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To Examine the Relationship Between Nomophobia and Sleep Quality in Smartphone Users Among Different University Pharmacy Students in Dehradun

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Abstract: Nomophobia, the fear of being without a mobile phone, is a disease that may arise from excessive phone usage and can lead to many physiological, social, and psychological issues. The term "nomophobia" derives from the phrase "no mobile phobia," signifying the fear of losing cellular coverage. The majority of study on nomophobia to far has focused on students due to their technological proficiency. This study utilised a questionnaire to assess the prevalence of nomophobia and its impact on sleep quality. The research examined the correlation between pharmacy students' reliance on cellphones (Nomophobia) and the quality of their sleep across several colleges in Dehradun. Between September 2023 and March 2024, pharmacy students from several colleges in Dehradun participated in this study. A self-created and verified questionnaire about Nomophobia was disseminated via WhatsApp to around 400 individuals. The survey had 15 questions divided into three sections: demographic data, mobile phone usage patterns, and the Nomophobia Questionnaire (NMP-Q) with the Pittsburgh Sleep Quality Index. We employed Spearman's Correlation analysis and Regression to organise the responses into tables for examination. Among the 334 pupils, 203 (60.8%) were male and 131 (39.22%) were female. The study's findings indicated that 24.25% of the students experienced significant nomophobia. A small percentage of participants (18.6%) reported inadequate sleep quality. A correlation exists between nomophobia and sleep quality, indicated by a coefficient of r = 0.139 and a p-value of p = 0.019, both below the significance threshold of 0.05. Nomophobia is an escalating behavioural issue that must be handled promptly, since it adversely affects an individual's sleep quality. The prevalence of nomophobia among the majority of pupils, exhibiting varying degrees of severity, is highly concerning. A positive correlation exists between nomophobia and sleep quality.

Keywords: *Nomophobia, Sleep Quality, NMP-Q, Pittsburgh Sleep Quality Index, Prevalence*.

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I. INTRODUCTION

Mobile phones are a big part of our technological culture these days, especially for younger kids. Nomophobia is the fear, concern, discomfort, or stress that arises from being away from your cell phone. It is growing increasingly common throughout the world. Living in today's digital world, when being connected to others online is so important, has made anxiety a normal part of life. "Nomophobia," or the fear of not having a cell phone, is now one of the things that might stress you out. This worry comes from the rise of modern technologies that let people connect in a virtual way. People use their cell phones from the time they switch them on in the morning until they put them away at night, making them an extension of their ears. People's dependency on cell phones makes society stronger and weaker at the same time. Mobile phones have changed from being status symbols to necessities in our daily existence. A lot of people, especially teens between the ages of 16 and 19, are addicted to their phones. This group is quite likely to become addicted to their phones. A study with 496 students that employed self-reported questionnaires and the Smartphone Addiction Scale indicated that 83.9% of the students used cell phones.[1] Several factors have been connected to smartphone addiction,

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such as age, where you live, what you study, how often you use a hands-free kit, how much money your family makes each month, and how educated your parents are. The 37% reported addiction rate was linked to factors such as age, where they lived, where they went to school, how many hours a day they used their smartphone, how they thought mobile phones affected their health, their parents' education, and their income level. In today's world of quick scientific and technological progress, communication is very crucial, especially in research areas. The point of making mobile phones was to make people's lives simpler. But it's worrying that too much usage of mobile phones is becoming a major reason people are worried about the loss of human health. In a study done at Boston Medical College in 2004, families were watched at restaurants during meals.[2] The results indicated that one-third of family members were using their phones even while they were eating. People are often glued to their phones in public settings like parks, schools, buses, and tube stations these days. We should be happy with technology, but we shouldn't let it govern us. Because so many people use mobile phones, it might be a good idea to have a "mobile-free day," like "car-free day." Before the telephone was invented, people used carrier pigeons, letters, and eventually the telegram to talk to each other and share information. "Innovation, a term that dominates conversations across the nation, is profoundly impacting people's lives today. Modern individuals have made significant strides in mechanical and technological advancements to enhance flexibility and practicality, enabling them to overcome upcoming challenges effectively and contribute positively to the global community. Among these advancements, cell phones have emerged as an integral part of our lives. Moreover, they have become deeply personal possessions. In the contemporary era, remote communication is facilitated primarily through the use of mobile technologies. We must maintain essential contact with our loved ones and acquaintances through smartphones. The advent of new technological advancements has significantly transformed our daily lives. Mobile phones serve a multitude of purposes, including data collection, functioning as a camera, music player, and providing entertainment through mobile games.[3] The global impact of technology and its constant evolution significantly shapes the lives of individuals worldwide. The prevailing trend in society is to readily accept every advancement in the field of communication technology. In this century, mobile phones stand as an emblematic representation of technological progress. They are not just deemed as essential technical tools but have also become integral components of society, serving not only as devices but also as vital social accessories.[2, 3]

- *Impact of Mobile Phones on Health*

Excessive reliance on mobile phones can have a profound impact on an individual’s mental, physical, and psychological well-being. People who experience nomophobia, a fear of being without their mobile phone, may exhibit signs of distress, irritation, and even psychological instability when they lose their phone or when it runs out of battery or network coverage. The concept of behavioral addictions is often compared to substance dependence or seen as similar to conditions on the obsessive-compulsive spectrum. Given these parallels, some experts argue that Mobile Phone Dependence (MPD) should be recognized as a distinct diagnostic category. This perspective underscores the importance of understanding and addressing the potential health implications of our increasingly digital lifestyles. Certain psychological factors have been linked to problematic mobile phone use. These include being of a younger age, harboring negative self-perceptions, having low self-esteem and self-efficacy, experiencing dysregulated arousal (such as extreme extroversion or introversion), displaying impulsivity, and seeking sensations. Sensation-seeking is a multifaceted personality trait that involves a desire for diverse, pleasurable, novel, intense, adventurous, and thrilling experiences. Impulsivity and a lack of premeditation are two separate elements that contribute to this trait. In the digital age of the 21st century, nomophobia, or the fear of being without a mobile phone, is becoming increasingly prevalent.[4] This highlights the need for awareness and understanding of the potential psychological impacts of our growing dependence on digital devices. Mindfulness encourages heightened awareness in the present moment, which can lead to improved focus on tasks, reduced distractions, and a decrease in automatic habits and behaviors. The use of social media and other digital platforms can sometimes involve mindless actions that affect our attention, intentions, and attitudes, and can also contribute to stress and frustration. Researchers have categorized social media activities into two types: mindful and mindless. A study conducted in the United States used a reflective approach to encourage students to use technology more mindfully. By recognizing their emotions, habits, and behaviors, students were able to remain focused despite the ongoing distractions from smartphones and other devices. The “turtle neck posture,” often seen as a result of extended computer use, is characterized by a forward-leaning head position below eye level. This posture is becoming more common among video game and smartphone users, leading to a reduction in the curvature of the cervical vertebrae, overstretched neck muscles, and discomfort. While various anatomical structures, such as facet joints, uncovertebral joints, and intervertebral discs, have been associated with neck pain, the precise causes remain unclear. Research has indicated that limited mobility in the upper thoracic spine could be a contributing factor to neck and shoulder discomfort. Moreover, the act of texting on smartphones, particularly when using both hands, is linked to an increase in cervical flexion. In contrast, texting with one hand can result in an uneven cervical posture. It’s worth noting that a cervical lordosis rotation angle of 20° or less can significantly heighten the risk of experiencing cervicogenic symptoms.[5] The omnipresence of mobile phones in our daily lives has transitioned them from symbols of status to necessities. Mobile phone addiction is prevalent, particularly among adolescents aged 16 to 19, who are at significant risk. A cross-sectional study involving 496 students, utilizing self-regulated surveys and the Smartphone Addiction Scale, revealed that 83.9% of respondents were engaged in advanced cell phone usage. This usage was correlated with factors such as age, residential area, and academic discipline, use of hands-free kits, parental education, and monthly family income. The reported smartphone addiction rate was 37%, with associations identified between age, residential location,

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educational institution, duration, and daily hours of smartphone use, perception of mobile phone's impact on health, parental education, and income levels. In the past 15 years, there has been a remarkable surge in the utilization of mobile technology and smartphones. The emergence of smartphones has underscored the necessity for communication and interaction across various aspects of both professional and personal life. Beyond communication, mobile phones serve numerous other purposes such as gaming, music playback, and accessing the internet for social interactions. They also contribute to alleviating social loneliness by connecting us with new acquaintances. Indeed, mobile phones have seamlessly integrated into our everyday existence, becoming an indispensable component.[6]

- *Mobile phone use in day-to-day life*

Cell phones have become an essential part of our daily existence, transitioning from symbols of social status to indispensable necessities. Nowadays, the obsession with cell phones is widespread, with a term coined for this phenomenon known as nomophobia. In simple terms, nomophobia refers to the anxiety or panic experienced by individuals when they are unable to access their mobile phones, whether due to a lack of signal, low battery, or no talk time. This condition significantly impacts their ability to concentrate. Nomophobia is often referred to as the disorder of the 21st century, as the influence of mobile phones on individuals' moods and behaviors has become increasingly apparent.[7] Consequently, nomophobia is recognized as a mental health disorder. The widespread adoption of modern technological devices, particularly mobile phones for virtual communication, is reshaping individuals' lifestyles, behaviors, and daily routines. While these advancements offer numerous benefits, they also give rise to various social issues, such as societal isolation and financial challenges, including accumulating debts incurred from purchasing smartphones. Moreover, the use of smartphones can contribute to a range of health-related issues, including physical ailments caused by electromagnetic field radiation, as well as mental health problems stemming from stress related to smartphone usage and the fear of being unable to utilize the device properly. Additionally, smartphone usage has been associated with vehicle accidents, further highlighting the potential negative impacts on individuals' well-being.[8]

- *Worldwide uses of mobile phones*

India holds the position as the world's second-largest market, following China, based on its mobile subscriber base. The growth rate of the telecom industry in India stands out as one of the highest compared to other global telecom markets. Notably, the number of mobile subscribers in India continues to rise steadily. According to a report released by the Telecom Regulatory Authority of India (TRAI), the subscriber count increased from 861.66 million in February 2013 to 867.80 million by the end of March 2013, representing a monthly growth rate of 0.71%. Consequently, the overall wireless telephone density in India has reached 70.85. Ensuring safety in mobile usage is a primary objective, considering that every innovation and technology comes with its own set of pros and cons, and mobile phones are no exception. While mobile use offers numerous advantages, it also poses certain disadvantages. Unfortunately, many adolescents are unaware of these drawbacks, leading to potential health hazards.[9] Therefore, it is crucial to raise awareness among them about the negative effects of nomophobia, which can help mitigate further risks and promote responsible mobile phone usage. The habit of using cell phones appears to be a new issue deserving inclusion in updated classification systems such as ICD-10 and DSM-5. It exhibits characteristics of excessive use, accompanied by a loss of awareness or disregard for fundamental needs. Withdrawal symptoms include feelings of anger, tension, and sadness when unable to access phone networks or when the battery is depleted. Additionally, individuals may experience conflicts, social isolation, and fatigue as a result of this habit. Since the 1980s, humans have been using mobile phones, and since then, their usage has grown exponentially, becoming an integral part of our daily lives. Initially considered a luxury statement, mobile phones have evolved to become indispensable to human existence. This transformation has occurred rapidly and seamlessly. Nowadays, we can't imagine even an hour, let alone a day, without using mobile phones. However, this excessive use of mobile phones also brings about adverse consequences. Recently, terms such as "WhatsAppitis," "phantom ringing syndrome," "phantom vibration syndrome," and "nomophobia" have emerged, highlighting various issues associated with mobile phone usage.[10] Cell phones utilize electromagnetic radiation in the microwave range, which is believed to have detrimental effects on human health. On May 31, 2011, the World Health Organization (WHO) declared that cell phone use may pose a long-term health risk, classifying cell phone radiation as a "carcinogenic hazard" and "possibly carcinogenic to humans" following a review of peer-reviewed research studies on mobile phone safety. Some studies suggest a 40% increased risk of gliomas, particularly among heavy users of mobile phones. The average use of 30 minutes per day on a mobile phone poses a high risk for gliomas. The saying "The times have changed" not only applies to time but also to technology. Technology has been rapidly advancing to meet the needs and desires of people seeking a simpler lifestyle. One of the most significant technological advancements of the 21st century is the mobile phone.[11]

- *Navigating Nomophobia: The Impact of Smartphone Evolution on Adolescent Behavior*

The evolution of smartphones from once costly and exclusive gadgets to widely accessible devices has transformed everyday life, especially for teenagers. These easy-to-use tools, equipped with various applications and advanced computing features, have become essential in modern society. However, this dependence on smartphones has led to nomophobia, with significant effects on individuals' health and overall well-being. As mobile phone connections spread around the world, the widespread presence of these devices has made it harder to imagine life without them. Despite their advantages in enabling digital communication and staying connected with friends and family, smartphones have also encouraged dependence, blurring the line between convenience and addiction. According to Cormer, mobile phones are vital tools for transmitting digital information,

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allowing users to perform numerous tasks and functions. The widespread use of mobile phones, known for their compactness and easy access, has heavily influenced adolescent behavior worldwide, providing unmatched connectivity and communication features like SM. This convenience has changed social interactions, making it easier for people to stay connected and engaged from almost anywhere. In contrast, online communication often needs extra resources such as a personal computer, a reliable internet connection, and synchronous availability of both parties, limiting its ease of access compared to mobile phones. The increasing reliance on mobile phones and the internet has raised concerns about their effects on mental health, leading to their classification as serious health issues, as shown by the creation of terms like "internet addiction disorder" by Gulberg. Once considered a luxury, smartphones are now essential tools for people worldwide, with over 5 billion users by 2019, a number expected to reach 829 million in India alone by 2022, showing the rapid pace of technological progress and adoption.[12]

Teenagers, who comprise a large portion of the world's population and are especially numerous in India, are vulnerable to mobile phone addiction, also known as nomophobia. This condition is marked by compulsive use for various tasks. Therefore, it is crucial to address the consequences of excessive smartphone use, particularly among at-risk groups like adolescents, to promote mental well-being and encourage a balanced approach to technology in modern society. However, this widespread use also raises health concerns, with reports pointing to risks for both mental and physical health, including the carcinogenic dangers linked to mobile phone radiation, as established by the World Health Organization (WHO).[11,12]

- *"Nomophobia Trends: Insights from Adolescent Mobile Phone Usage"*

The data provided in the table underscores the prominence of adolescents as the largest demographic of mobile phone users, reflecting a trend where Indians are increasingly reliant on their devices, particularly during the lockdown, for remote work and online classes, resulting in a significant 75% surge in usage. Notably, 84% of respondents habitually check their smartphones within 15 minutes of waking up, with 46% doing so at least five times during an hour-long meeting or conversation. Moreover, 74% experience mood swings and irritability when separated from their phones, while 73% feel compelled to constantly check them. This phenomenon, known as nomophobia, entails a fear of being without a mobile phone, leading to heightened apprehension in situations where connectivity is unavailable or battery life is depleted, ultimately affecting concentration levels. Smartphones have evolved beyond status symbols to indispensable tools, offering a plethora of services from diary and calendar functions to email platforms, calculators, alarm clocks, gaming consoles, cameras, and music players. Consequently, the tech-savvy youth are increasingly reliant on their mobile phones, exhibiting nomophobic behaviours such as incessant email checking, texting, gaming, and downloading content from the internet.[13] The escalation of nomophobia prevalence, reaching 13% due to advances in mobile phone technology and excessive usage, underscores a contemporary phenomenon. The primary impact is on younger adolescents aged 12 to 24, often school-goers, driven by their multifaceted mobile phone needs. Globally, internet and smartphone usage have become ubiquitous, with over half of the world's population, approximately 3.9 billion, online in 2018. Among undergraduate students in various countries, significant smartphone dependency patterns emerged, with Saudi students using phones for over four hours daily, and Turkish undergraduates checking their devices upwards of 49 times daily. In Kuwait, nomophobia severity ranged from mild to severe among participants. Spanish students, aged 12 to 20, commonly feared being unable to immediately connect with others due to nomophobia. Turkish college students exhibited nomophobia symptoms at a rate of 42.6%, particularly fearing communication and information access disruptions. Characterized by anxiety when separated from mobile devices, nomophobia significantly impairs daily functioning, with 66% of users feeling nervous at the prospect of losing their phones, and 73% of medical students in Indore admitting to keeping phones close, even while sleeping Prolonged smartphone uses correlates with increased suicidal tendencies among teenagers, a concern noted by 47% of parents and 67% of teachers, with 89% of parents willing to take responsibility for their child's phone usage. Nomophobia's widespread prevalence extends beyond India to the UK, US, Japan, and Arab countries, signifying a deeply rooted addiction to mobile devices in contemporary society.[14]

- *Navigating the Hazards of Cell Phone Addiction: Insights from a Belarus University Study*

A comprehensive study conducted among 160 college students from Belarus University aimed to evaluate the risks of cell phone addiction. Using a structured questionnaire, the research explored various aspects of mobile phone addiction, revealing that only 28.8% of participants were aware of nomophobia, while 10.4% showed signs of mobile phone addiction. Interestingly, about 68.11% of surveyed students were between 18 and 20 years old, with a significant portion (68.11%) reporting ownership of two cell phones. Although 43.16% acknowledged smartphone dependence, only 28.8% knew the term nomophobia, indicating a lack of awareness among adolescents about this emerging disorder. Consequently, the study emphasized the importance of raising awareness and educating young people about the harmful effects. Nomophobia, characterized by anxiety and distress when separated from one's cell phone, has become increasingly common among adolescents, underscoring the urgent need for psycho-educational programs to address this addiction and help individuals develop healthier digital habits.[15] As the world becomes more connected through mobile communication, it is vital to recognize the risks associated with excessive device use. Stress and anxiety, prevalent in today's digitally driven society, are intensified by the fear of being without one's smartphone, leading to what could be considered a form of dependency on technology. The attachment to mobile phones is especially strong among adolescents, for whom smartphones have become an extension of their bodies, accompanying them throughout their daily lives. However, this dependence can negatively

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affect both physical and mental health, contributing to social disconnection, financial strain, and potential harm from electromagnetic radiation. Despite these risks, many people remain unaware of the term "nomophobia" and how dependent they are on their smartphones. Therefore, there is a pressing need for more research and educational efforts to increase awareness about nomophobia and its effects, especially among vulnerable groups like college students. By understanding the impact of nomophobia and adopting strategies to reduce it, individuals can actively promote healthier smartphone habits and improve overall well-being in the digital age. [16]

II. MATERIALS AND METHODS

➢ *Population and Sample:*

A survey-based study on the relationship between Nomophobia and Sleep quality in smartphone users among different university pharmacy students in Dehradun.

