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A Comparative Study on Healthy Lifestyle Behaviours Among Medical and Non-Medical College Students in Puducherry

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Abstract: ***Background: Healthy lifestyle behaviours are essential for preventing chronic diseases and improving long-term well-being. College students, especially during their transition to adulthood, are at a critical stage where habits are formed that can impact future health. In India, including Puducherry, lifestyle-related risk factors among youth are increasing, yet limited comparative data exist between medical and non-medical students. Aim: To compare healthy lifestyle behaviours among medical and non-medical college students in Puducherry and to assess the relationship between these behaviours and selected demographic characteristics. Methodology: A comparative cross-sectional study was conducted among 150 students from seven colleges, including Medicine, Nursing, Dentistry, Engineering, Arts, and Law, in Puducherry. A non-probability convenience sampling technique was used. Data were collected using a standardized lifestyle behaviour questionnaire and analysed using descriptive and inferential statistics. Results: The study found a highly statistically significant difference in Healthy Lifestyle Behaviour (HLB) scores, with Medical Students scoring much higher (Mean=135.10) and more consistently (SD=2.55) than Non-Medical Students (Mean=90.72). The formal t-test confirmed this difference ($p < 0.001$). Conversely, the study found no statistically significant relationship between the Total HLB Score and any of the demographic characteristics tested, such as Sex, Age, or Monthly Income (all p-values > 0.05). The overall result suggests that the difference in HLB is primarily driven by the academic stream rather than personal background factors. Conclusion: The study successfully established a significant difference in healthy lifestyle behaviours among college students in Puducherry. Medical students demonstrated statistically superior healthy lifestyle behaviours compared to non-medical students. However, the healthy lifestyle behaviours of the students were found to be independent of their tested demographic characteristics.***

Keywords: Healthy Lifestyle Behaviour, Medical Students, Non-Medical Students, Physical Activity, Nutrition, Puducherry, College Youth

1. Introduction

The World Health Organization (WHO) describes health as more than just being free from illness it's a complete state of physical, mental, and social well-being. Taking care of our health means more than treating sickness; it involves making conscious choices and building daily habits that support our overall well-being. This approach is essential not just for individuals, but also for the health of families and communities as a whole.

To truly enjoy a good quality of life, it's important for individuals to develop healthy habits, since our overall health effects everything, we do. A person's lifestyle plays a major role in whether they stay healthy or not. Today, more attention is being given to health promotion, and many countries are focusing on this approach to healthcare. The goal is to help people take charge of their own health by making informed, healthy choices. These habits should ideally begin in childhood and adolescence, laying a strong foundation to protect individuals from serious health problems later in life.

Health is a fundamental human need and forms the foundation for both personal and societal development. Today, there is a global shift toward improving health by focusing on education and planning for communities emphasizing prevention and health promotion, rather than relying solely on treatment-based approaches.

Although young people play a vital role in shaping future generations and promoting health within society, they are often not a primary focus of global health initiatives. This is largely because they are generally viewed as being in a relatively healthy stage of life. However, the college years bring a unique set of challenges, including adapting to new social and physical environments, building social networks, gaining independence, and managing unfamiliar schedules. During this transitional period, students are more likely to adopt unhealthy behaviours that can negatively impact their well-being, such as physical inactivity, high stress levels, and poor dietary habits.

Objectives of the study:

1) To assess the healthy lifestyle behaviours among medical and non-medical college students.
2) To compare the healthy lifestyle behaviours between medical and non-medical college students.
3) To find out the relationship between healthy lifestyle behaviours of students with their demographic characteristics such as: gender, marital status, living status, residency environment, and family monthly income.

2. Methodology

A comparative cross-sectional study was conducted among 138 students from six colleges, including Medicine, Nursing, Dentistry, Engineering, Arts, and Law, in Puducherry. A non-

probability convenience sampling technique was used. Data were collected using a standardized lifestyle behaviour questionnaire and analysed using descriptive and inferential statistics.

Aim:
The aim of this study:
1) To assess the healthy lifestyle behaviours among medical and non-medical college students.
2) To compare the healthy lifestyle behaviours between medical and non-medical college students.
3) To find out the relationship between healthy lifestyle behaviours of students with their demographic characteristics such as: gender, marital status, living status, residency environment, and family monthly income.

