

Assessment of Health Risky Behaviors for Adolescent students at Secondary School in Holly Karbala City

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Abstract

Background: The most common problems among adolescents relate to growth and development, school, childhood illnesses that continue into adolescence, mental health disorders, and the consequences of risky or illegal behaviors, including injury, legal consequences, pregnancy, infectious diseases, and substance use disorders. Unintentional injuries resulting from motor vehicle crashes and injuries resulting from interpersonal violence are leading causes of death and disability among adolescents (Levy, 2019). Various forms of community disorder are associated with health outcomes but little is known about how dynamic context where an adolescent spends time relates to her health-related behaviors (Wiehe, Kwan, Wilson, Forte berry, 2013). **Objective:** To assess the adolescents students' health risk behaviors. To identify the relationship between adolescent's students' health risk behavior and their demographic characteristics Grade, Gender, school stage, socioeconomic status at secondary school in holly Karbala city.

Literature Review

Promoting health through schools is a (life-course) approach to promote healthy behavior among children. Many of today and tomorrow leading causes of death, disease and disability can be significantly reduced by preventing behavior that is initiated during youth, through health education, understanding and motivation; and fostered by social and political policies and conditions. Almost all children attend school and spend 6-7 hours of their time every day in that learning environment. Incorporating health into the school curriculum can have substantial influence on health promoting behaviors (Nath & Garg, 2008). Lifestyle plays an important role in the development of obesity during childhood and adolescence. Scientific evidence is increasing about the dietary factors associated with this relationship, specifically a low meal frequency, skipping breakfast, and a high consumption of sugar sweetened beverages (Moreno, Rodriguez, Fleta, & Bueno-Lozano, 2010). Adolescents are at risk of mental health conditions because of their living conditions, discrimination or exclusion, stigma, or lack of access to quality support and services. These include adolescents living in humanitarian and fragile settings; adolescents with autism spectrum disorder, chronic illness, an intellectual disability or other neurological condition; pregnant adolescents, adolescent parents, or those in early and/or forced marriages; orphans; and adolescents from minority ethnic or sexual backgrounds or other discriminated groups (American Academy of Pediatrics, 2018). Adolescence is a period of significant transformation from childhood to adulthood. The change during this period is equaled only by the growth and development that happens in infants. It is the end of childhood and is characterized by dramatic changes of all aspects of physical, biological, cognitive, social and emotional maturing. Adolescence marks of the end of childhood and is characterized by physical, psychological, social and emotional changes. It is a critical period of great stress (Erwin, 2020). The term adolescence means a time of great change for young people. It is a time when physical changes are happening at an accelerated rate. But adolescence is not just marked by physical changes young people are also experiencing cognitive, social/emotional and interpersonal changes as

well. Adolescence divided to three stages: Early adolescence (approximately 10-14 years of age), middle adolescence (approximately 15-16 years of age), late adolescence (approximately 17-21 years of age), and for every stage there are special characteristics (Table- -A-B-C) (Spano, 2004). Adolescence is the transition period between childhood and adulthood, a window of opportunity for the improvement of nutritional status and correcting poor nutritional practices. This is about the same period puberty sets in, typically between the ages of 10 and 13 years in girls. Adolescence is characterized by the growth spurt, a period in which growth is very fast. During this time, physical changes affect the body's nutritional needs, while changes in one's lifestyle may affect eating habits and food choices. Adolescent nutrition is therefore important for supporting the physical growth of the body and for preventing future health problems. All parents should therefore pay particular attention to the nutritional needs of their teenagers (Soliman, De Sanctis, & Elalaily, 2014).

Table (-A) Issue in Early Adolescents

Variables	Early Adolescence 10-14
Movement Toward Independence	Researching for identity, peers, love from another people addition to family, less attention to parent
Future Interests and Cognitive Development	Increasing career interests mostly interested in present and near future, greater ability to work.
Physical Changes	Gains in height and weight and physically development for both boys and girls like deepening of voice, growth of hair on face in boys and breast development and menstruation in girls.
Sexuality	Girls physically mature faster than boys; shyness, blushing, and modesty; greater interest in privacy; experimentation with body (masturbation); worries about being normal.
Ethics and Self-Direction	Rule and limit testing; occasional experimentation with cigarettes, marijuana, and alcohol; capacity for abstract thought

Table (-B) Issue in Middle Adolescents

Variables	Middle Adolescence 15-16
Movement Toward Independence	Both gender struggle and gasping for identity and independence.
Future Interests and Cognitive Development	Intellectual interest gain importance, anxiety can appear to school and academic performance, and some sexual and aggressive energy directed into creative and career interests.
Physical Changes	Males show continued height and weight gains while female growth slows down (females grow only 1-2 inches after their first menstrual period).
Sexuality	Concerns about sexual attractiveness, more clearly defined sexual orientation, tenderness and fears shown toward opposite sex, and feelings of love and Passion.
Ethics and Self-Direction	Development of ideals and selection of role models, and interest in Moral reasoning.