- Study Design and sample size: Questionnaire-based, observational study.
- Sample Size: 323 (Calculate as per Raosoft online software)
- Study Duration: The study is carried out for 6 months.
- Study Site: Different Universities in Dehradun.

➢ *Study Criteria:*

- Inclusion criteria: Smartphone device users, Pharmacy Students
- Exclusion criteria: Non-smartphone users

➢ *Study Procedure:*

This study includes data collection using Google Forms, which is reported on:

The survey consisted of 3 sections, which are as follows:

- Sociodemographic characteristics
- Nomophobia questionnaire
- Other scales to assess disturbance in sleep (PSQI).

We do a descriptive study with a quantitative approach to data gathering on pharmacy students at multiple universities in Dehradun using Google Forms. This survey is based on an observation study about the Knowledge, Awareness & Perception between Generic & Branded medicines. It was made using detailed information from the qualitative interview. It has 30 questions about different aspects of Generic and Branded medicines, and it is given to the study participants after they have given their informed consent. A total of 263 pharmacy students at SGRR University of Dehradun between the ages of 18 and 30 were chosen at random.

➢ *Statistical Analysis:*

The data from the questionnaire is analysed using MS-EXCEL and a suitable statistical application (SPSS).

➢ *Data Confidentiality:*

The names of the study participants, consultants, and institutions are kept private during the study and until it is published.

III. RESULTS

➢ *Demographic Analysis*

A total of 334 students from different pharmacy universities have participated in the study. The recorded response rate we received was 100%, where the participants were *Males 203 (60.8%); Females 131* (39.2%) [Table 1, Figure 1]

Table 1 Gender-wise Distribution of Participants

Gender	No. of Participants	Percentage (%)
Male	203	60.8%
Female	131	39.2%

Majority of the participants were in the age between 21 to 24 years where 177 were total participants in which *112 (63.2%) were males* and the remaining *65 (36.8%) were females.*

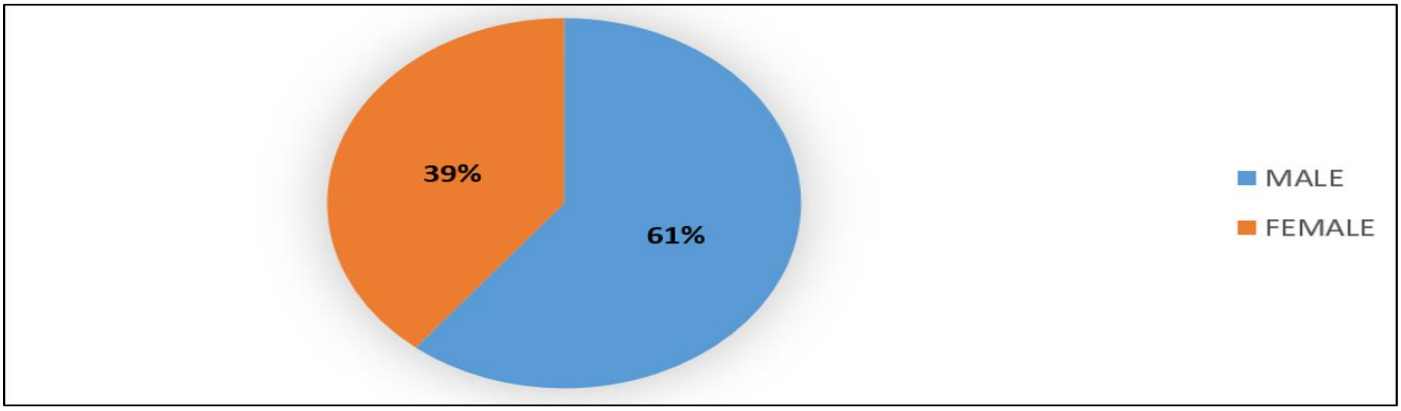

Fig 1 Gender-wise Distribution of Participants

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Table 2 University-wise distribution of participants

Course	No. of Participants	Percentage (%)
Shri Guru Ram Rai University	137	41.0
Sardar Bhagwan Singh University	26	7.8
Dehradun Institute of Technology University	63	18.9
Graphic Era Hill University	60	18.0
Swami Rama Himalayan University	48	14.4

Out of 334 participants when asked about their university, the responses were: *Shri Guru Ram Rai University (41%), Sardar Bhagwan Singh University (7.8%), Dehradun Institute of Technology University (18.9%), Graphic Era Hill University (18%) and Swami Rama Himalayan University (14.4%).*

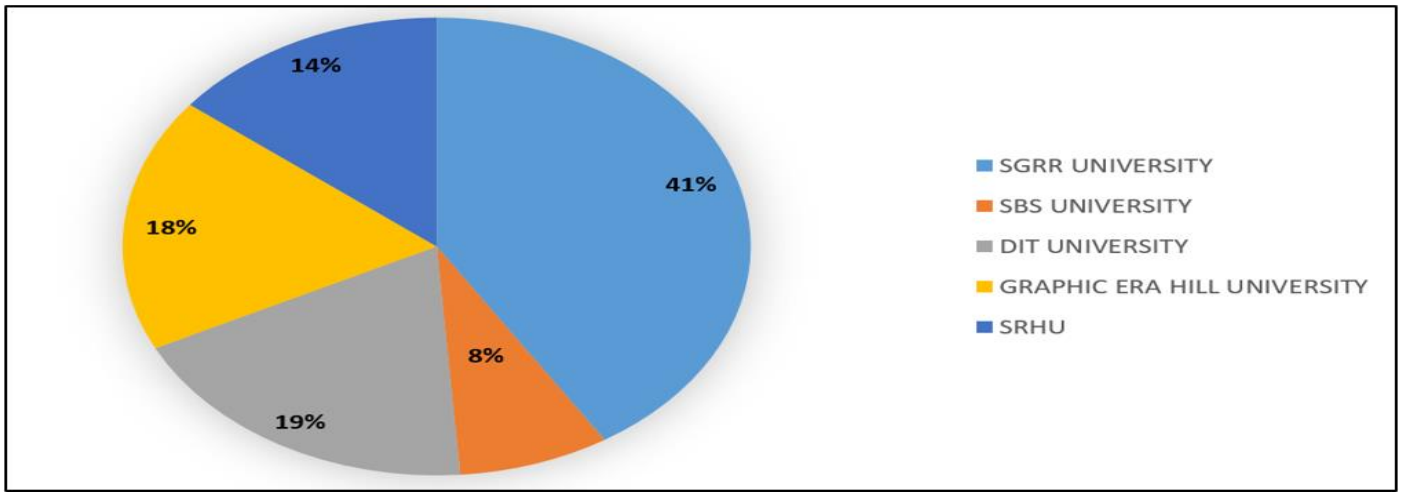

Fig 2 University-wise Distribution of Participants

➢ *Course-wise Distribution of Participants*

Out of 334 participants, when asked about their courses, the responses were: *D. Pharm (11.7%), B. Pharm (75.4%), M. Pharm (5.4%), and Pharm. D (7.5%).*

Table 3 Course-wise distribution of participants

Course	No. of Participants	Percentage (%)
D. Pharmacy	39	11.7
B. Pharmacy	252	75.4
M. Pharmacy	18	5.4
Pharm. D	25	7.5

The majority of the participants (75.4%) were enrolled in the Bachelor of Pharmacy (B. Pharm) program, followed by the Diploma in Pharmacy (D. Pharm) program with 11.7% of the participants. The Master of Pharmacy (M. Pharm) and Doctor of Pharmacy (Pharm. D) programs had smaller representations, with 5.4% and 7.5% of the participants, respectively.

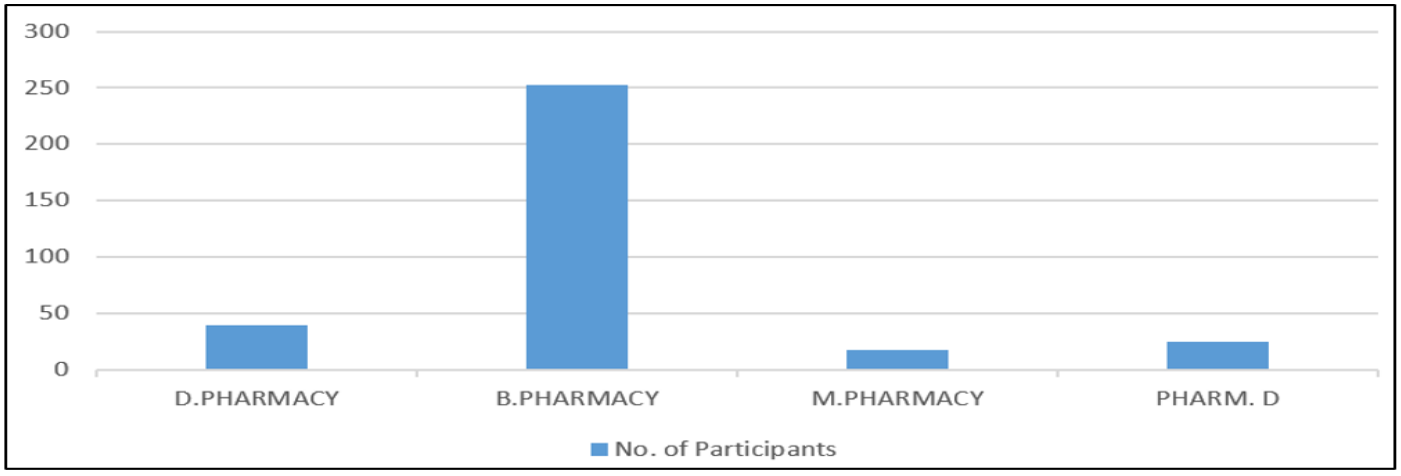

Fig 3 Course-wise Distribution of Participants

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Table 4 Summary response of "Would you feel uneasy if you didn't have constant access to information through your smartphone?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	29	8.7
Disagree	30	9.0
Somewhat Disagree	41	12.3
Neutral	103	30.8
Somewhat Agree	40	12.0
Agree	70	21.0
Strongly Agree	21	6.3

334 participants were asked "Would you feel uneasy if you didn't have constant access to information through your smartphone**"** the participants responded *Strongly Disagree (8.7%), Disagree (9%), Somewhat Disagree (12.3%), Neutral (30.2%), Somewhat Agree (21%), Agree (12%) and Strongly Agree (6.3%).*

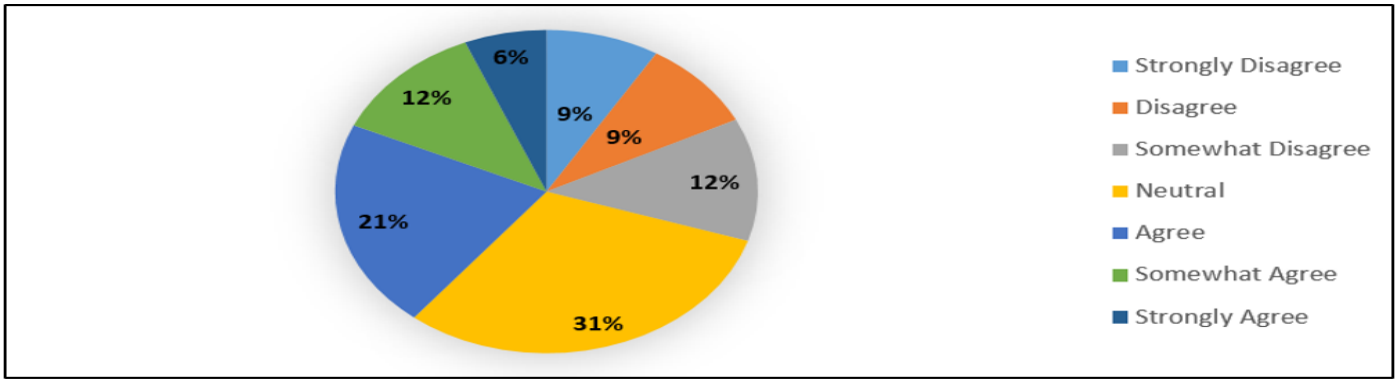

Fig 4 Summary response of "Would you feel uneasy if you didn't have constant access to information through your smartphone?"

Table 5 Summary response of "Does the inability to get news (e.g., happenings, weather, etc.) on your smartphone make you nervous?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	28	8.4
Disagree	81	24.3
Somewhat Disagree	42	12.6
Neutral	84	25.1
Somewhat Agree	41	12.3
Agree	48	14.4
Strongly Agree	10	3.0

334 participants were asked "Does the inability to get news (e.g., happenings, weather, etc.) on your smartphone make you nervous" the participants responded *Strongly Disagree (8.4%), Disagree (24.3%), Somewhat Disagree (12.6%), Neutral (25.1%), Somewhat Agree (12.3%), Agree (14.4%) and Strongly Agree (3%).*

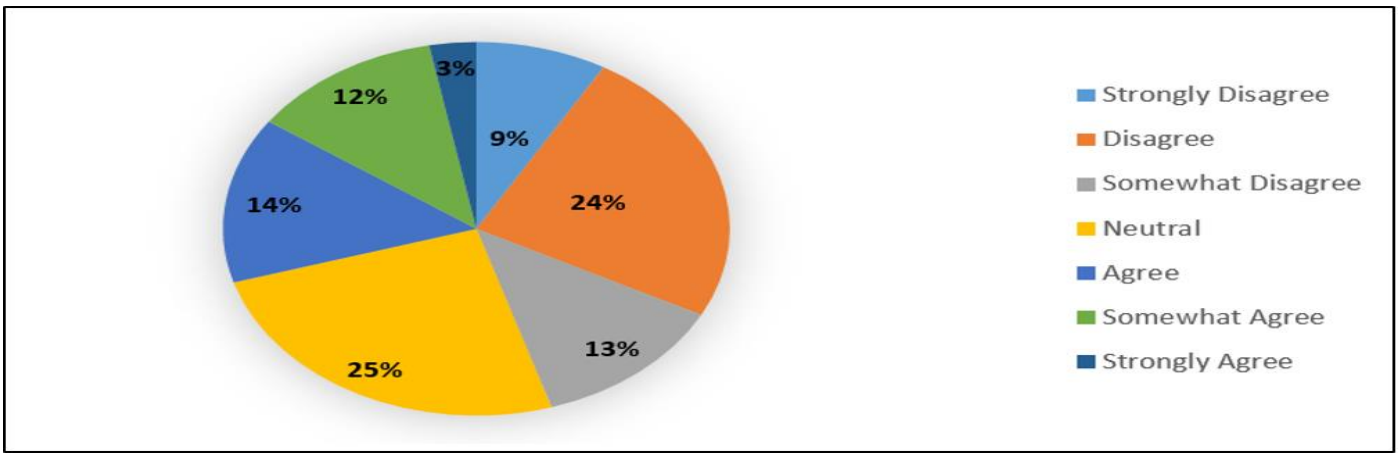

Fig 5 Summary response of "Does the inability to get news (e.g., happenings, weather, etc.) on your smartphone make you nervous?"

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Table 6 Summary response of "Would you be annoyed if you couldn't use your smartphone and its capabilities when you wanted to?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	25	7.5
Disagree	43	12.9
Somewhat Disagree	28	8.4
Neutral	77	23.1
Somewhat Agree	60	18.0
Agree	78	23.4
Strongly Agree	23	6.9

334 participants were asked "Would you be annoyed if you couldn't use your smartphone and its capabilities when you wanted to" the participants responded *Strongly Disagree (7.5%), Disagree (12.9%), Somewhat Disagree (8.4%), Neutral (23.1%), Somewhat Agree (18%), Agree (23.4%) and Strongly Agree (6.9%).*

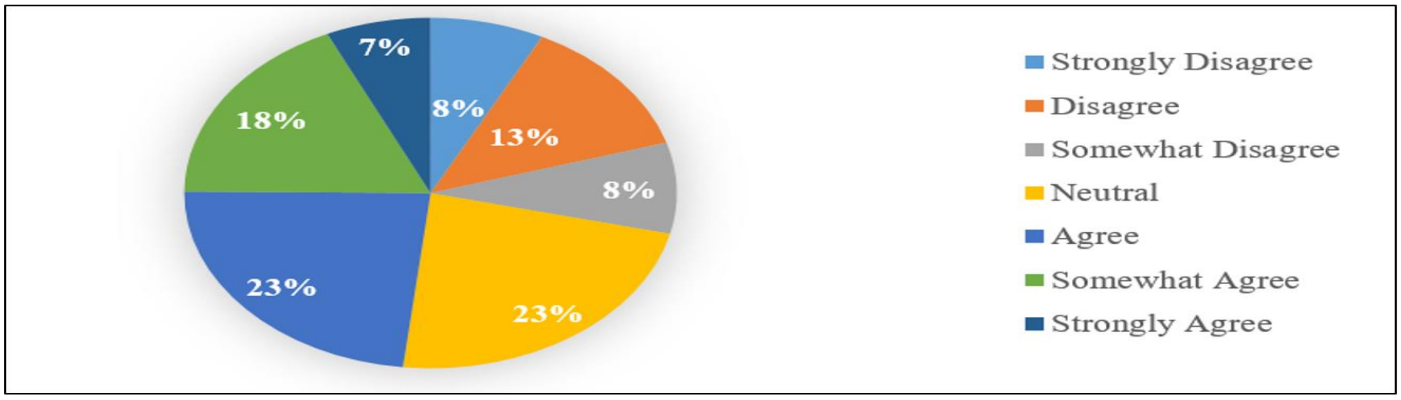

Fig 6 Summary response of "Would you be annoyed if you couldn't use your smartphone and its capabilities when you wanted to?"