Methodology

Study Design and Setting:
This was a quantitative, comparative cross-sectional study. The study was conducted in seven colleges in Puducherry, including institutions offering courses in Medicine, Nursing, Dentistry, Engineering, Arts, and Law.

Study Population and Sample:
The target population consisted of medical and non-medical college students. A total sample size of N=138 students was recruited for the study.

Sampling Technique:
A non-probability convenience sampling technique was used to select the study participants. The sample was divided equally into two groups for comparison, with N=69 in the 'Medical' group (College Types 1-3) and N=69 in the 'non-medical' group (College Types 4-6).

Data Collection Instrument:
Data were collected using a standardized healthy lifestyle behaviour questionnaire. The questionnaire contained 48 items (Q1-Q48) and assessed demographic variables (gender, age, marital status, living status, residency environment, and family monthly income).

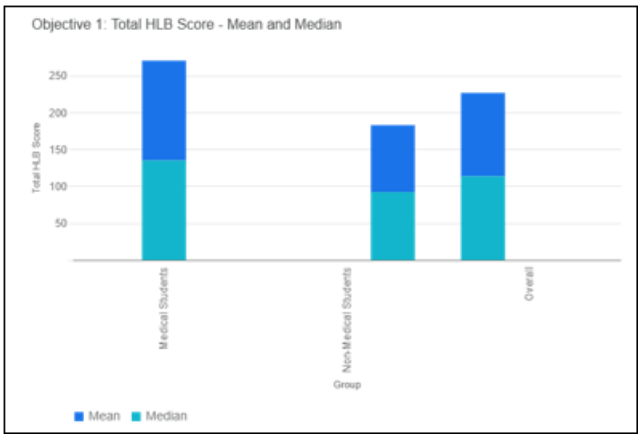
Data Analysis:
The collected data were subjected to both descriptive and inferential statistical analysis.
- The **Total Healthy Lifestyle Behaviour (HLB) Score** was calculated by summing the scores of the 48 items.
- **Descriptive statistics** (mean, standard deviation) were used to assess the overall HLB score and the scores for the two study groups.
- **Inferential statistics** (Independent Samples t-test) were used to compare the mean HLB scores between the Medical and Non-Medical student groups (Objective 2).
- **Inferential statistics** (Independent Samples t-test for binary variables and One-Way ANOVA for multi-category variables) were used to examine the relationship between the Total HLB Score and the selected demographic characteristics (Objective 3). The significance level was set at alpha = 0.05.

3. Results

1) Healthy Lifestyle Behaviour Scores (Objective 1)

The descriptive analysis of the Total HLB Score is presented in Table 1.

Statistic	Overall (N=138)	Medical Students (N=69)	Non-Medical Students (N=69)
Mean	112.91	135.1	90.72
Standard Deviation (SD)	22.55	2.55	4.36
Median	113.5	135	92
Range (Min - Max)	79 - 141	128 - 141	79 - 99

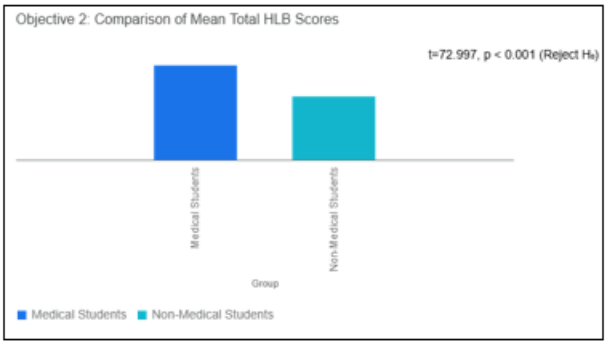


The descriptive statistics clearly indicate that Medical Students reported significantly higher and more consistent Healthy Lifestyle Behaviour (HLB) scores compared to Non-Medical Students.

