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(RESEARCH ARTICLE)

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A cross-sectional study on the relationship between anxiety and it's contributing factors among adolescents and young adults

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Abstract

Anxiety is a feeling of fear tension or worry that occurs as a response to real or perceived threats. Anxiety is a common emotional response characterized by feelings of tension, worry, and nervousness, often accompanied by physical symptoms such as increased heart rate, restlessness, and difficulty concentrating. In this cross-sectional study, objective was to study the relationship between anxiety and its contributing factors. The study included 310 participants which included 180 female and 130 males. The participants were in the age group of 10-24. The study was carried out at different schools and colleges in Pathanamthitta, Kerala. The data was collected using predesigned questionnaire. In this study we were able to find out the influence of family, lifestyle, academics and social life on anxiety. Significant associations were observed between anxiety severity and factors such as academic pressure, poor sleep, low social and familial support. A positive correlation was found between anxiety and meal skipping, caffeine intake, lack of physical activity, junk food consumption and increased social media usage.

Keywords: Anxiety; Contributing Factors; Adolescents; Young adults; Academic pressure

1. Introduction

Anxiety is a feeling of fear, tension, or worry that occurs as a response to a real or perceived threats. The American Psychological Association defines anxiety as an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure. It can be a normal stress reaction. Anxiety is linked to fear and manifests as a future-oriented mood state that consists of a complex cognitive, affective, physiological, and behavioural response system associated with preparation for the anticipated events or circumstances perceived as threatening. Anxiety is one of the most common psychiatric disorders. They generally appear early in life and share, however, with other mental disorders, a chronic evolution, and a strong functional impact. An increase in global anxiety prevalence represents a significant threat to the population's well-being and quality of life.

Key risk factors identified by the studies are pandemic and excessive media exposure, while strong family communication and social support were protective against the development of mental illnesses. Anxiety is multifactorial, and the rising numbers can be attributed to various cultural influences, including biological factors, social media, nuclear family dynamics, academic pressures, extracurriculars, and global uncertainty. [1] [2]

Among adolescents and young adults, anxiety has become increasingly widespread due to a combination of developmental, social, and environmental pressures. Factors such as academic stress, family expectations, peer influence, identity exploration, and digital exposure contribute significantly to the emotional challenges faced by

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individuals in this age group. Biological changes during adolescence and early adulthood, such as hormonal fluctuations and ongoing brain development, also heighten susceptibility to anxiety. [3]

Understanding the contributing factors of anxiety during these formative years is essential for early intervention and prevention. Identifying risk factors and protective influences, such as social support, healthy lifestyle choices, and access to mental health resources, can guide the development of targeted strategies to improve mental well-being.

Therefore, this study aims to investigate the contributing factors of anxiety among the selected population of adolescents and young adults.

2. Methodology

This study was conducted using a cross-sectional design over a period of six months, from December to May, across various schools and colleges in Pathanamthitta district. A total sample size of 310 participants was included in the study. Ethical approval for the study was obtained from the Institutional Review Board of Nazareth College of Pharmacy prior to its commencement.

The study included individuals between age 10 to 24. Individuals who are unwilling to participate were excluded from the study. All the relevant and necessary data were collected from community survey at schools and colleges using a pre-designed data collection form and an informed consent form.

Data collection forms were given to obtain sufficient data on the prevalence and severity of anxiety among adolescents and young adults. The impact of awareness was also evaluated. The data thus obtained was analyzed statistically. The data collected was entered in MS Excel and result was presented in tabular form and presented as frequency and percentages.