Table 7 Summary response of "Would you be frightened if your smartphone ran out of battery?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	29	8.7
Disagree	49	14.7
Somewhat Disagree	26	7.8
Neutral	74	22.2
Somewhat Agree	59	17.7
Agree	69	20.7
Strongly Agree	28	8.4

334 participants were asked "Would you be frightened if your smartphone ran out of battery" the participants responded *Strongly Disagree (8.7%), Disagree (14.7%), Somewhat Disagree (7.8%), Neutral (22.2%), Somewhat Agree (17.7%), Agree (20.7%) and Strongly Agree (8.4%).*

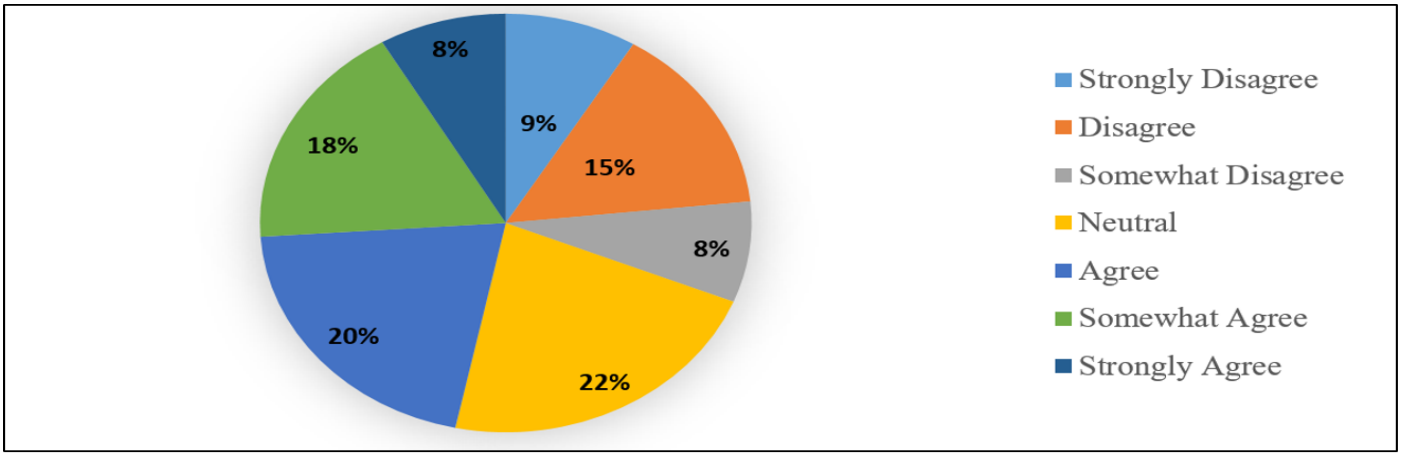

Fig 7 Summary response of "Would you be frightened if your smartphone ran out of battery?"

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Table 8 Summary response of "How often would you check for a data signal or available Wi-Fi if you couldn't connect to them?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	16	4.8
Disagree	47	14.1
Somewhat Disagree	31	9.3
Neutral	86	25.7
Somewhat Agree	47	14.1
Agree	80	24.0
Strongly Agree	27	8.1

334 participants were asked "How often would you check for a data signal or available Wi-Fi if you couldn't connect to them" the participants responded *Strongly Disagree (4.8%), Disagree (14.1%), Somewhat Disagree (9.3%), Neutral (25.7%), Somewhat Agree (14.1%), Agree (24%) and Strongly Agree (8.1%).*

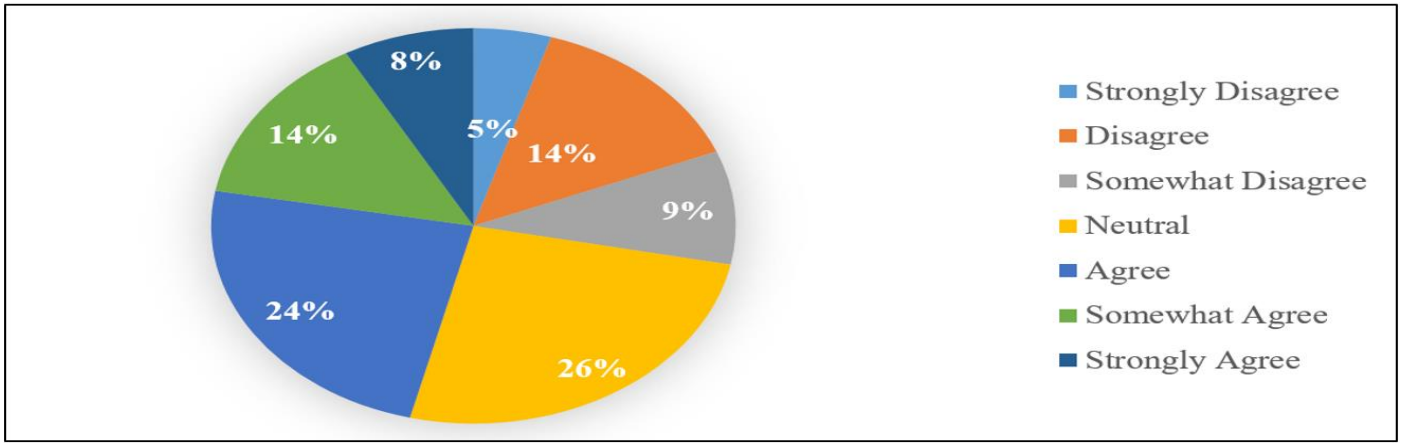

Fig 8 Summary response of "How often would you check for a data signal or available Wi-Fi if you couldn't connect to them?"

Table 9 Summary response of "Would you be afraid of getting stranded somewhere if you couldn't use your smartphone?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	24	7.2
Disagree	54	16.2
Somewhat Disagree	27	8.1
Neutral	86	25.7
Somewhat Agree	39	11.7
Agree	79	23.7
Strongly Agree	25	7.5

334 participants were asked "Would you be afraid of getting stranded somewhere if you couldn't use your smartphone" the participants responded *Strongly Disagree (7.2%), Disagree (16.2%), Somewhat Disagree (8.1%), Neutral (25.7%), Somewhat Agree (11.7%), Agree (23.7%) and Strongly Agree (7.5%).*

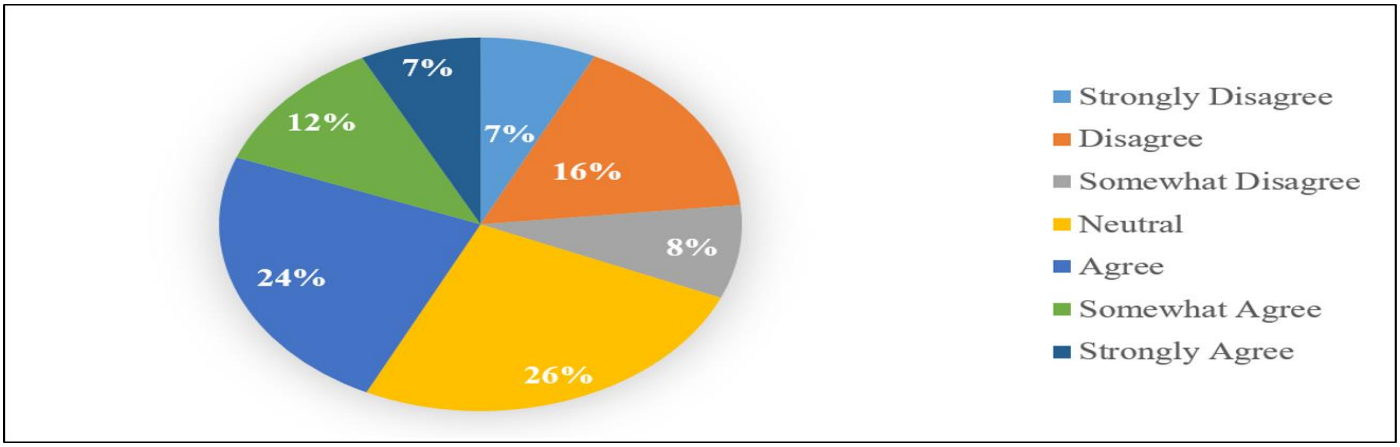

Fig 9 Summary response of "Would you be afraid of getting stranded somewhere if you couldn't use your smartphone?"

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Table 10 Summary response of "What is the strength of your desire to check your smartphone if you couldn't do so for a while?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	22	6.6
Disagree	43	12.9
Somewhat Disagree	25	7.5
Neutral	99	29.6
Somewhat Agree	65	19.5
Agree	54	16.2
Strongly Agree	26	7.8

334 participants were asked "What is the strength of your desire to check your smartphone if you couldn't do so for a while" the participants responded *Strongly Disagree (6.6%), Disagree (12.9%), Somewhat Disagree (7.5%), Neutral (29.6%), Somewhat Agree (19.5%), Agree (16.2%) and Strongly Agree (7.8%).*

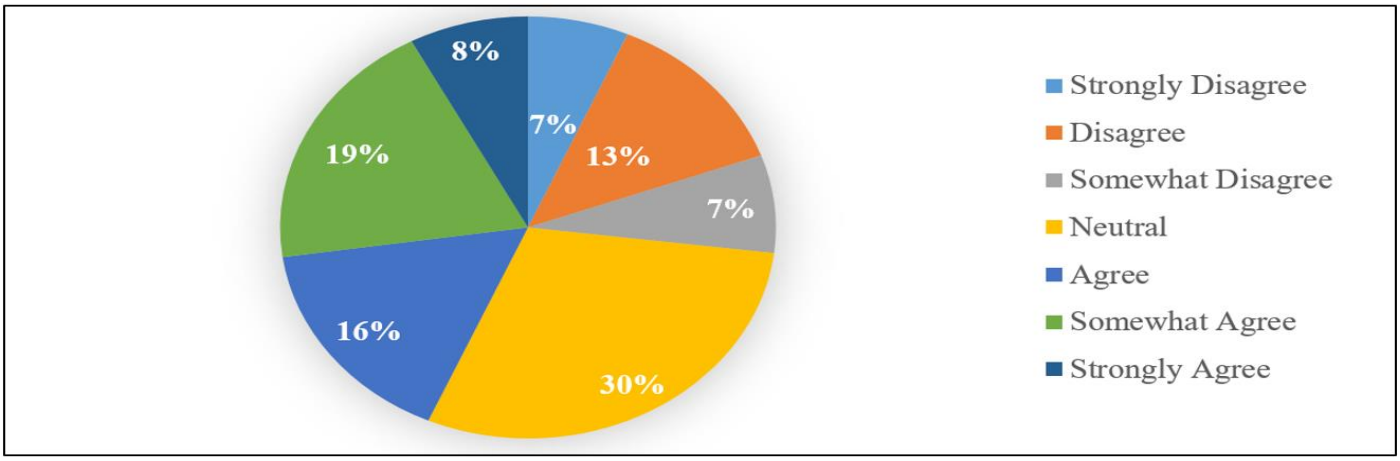

Fig 10 Summary response of "What is the strength of your desire to check your smartphone if you couldn't do so for a while?"

Table 11 Summary response of "Would you feel anxious if you couldn't instantly communicate with your family and/or friends through your smartphone?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	21	6.3
Disagree	47	14.1
Somewhat Disagree	26	7.8
Neutral	67	20.1
Somewhat Agree	45	13.5
Agree	84	25.1
Strongly Agree	44	13.2

334 participants were asked "Would you feel anxious if you couldn't instantly communicate with your family and/or friends through your smartphone" the participants responded *Strongly Disagree (6.3%), Disagree (14.1%), Somewhat Disagree (7.8%), Neutral (20.1%), Somewhat Agree (13.5%), Agree (25.1%) and Strongly Agree (13.2%).*

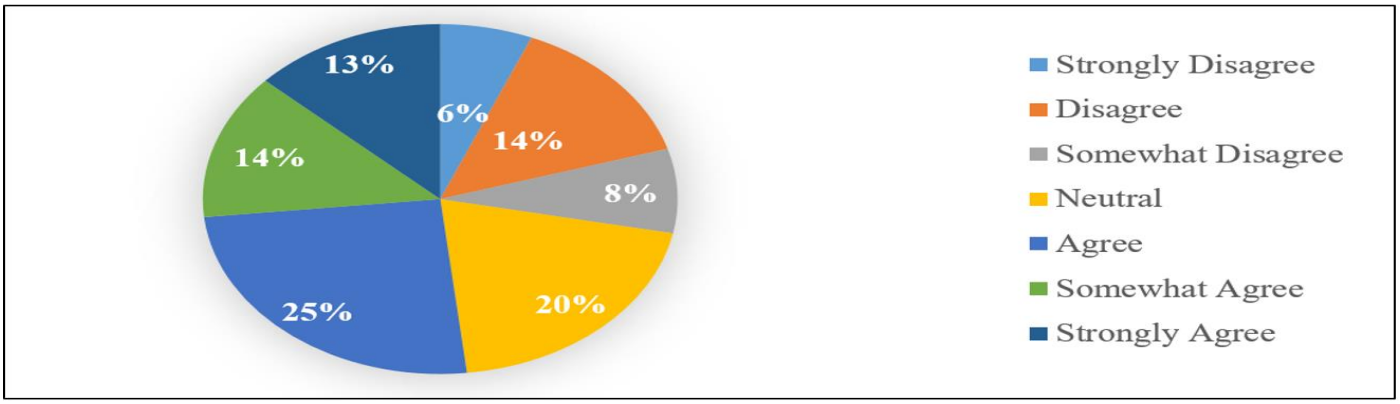

Fig 11 Summary response of "Would you feel anxious if you couldn't instantly communicate with your family and/or friends through your smartphone?"

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Table 12 Summary response of "Would you be nervous if you couldn't receive text messages and calls on your smartphone?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	27	8.1
Disagree	54	16.2
Somewhat Disagree	29	8.7
Neutral	62	18.6
Somewhat Agree	51	15.3
Agree	77	23.1
Strongly Agree	34	10.2

334 participants were asked "Would you be nervous if you couldn't receive text messages and calls on your smartphone" the participants responded *Strongly Disagree (8.1%), Disagree (16.2%), Somewhat Disagree (8.7%), Neutral (18.6%), Somewhat Agree (15.3%), Agree (23.1%) and Strongly Agree (10.2%).*

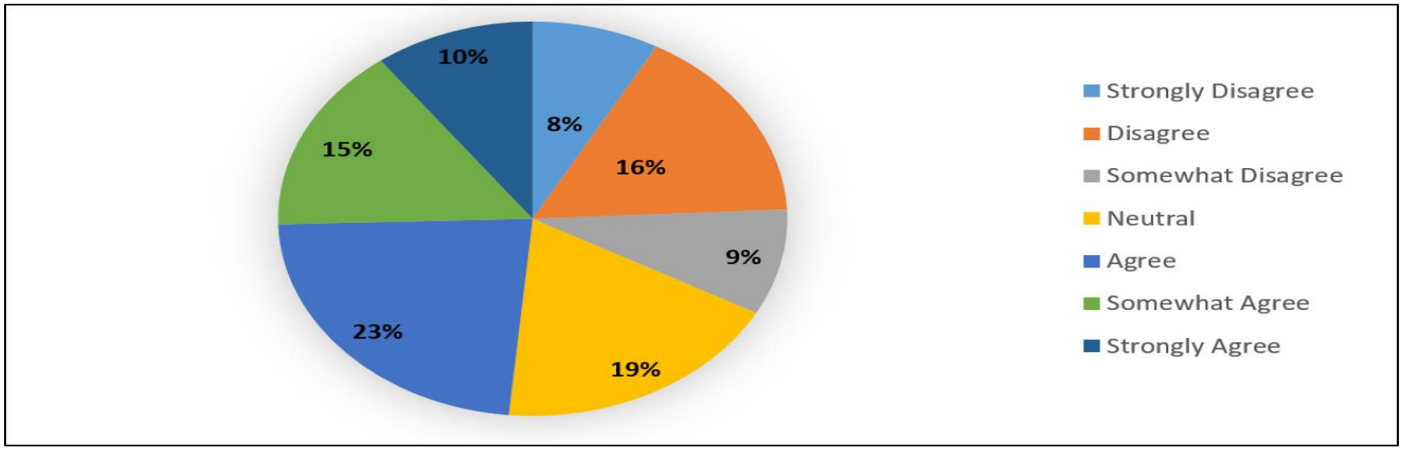

Fig 12 Summary response of "Would you be nervous if you couldn't receive text messages and calls on your smartphone?"

