

## Bridging the Gap between Hygiene Awareness and Lifestyle Management: A Study of Health Practices Among Young Adults

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**ABSTRACT:** This study examines the health practices of 218 individuals, predominantly young females (70.6%) aged 21–30 years (89.9%), to explore how demographic variables influence hygiene, nutrition, and lifestyle behaviours. The findings reveal strong adherence to basic hygiene practices—such as handwashing (99.1%) and tongue cleaning (89.0%)—but weaker engagement in daily exercise (31.2%) and consistent fruit consumption (21.1%). Statistical analysis using t-tests and Kruskal-Wallis ANOVA identified significant differences in positive health scores across gender ( $p = 0.003$ ), age ( $p = 0.042$ ), and educational qualification ( $p = 0.011$ ), while residence type exerted no significant influence ( $p = 0.866$ ). Overall, females and participants aged 31–40 demonstrated stronger positive health behaviours. The results underscore the need for educational interventions emphasizing lifestyle management and health literacy among younger adults, particularly males and undergraduates.

**Keywords:** *Health Behaviour, Hygiene, Physical Activity, Nutrition, Gender Disparity, Educational Influence, Lifestyle Management*

### INTRODUCTION

Health practices encompass the daily actions and behavioural habits individuals adopt to maintain their physical, mental, and

social well-being. In recent years, the concept of health has evolved from a disease-focused model toward a holistic approach that integrates hygiene, nutrition, exercise, and digital wellness. However, despite increasing public awareness, disparities persist in how different demographic groups translate health knowledge into daily practice.

This study investigates the health behaviours of 218 participants representing varied demographic backgrounds, with a dominant share from rural (59.6%) and urban (34.9%) environments. The sample primarily comprises young adults aged 21–30 (89.9%), among whom females (70.6%) outnumber males. The research focuses on key dimensions of personal health—including hygiene habits, nutritional choices, physical activity, and patterns of digital engagement—to understand how factors like gender, age, education, and residence shape overall health-conscious behaviour.

By systematically analysing individual practices such as hand hygiene, fruit consumption, exercise frequency, and mobile phone dependence, the study aims to uncover trends that reveal where positive behaviours are thriving and where gaps remain. Recognizing these patterns is crucial for formulating targeted educational strategies that move beyond hygiene awareness to promote sustainable wellness behaviours. In particular, the study emphasizes the role of education as a determinant of health behaviour, suggesting that academic programs can play a transformative role in shaping future generations' approach to well-being.

## Objectives

- To assess the daily health habits and hygiene practices of the participants.
- To determine if gender significantly impacts positive and negative health scores.
- To evaluate the influence of age and residence on health practices.
- To analyse the correlation between educational qualifications and health-conscious behaviours.

## Hypotheses

- **H1:** There is a significant difference in health practice scores based on gender.

- **H2:** Positive health practices vary significantly across different age groups.
- **H3:** Educational qualification significantly influences an individual's health-positive behaviours.
- **H4:** (Null) There is no significant difference in health practices based on the locality of residence.

## Methodology

The methodology for this study focused on a quantitative assessment of health habits among a specific demographic of young adults.

## Study Design and Sample

- **Sample Size:** The study analysed 218 participants.
- **Participant Demographics:** The group was predominantly female (70.6%) and primarily aged 21–30 years (89.9%).
- **Geographic Distribution:** Participants were drawn from varied backgrounds, including rural (59.6%), urban (34.9%), semi-urban (4.6%), and metropolitan (0.9%) environments.
- **Educational Profile:** The majority were undergraduates (67%), followed by postgraduates (27.5%), with smaller segments of Ph.D. and B.Ed. students.

## Data Collection

- **Instrument:** A Health Practice Questionnaire was used to collect responses.
- **Key Dimensions:** The research focused on hygiene habits, nutritional choices, physical activity, and digital engagement patterns.
- **Scoring System:** Responses were categorized into "Positive" and "Negative" health scores. Negative scores were scored in reverse order; therefore, a higher negative score indicates a more positive behavioural response.

