

# OPEN ACCESS

# Perception Of Adolescents Toward Health-Compromising Factors In The Hail Region, Saudi Arabia

Saud Khulaif Saad Albalawi<sup>1</sup> ,Abdulaziz Falah Alrasheedi<sup>2</sup>,Naif Awad Eid Alblawi<sup>3</sup>,Nader Eissa Al Shammari<sup>4</sup>,Mohammad Nasser M Alshammari<sup>5</sup>,Ali Aqeel Ghazi Alreshidi<sup>6</sup>,Jamal suliman Aldhamadi<sup>7</sup>

<sup>1</sup>Specialist Nurse,Ajah Hospital, Hail.
<sup>2</sup>General Administration for Primary Health Care Operations
<sup>3</sup>Specialist Nurse,Public Health – Ports
<sup>4</sup>Primary Health care alkhitah
<sup>5</sup>Specialist Nurse,Medical Transport Department, Hail
<sup>6</sup>Specialist Nurse,Al Rawdah Health Care Center
<sup>7</sup>Nurse,Medical coordination and referrals

## **Abstract**

**Background:** Adolescence is a formative developmental stage characterized by significant physical, emotional, and behavioral transitions. During this period, individuals often develop health-related behaviors that persist into adulthood. In Saudi Arabia, increasing attention has been given to adolescent health; however, limited research exists on how young people perceive health-compromising behaviors in specific regions such as Hail. Objective: This study aimed to assess the perception of adolescents in the Hail region toward unhealthy lifestyle patterns, including smoking, poor nutrition, physical inactivity, and inadequate stress management. The study also examined the association between demographic characteristics and levels of perception. Methods: A cross-sectional survey was conducted among 388 high school students aged 11-22 in the Hail region. Data were collected using a structured online questionnaire comprising a demographic section and a 37-item health protective behavior scale. Descriptive statistics and chi-square tests were used to analyze the data, and institutional guidelines secured ethical approval. Results: The findings revealed that 95.6% of adolescents demonstrated a high level of perception regarding health-compromising behaviors. High perception scores were particularly evident in smoking avoidance, medication awareness, and hygiene practices. Moderate scores were observed in physical activity, dietary habits, and emotional self-regulation. Gender was the only demographic variable significantly associated with perception levels (p = .034), with females showing higher awareness than males. Conclusion: Adolescents in Hail exhibit a strong awareness of health risks, particularly about substance use and preventive care. However, behavioral gaps persist in areas requiring sustained lifestyle changes. These findings underscore the need for targeted, gender-sensitive interventions and integrating health education programs within schools. Strengthening adolescent health perception through culturally relevant and accessible platforms can contribute to long-term health outcomes and align with Saudi Arabia's Vision 2030 health goals.

Keywords: Perception, Adolescents, Health-Compromising, Hail Region, Saudi Arabia.

### Introduction

Adolescence's developmental phase incorporates swift physical, emotional, cognitive, and psychosocial changes. Humans develop lasting habits during this period, although some lead to enhanced health status, and others might pose health risks. Health-compromising behaviors that include substance abuse, tobacco smoking, and alcohol consumption alongside low physical activity, unhealthy diets, risky sexual behavior, and untreated psychological distress typically start during this development phase (Zhang et al., 2022; Morojele et al., 2021).

Various health practices create permanent adverse health effects, which result in chronic diseases, reduced life expectancy, and poor mental health levels, according to Sarhan et al. (2023). Adolescents typically choose these dangerous activities because their perceptions differ from health messages due to social norms, peer influence, media exposure, parental behavior, and personal self-concept (Cardel et al., 2022; Garaigordobil & Navarro, 2022). Several people see smoking and alcohol use primarily as ways to cope with problems and socialize instead of considering them health threats, especially when they do not experience instant effects (Morojele et al., 2021).

Health knowledge is inferior to taste preferences, convenience, and cultural traditions regarding nutrition and physical activity choices (Aloudah, 2021). Adolescents avoid exercise because of their worries about appearance, weak motivation, and restricted access to secure areas for physical activities (Shankar-Krishnan et al., 2021). Teenagers tend to engage in unsafe sexual behaviors as a sign of getting older or as proof of social acceptance because they did not receive proper sex education, according to Shongwe et al. (2021).