Table (-C) Issue in Late Adolescents

Variables	Late Adolescence 17-21
Movement Toward Independence	Firmer identity, ability to think through ideas and express it words, greater emotional stability; ability to make independent decisions, ability to compromise, and self-reliance.
Future Interests and	More defined work habits, higher level of concern for the Future

Cognitive Development	and thoughts about one's role in life.
Physical Changes	Most young women are fully developed; young men continue to gain height, weight, muscle mass, body hair.
Sexuality	Concerned with serious relationships; clear sexual identity; capacities for tender and sensual love.
Ethics and Self-Direction	Capable of useful insight, focus on personal dignity and self-esteem, ability to set goals and follow through, acceptance of social institutions and cultural traditions, and self-regulation of self-esteem.

Physical changes start in early adolescence, where they are very concerned about their body image. During adolescence cognitive development takes place; adolescents develop abstract thinking and reasoning. Emotionally, they develop a sense of identity during late adolescence; social involvement, peer interaction, as well as sexual interest, develop in this phase. Different behavioral experimentation is seen in early adolescence, risk taking in middle adolescence, and later adolescents learn to assess their own risk taking (Kar, Choudhury, & Singh, 2015).

Health Problems during Adolescence Period

Adolescence (meaning "to grow up") is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood. Adolescents suffering from many problems during this period, and need for health promotion in the following areas physical changes, social changes, psychological changes, neuro-developmental changes and behavioral changes (Swaran, & Akanksha, 2016). Rising adolescent health problems, such as road traffic injuries (RTIs), mental disorders, and substance use disorders, are an increasing cause for concern in countries that have otherwise reduced maternal mortality and boosted child survival. Moreover, with aging populations and a convergence to a disease burden dominated by non-communicable diseases (NCDs) in later life, adolescent health risks, such as tobacco use, physical inactivity, obesity, substance use, and poor diet, assume greater significance (Jamison et al., 2013). Methods: Adolescents (N=100), aged 15–19, were chosen from secondary school at secondary school in holly Karbala by using of a non-probability (convenience). The investigator reach the sample by using Google classroom the current study tool was used constructed questionnaire to assess the student health risky behavior. The questionnaire consists of two parts (Demographic data) which composed of (4) items that represent the sample demographic data such Age, gender, grade, and socio economic status and (Health Risky Behavior) this part consisted from 5 domains. This domain includes nutritional, social support, health responsibility, and exercise and stress management. It is constructed to measure the phenomena, rating and scoring according to 3 Likert scale answered by 3 key answer always (3), sometimes (2) and never (1), which assessed by cutoff point (0.66) due to scores (1, 2 and 3) respectively. Level of assessment: (1-1.66) = low = L, (1.67-2.33) = moderate = M, (2.34-3.00) = high = H. The data were collected through the utilization of Constructed questionnaire, self –administration technique was used. The data collection process was performed form the period of 26 of December, 2019 up to the 16 January, 2020. Informed consent was granted from sample for participation in the present study was obtained. The researchers firstly described aim of the study. The time questionnaire answering took approximately 10_15 minutes to complete questionnaire, the statistical significant of the results at p-value ≤ 0.05 .

Results

Table (1) distribution of the study sample by their socio-demographic characteristics

Variables		Percent	Frequency
Gender	Male	76	76
	Female	24	24
	Total	100	100
Age	15	15	15
	16	2	2
	17	47	47
	18	23	23
	19	13	13
	Total	100	100
Grade	Fourth	29	29
	Fifth	33	33
	Sixth	38	38
	Total	100	100
Socioeconomic status	Insufficient	29	29
	sufficient	55	55
	Sufficient and increase	16	16
	Total	100	100

Table (1) indicate that 76% of students were males, 47% at age 17 years, 38% at sixth grade and 55% had sufficient socio economic status.