Table 13 Summary response of "Would you feel uneasy not knowing if someone had tried to get a hold of you?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	20	6.0
Disagree	45	13.5
Somewhat Disagree	27	8.1
Neutral	101	30.2
Somewhat Agree	50	15.0
Agree	58	17.4
Strongly Agree	33	9.9

334 participants were asked "Would you feel uneasy not knowing if someone had tried to get a hold of you" the participants responded *Strongly Disagree (6%), Disagree (13.5%), Somewhat Disagree (8.1%), Neutral (30.2%), Somewhat Agree (15%), Agree (17.4%) and Strongly Agree (9.9%).*

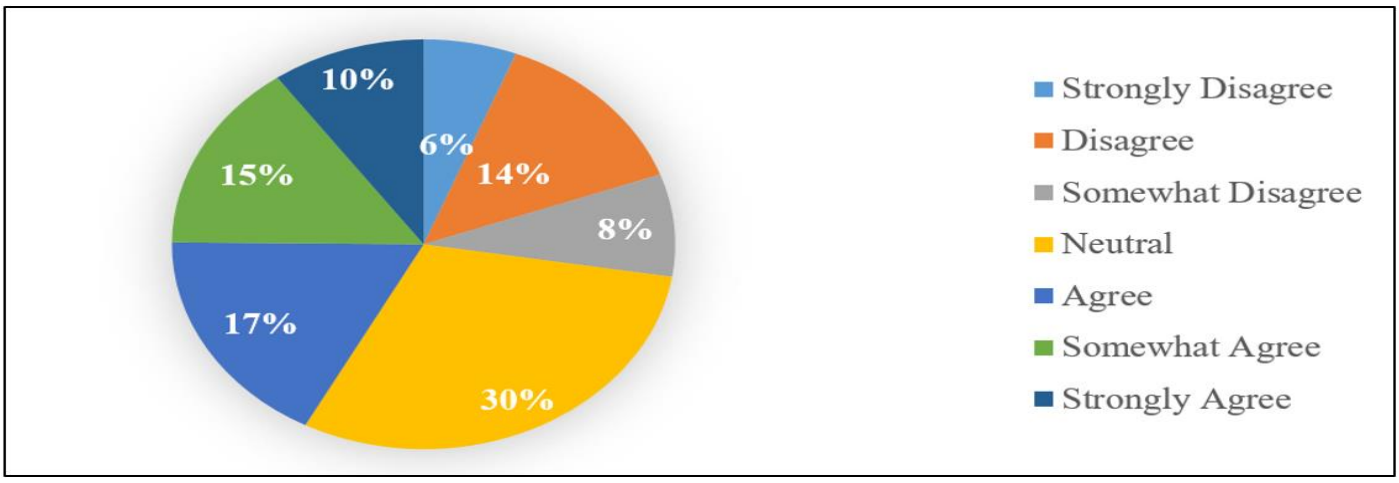

Fig 13 Summary response of "Would you feel uneasy not knowing if someone had tried to get a hold of you?"

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Table 14 Summary response of "Would you be nervous if you were disconnected from your online identity?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	29	8.7
Disagree	42	12.6
Somewhat Disagree	33	9.9
Neutral	76	22.8
Somewhat Agree	53	15.9
Agree	72	21.6
Strongly Agree	29	8.7

334 participants were asked "Would you be nervous if you were disconnected from your online identity" the participants responded *Strongly Disagree (8.7%), Disagree (12.6%), Somewhat Disagree (9.9%), Neutral (22.8%), Somewhat Agree (15.9%), Agree (21.6%) and Strongly Agree (8.7%).*

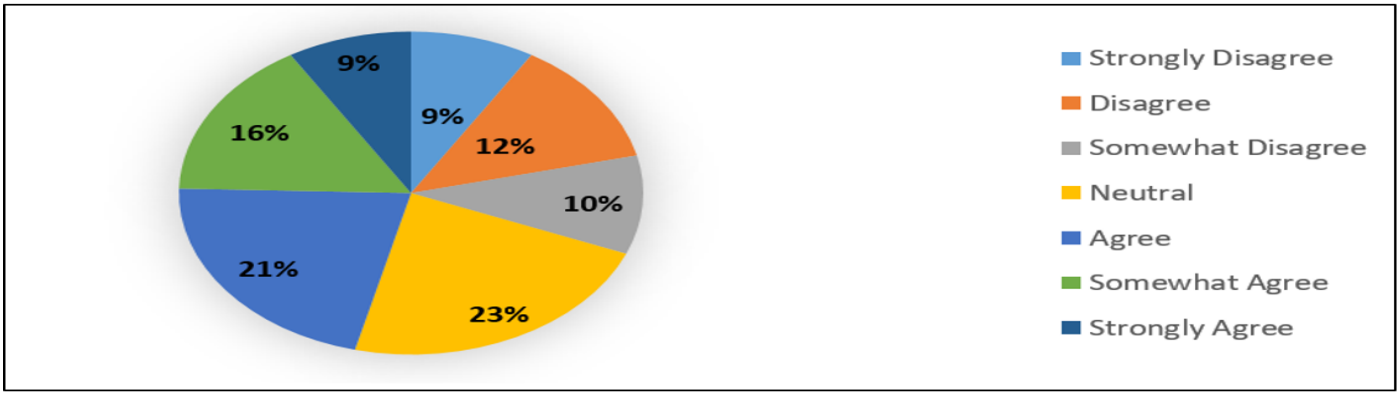

Fig 14 Summary response of "Would you be nervous if you were disconnected from your online identity?"

Table 15 Summary response of "Would you feel uncomfortable if you couldn't stay up-to-date with social media and online networks?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	28	8.4
Disagree	55	16.5
Somewhat Disagree	38	11.4
Neutral	81	24.3
Somewhat Agree	42	12.6
Agree	61	18.3
Strongly Agree	29	8.7

334 participants were asked "Would you feel uncomfortable if you couldn't stay up-to-date with social media and online networks" the participants responded *Strongly Disagree (8.4%), Disagree (16.5%), Somewhat Disagree (11.4%), Neutral (24.3%), Somewhat Agree (12.6%), Agree (18.3%) and Strongly Agree (8.7%).*

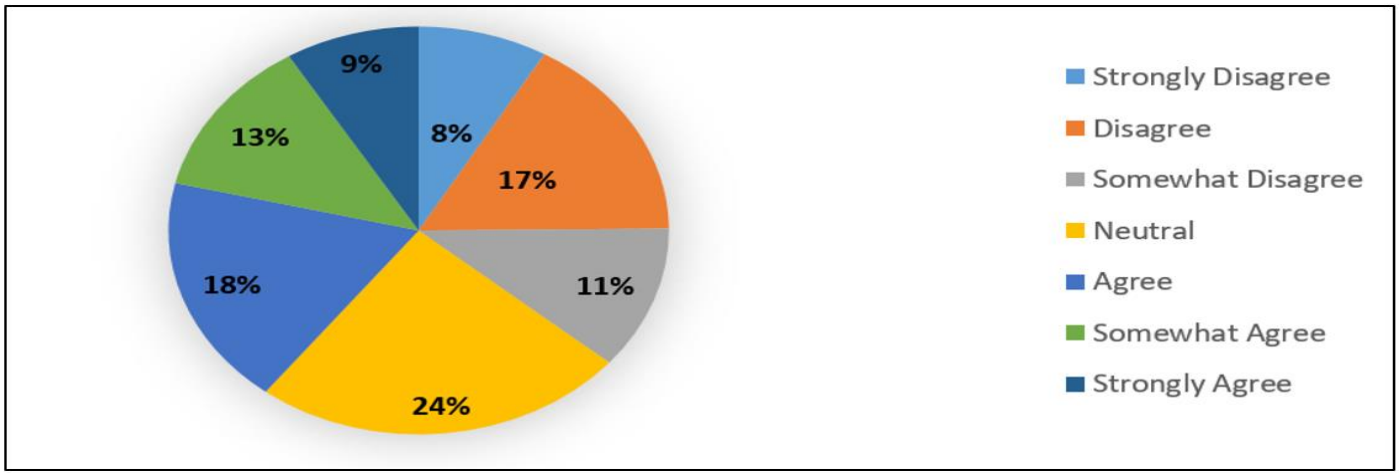

Fig 15 Summary response of "Would you feel uncomfortable if you couldn't stay up-to-date with social media and online networks?"

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Table 16 Summary response of "Would you feel awkward if you couldn't check your notifications for updates from your connections and online networks?"

Options	No. of Participants	Percentage (%)
Strongly Disagree	19	5.7
Disagree	48	14.4
Somewhat Disagree	35	10.5
Neutral	89	26.6
Somewhat Agree	49	14.7
Agree	64	19.2
Strongly Agree	30	9.0

334 participants were asked "Would you feel awkward if you couldn't check your notifications for updates from your connections and online networks" the participants responded *Strongly Disagree (5.7%), Disagree (14.4%), Somewhat Disagree (10.5%), Neutral (26.6%), Somewhat Agree (14.7%), Agree (19.2%) and Strongly Agree (9%).*

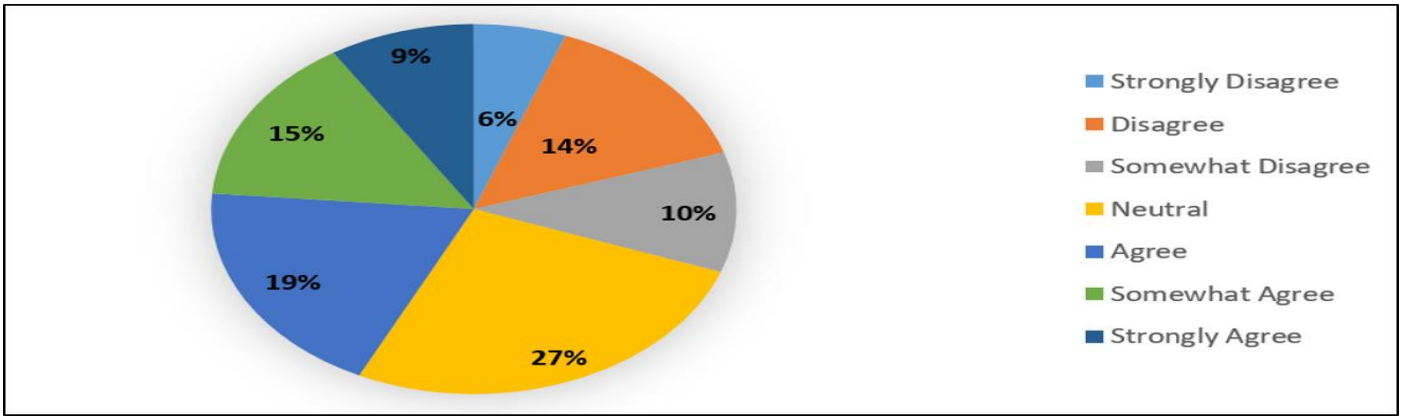

Fig 16 Summary response of "Would you feel awkward if you couldn't check your notifications for updates from your connections and online networks?"

Table 17 Summary response of Would you feel anxious if you couldn't check your email messages on your smartphone?

Options	No. of Participants	Percentage (%)
Strongly Disagree	18	5.4
Disagree	64	19.2
Somewhat Disagree	29	8.7
Neutral	89	26.6
Somewhat Agree	28	8.4
Agree	77	23.1
Strongly Agree	29	8.7

334 participants were asked "Would you feel anxious if you couldn't check your email messages on your smartphone" the participants responded *Strongly Disagree (5.4%), Disagree (19.2%), Somewhat Disagree (8.7%), Neutral (26.6%), Somewhat Agree (8.4%), Agree (23.1%) and Strongly Agree (8.7%).*

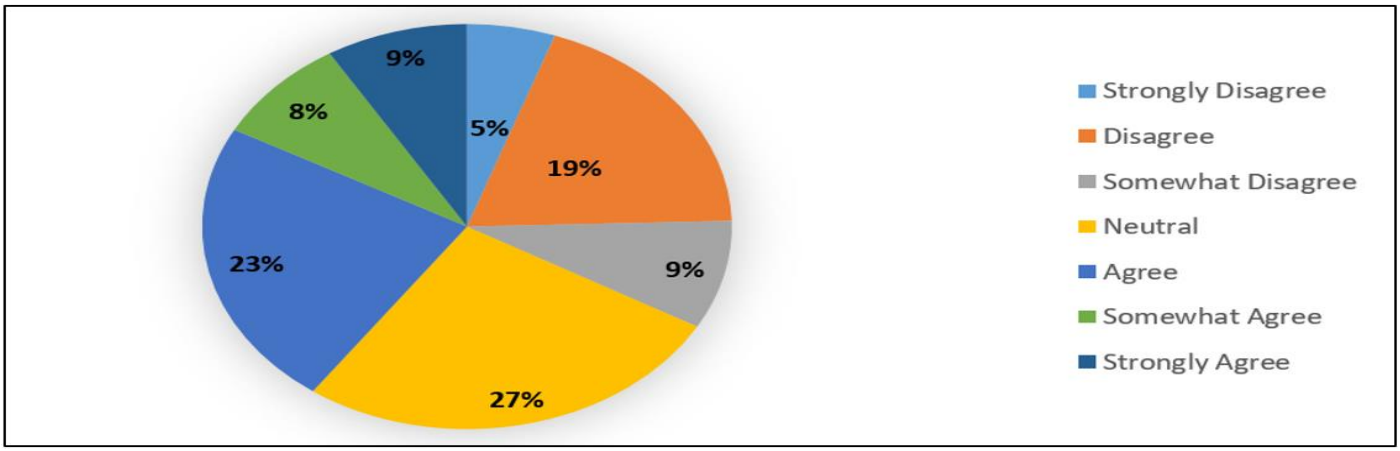

Fig 17 Summary response of "Would you feel anxious if you couldn't check your email messages on your smartphone?"

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Table 18 Summary response of Would you feel weird if you didn't know what to do without your smartphone?

Options	No. of Participants	Percentage (%)
Strongly Disagree	29	8.7
Disagree	32	9.6
Somewhat Disagree	39	11.7
Neutral	86	25.7
Somewhat Agree	47	14.1
Agree	74	22.2
Strongly Agree	27	8.1

334 participants were asked "Would you feel weird if you didn't know what to do without your smartphone" the participants responded *Strongly Disagree (8.7%), Disagree (9.6%), Somewhat Disagree (11.7%), Neutral (25.7%), Somewhat Agree (14.1%), Agree (22.2%) and Strongly Agree (8.1%).*

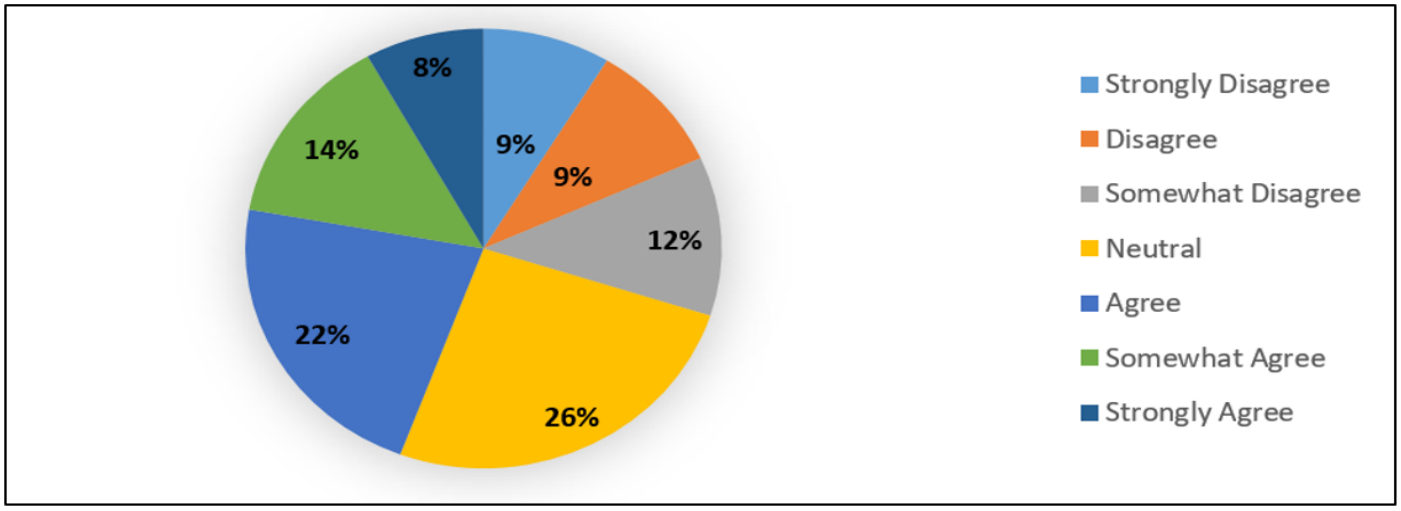

Fig 18 Summary response of "Would you feel weird if you didn't know what to do without your smartphone?"

Table 19 Summary response of Cannot get to sleep within 30 minutes?

Options	No. of Participants	Percentage (%)
Not during the past month	130	38.9
Less than once a week	77	23.1
Once or twice a week	78	23.4
Three or more times a week	49	14.7

334 participants were asked "Cannot get to sleep within 30 minutes" the participants responded *Not during the past month (38.9%), Less than once a week (23.1%), Once or twice a week (23.4%), Three or more times a week (14.7%).*

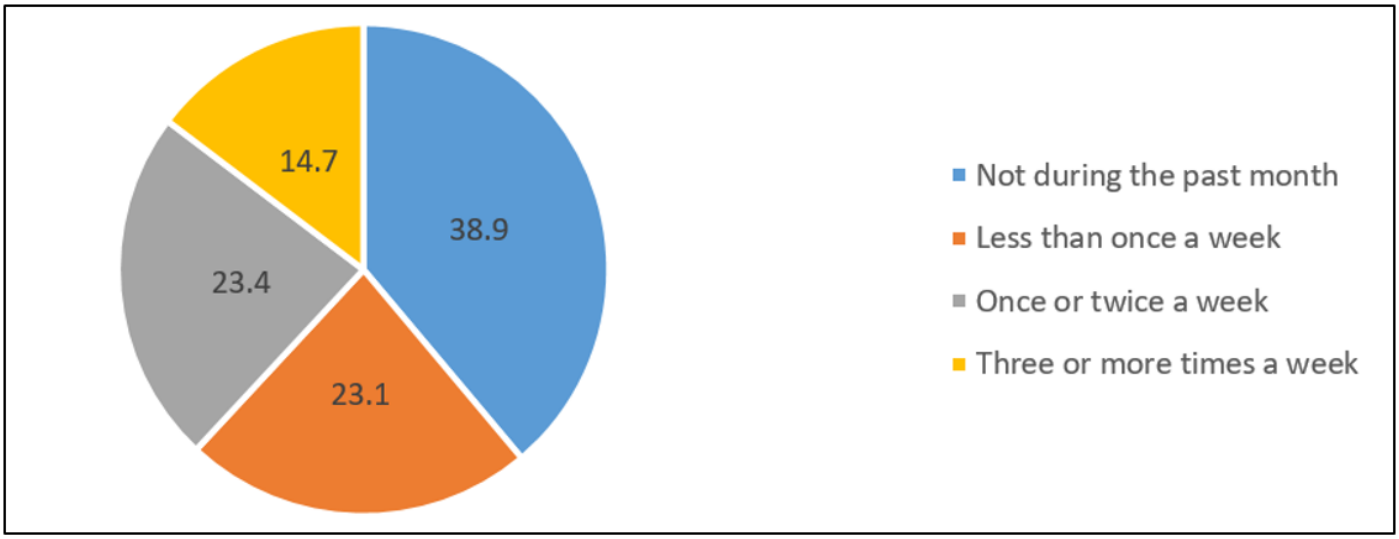

Fig 19 Summary response of "Cannot get to sleep within 30 minutes?"