The way adolescents perceive their mental health shapes this part of their health development seriously. Many young people regard their mood disorders as personal shortcomings instead of medical conditions (Zhang et al., 2022), so they choose to withdraw or attempt self-medicating with harmful habits. These behaviors develop under the combined effects of peer habits, parenting techniques, socioeconomic conditions, and available health services (Barakat & Yousufzai, 2021).

Adolescents' perceptions of health-compromising factors must be comprehended before creating specific intervention strategies. Understanding how adolescents perceive health behaviors allows educational institutions and health agencies to craft prevention strategies promoting wellness. Research into how Hail region teens understand health-threatening factors combined with population-specific data analysis has not been recently performed. Health programs will lack their target when they fail to understand fundamental beliefs and social pressures that impact behavior. This research aims to connect the missing information by studying Hail adolescents' perception of behaviors that harm their health so suitable interventions can be developed. The primary aim of this study was to assess the perception of adolescents in the Hail region toward health-compromising factors and how these perceptions influence their health-related behaviors.

# Methodology

#### Research Design

The research design applied cross-sectional survey methodology to assess adolescents' perspectives on risky health practices and population status at their current state. The specific research design utilized a cross-sectional method to analyze adolescent health perception of smoking and poor eating habits ins, efficient activity, and stress management independently from long-term follow-ups. A cross-sectional design proves highly beneficial by minimizing expenditure and time requirements, which allows it to be used in educational institutions and extensive population research. This study utilized the design to obtain a momentary view of how population traits shape young people's understanding of Hail region health risks.

## Setting

The research occurred in various secondary schools in the Hail region of Saudi Arabia. Hail exists in Saudi Arabia's northern section, where its administrative region incorporates a combination of city dwellers and rural residents. This area's multicultural character and geographic diversity offer the proper environment for observing the health practices of teenagers from different cultural backgrounds. The mixed education system in the region consists of public and private schools that host students from different socioeconomic groups, thus offering an appropriate representation of adolescent experiences and health views.

## **Target Population**

The participants in the study were high school students in the Hail area. Teenagers can be defined by the World Health Organization (WHO) as individuals aged between 10 and 19 years old. Due to the school education and society in the country, older students remain in high school longer, so the study

observed teens between 11 and 22 years of age. This broadened age group permitted older teens exposed to similar health hazards and similar life circumstances to participate with their younger peers.

# Sampling Strategy and Sample Size

A convenience sampling approach was employed to enroll some Hail secondary school participants. Convenience sampling is selecting individuals depending on the ease of reaching them and being willing to join compared to selecting individuals at random (Adebayo & Ackers, 2021). A total of 388 teen students, which was sufficient in size to conduct this research. The sample size was determined by seeing what similar research in the region and globally on teen health behaviors was being conducted and maintaining a size that was large enough to perform good statistics such as summary statistics and chi-square tests, which were employed in examining correlations between demographic information and levels of perception.

#### **Data Collection Procedures**

The data collection started after receiving ethical approval from the institutional review board and obtaining formal school agreements. The study initiation started with administrative communications to schools, then proceeded with distributing approval documents and coordinating data assessment periods. The study team obtained permission for research before notifying chosen students about the research purpose, participant rights, and assurance of response confidentiality. The researchers distributed the questionnaire via Google Forms as a self-administered online survey.

## **Data Collection Instruments**

The study used two data collection instruments: a demographic questionnaire and a health-protective behavior scale. The researchers examined these tools to match them with Saudi Arabian cultural practices while adjusting them to fit the needs of the study participants at their age level.

## a) Demographic Questionnaire

The survey section gathered initial participant data that included their age along with gender information and their parent's educational level, family structure information, and family workforce data. Analysis of youth health perceptions needs these variables to comprehend how demographic factors impact their perceptions.