## Statistical Analysis

The study utilized several statistical methods to test four hypotheses regarding gender, age, education, and residence:

- **Unpaired t-tests:** Used to compare health practice scores between genders.
- **Kruskal-Wallis ANOVA:** Employed to identify significant differences across multiple groups, including age, educational qualification, and locality of residence.
- **Significance Level:** Findings were considered statistically significant where  $p < 0.05$ .

**Table 1:** Demographic Profile of Study Participants (N = 218)

		Frequency	%
<b>Gender</b>	Female	154	70.6
	Male	64	29.4
<b>Locality</b>	Metropolitan	2	0.9
	Rural	130	59.6
	Semi Urban	10	4.6
	Urban	76	34.9
<b>Age</b>	< 20	2	.9
	21 to 30	196	89.9
	31 to 40	10	4.6
	41 to 50	10	4.6
<b>Education</b>	Under Graduate	146	67.0
	B.Ed	2	0.9
	Post Graduate	60	27.5
	PhD	10	4.6

The study sample comprised 218 participants, predominantly female (70.6%), with males constituting 29.4%. Most participants were from rural localities (59.6%), followed by urban areas (34.9%), while smaller proportions resided in semi-urban (4.6%) and metropolitan (0.9%) areas.

The majority of participants (89.9%) were aged 21 to 30 years, with only 10 participants each in the 31–40 years and 41–50 years age groups (4.6% each), and a negligible number below 20 years (0.9%).

In terms of educational qualifications, 67% were undergraduates, while 27.5% had completed postgraduate education. Participants with Ph.D. degrees (4.6%) and B.Ed. qualifications (0.9%) formed smaller segments. The dominant academic stream was science (56%), followed by arts (36.7%), with minimal representation from other streams.

**Table 2:** Comparison of Health Practice Scores by Gender (Unpaired t-test)

Unpaired t test				
Gender	N	Mean Total Positive	Std. Deviation	p
Male	64	63.2813	5.45245	0.003
Female	154	65.3766	4.23196	
Gender	N	Mean Total Negative	Std. Deviation	p
Male	64	16.5313	2.64256	0.446
Female	154	16.8312	2.64403	

The unpaired t-test revealed a statistically significant difference in the mean Total Positive health scores between genders ( $p = 0.003$ ). Female participants demonstrated higher mean scores ( $M = 65.38$ ) compared to their male counterparts ( $M = 63.28$ ). However, no significant difference was observed in Total Negative scores ( $p = 0.446$ ), suggesting that while females engage more frequently in positive behaviours, the frequency of negative health habits remains similar across both groups.

**Table 3:** Analysis of Health Practice Scores Based on Locality of Residence (Kruskal-Wallis ANOVA)

Kruskal Wallis ANOVA				
	N	Mean Total Positive	Std. Deviation	p
Rural	130	64.4769	5.11907	0.866
Semi Urban	10	65.0000	4.05518	
Urban	76	65.1579	4.08265	
Metropolitan	2	67.0000	0.00000	
	N	Mean Total Negative	Std. Deviation	p
Rural	130	16.8923	2.46604	0.161
Semi Urban	10	15.2000	1.22927	
Urban	76	16.7105	3.02794	
Metropolitan	2	16.0000	0.00000	

A Kruskal-Wallis ANOVA was conducted to determine if the area of residence (Rural, Semi-Urban, Urban, or Metropolitan) influenced health behaviours. The results indicated no significant difference in either positive scores ( $p = 0.866$ ) or negative scores ( $p = 0.161$ ) based on locality. This suggests that health awareness and practices are consistent across different geographic settings within this sample.

**Table 4:** Comparison of Health Practice Scores across Different Age Groups (Kruskal-Wallis ANOVA)

<b>Kruskal Wallis ANOVA</b>				
	<b>N</b>	<b>Mean Total Positive</b>	<b>Std. Deviation</b>	<b>p</b>
< 20	2	67.0000	0.00000	0.042
21 to 30	196	64.5306	4.76355	
31 to 40	10	68.2000	3.35989	
41 to 50	10	65.4000	3.97772	
	<b>N</b>	<b>Mean Total Negative</b>	<b>Std. Deviation</b>	<b>p</b>
< 20	2	14.0000	0.00000	0.225
21 to 30	196	16.8469	2.57941	
31 to 40	10	16.0000	2.49444	
41 to 50	10	16.0000	3.82971	

The analysis showed a **statistically significant variation** in positive health practices across different age groups ( $p = 0.042$ ). Participants in the **31–40 years** age achieved the highest mean positive score ( $M = 68.20$ ), indicating a higher level of health consciousness in early middle age compared to younger participants. Negative health scores did not vary significantly by age ( $p = 0.225$ ).