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Table 20 Summary response to "Wake up in the middle of the night or early morning?"

Options	No. of Participants	Percentage (%)
Not during the past month	89	26.6
Less than once a week	79	23.7
Once or twice a week	112	33.5
Three or more times a week	54	16.2

334 participants were asked "Cannot get to sleep within 30 minutes." The participants responded *Not during the past month (26.6%), Less than once a week (23.7%), Once or twice a week (33.5%), Three or more times a week (16.2%).*

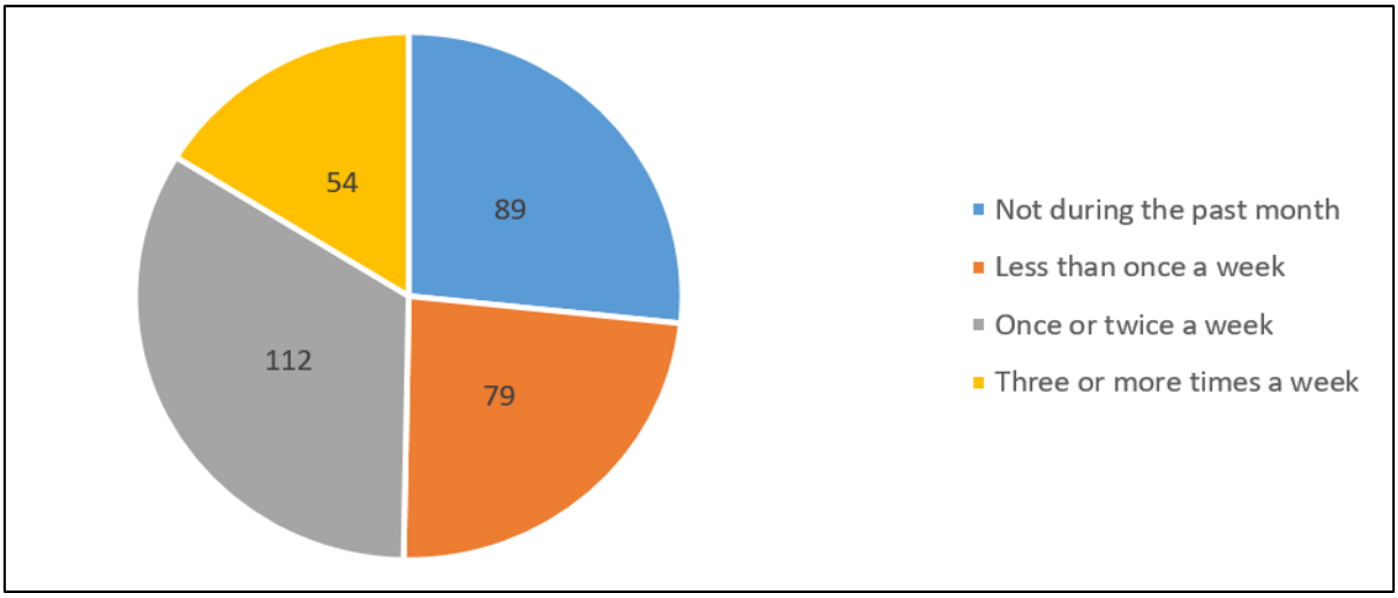

Fig 20 Summary response of "Wake up in the middle of the night or early morning?"

Table 21 Summary response of "Have to get up to use the bathroom?"

Options	No. of Participants	Percentage (%)
Not during the past month	97	29.0
Less than once a week	94	28.1
Once or twice a week	75	22.5
Three or more times a week	68	20.4

334 participants were asked "Have to get up to use the bathroom" the participants responded *Not during the past month (29%), Less than once a week (28.1%), Once or twice a week (22.5%), Three or more times a week (20.4%).*

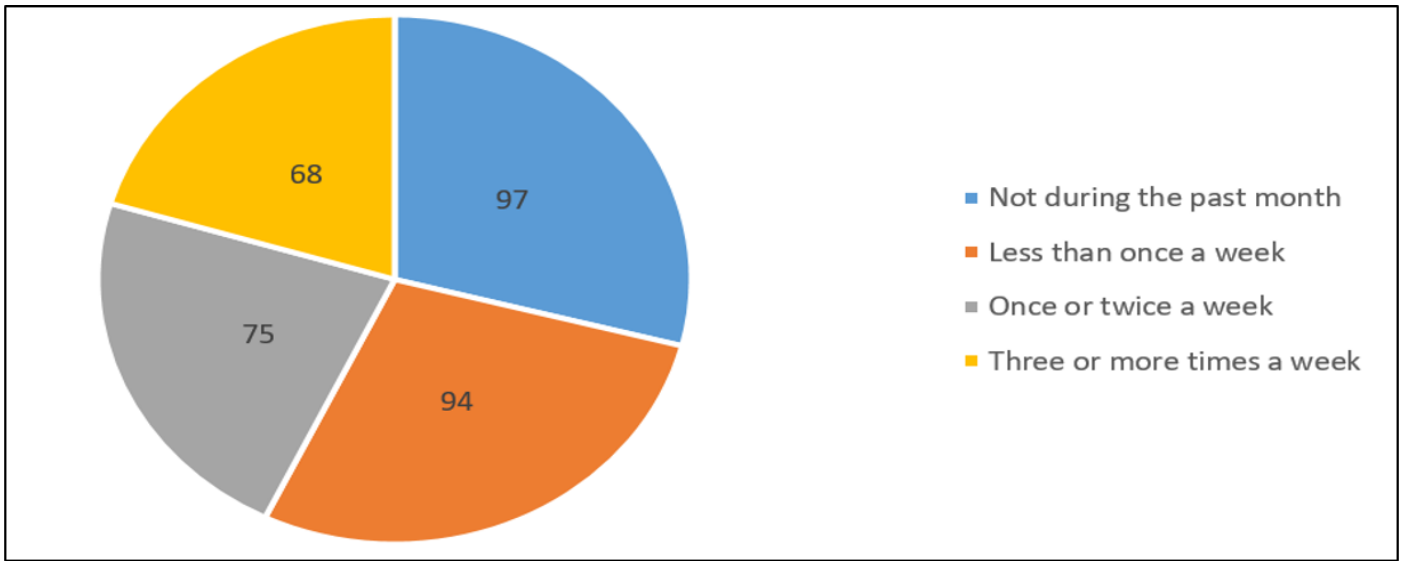

Fig 21 Summary response of "Have to get up to use the bathroom?"

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Table 22 Summary response of "Cannot breathe comfortably"

Options	No. of Participants	Percentage (%)
Not during the past month	176	52.7
Less than once a week	63	18.9
Once or twice a week	60	18.0
Three or more times a week	35	10.5

334 participants were asked "Cannot breathe comfortably." The participants responded *Not during the past month (52.7%), Less than once a week (18.9%), Once or twice a week (18%), Three or more times a week (10.5%).*

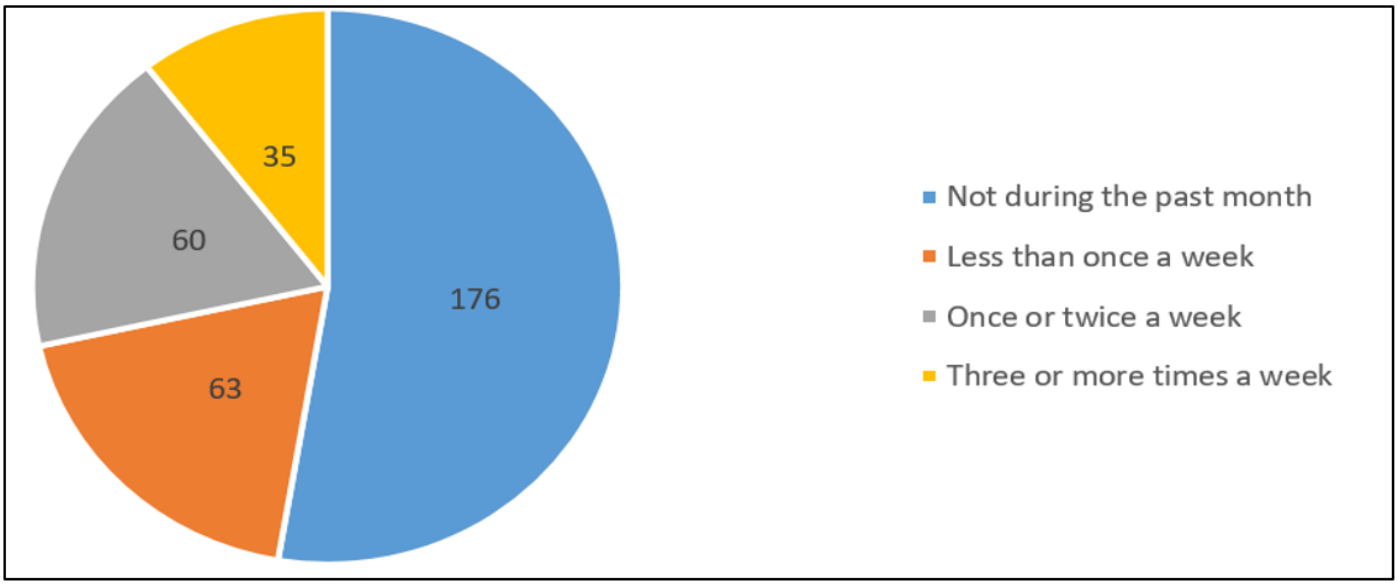

Fig 22 Summary response of "Cannot breathe comfortably"

Table 23 Summary response of "Cough or snore loudly"

Options	No. of Participants	Percentage (%)
Not during the past month	178	53.3
Less than once a week	72	21.6
Once or twice a week	56	16.8
Three or more times a week	28	8.4

334 participants were asked "Cough or snore loudly." The participants responded *Not during the past month (53.3%), Less than once a week (21.6%), Once or twice a week (16.8%), Three or more times a week (8.4%).*

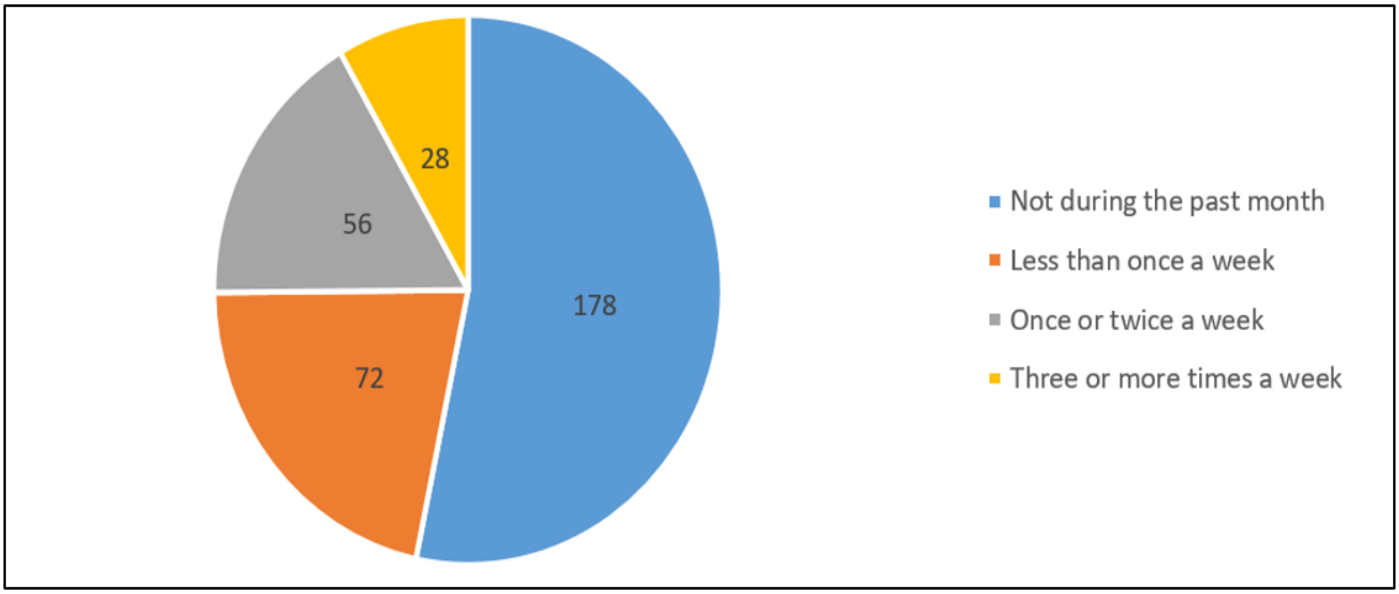

Fig 23 Summary response of coughing or snoring loudly

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Table 24 Summary response of "Feel too cold"

Options	No. of Participants	Percentage (%)
Not during the past month	157	47.0
Less than once a week	81	24.3
Once or twice a week	71	21.3
Three or more times a week	25	7.5

334 participants were asked "Feel too cold" the participants responded *Not during the past month (47%), Less than once a week (24.3%), Once or twice a week (21.3%), Three or more times a week (7.5%).*

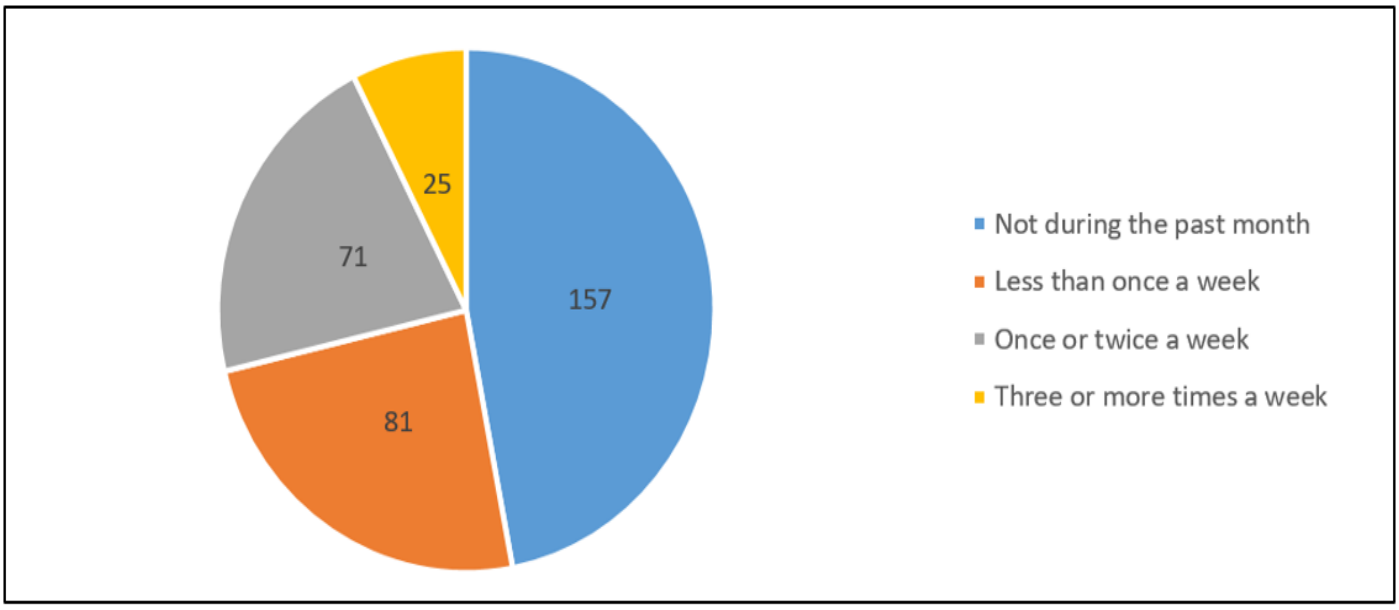

Fig 24 Summary response of "Feel too cold"

Table 25 Summary response of "Feel too hot"

Options	No. of Participants	Percentage (%)
Not during the past month	145	43.4
Less than once a week	80	24.0
Once or twice a week	68	20.4
Three or more times a week	41	12.3

334 participants were asked "Feel too cold" the participants responded *Not during the past month (43.4%), Less than once a week (24%), Once or twice a week (20.4%), Three or more times a week (12.3%).*