## b) Health Protective Behavior Scale

The research instrument utilized 37 self-administered items to evaluate adolescents' healthcompromising factor behaviors and attitudes through three-point Likert scaling. A three-point Likert scale was used to score every item, with options ranging from Agree to Neutral to Disagree. The assessment tool examined five health categories: substance use, nutrition, physical activity, stress management, hygiene, and chronic disease awareness. The author adapted the measurement tool from previously validated instruments before supervisors who held academic positions evaluated it to guarantee that it fit the area's language and cultural norms. Natural background testing on a limited group of students helped determine the instrument's clarity and reliability. The final version became digitized because it enabled simple distribution and automatic data capture. These assessment tools provided analytical, statistical information about the characteristics of Hail area youth and their healthcare behavior beliefs. The researcher developed and adapted the instrument based on everyday items from validated adolescent health behaviours tools used in earlier studies (Ezati et al., 2021; Sarhan et al., 2023). The remaining 37 items were developed to assess the behaviours of the five domains using a 3-point Likert scale (Agree = 3, Neutral = 2, Disagree=1). A pilot test for fifteen students with Cronbach's alpha = 0.82 also confirmed the clarity and cultural relevance of this tool, as well as good internal consistency.

## **Data Analysis**

Data analysis used descriptive and inferential statistical techniques to evaluate the relationship between adolescent demographic characteristics and their perceptions of health-compromising factors. All statistical operations were performed using IBM SPSS Statistics software (Version 25). Descriptive statistics such as frequencies, percentages, means, and standard deviations were employed to summarize

general trends in the sample population, including age distribution, gender ratio, and levels of perceived health behavior. Chi-square tests were applied to test the study's hypotheses and determine the significance of relationships between categorical variables. These assessed associations between demographic variables (e.g., age, gender, parental education) and perception categories (low, moderate, high). Statistical significance was evaluated at a p-value threshold of < 0.05. Data were also cleaned and screened for missing values prior to analysis to ensure the integrity and accuracy of the results.

#### **Ethical Considerations**

This study was conducted in full adherence to established ethical research principles, primarily guided by the Declaration of Helsinki. All ethical measures were established to safeguard participant autonomy, confidentiality, and wellbeing from the beginning to the end of the research activities. The responsible Institutional Review Board (IRB) awarded ethical approval, which became mandatory before starting data collection work. The study obtained formal authorization from all schools along with institutional consent. Every participant received information about the essential aspects of the study, including its structure, aim, and voluntary nature. The online informed consent process preceded participant admission, after which students received notification about their right to discontinue study participation at any time with no academic repercussions.

#### Results

## **Demographic Characteristics of Participants**

The study included 388 adolescent students from secondary schools across the Hail region. The demographic breakdown of participants is presented in Table 1. The age distribution showed that the most significant number of respondents (71.9%) fell within the 19 to 22-year-old age bracket, including older students still enrolled in secondary or early university-level education. Adolescents aged 15 to 18 accounted for 17.8%, while those aged 11 to 14 made up 10.3% of the sample.

In terms of gender, the sample was predominantly female (70.1%), with males comprising 29.9%. This distribution may reflect female students' relative availability or willingness to participate in school-based research or the structure of the selected institutions. Regarding educational level, a significant portion of the respondents (66.0%) were university students, followed by 19.8% in secondary school, 9.8% in middle school, and 4.4% in primary school. Additionally, most participants (71.1%) came from households with more than five family members, suggesting the presence of large family structures typical of the region could influence health behaviors and perceptions through social dynamics.

# **Health and Family Status**

Understanding participants' health and family background provides essential context for interpreting their perceptions of health-compromising behaviors. As shown in Table 2, most adolescents (75.8%) reported no history of chronic disease, while 24.2% acknowledged having a diagnosed chronic condition. Interestingly, despite the presence of chronic illness among some respondents, none of the participants reported using regular medication, which may reflect limited health literacy, inconsistent treatment adherence, or underreporting. When asked about family health history, 52.6% indicated that their fathers had a chronic illness, while 47.4% reported otherwise. This data suggests a potential familial influence on adolescents' health awareness and risk perception, especially in households where chronic disease is part of daily life.