2) Comparison of Healthy Lifestyle Behaviours (Objective 2)

The comparison of mean HLB scores between the two groups is summarized in Table 2

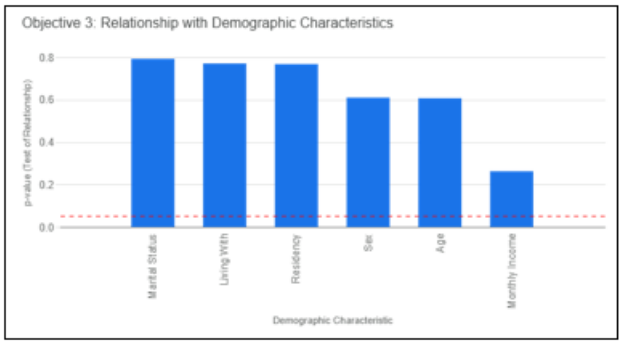
Group Comparison	Test Statistic (t)	p-value	Decision (at α=0.05)
Medical vs. non-medical	72.997	< 0.001	Reject H_0



The Independent Samples t-test indicated a highly statistically significant difference between the Total HLB Scores of medical and non-medical students ($t=72.997$, $p < 0.001$). The Medical students' mean score (135.10) was significantly higher than the non-medical students' mean score (90.72),

3) Relationship with Demographic Characteristics (Objective 3)

The analysis of the relationship between the Total HLB Score and demographic characteristics is presented in Table 3.



Demographic Characteristic	Test Used	Test Statistic	p-value	Significant ($p<0.05$)
Sex	t-test	0.512	0.609	No
Marital Status	t-test	0.264	0.792	No
Age	ANOVA	0.681	0.606	No
Living With	ANOVA	0.376	0.77	No
Residency	ANOVA	0.265	0.767	No
Monthly Income	ANOVA	1.33	0.262	No

The results indicate that there was **no statistically significant relationship** between the Total Healthy Lifestyle Behaviour Score and any of the demographic variables: Sex, Marital Status, Age, Living With, Residency, or Monthly Income (all p-values > 0.05).

4. Discussion

The primary finding of this study is the highly significant difference in healthy lifestyle behaviours, with medical students scoring much higher than non-medical students ($p < 0.001$). This result suggests that exposure to health knowledge and the professional ethos of the medical field may positively influence self-reported health behaviours among medical students.

However, the mean score of 90.72 for non-medical students, which is substantially lower, suggests a critical need for targeted health promotion initiatives within non-medical colleges in Puducherry. Poor lifestyle habits among college students, such as unhealthy dietary practices and physical inactivity, are known risk factors for future non-communicable chronic diseases. Contrary to some studies that find a correlation between socio-economic factors or gender and health behaviours, our study found **no significant association** between the Total HLB Score and any of the tested demographic variables (gender, marital status, age, living status, residency, and family monthly income). This suggests that the difference in HLB is predominantly driven by the college type (i.e., professional stream) rather than the personal background characteristics examined.

5. Conclusion

The study successfully established a significant difference in healthy lifestyle behaviours among college students in Puducherry. Medical students demonstrated statistically superior healthy lifestyle behaviours compared to non-medical students. However, the healthy lifestyle behaviours of the students were found to be independent of their tested demographic characteristics.

6. Recommendations

1) University and college administrations, particularly those for non-medical streams, should implement specific, structured health promotion programs focusing on key aspects of healthy lifestyles (e.g., physical activity and nutrition) to address the lower scores observed in non-medical students.
2) Further research should explore the specific sub-dimensions of the healthy lifestyle (e.g., physical activity, nutrition, stress management) to pinpoint the exact areas of deficit in non-medical students.
3) Qualitative studies could be conducted to understand the barriers and facilitators to healthy lifestyle behaviours as perceived by both groups of students

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Author Profile

Mr. Prithviram. C is nursing professional with a strong foundation in clinical care, research, and education. Mr. Prithvi Ram C. completed his Undergraduate Degree (UG) at JIPMER, Puducherry, and immediately contributed to the medical community as a Research Nurse at JIPMER. He further enhanced his expertise by completing a Postgraduate Degree (PG) at MTPGRIHS. Combining his clinical and research experience, he has transitioned into academia and is currently serving as a Nursing Tutor at RAAK Nursing and Paramedical College, Puducherry, a position he has held across multiple tenures, demonstrating a long-standing commitment to nursing education.

Mr. Mohamed Muzzammil S. is a dedicated Undergraduate (UG) Student in Nursing at the Mother Theresa Post Graduate and Research Institute of Health Sciences (MTPGRIHS) in Puducherry. He is currently pursuing the rigorous B.Sc. in Nursing program. His studies at MTPGRIHS involve comprehensive theoretical knowledge and practical application, preparing him for a professional career in healthcare. As a nursing student, his profile demonstrates a commitment to gaining the foundational skills required for patient care, clinical assessment, and health promotion.