**Table 5:** Impact of Educational Qualification on Health Practice Scores (Kruskal-Wallis ANOVA)

<b>Kruskal Wallis ANOVA</b>				
	<b>N</b>	<b>Mean Total Positive</b>	<b>Std. Deviation</b>	<b>p</b>
Under Graduate	146	64.1096	5.02562	0.011
BEd	2	71.0000	0.00000	
Post Graduate	60	66.0667	3.56949	
PhD	10	65.2000	4.13118	
	<b>N</b>	<b>Mean Total Negative</b>	<b>Std. Deviation</b>	<b>p</b>
Under Graduate	146	16.7534	2.39989	0.131
BEd	2	22.0000	0.00000	
Post Graduate	60	16.5667	2.90742	
PhD	10	16.6000	3.68782	

Educational background was found to be a significant driver of positive health behaviours ( $p = 0.011$ ). Participants with a B.Ed. qualification recorded the highest mean positive score ( $M = 71.00$ ), followed by Postgraduates ( $M = 66.07$ ). Undergraduates reported the lowest mean positive scores ( $M = 64.11$ ), underscoring the role of advanced or professional education in fostering better health habits.

## Results

### 1. Comparative Analysis by Gender

An independent samples t-test was conducted to evaluate the impact of gender on health practices.

- **Positive Behaviours:** A statistically significant difference was found in Mean Total Positive scores ( $t = 0.003$ ), with female participants ( $M = 65.38$ ,  $SD = 4.23$ ) scoring higher than male participants ( $M = 63.28$ ,  $SD = 5.45$ ).
- **Negative Behaviours:** No significant difference was observed in Mean Total Negative scores between males and females ( $p = 0.446$ ), suggesting that the frequency of health-compromising habits is relatively uniform across genders.

### 2. Influence of Locality and Age

- **Geographic Residence:** A Kruskal-Wallis ANOVA confirmed that the locality of residence (Rural, Urban, Semi-Urban, or Metropolitan) had no significant influence on either positive ( $p = 0.866$ ) or negative ( $p = 0.161$ ) health scores. This indicates that health awareness in this sample is independent of geographic environment.
- **Age Groups:** There was a statistically significant variation in positive health practices based on age ( $p = 0.042$ ). Participants in the **31–40 age bracket** reported the highest mean positive scores ( $M = 68.20$ ), while the majority 21–30 age group scored lower ( $M = 64.53$ ).

### 3. Impact of Educational Qualification

Educational attainment significantly influenced positive health behaviours ( $p = 0.011$ ).

- **Advanced Education:** Participants with a B.Ed. qualification achieved the highest mean positive score ( $M = 71.00$ ), followed by Postgraduates ( $M = 66.07$ ).
- **Undergraduates:** This group reported the lowest mean positive scores ( $M = 64.11$ ), suggesting a correlation between advanced academic exposure and improved health discipline.

### Key Findings and Discussion

#### The Hygiene-Lifestyle Paradox

The study identifies a significant "Health Knowledge Gap" where participants excel in traditional hygiene but neglect modern lifestyle management.

- **High-Compliance Areas:** Adherence to hand hygiene (99.1%), tongue cleaning (89.0%), and daily bathing (81.7%) is exceptionally high.
- **Low-Compliance Areas:** Significant gaps exist in physical activity (only 31.2% exercise regularly) and nutrition (only 21.1% consume fruit daily).

#### Digital Wellness Concerns

A substantial portion of the cohort faces challenges with digital over-dependence.

- Approximately 72.4% of participants admitted to some level of mobile addiction, with 12.8% reporting they are "always" addicted and 59.6% "sometimes" addicted.