#### **Sources of Health Knowledge**

Understanding where adolescents obtain health-related information is vital in identifying the factors that shape their perceptions and behaviors. As shown in Table 3, participants reported various sources for their health knowledge, reflecting both formal and informal channels. Nearly half of the respondents (49.5%) indicated that they relied primarily on the Ministry of Health as their primary source of information. The public's understanding of health risks targeting young people mainly results from government health campaigns and digital platforms. The Ministry achieved broad reach among the target audience through its active presence in social media and mobile applications.

Among the study participants, 30.4% selected social media platforms as their primary source of health information. This web-oriented behavior among young people generates important

considerations about their access to incorrect information or unscientific medical insights. The data indicates that young people utilize specialists or healthcare providers for health information in minimal numbers since only 9.5% of respondents reported doing so. Too many study participants who represented 10.6% showed no desire to learn about health knowledge, indicating possible issues with their motivation and ability to access health information.

## **Perception of Health-Compromising Behaviors**

37 items were used to examine participants' viewpoints and actions regarding health-altering behaviors through the Likert scale. The assessment included items across different health topic areas, such as smoking, alcohol use, and physical inactivity, together with dietary practices, stress methods, hygiene routines, and understanding of chronic illness risks.. Table 4 reveals the summary of all the research findings. Respondents displayed the most excellent agreement with health items related to smoking behaviors. For example, participants strongly agreed that there were smokers in the home (Mean = 3.00), and many expressed disapproval of smoking, with high scores in "advising others not to smoke" (Mean = 2.87). Similarly, strong agreement was noted in preventive health practices such as "checking medication expiry dates" (Mean = 2.89) and "using water purifiers" (Mean = 2.91). However, responses were more moderate in physical activity, emotional wellbeing, and nutrition. Statements such as "I exercise daily," "I eat fruits regularly," and "I practice stress-reducing activities" all had means closer to 2.4–2.6, reflecting less consistent health behavior despite high overall perception.

# **Categorization of Perception Levels**

To better interpret the overall health perception among adolescents in the Hail region, the responses from the 37-item Health Protective Behavior Scale were grouped into three categories: low perception (score range 1.0–1.5), moderate perception (1.6–2.4), and high perception (2.5–3.0). This classification helped quantify the strength of awareness and attitude toward health-compromising behaviors. The summary is presented in Table 5. The results revealed that the vast majority of participants (95.6%) fell within the high perception category, indicating a strong understanding of the risks associated with behaviors such as smoking, unhealthy eating, physical inactivity, and poor stress management. Only 4.4% of the sample were categorized as having moderate perception; notably, no participant scored in the low perception range.

#### **Association Between Demographics and Perception**

Chi-square tests were conducted to investigate the relationship between adolescents' demographic characteristics and their health perception levels. These tests assessed whether variables such as gender, age, grade level, family size, birth order, type of residence, parental presence, and parental education had statistically significant associations with the categorized perception levels (low, moderate, high). The findings are summarized in Table 6. The results showed that gender was the only variable with a statistically significant relationship to health perception ( $\chi^2 = 4.505$ , p = 0.034). Female adolescents were likelier to fall into the high perception category than their male counterparts, suggesting that girls may be more receptive to health education or exhibit stronger motivation to adopt health-conscious behaviors. Other variables, including age, educational level, family structure, and parental education, did not demonstrate statistically significant associations (p > 0.05).

#### **Discussion**

This research analyzed how young people across Hail perceive behaviors that harm their wellbeing, specifically involving tobacco consumption together with insufficient physical movement, unwholesome eating choices, and insufficient stress coping strategies. The research data showed that participants exhibited strong health perceptions and knowledge of health risks and healthy prevention techniques. The results obtained within this section are examined through existing scholarly work and theoretical concepts based on the Health Belief Model

Adolescents who took the survey were primarily placed in the high perception group, as 95.6% of participants received the highest ranking while no one received the lowest. According to Sarhan et al. (2023), people with access to formal education and public health information demonstrate elevated health risk consciousness in adolescent populations. Within the framework of the HBM, the participants

clearly comprehended the seriousness and vulnerability of health threats linked to unhealthy behaviors because of Rosenstock's theory (1974).