Table (2) distribution of the student response to health risky behavior

Items	Always	Sometim es	Nev er	Mea n	Assessmen t
Nutritional domain					
1-Eating three meals daily and snakes	38	32	30	2.08	M
2-Choosing foods without too much oil	42	31	27	2.15	M
3-Eating fruits or vegetables	49	27	24	2.25	M
4-Drink at least 6-8 cups of water daily	41	25	34	2.07	M
5-The meal includes bread ,meat ,milk, fruit and vegetable	29	34	37	1.92	M
6-Eat breakfast daily	38	23	39	1.99	M
Social support domain					
1-Speaking up &sharing feelings with others	39	27	34	2.05	M
2-Caring about other people	42	24	34	2.08	M
3-Make an effort to smile or laugh every day	49	27	24	2.25	M
4-Enjoy keeping in touch with others	28	15	57	1.71	M
5-Make good friendships	29	33	38	1.91	M
Health responsibility domain					
1-Observe body weight	11	43	46	1.65	L
2-Brushing teeth and using dental floss after meals	35	17	48	1.87	M
3-Wash hands before meals	30	57	13	2.17	M
4-Make an effort to choose foods without preservatives	19	45	36	1.83	M
Exercise domain					

1-Perform stretching exercise daily	36	53	11	2.25	M
2-Exercising rigorously 30 minutes at least 3 times per week	25	47	28	1.97	M
3-Participating in physical fitness class at school weekly	14	52	34	1.80	M
Stress management domain					
1-Make an effort to spend time daily for relaxation	36	42	22	2.14	M
2-Make an effort to determine the source of stress	36	42	22	2.14	M
3-Make an effort to watch mood changes	41	42	17	2.24	M
4-Sleep for 6–8 hours each night	43	45	12	2.31	M

L= low (1-1.66), M= moderate (1.67-2.33), H= high (2.34-3)

Table (2) indicate that students had moderate level for the nutritional, social support, health responsibility, exercise and stress management domains

Table (3) distribution of student according level of behavior

Levels	Frequency	Percent
Low (1-1.66)	10	10
Moderate (1.67-2.33)	74	74
High (2.34-3)	16	16
Total	100	100
Mean and standard deviation	2.06±0.508	

Table (3) indicates that 74% of students had moderate level of health behavior, while only 10% of student had risky behavior.

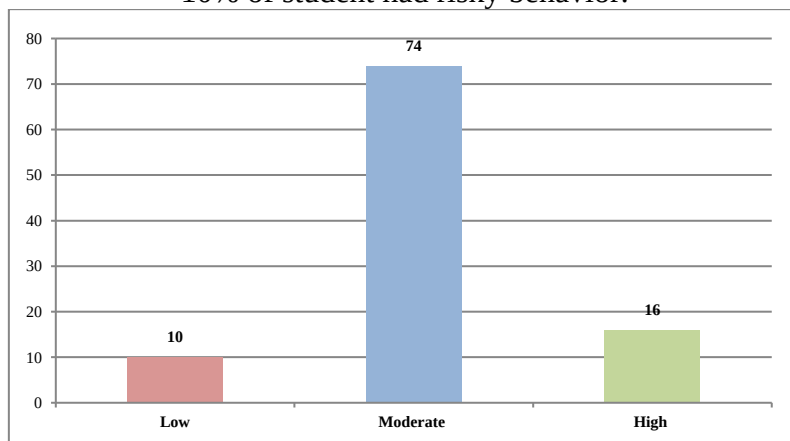


Figure -1- distribution of student according level of behavior

Table (4) Association between student behavior and their socio-demographic characteristics

Variables		Low	Mode rate	High	Total	Chi square
Gender	Male	7	57	12	76	$X^2=0.249$ $d.f.=2$ $P=0.88$
	Female	3	17	4	24	
	Total	10	74	16	100	
Age	15	2	10	3	15	$X^2=4.53$ $d.f.=8$ $P=0.80$
	16	0	1	1	2	
	17	4	37	6	47	
	18	3	15	5	23	
	19	1	11	1	13	