2.1. Academic factors

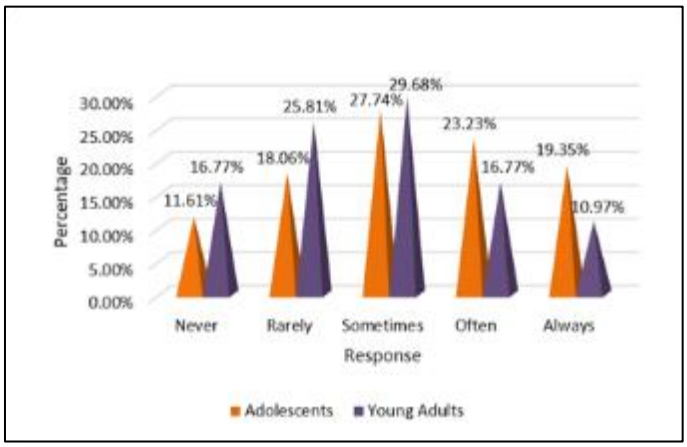

Figure 1 Distribution of pressure from teachers to achieve higher grades

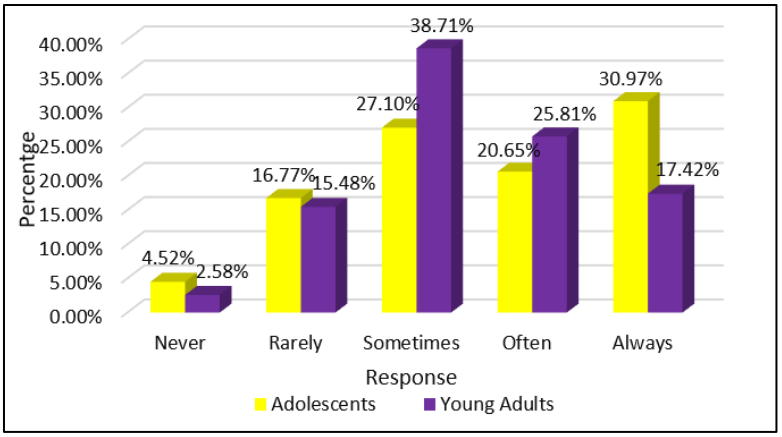

Figure 2 Distribution of anxiety due to examination

In our study anxiety was prevalent among both adolescents and young adults, but more significantly shown among adolescents which is similar to the study conducted by **Renee D Goodwin et al. (2020)** which showed anxiety was higher among 18–25 years old. [4]

2.2. Social factors

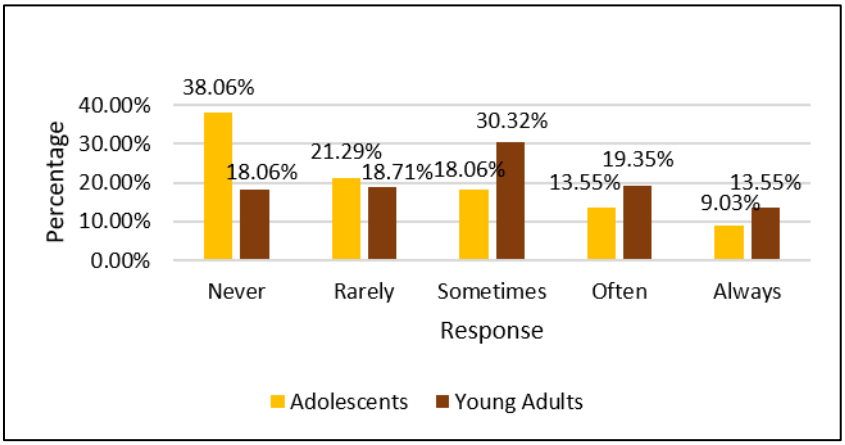

Figure 3 Distribution of avoidance of social activities/ gatherings due to anxiety