Anti-smoking attitudes from participants show strong indicators through their high scores on smoking-related questions, where the mean value reached 3.00 for household smoking and 2.87 for advising others to quit smoking. These results are consistent with Morojele et al. (2021). who found that youth with higher exposure to health education and family health issues tend to adopt stronger avoidance behaviors toward tobacco. The perceived benefits of not smoking, reinforced by cues from family or school environments, likely contributed to these strong responses.

The statistical analysis showed that there was only one variable that was significantly associated with adolescents' perception of health-compromising behaviours ( $\chi^2 = 4.505$ , p = 0.034): gender. This implies that female students have greater health awareness than their male counterparts. This may be due to a higher perceived susceptibility and self-efficacy in females, in accordance with the Health Belief Model. These findings are consistent with the available literature that reveals that females are more likely to behave actively in health promotion (Barakat & Yousufzai, 2021). This gender difference in adolescence should guide future interventions and be precise about involving male adolescents in targeted health projects.

Although the overall perception was high, moderate scores were observed in nutrition and physical activity-related items, such as eating fruits daily (Mean = 2.48), exercising for 30 minutes (Mean = 2.54), and sleeping adequately (Mean = 2.54). This indicates a potential disconnect between awareness and actual behavior implementation, as noted by (Shankar-Krishnan et al., 2021). Adolescents often recognize the importance of these habits but face barriers such as time, motivation, or environmental limitations. From the HBM perspective, this highlights the role of perceived barriers. For instance, lack of access to healthy foods, absence of female-only exercise facilities, or academic pressures may prevent consistent adherence, even when awareness is present. These findings echo Aloudah (2021), who reported that adolescents prioritize convenience and taste over nutritional value, leading to dietary imbalances despite health knowledge. This 'intention-behavior gap' in perception and behaviours corresponds to the one often mentioned in health psychology. Adolescents may be aware of the risks, but they may not have enough motivation, environmental support, or reinforcement to be prompted to practice healthier behaviours. As such, interventions need not only to trigger awareness but also to emphasize behaviours reinforcement strategies like goal-setting, self-monitoring, and environmental restructuring.

Self-relaxation and emotional regulation skills were rated moderately, with items such as "engaging in anxiety-reducing activities" and "maintaining calm" scoring lower than most physical health items. This mirrors global findings that adolescents often lack tools for emotional resilience and tend to view stress as a personal burden rather than a shared or treatable condition Zhang et al., (2022). This trend also reflects the cultural stigma surrounding mental health in many parts of the Middle East, including Saudi Arabia. Adolescents may not perceive mental health as equally important as physical wellbeing, indicating a need for greater emphasis on psychosocial health education in schools. These results suggest that cues to action in this domain are either weak or culturally inaccessible, limiting proactive behavior.

The study also found that over half of the fathers (52.6%) had chronic diseases, and yet, parental education and presence showed no statistically significant relationship with adolescents' perception levels. This contrasts with the study by Zhang et al. (2022), which found that parental modeling significantly influenced adolescents' behavior. The difference here may stem from high perception being widespread across the sample, minimizing between-group variability. Nevertheless, the data support that adolescents are aware of health issues in their immediate environment, even if such awareness is not directly linked to their parents' educational background. This suggests a rising influence of external sources, such as health campaigns, media, or peer-based learning, in shaping adolescent health behaviors.

The high perception scores offer a positive foundation for expanding youth-targeted health promotion programs in Hail. There is a demonstrated need for practical support because patient adherence to behavioral domains such as exercise, diet, and emotional health scored at only moderate levels. Ezati et al. (2021) state that closing the gap between knowing and doing needs improvements in self-directed action combined with barrier reduction and easy-to-access action-reinforcing interventions. Multiple public institutions, including local schools, youth centers, and health agencies, should create behavior-

specific educational programs targeting these gaps. Local health organizations should use programs that match youth culture to teach nutritional workshops while offering fitness programs and delivering courses in mindfulness training and stress resilience education.