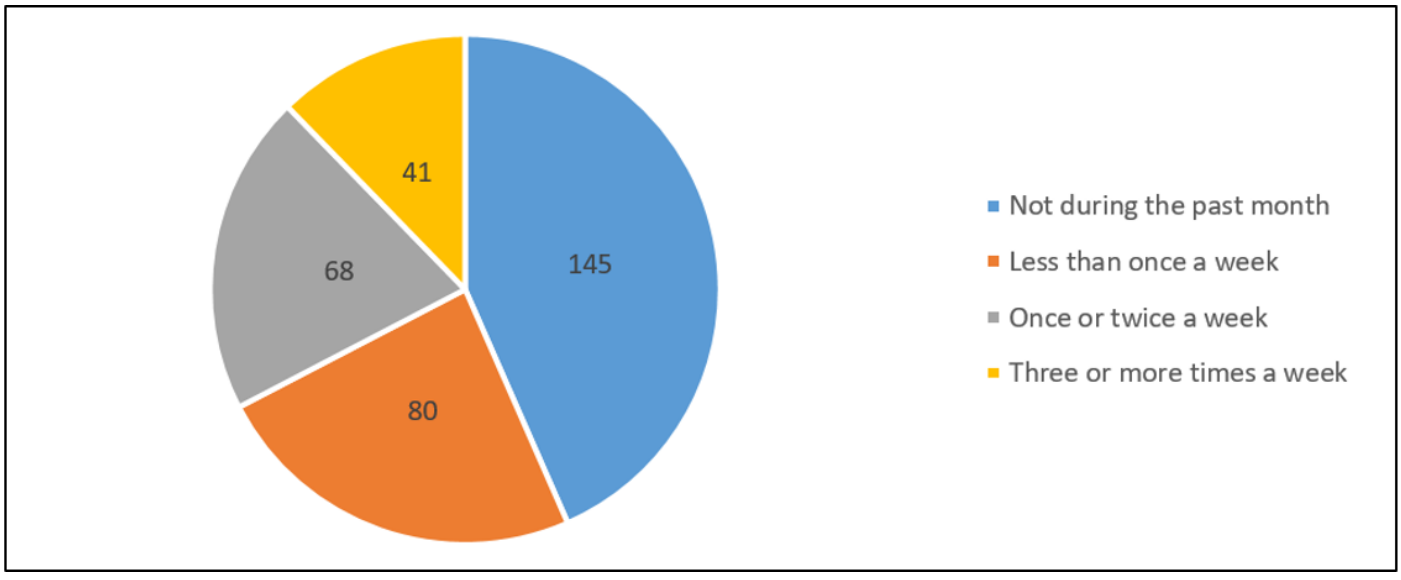

Fig 25 Summary response of "Feel too hot"

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Table 26 Summary response of "Had bad dreams"

Options	No. of Participants	Percentage (%)
Not during the past month	113	33.8
Less than once a week	100	29.9
Once or twice a week	87	26.0
Three or more times a week	34	10.2

334 participants were asked "Had bad dreams." The participants responded *Not during the past month (33.8%), Less than once a week (29.9%), Once or twice a week (26%), Three or more times a week (10.2%).*

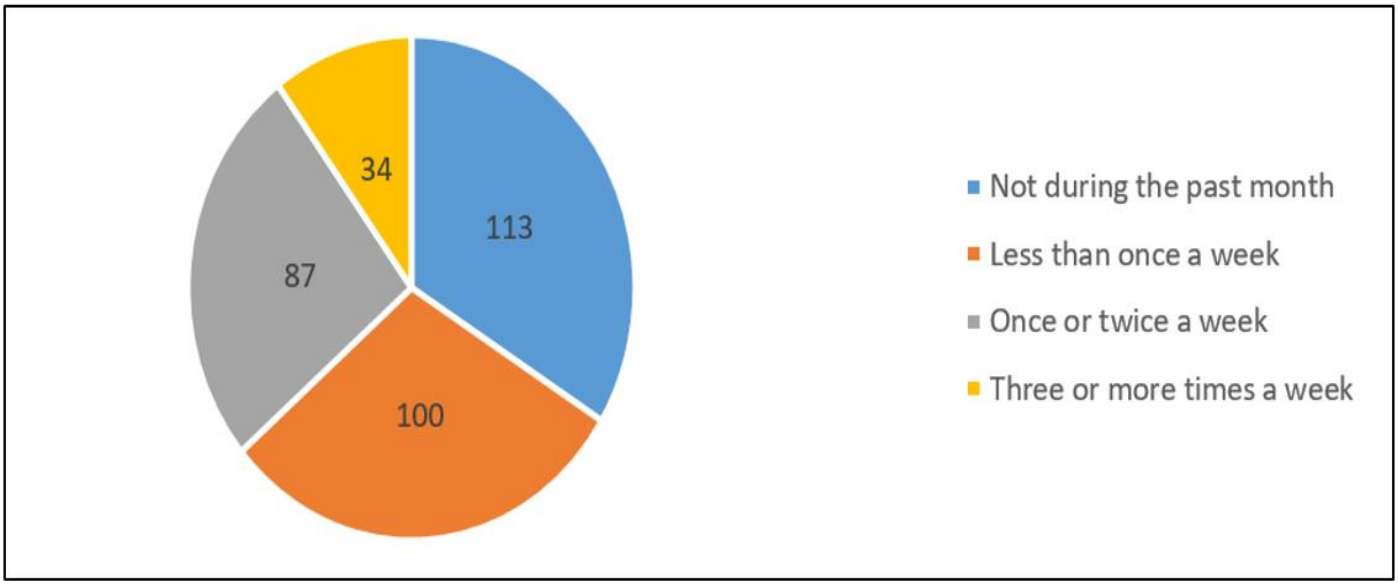

Fig 26 Summary response of "Had bad dreams"

Table 27 Summary response of "Have pain"

Options	No. of Participants	Percentage (%)
Not during the past month	163	48.8
Less than once a week	65	19.5
Once or twice a week	71	21.3
Three or more times a week	35	10.5

334 participants were asked **"Have pain"** the participants responded *Not during the past month (48.8%), Less than once a week (19.5%), Once or twice a week (21.3%), Three or more times a week (10.5%).*

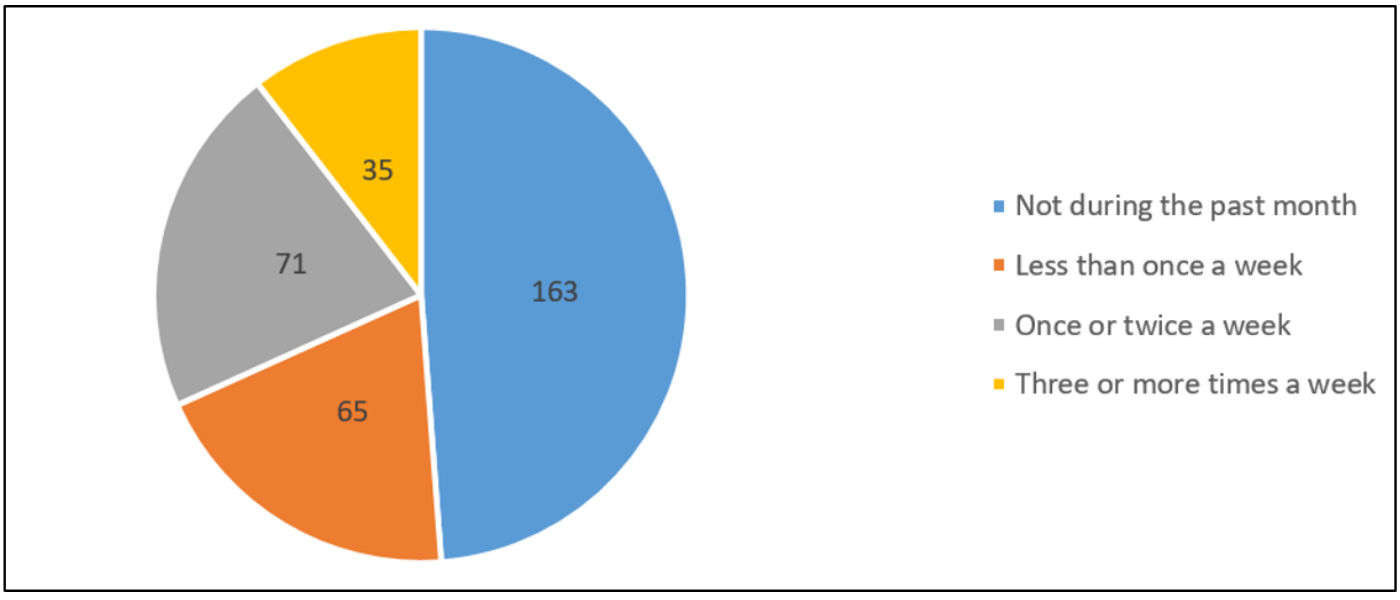

Fig 27 Summary response of "Have pain"

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Table 28 Summary response of "How often during the past month have you had trouble sleeping because of this?"

Options	No. of Participants	Percentage (%)
Not during the past month	163	48.8
Less than once a week	83	24.9
Once or twice a week	63	18.9
Three or more times a week	25	7.5

334 participants were asked "How often during the past month have you had trouble sleeping because of this" the participants responded *Not during the past month (48.8%), Less than once a week (24.9%), Once or twice a week (18.9%), Three or more times a week (7.5%).*

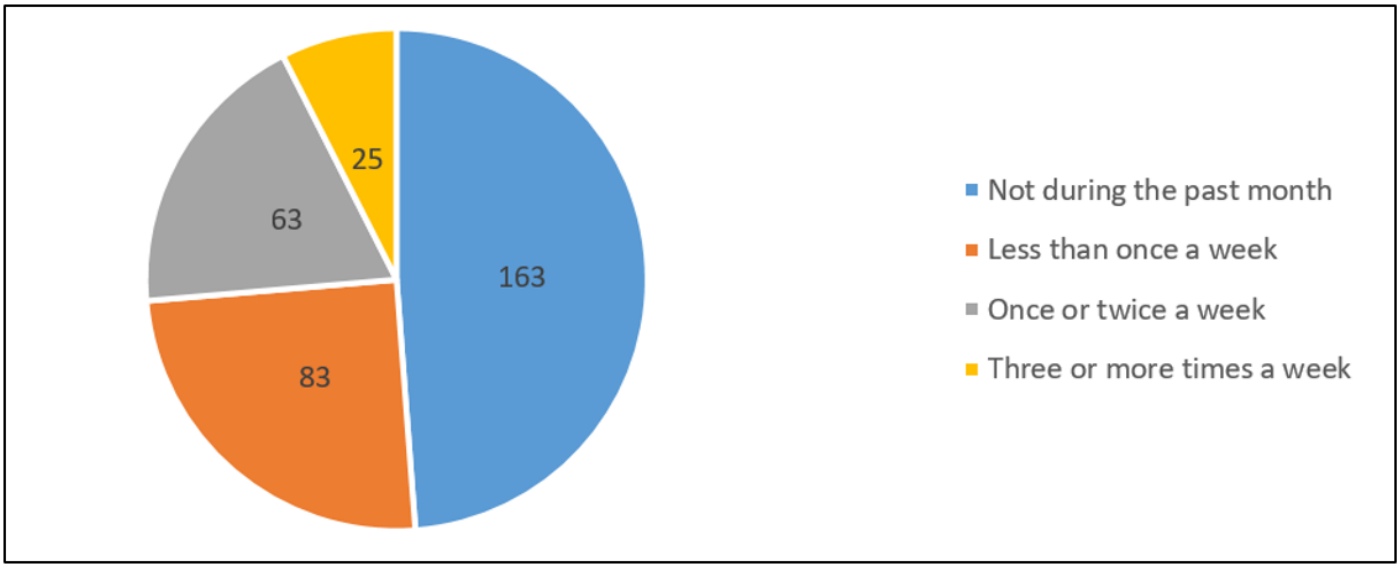

Fig 28 Summary response of "How often during the past month have you had trouble sleeping because of this?"

Table 29 Summary response of "During the past month, how would you rate your sleep quality overall?"

Options	No. of Participants	Percentage (%)
Very good	111	33.2
Fairly good	161	48.2
Fairly bad	49	14.7
Very bad	13	3.9

334 participants were asked, "During the past month, how would you rate your sleep quality overall" the participants responded *Very good (33.2%), Fairly good (48.2%), Fairly bad (14.7%), Very bad (3.9%).*

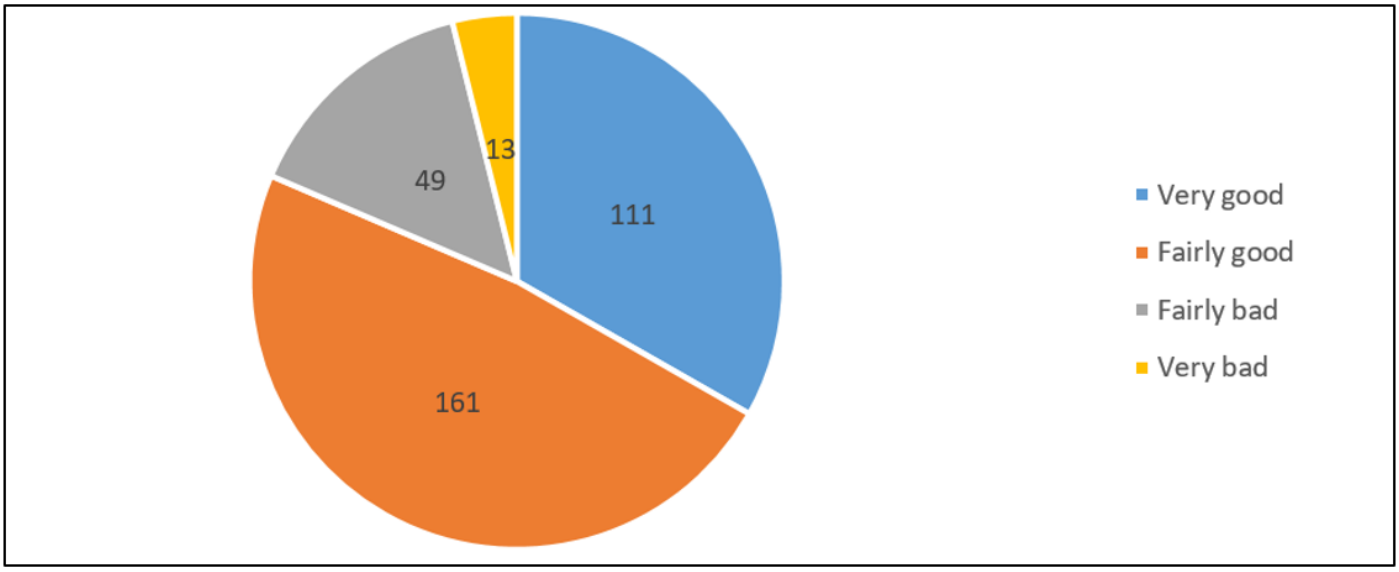

Fig 29 Summary response of "During the past month, how would you rate your sleep quality overall?"

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Table 30 Summary response of "During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?"

Options	No. of Participants	Percentage (%)
Not during the past month	204	61.1
Less than once a week	57	17.1
Once or twice a week	60	18.0
Three or more times a week	13	3.9

334 participants were asked "During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")" the participants responded *Not during the past month (61.1%), Less than once a week (17.1%), Once or twice a week (18.1%), Three or more times a week (3.9%).*

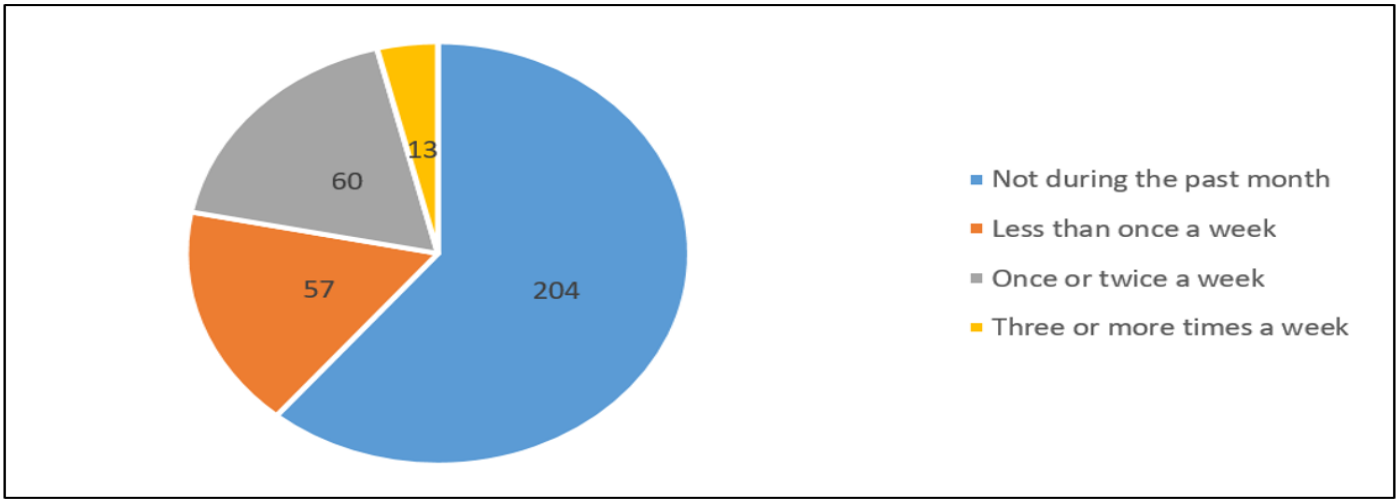

Fig 30 Summary response of "During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?"

Table 31 Summary response of "During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?"