	Total	10	74	16	100	
Grade	Fourth	6	19	4	29	$X^2=6.17$ $d.f.=4$ $P=0.18$
	Fifth	3	24	6	33	
	Sixth	1	31	6	38	
	Total	10	74	16	100	
Socio economic status	Insufficient	2	21	6	29	$X^2=1.03$ $d.f.=4$ $P=0.90$
	sufficient	6	41	8	55	
	Sufficient and increase	2	12	2	16	
	Total	10	74	16	100	

X^2 = chi square, d.f.= degree of freedom, P= p-value

There is no significant statistical association between student behavior and their socio demographic characteristics

Discussion

Part 1: discussion of distribution of the students by their Sociodemographic characteristics

Regarding to the Sociodemographic characteristics of students in table (1), most of students were males. Chenga, Mendonc, & Júnior (2014) found that female more than male. Das et al., (2020) found that 51.5% of sample was males; this finding consisted with our finding. Marques, & Matos (2014) found that 53.9% for female. Roura, Villarroel, Pareja, & Caballero, (2016) found that 56% were girls. Leão et al., (2017) found that 63.2% of sample was females. This finding not consisted with the present study, about half of students at age 17 years. Marques, & Matos (2014) found that 57.1% of adolescents their age (15-17). Leão et al., (2017) found that the sample at age 17 years, this finding in same line of our findings. Chenga, Mendonc, & Júnior (2014) found that most of students at age 14-16 years. Roura, Villarroel, Pareja, & Caballero, (2016) found that adolescents at age 14 years. This finding not consisted with our study, one third of them at sixth grade. Marques, & Matos (2014) found that 56.5% for tenth grade. Das et al., (2020) found that 48.5% for Class VII to IX. This finding not consisted with the present study finding. More than half of students had sufficient socio economic status. Chenga, Mendonc, & Júnior (2014) found that 80% of them had sufficient economic status. Leão et al., (2017) found that 63.6% of adolescents had moderate level of socio economic status. This finding supported our study

Part 2: discussion of the distribution of the student response to health risky behavior

Table (2) indicates that students had moderate level for the nutritional, social support, health responsibility, and exercise and stress management domains. Most of students eat three meals daily; choosing food without oil, eating fruit and vegetables, drink 6-8 cups of water, eating breakfast. Gill, Majeed, Qureshi, Khan, & Khan, (2016) found that adolescents 267 (92.1%) reported to had habit of consuming their meal regularly. Habit of taking 3 or <3 meals/day was reported by 265 (91.4%) adolescents which is a typical oriental pattern. Snacks between the meals were not a common feature. It seems alarming that more than 90% of respondents had habit of consuming less than 4 meals a day. This findings support the present study. Roura, Villarroel, Pareja, & Caballero, (2016) found poor eating behavior. Ziaei (2018) found that adolescents low vegetable intake. This result disagrees with the present study findings. Most of students sharing their feeling to another person, caring about people, make good social interaction. This finding not consisted with the findings of Ziaei (2018), he found that adolescents lack of parental support, peer support, and parental connectivity. Most of student had health behavior for brushing teeth and hand washing. They are not check their weight and make an effort to choose foods without preservatives. Students moderate level of physical

activity and exercise. Chenga, Mendonc, & Júnior (2014) found that adolescents practiced 300 minutes or more of moderate to vigorous physical activity per week. This finding supported our study. Marques & Matos (2014) found that the sample has low level of physical activity. Leão et al., (2017) found that 89.4% of them underactive of physical activity level. Ziaei (2018) found that adolescents had low level of physical activity. This finding dis agrees with our study. Students have moderate level for stress management and good sleep time. Das et al., (2020) found that health risk dietary behaviors, ill-maintained personal hygiene, inadequate physical activity, instability in mental health, lack of optimum protective factors and behaviors that may result in injuries and violence. This result dis agree with our study

Part 3: discussion of the association between student behavior and their socio-demographic characteristics

There is no significant statistical association between student behavior and their age, gender, grade and socio economic status

Conclusions

1. Male more than female, most of them at age 17 years, one third of them at sixth grade and they had sufficient socio economic status
2. Most of students have good and healthy behavior and small number of them had risky behavior.
3. There is no significant statistical association between student behavior and their socio demographic characteristics

Recommendations

1. Educational sessions for educate students about specific needs during adolescence period.
2. Teach students about healthy food, nutrients and calories need
3. Encourage students to be more socially and good social interaction with peers and family
4. Teach them about important of exercise and physical activity in adolescence period.

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