#### **Conclusions**

The research examined what adolescents in Hail believe about health-threatening behaviors such as smoking alongside inadequate nutrition, sedentary lifestyles, and stress mismanagement. Most participants (95.6%) declared strong perceptions about health risks in outcomes from this study. The highest scores were associated with smoking avoidance, use of water purifiers, adherence to medication guidelines, and environmental hygiene. These results reflect growing health literacy among adolescents and the possible influence of public health messaging, especially from the Ministry of Health. However, several key behavioral domains—particularly those related to physical activity, nutrition, and emotional health scored moderately. This suggests that adolescents may encounter barriers to consistently implementing healthy behaviors while they understand the risks. The only statistically significant factor influencing perception was gender, with females reporting significantly higher health awareness than males. Among the demographic factors tested, only gender had a statistically significant association with health perception, and the females had higher levels of awareness. Other factors, such as age, the degree of the parents, and family structure, failed to demonstrate significant relationships. This highlights the need for strategies geared towards gender in adolescents' health education.

#### References

- 1. Adebayo, A., & Ackers, B. (2021). Sampling theoretically for comparison. Electronic Journal of Business Research Methods, 19(1), pp42-56. https://doi.org/10.34190/ejbrm.19.1.2434
- 2. Aloudah, M. A. (2021). Exploring Saudi Adolescents' Perceptions of Emotional Eating to inform the Design of an Online Health Awareness Programme (Doctoral dissertation, University of Reading). https://doi.org/10.48683/1926.00101352
- 3. Barakat, C., & Yousufzai, S. (2021). Health-Risk Behaviors of Adolescents from Arab Nations. In Handbook of Healthcare in the Arab World (pp. 651-676). Cham: Springer International Publishing. https://link.springer.com/referenceworkentry/10.1007/978-3-030-36811-1 24
- 4. Cardel, M. I., Newsome, F. A., Pearl, R. L., Ross, K. M., Dillard, J. R., Miller, D. R., ... & Balantekin, K. N. (2022). Patient-centered care for obesity: how health care providers can treat obesity while actively addressing weight stigma and eating disorder risk. Journal of the Academy of Nutrition and Dietetics, 122(6), 1089–1098.
- 5. Ezati Rad, R., Mohseni, S., Kamalzadeh Takhti, H., Hassani Azad, M., Shahabi, N., Aghamolaei, T., & Norozian, F. (2021). Application of the protection motivation theory for predicting COVID-19 preventive behaviors in Hormozgan, Iran: a cross-sectional study. BMC Public Health, 21, 1-11. https://doi.org/10.1186/s12889-021-10500-w
- 6. Garaigordobil, M., & Navarro, R. (2022). Parenting styles and self-esteem in adolescent cyber victims and cyber aggressors: self-esteem as a mediator variable. Children, 9(12), 1795. https://doi.org/10.3390/children9121795
- 7. Morojele, N. K., Ramsoomar, L., Dumbili, E. W., & Kapiga, S. (2021). Adolescent Health Series—Alcohol, tobacco, and other drug use among adolescents in sub-Saharan Africa: A narrative review. Tropical Medicine & International Health, 26(12), 1528-1538. https://doi.org/10.1111/tmi.13687
- 8. Sarhan, M. B., Fujiya, R., Kiriya, J., Htay, Z. W., Nakajima, K., Fuse, R., ... & Jimba, M. (2023). Health literacy among adolescents and young adults in the Eastern Mediterranean region: a scoping review. BMJ open, 13(6), e072787. https://doi.org/10.1136/bmjopen-2023-072787
- 9. Shankar-Krishnan, N., Fornieles Deu, A., & Sánchez-Carracedo, D. (2021). Associations between food insecurity and psychological wellbeing, body image, disordered eating, and dietary habits: Evidence from Spanish adolescents. Child Indicators Research, 14(1), 163-183. https://doi.org/10.1007/s12187-020-09751-7
- 10. Shongwe, M. C., Chung, M. H., Chien, L. Y., & Chang, P. C. (2021). Does parenting style moderate the relationship between parent-youth sexual risk communication and premarital sexual debut among in-school youth in Eswatini? PLoS One, 16(1), e0245590. https://doi.org/10.1371/journal.pone.0245590

