of recycling, yet only 43% actually practiced recycling consistently while 14% think they sometimes practice recycling. This could be because these residents do not have the practical knowledge of how to improve management of plastic waste and other causes of pollution in the environment. They also might not have the knowledge of methods to reduce the amount of improperly disposed garbage that can pose a threat to sea-creatures and other wildlife. Proper sensitization is required in order to effectively reduce the destruction of the ecosystem in hopes of protecting the environment.

The most common time period for recycling plastic bottles was daily with a proportion of 66% of respondents reporting this frequency. Due to the fact that 43% of respondents were not practicing recycling consistently, the factor in question may be cost, however, 51.7% of residents stated that it is not costly to recycle. A total of 42.9% of the participants thought that by recycling, the country could receive a financial benefit. This could be by, firstly, decreasing the amount of money used to produce new items and secondly using waste products to help in the construction of infrastructure such as roads in which used tires can be incorporated.
As reported in the data earlier, 43% of the respondents reported that there are no e-waste cans or signs of plastic bottle recycling stations in the community. The observational record above shows photographs of plastic bottle recycling stations near business establishments. While these are present in the community, they may not be close to the homes of many residents and this could lead to a reduced frequency in recycling by community members. This means that while many residents would be interested in recycling, they may not have access to recycling stations, and thus the total number of bottles that could have been placed in these recycling stations is reduced. Although 100% of respondents are in agreement that the community should practice recycling and implement programs that educate civilians/residents on recycling by implementing programs that target recycling in schools and companies and by creating jobs that will motivate

people to recycle. It would also be beneficial to make the practice of recycling plastic bottles mandatory in Treasure Beach. The provision of trucks and more recycling stations in public areas including implementing bins for different types of waste would lead to an increased frequency of recycling in Treasure Beach. The youths were considered to be the community's most frequent litterers. They should be educated on the importance of participation in the recycling program. Additionally, the elderly should also be educated about reducing waste and increasing plastic bottle recycling efforts in the community.

CONCLUSION

In conclusion, the majority of the population is open to and are actively involved in practicing plastic bottle recycling in the community of Treasure Beach. While plastic bottle recycling is important for the ecosystem and reduces pollution, the residents have limited access to recycling stations. The implementation of educational programs would also greatly increase community participation in the recycling project.

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