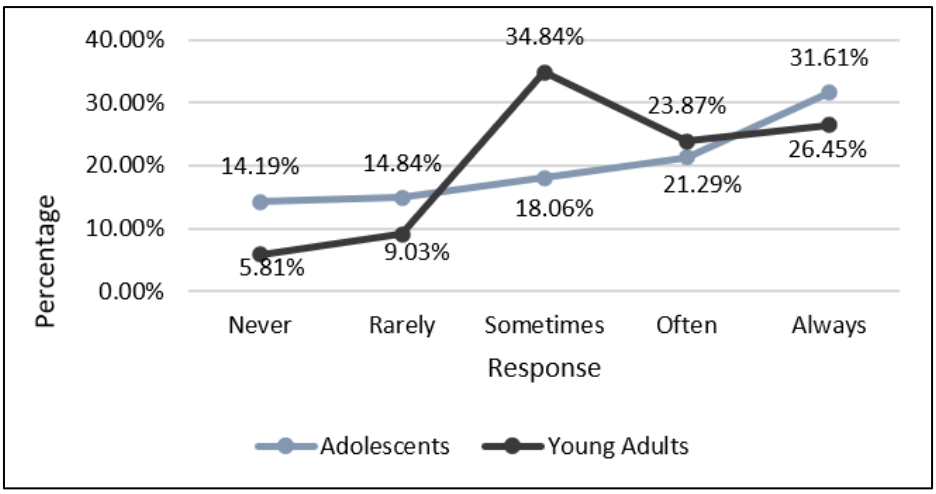

Figure 4 Distribution of supportive friends during anxiety

- In our study avoidance of social activities and gatherings due to anxiety was prevalent more among young adults which is similar to the study conducted by **Julia Ernst et al. (2022)** where fear and avoidance of speaking in front of others were prevalent among youth.[6]
- In our study supportive friends during anxiety helped to reduce anxiety among adolescents and young adults which is similar to the study conducted by **Margaret M. Fitzpatrick et al. (2024)** where youth reported higher friend support with lowered anxiety symptoms. [7]