11. Zhang, J., Liu, M. W., Yu, H. J., Chen, Q. T., Tang, B. W., Yuan, S., & He, Q. Q. (2022). Associations of health-risk behaviors with mental health among Chinese children. Psychology, Health & Medicine, 27(3), 528–536. https://doi.org/10.1080/13548506.2020.1859559

**Table 1: Demographic Characteristics of Participants** 

		Frequency	Percent
	11 - 14	40	10.3
Age	15 - 18	69	17.8
	19 - 22	279	71.9
Gender	Male	116	29.9
	Female	272	70.1
G 1	Primary	17	4.4
	Middle	38	9.8
Grade	Secondary	77	19.8
	University	256	66.0
Number of Family	Less than 5	112	28.9
Members	More than 5	276	71.1
	First	111	28.6
V F 1 0 1	Second	52	13.4
Your Family Order	Third	70	18.0
	Other	155	39.9
	With one parent	44	11.3
Type of Residence	Family	333	85.8
	Expatriation	11	2.8
	Present with the Student	292	75.3
Parents' Presence	With the father only	6	1.5
Parents' Presence	With the mother only	71	18.3
	Not present	19	4.9
Father's Educational	University level	196	50.5
Level	Below university level	161	41.5
Levei	Uneducated	31	8.0
M - 41 - 11 - T 4 41 - 11 - 1	University level	189	48.7
Mother's Educational	Below university level	133	34.3
Level	Uneducated	66	17.0
	Both father and mother work.	123	31.7
Parents' Employment	Only the father works.	164	42.3
Status	Only the mother works.	30	7.7
	No one works.	71	18.3
Family Monthly	More than 6,000	243	62.6
Income	3,000 - 6,000	101	26.0
(Approximate)	Less than 3,000	44	11.3

**Table 1: Health and Family Status** 

Variable	Frequency	Percentage (%)
Chronic disease (Yes)	94	24.2
Chronic disease (No)	294	75.8
Father's chronic illness (Yes)	204	52.6
Father's chronic illness (No)	184	47.4
Takes regular medication	0	0.0
(Yes)		
Takes regular medication	388	100.0
(No)		

WWW.DIABETICSTUDIES.ORG 66

**Table 2: Sources of Health Knowledge** 

Source	Frequency	Percentage (%)
Ministry of Health	192	49.5
Social Media	118	30.4
Specialist	37	9.5
Not Interested	41	10.6

Table 3: Mean Scores on Health-Compromising Behavior Scale (Sample)

<b>Item Description</b>	Mean Score	Standard Deviation
There are smokers in the	3.0	0.0
house		
You are exposed to bullying	3.0	0.0
You spend time in enjoyable	2.3402	0.4744
activities		
You practice self-relaxation	2.5206	0.5002
You receive help from others	2.5361	0.4993
You accept advice openly	2.5876	0.4929
You maintain a calm	2.4691	0.4997
demeanor		
You engage in anxiety-	2.4871	0.5005
reducing activities		
You exercise daily	2.5412	0.4989
You use a water purifier	2.9098	0.2868

**Table 4: Categorization of Perception Levels** 

<b>Perception Category</b>	Score Range	Frequency	Percentage (%)
Low	1.0 - 1.5	0	0.0
Moderate	1.6 - 2.4	17	4.4
High	2.5 - 3.0	371	95.6

**Table 5: Chi-square Test Results** 

Variable	Chi-square Value	Significance (p-value)	Significant (Yes/No)
Gender	4.505	0.034	Yes
Age	2.214	0.33	No
Grade	0.95	0.813	No
Family Size	2.866	0.09	No
Birth Order	1.335	0.721	No
Residence Type	5.493	0.064	No
Parental Presence	2.406	0.493	No
Father's Education	0.36	0.835	No
Mother's Education	0.358	0.836	No