Options	No. of Participants	Percentage (%)
Not during the past month	160	47.9
Less than once a week	91	27.2
Once or twice a week	66	19.8
Three or more times a week	17	5.1

334 participants were asked "During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity" the participants responded *Not during the past month (47.9%), Less than once a week (27.2%), Once or twice a week (19.8%), Three or more times a week (5.1%).*

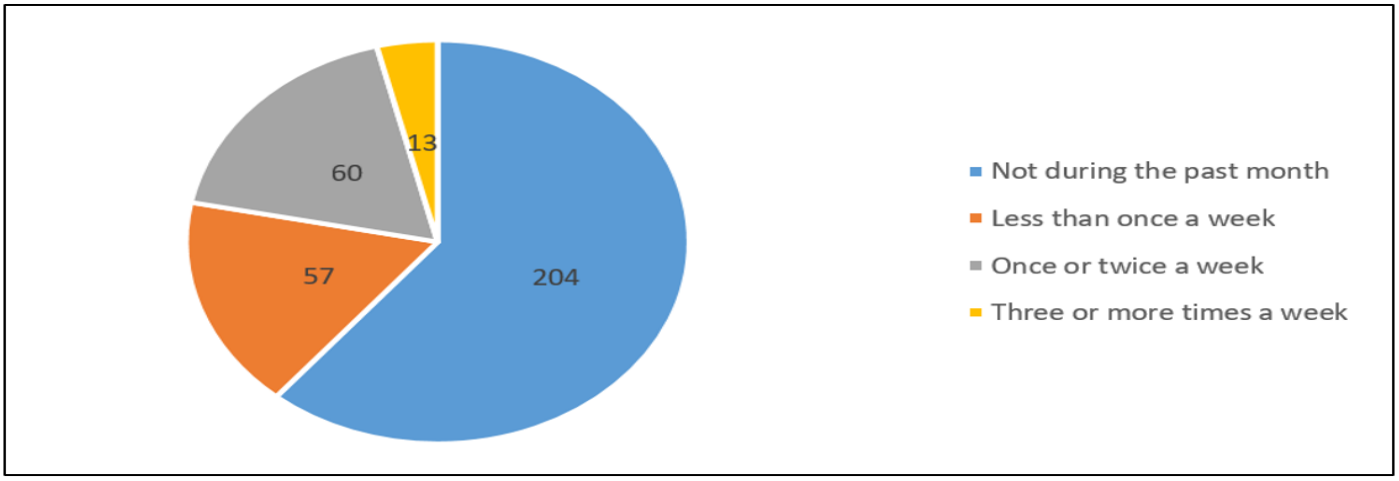

Fig 31 Summary response of "During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?"

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Table 32 Summary response of "During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?"

Options	No. of Participants	Percentage (%)
Not a problem at all	147	44.0
Only a very slight problem	94	28.1
Somewhat of a problem	73	21.9
A very big problem	20	6.0

334 participants were asked "During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done" the participants responded *Not a problem at all (44%), only a very slight problem (28.1%), Somewhat of a problem (21.9), A very big problem (6%).*

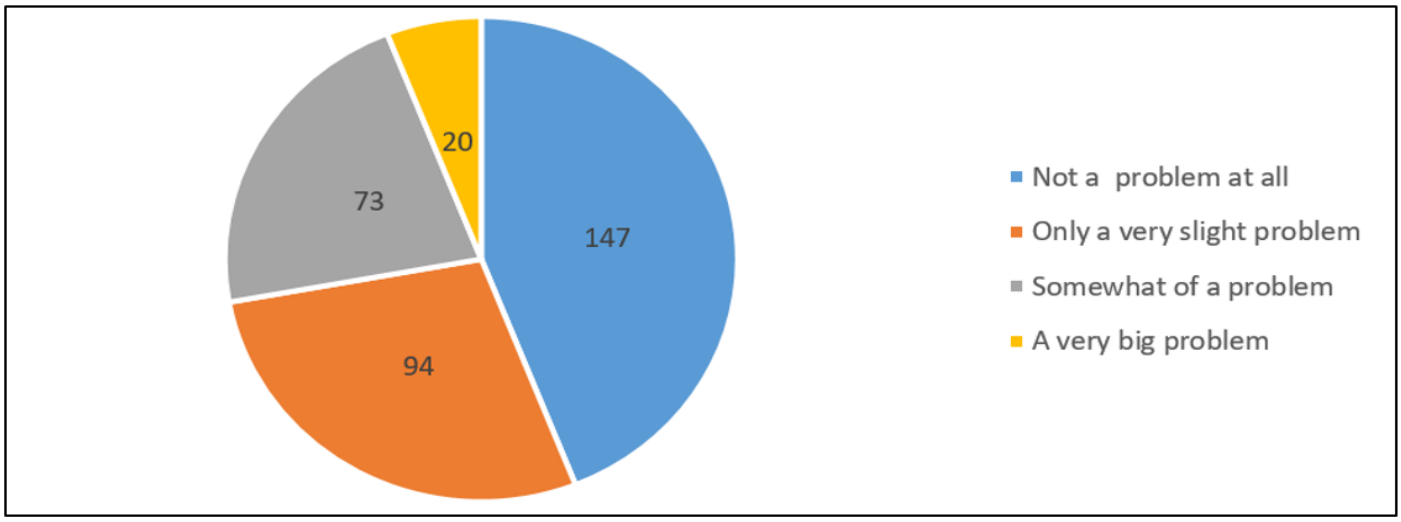

Fig 32 Summary response of "During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?"

Table 33 Summary response to "Do you have a bed partner or roommate?"

Options	No. of Participants	Percentage (%)
No bed partner or roommate	164	49.1
Partner/roommate in other room	49	14.7
Partner in same room, but not same bed	79	23.7
Partner in same bed	42	12.6

334 participants were asked "During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done" the participants responded *No bed partner or roommate (49.1%), Partner/roommate in other room (14.7%), Partner in same room, but not same bed (23.7), Partner in same bed (12.6%).*

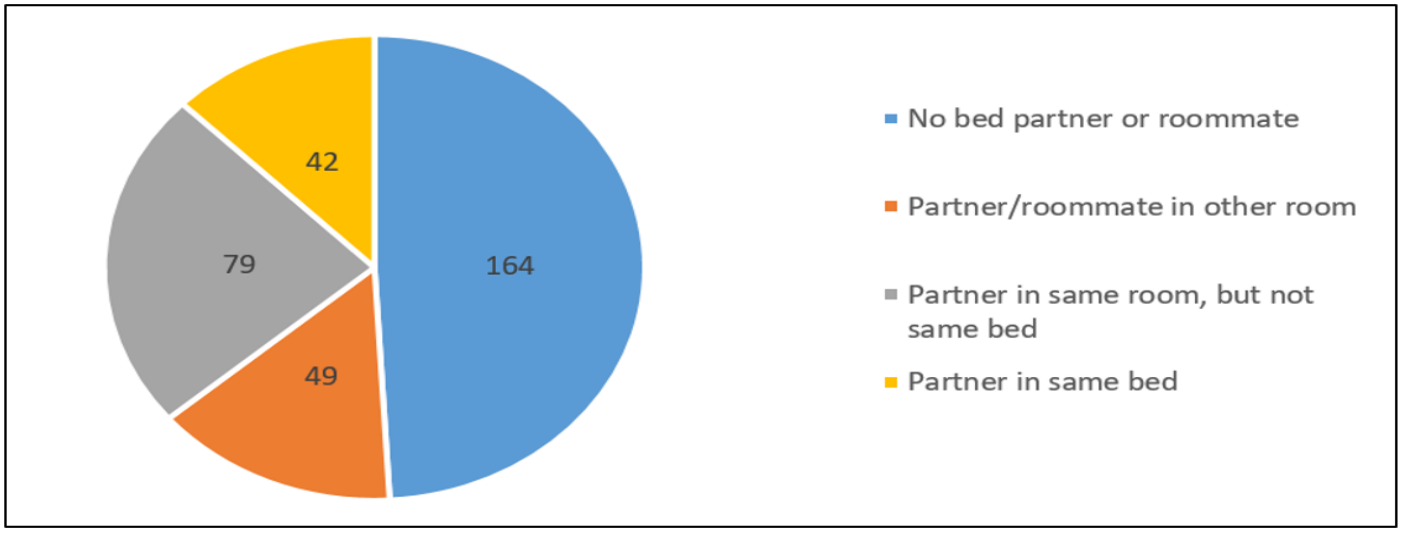

Fig 33 Summary response of "Do you have a bed partner or roommate?"

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Table 34 Summary response of "Loud snoring"

Options	No. of Participants	Percentage (%)
Not during the past month	196	58.7
Less than once a week	56	16.8
Once or twice a week	64	19.2
Three or more times a week	18	5.4

334 participants were asked "Loud snoring" the participants responded *Not during the past month (58.7%), Less than once a week (16.8%), Once or twice a week (19.2%), Three or more times a week (5.4%).*

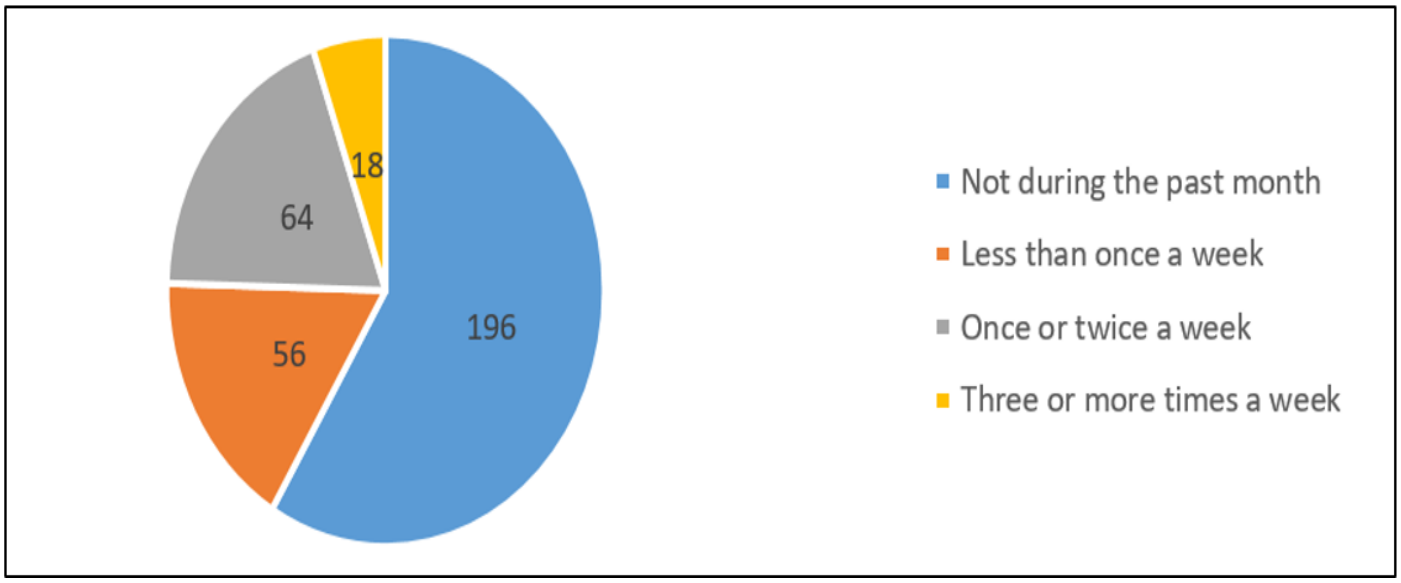

Fig 34 Summary response of "Loud snoring"

Table 35 Summary response of "Long pauses between breaths while asleep"

Options	No. of Participants	Percentage (%)
Not during the past month	191	57.2
Less than once a week	63	18.9
Once or twice a week	60	18.0
Three or more times a week	20	6.0

334 participants were asked "Long pauses between breaths while asleep" the participants responded *Not during the past month (57.2%), Less than once a week (18.9%), Once or twice a week (18%), Three or more times a week (6%).*

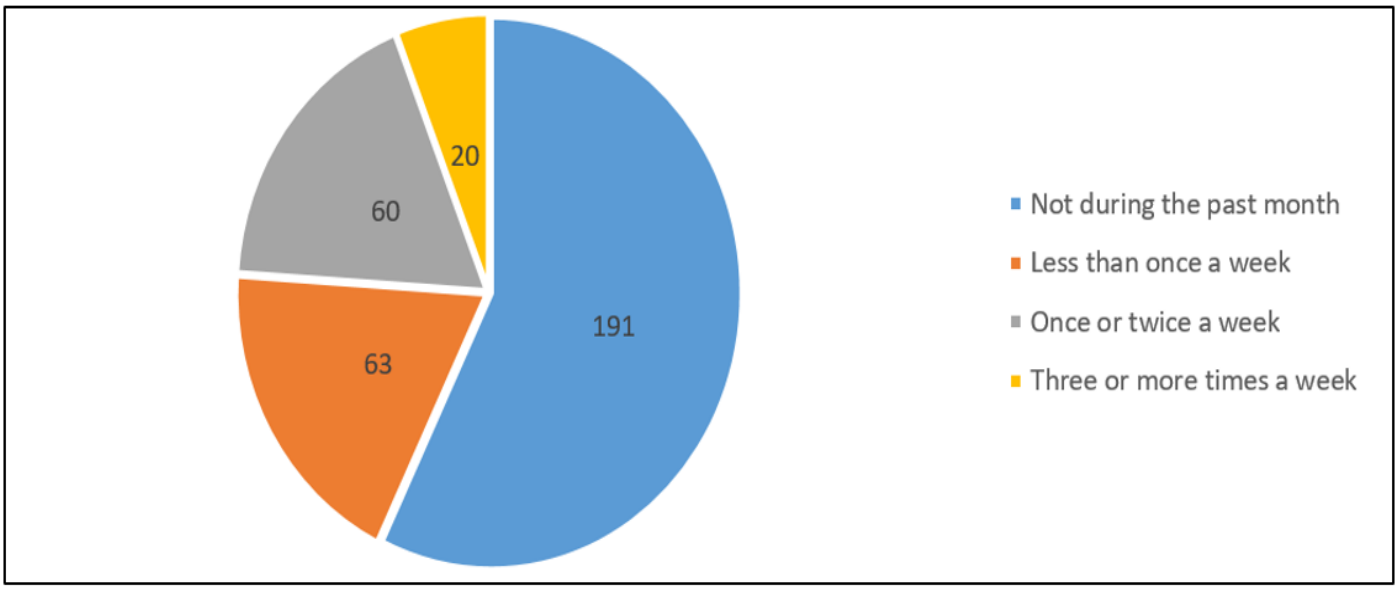

Fig 35 Summary response of "Long pauses between breaths while asleep"

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Table 36 Summary response of "Legs twitching or jerking while you sleep"

Options	No. of Participants	Percentage (%)
Not during the past month	176	52.7
Less than once a week	66	19.8
Once or twice a week	65	19.5
Three or more times a week	27	8.1

334 participants were asked "Legs twitching or jerking while you sleep" the participants responded *Not during the past month (52.7%), Less than once a week (19.8%), Once or twice a week (19.5%), Three or more times a week (8.1%).*

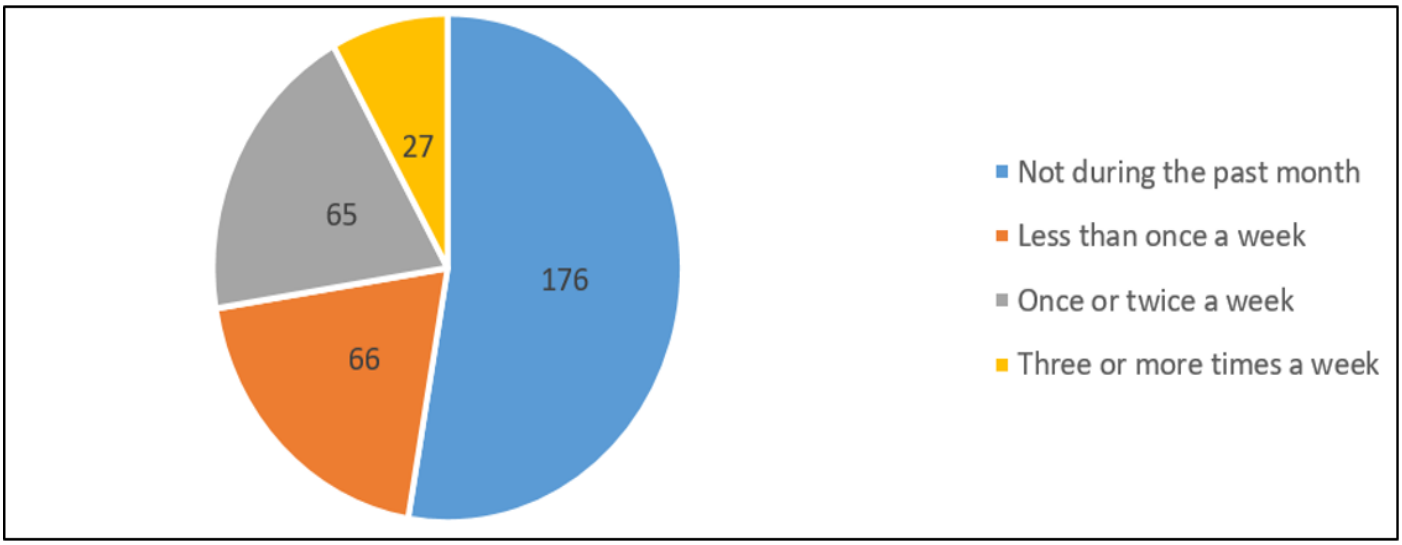

Fig 36 Summary response of "Legs twitching or jerking while you sleep"

Table 37 Summary response of "Episodes of disorientation or confusion during sleep"

Options	No. of Participants	Percentage (%)
Not during the past month	178	53.3
Less than once a week	69	20.7
Once or twice a week	65	19.5
Three or more times a week	22	6.6

334 participants were asked "Episodes of disorientation or confusion during sleep" the participants responded *Not during the past month (53.3%), Less than once a week (20.7%), Once or twice a week (19.5%), Three or more times a week (6.6%).*