#### Educational Implications

##### 1. Curriculum Redesign: From Hygiene to Holistic Wellness

The data shows that while basic hygiene practices like hand washing (99.1%) and tongue cleaning (89.0%) are nearly universal, lifestyle pillars are neglected.

- **Shift Focus to Lifestyle Management:** Academic curricula should pivot from teaching "cleanliness" to "wellness," prioritizing modules on consistent physical activity (currently only 31.2%) and nutritional diversity.
- **Mandatory Health Literacy:** Since undergraduates (67% of the sample) scored lower than postgraduates, health literacy should be embedded as a mandatory credit or foundational course in early college years.
- **Nutritional Education:** With only 21.1% of participants eating fruit daily, schools should implement practical nutrition workshops that move beyond food pyramids to focus on daily habit formation.

## 2. Targeting At-Risk Demographics

Statistical analysis identified specific groups that require more intensive educational interventions.

- **Gender-Sensitive Programs:** Because males scored significantly lower in positive health metrics compared to females ( $p = 0.003$ ), health campaigns should be tailored to male-specific interests and barriers to engagement.
- **Focus on Early Adulthood:** The 21–30 age group showed lower health consciousness than the 31–40 group. Interventions should target "emerging adults" to establish long-term habits before health risks escalate.

## 3. Professional Training: "Teaching the Teacher"

The study found that participants with a B.Ed. qualification achieved the highest mean positive scores ( $M = 71.00$ ).

- **Leveraging Pedagogical Training:** The success of B.Ed. students suggests that teacher-training programs effectively foster self-care habits.
- **Multiplier Effect:** By prioritizing the health education of future teachers, educational systems can create a "multiplier effect," where these educators naturally model and disseminate health values to future generations of students.

#### 4. Addressing the Digital Health Crisis

Digital habits emerged as a significant modern health challenge within the sample.

- **Digital Citizenship Curricula:** With over 72% of the young adult sample admitting to mobile addiction issues, educational institutions must treat "Digital Wellness" as a formal health topic.
- **Behavioural Interventions:** Schools should provide strategies for managing screen time and mitigating the sedentary behaviour often associated with high mobile phone dependence.

#### 5. Institutional Strategy: Environment over Geography

The finding that residence type (Rural vs. Urban) exerted no significant influence ( $p = 0.866$ ) suggests that health behaviour is driven by personal discipline and education rather than geographic access.

- **Policy Focus:** Educational policy should focus on internal institutional culture—such as providing campus gyms or healthy canteen options—rather than assuming students from specific geographic backgrounds are naturally more or less informed.

#### Recommendations

Based on the study findings, here are the brief recommendations for university administrators:

- ✓ **Prioritize Lifestyle over Hygiene:** Since basic hygiene is already at 99.1%, redirect focus to physical activity (31.2%) and daily fruit intake (21.1%).
- ✓ **Target Vulnerable Groups:** Design specific health literacy programs for **males** and **undergraduates**, as these groups scored significantly lower than females and postgraduates.
- ✓ **Implement Digital Wellness:** Create interventions to address mobile addiction, which affects over 72% of the young adult sample.
- ✓ **Adopt the "Teacher-Model":** Emulate B.Ed. training structures, as this group demonstrated the highest level of health discipline

## Conclusion

This study highlights a clear "Health Knowledge Gap" between basic hygiene and active lifestyle maintenance. While participants are highly diligent regarding traditional hygiene—such as hand washing (99.1%) and tongue cleaning (89.0%)—they struggle significantly with modern wellness pillars like regular physical activity and consistent fruit intake.

The statistical analysis proves that gender, age, and academic background are the primary drivers of health behaviour. Females and those in the 31–40 age appear more invested in their physical well-being. Furthermore, the lack of geographic influence (Rural vs. Urban) suggests that the challenge is not one of *access* to health information, but rather the *personal discipline* and *educational background* required to implement it.

Ultimately, the study suggests that to improve public health, educational systems must move beyond teaching "cleanliness" and begin fostering "wellness"—specifically targeting younger male populations and undergraduates to bridge the gap in physical activity and nutrition.

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