2.3. Familial factors

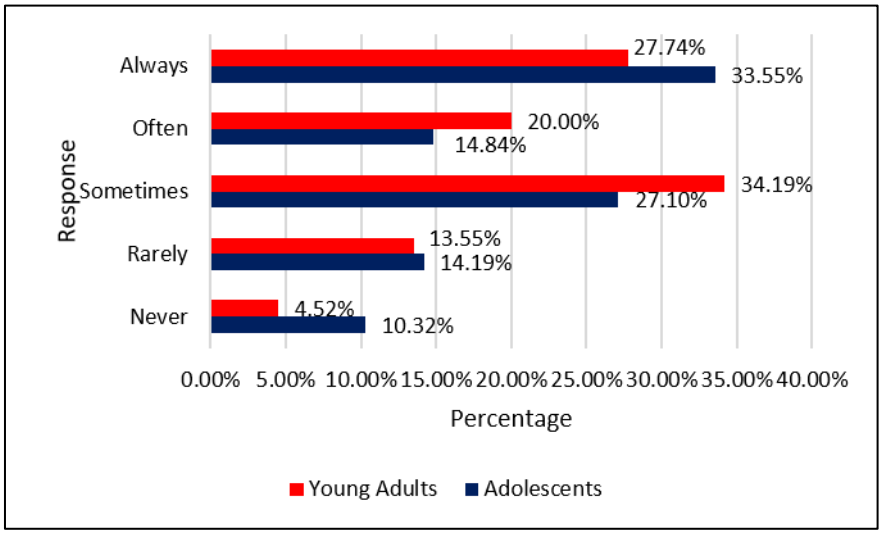

Figure 5 Distribution of family support during periods of anxiety

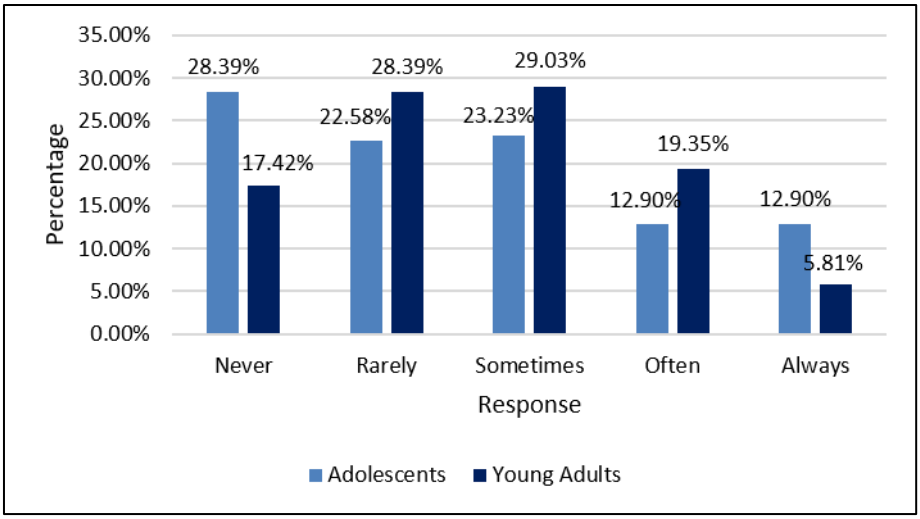

Figure 6 Distribution of anxiety due to family conflicts/arguments

- In our study family support showed reduced anxiety among adolescents and young adults which is similar to the study conducted by **Margaret M. Fitzpatrick et al. (2024)** where youth with a higher family support reported lowered anxiety symptoms. [7]
- In our study family conflicts/ arguments showed an association with anxiety among adolescents and young adults which is similar to the study conducted by **Susan M. Bögels et al. (2006)** which showed that there is an association between family factors and child anxiety. [5]

2.4. Lifestyle factors

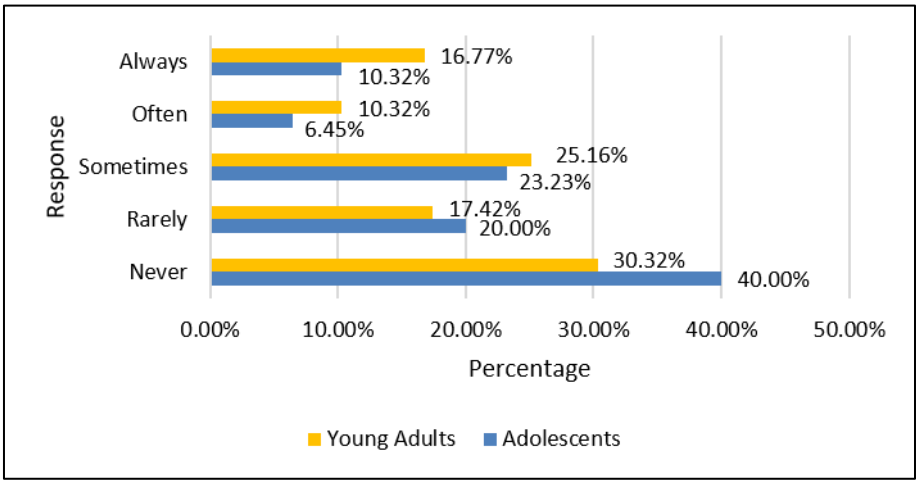

Figure 7 Distribution of caffeine consumption

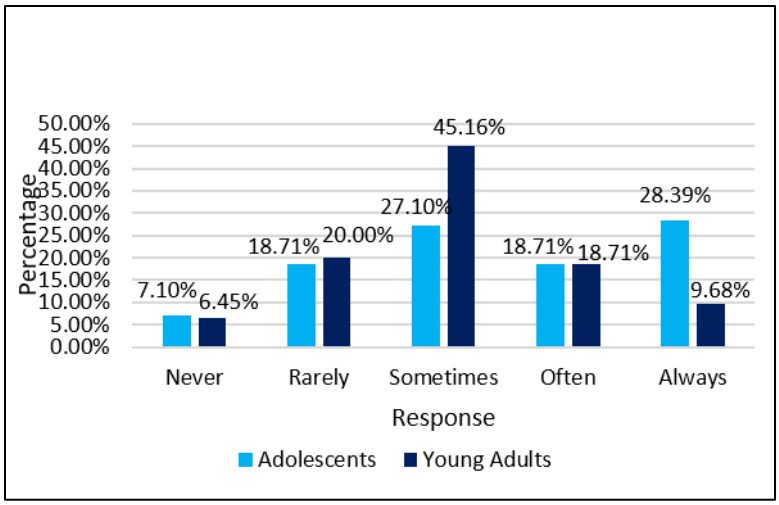

Figure 8 Distribution of participation in physical activity

- In our study caffeine consumption was prevalent among adolescents and young adults which is similar to the study conducted by **Gareth Richards et al. (2015)** which associates caffeine intake with stress, anxiety, and depression in secondary school children and it is also similar to the study conducted by **Haitham Jahrami et al. (2020)** where high caffeine intake was associated with an anxiogenic effect in the surveyed students. [4] [8]
- In our study adolescents and young adults who participate in physical activity showed reduced anxiety which is similar to the study conducted by **Tim Carter et al. (2021)** where physical activity interventions led to a moderate improvement in anxiety compared to controlled conditions, suggesting that physical activity can be a useful approach to addressing anxiety symptoms in this age group. [9]