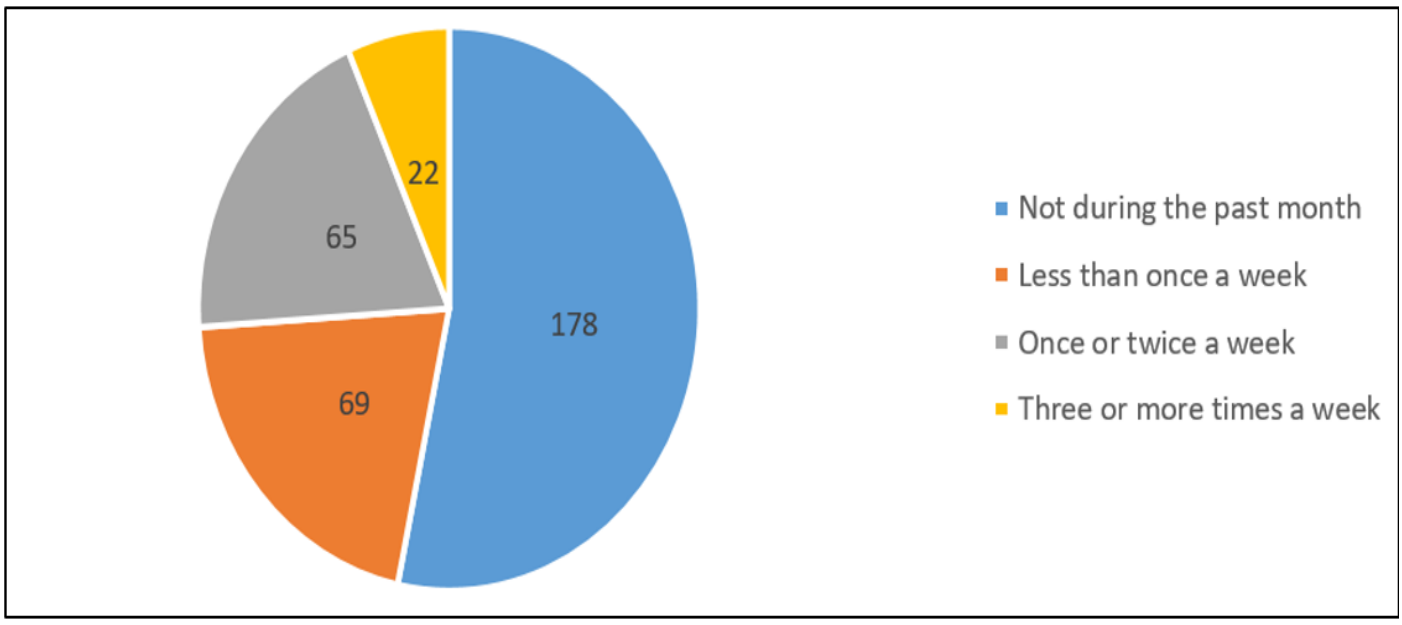

Fig 37 Summary response of "Episodes of disorientation or confusion during sleep"

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Table 38 Summary response of "Other restlessness while you sleep"

Options	No. of Participants	Percentage (%)
Not during the past month	189	56.6
Less than once a week	70	21.0
Once or twice a week	52	15.6
Three or more times a week	23	6.9

334 participants were asked "Other restlessness while you sleep" the participants responded *Not during the past month (56.6%), Less than once a week (21%), Once or twice a week (15.6%), Three or more times a week (6.9%).*

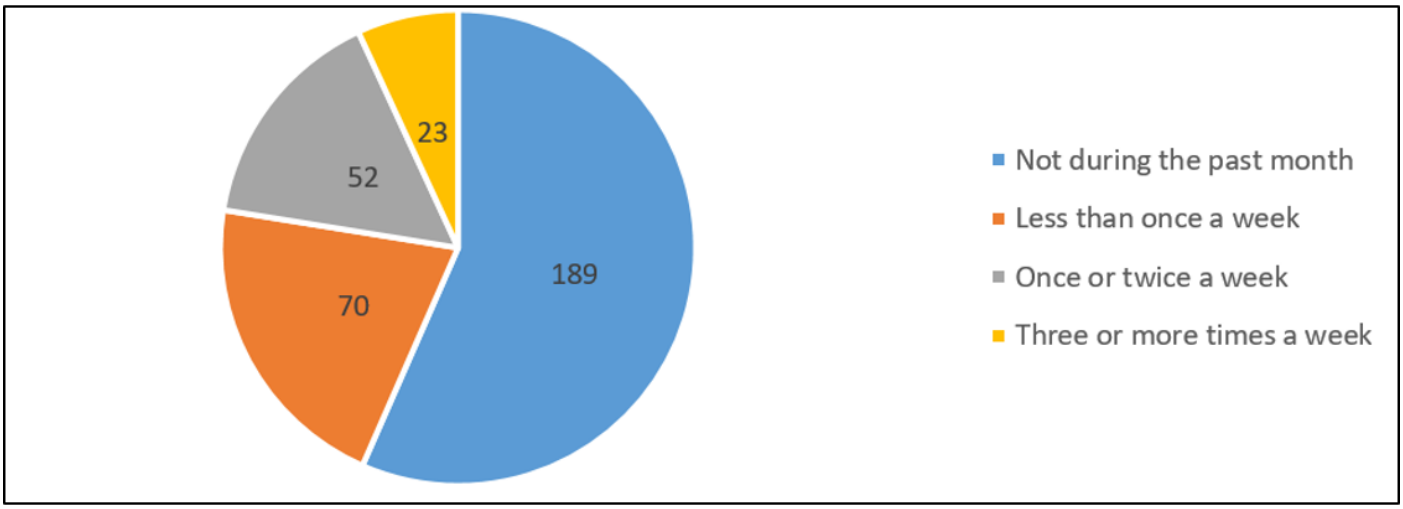

Fig 38 Summary response of "Other restlessness while you sleep"

Table 39 Estimation of Nomophobia among participants

Description	Frequency (N=334)	Percentage (%)
No nomophobia	2	0.60
Mild nomophobia	52	15.57
Moderate nomophobia	199	59.58
Severe nomophobia	81	24.25

The study involved a total of 334 participants who were classified into four distinct categories based on the severity of their nomophobia levels. These categories included individuals exhibiting No Nomophobia, accounting for 0.6% of the participants, those with Mild Nomophobia, comprising 15.5% of the sample, participants with Moderate Nomophobia, representing the majority at 59.58%, and finally, individuals demonstrating Severe Nomophobia, making up 24.25% of the total participants.

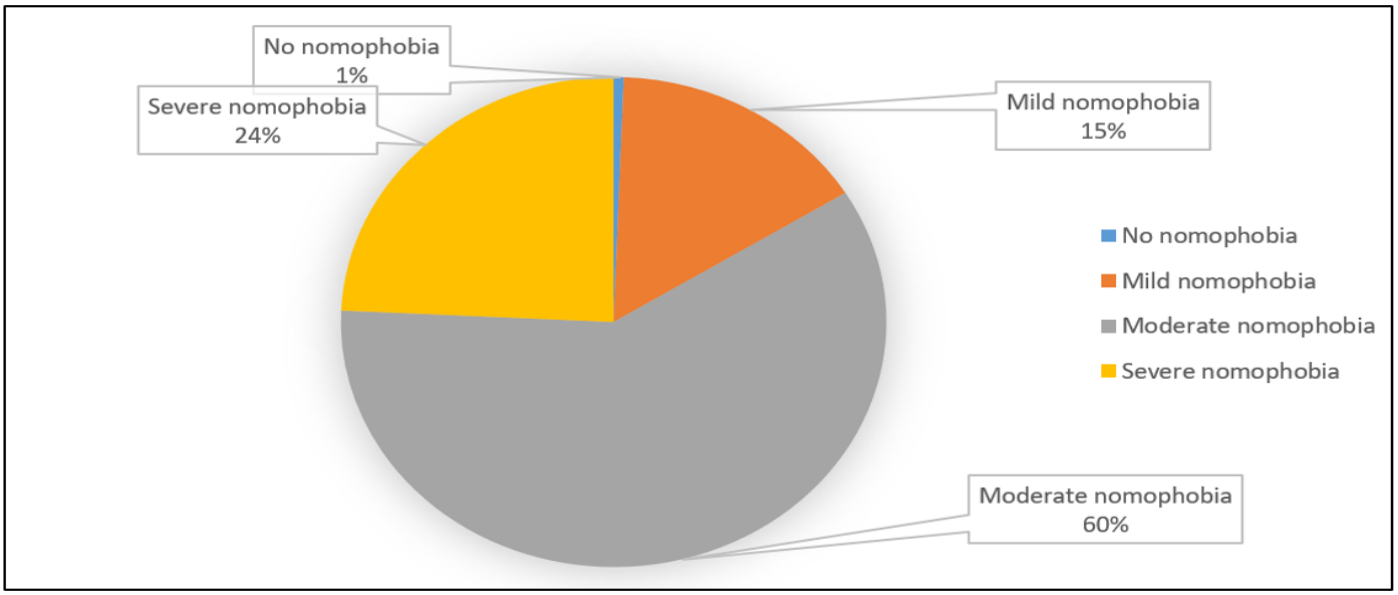

Fig 39 Estimation of Nomophobia among participants

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➢ *Estimation of Sleep Quality among participants-*

A total of 334 students from various pharmacy universities took part in the research, with the majority of participants being male, accounting for 203 (60.8%), while females constituted 131 (39.2%).

- *Majority of the participants were in the age between 21 to 24 years.*

The analysis of the data reveals that among the 334 participants, varying levels of sleep quality were reported. Specifically, 33.2% of the participants experienced very good sleep, 48.2% reported fairly good sleep, 14.7% indicated fairly bad sleep, and 3.9% reported very bad sleep.

Table 40 Estimation of Sleep Quality among participants

Options	**No. of Participants(N=334)**	**Percentage (%)**
Very good	111	33.2
Fairly good	161	48.2
Fairly bad	49	14.7
Very bad	13	3.9

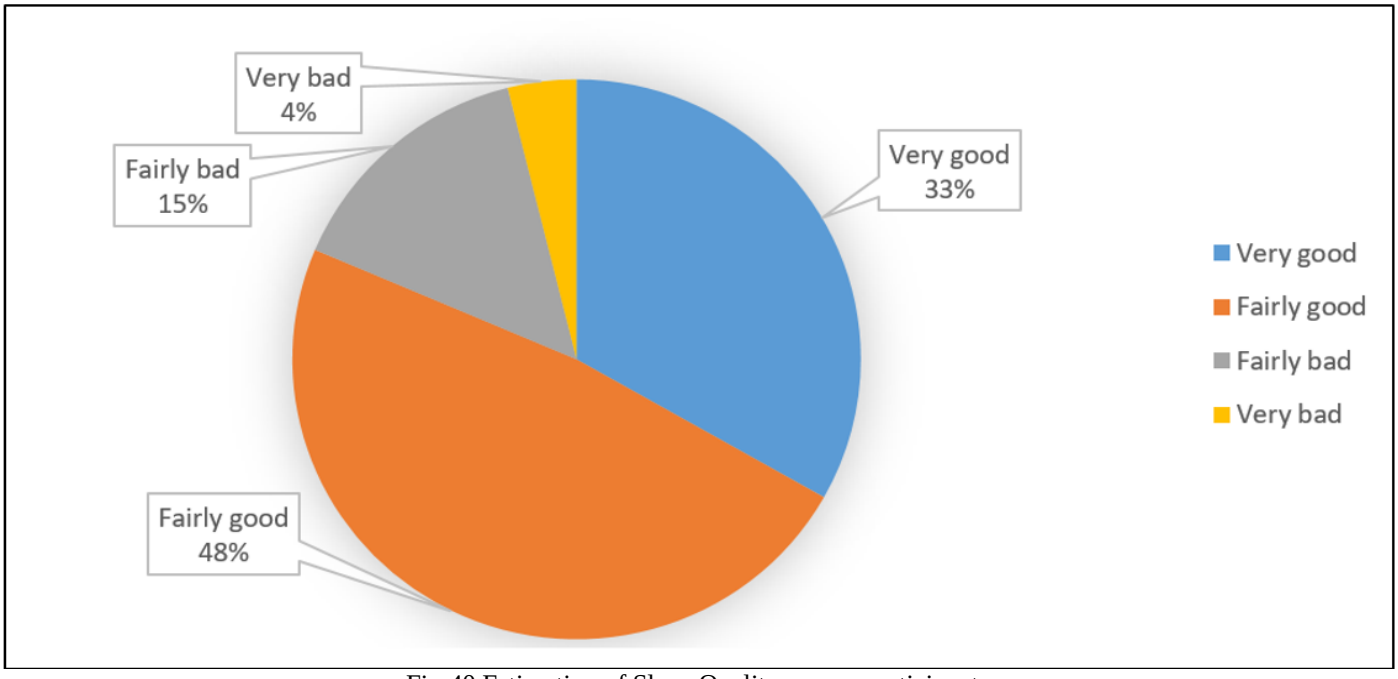

Fig 40 Estimation of Sleep Quality among participants

➢ *Correlation between Nomophobia and Sleep Quality-*

Table 41 Correlations between Nomophobia and Sleep Quality

			Nomophobia	Sleep Quality
Spearman's Rho	Nomophobia	Correlation Coefficient	1.000	.128*
		Sig. (2-Tailed)	.	.019
		N	334	334
	Sleep Quality	Correlation Coefficient	.128*	1.000
		Sig. (2-Tailed)	.019	.
		N	334	334
*. Correlation Is Significant at the 0.05 Level (2-Tailed).				

Correlation analysis was conducted to examine the relationship between the results of Nomophobia and Pittsburgh Sleep Quality Index through the utilization of Spearman's Correlation analysis and the Regression method. The findings indicated a positive and significant association between the nomophobia variable and the poorer sleep variable. Upon conducting data analysis using Spearman correlation Regression method, it was revealed that the correlation coefficient value (r = 0.139) and the p-value (p = 0.019) were less than the significance level of 0.05. The detailed results of the correlation test between nomophobia and poorer sleep variables are presented. Furthermore, researchers also explored the correlation between the nomophobia variable and the components of poorer sleep, uncovering a significant and positive relationship between nomophobia and the sleep quality component. This suggests that an increase in nomophobia is linked to a deterioration in the sleep quality of participants.

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IV. DISCUSSION

A cross-sectional study was conducted for six months. This was a survey-based study on over 334 subjects from different universities. The study was conducted in the Department of Pharmaceutical Sciences of different Universities (Shri Guru Ram Rai University, Sardar Bhagwan Singh University, DIT University, Graphic Era Hill University, Swami Rama Himalayan University) in Dehradun, Uttarakhand. The students who participated were, of course, D. Pharm, B. Pharm, M. Pharm, and Doctor of Pharmacy. The objective of the survey is to examine the relationship between Nomophobia and Sleep quality in smartphone users among different university pharmacy students in Dehradun. Questionnaires were prepared that include questions on Nomophobia and Sleep Quality. 15 questions for Nomophobia allow us to assess the prevalence of nomophobia. The Nomophobia questionnaire (NMP-Q) consisted of 15 questions.[16, 17] Each question is scored on a 7-point Likert scale. The score of 15 was considered to be the absence of nomophobia. A score between 16- 44 shows a mild level of nomophobia. The score between 45 to 74 signifies the moderate level of nomophobia. The maximum score category range from 75 to 105 was considered to be a severe level of nomophobia among the students. And 10 questions were for Sleep Quality, which are taken from the Pittsburgh Sleep Quality Index Scale, allowing for the sleep quality with the help of the informed consent forms. Among the 334 participants involved in the research were Shri Guru Ram Rai University (41%), Sardar Bhagwan Singh University (7.8%), DIT University (18.9%), Graphic Era Hill University (18%), and Swami Rama Himalayan University (14.4%). The subjects who participated from D. Pharm were (11.7%), B. Pharm were (75.4%), M. Pharm were (5.4%), and Pharm. D were (7.5%). Based on the questionnaire, we summarized the responses of the participants. Questions related to mobile phone use and sleep quality were asked of the participants.[17,18]

- *Socio-demographic characteristics and their features*

There were 334 people in the study, and 60.8% of them were men and 39.2% were women. 46.4% of the students who took part in the study were between the ages of 21 and 24. There were 63.2% men and 36.7% women between the ages of 21 and 24 who took part.[18]

- *Evaluation of the nomophobia level of students*

A standardised questionnaire was used to find out how much nomophobia the students had. Out of the 334 people who took part, 2 (0.6%) didn't have nomophobia, 52 (15.57%) had mild nomophobia, 199 (59.58%) had moderate nomophobia, and 81 (24.25%) had severe nomophobia. Most of the participants were male students (203, or 60.8%), while female students made up the rest (131, or 39.2%).[19]

- *Evaluation of the sleep quality of the students*

Out of the total participants, 18.6% were experiencing poor sleep quality. 20.6% males had poor sleep from the total male population, followed by 15.2% females.

In the prior investigation**,** the majority of participants were females and belonged to the 21-year age group; conversely, in our investigation, the predominant participants were from the 23-year age group, with a higher number of males. This discrepancy in age distribution underscores a noteworthy distinction between the two studies, despite both focusing on young adult populations. Through the utilization of appropriate statistical methods, the variable parameter r yielded p-values of 0.145 and 0.013 in the previous study; similarly, in our study, the calculated values for r and p were 0.139 and 0.019, respectively. [20]

V. CONCLUSION

Based on research findings linking nomophobia to poorer sleep in college students, a notable positive correlation has been established. it is concluded that young people exposed to intensive and irrational use of technology are only aware of the advantages it offers and are unaware of the risks they may suffer as a consequence. This indicates that as nomophobia levels rise, poorer sleep tends to increase as well. Conversely, a decrease in nomophobia levels is associated with a decrease in poor sleep. The prevalence of severe nomophobia was predominant in males. Early intervention for such issues, in the form of lifestyle changes and promoting the use of mobile phones, is required to avoid dependency and addiction to mobile phones and their adverse effects on an individual's health.

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