3. Discussion

In our study academic anxiety was prevalent among both adolescents and young adults, but more significantly shown among adolescents which is similar to the study conducted by Thea L Anderson (2025) and Renee D Goodwin et al. (2020). [10] [11] We found that regardless of having anxiety both adolescents and young adults still managed to participate and complete academic tasks similar to the study conducted by Julia Ernst et al. (2022). [12]

Physical symptoms of anxiety such as headache and stomach ache as well as feelings of loneliness/ isolation due to social anxiety was prevalent among young adults and adolescents.

Avoidance of social activities and gatherings due to anxiety was prevalent more among young adults which is similar to the study conducted by Julia Ernst et al. (2022). [12] While bullying/ social rejection was experienced more by adolescents similar to the study conducted by Emmanuel O. Acquah et al. (2016). [14]

Supportive friends and family during anxiety helped to reduce anxiety among adolescents and young adults consistent to the study conducted by Margaret M. Fitzpatrick et al. (2024) [13]. While family conflicts/ arguments showed an association with anxiety among adolescents and young adults which is similar to the study conducted by Susan M. Bögels et al. (2006). [15]

Anxiety from elevated familial achievement expectations were seen in both adolescents and young adults which is similar to the study conducted by Mita Soni et al. (2024). [16]

Lifestyle factors such as meal skipping, high caffeine intake, junk food consumption, inadequate sleep, and lower physical activity were associated with higher anxiety levels, whereas regular physical activity and adequate sleep were linked to reduced anxiety. These findings are consistent with previous studies examining anxiety-related behavioral and lifestyle factors among adolescents and young adults.

We saw that adolescents and young adults who consume junk food daily and 2 to 3 times a week tend to have more anxiety than those who don't consume junk food weekly and who consume junk food once a week which is similar to the study conducted by Amani ElBarazi et al. (2024) and Hanieh Malmir et al. (2023). [21] [22]

Adolescents and young adults who have anxiety sleeps an average of 4 to 6 hours a night that is anxiety is associated with reduced sleeping hours similar to the study conducted by Ah Jung Ko et al. (2024). While adolescents and young adults who sleeps for more than 6 to 8 hours have reduced anxiety similar to the study conducted by Yasutaka Ojio et al. (2016. [23] [24]

Majority of the adolescents use social media for 1 to 3 hours and young adults is for 1 to 5 hours which is similar to the study conducted by Nishika Ariyal et al. (2024) which showed involvement of adolescents in social media influenced their anxiety. [43]

4. Conclusion

- Anxiety is a prevalent mental health concern among adolescents and young adults, with far-reaching implications on their overall well-being and development. Adolescence and young adulthood are periods of significant emotional, cognitive, and social development. These stages can also be a time of increased vulnerability to mental health issues, particularly anxiety disorders. Mental health conditions in this age group can have long-lasting effects on their well-being, academic performance, and future life choices. Studies indicate that anxiety disorders are among the most common mental health issues in adolescents and young adults. This study provides valuable insight into the relationship between anxiety and its contributing factors among adolescents and young adults.
- The contributing factors of anxiety was measured using self administered questionnaire. The findings suggest that a significant portion of this population experiences anxiety, with notable associations to contributing factors such as academic pressure, familial expectations, low social support, dietary habits, sleep patterns, physical inactivity, digital exposure, and caffeine consumption.

Compliance with ethical standards

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Disclosure of conflict of interest

There is no conflict of interest.

Statement of informed consent

The authors certify that they have obtained all appropriate patient consent forms. The patient has consented to the reporting of clinical information in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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