

Evaluation of Youth's Health Risk Behaviors in Baghdad City تقويم سلوكيات الشباب الخطرة على الصحة في مدينة بغداد

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المستخلص:

الأهداف: لتقويم سلوكيات الشباب الخطرة على الصحة في مدينة بغداد ولتحديد العلاقة ما بين هذه السلوكيات والصفات الديموغرافية للشباب كالعمر والجنس والمستوى الدراسي.

المنهجية: دراسة وصفية إعتمدت أسلوب التقويم تم إجرائها لتقويم سلوكيات الشباب الخطرة على الصحة في مدينة بغداد للفترة من السادس والعشرون من كانون الثاني 2016، ولغاية العشرون من مايس 2016. تم إختيار عينة غرضية غير إحصائية من (160) طالب جامعي وطالبة جامعية لغرض الدراسة من أربعة مجاميع (الطبية والهندسية والعلمية والإنسانية) وبشكل متساوي (40) طالب وطالبة لكل مجموعة. كانت عينة البحث ممثلة من (50%) ذكور و(50%) إناث. تم بناء إستمارة إستبائية لغرض الدراسة. تتكون الإستمارة من ثمانية أجزاء للتعامل مع سلوكيات الشباب الخطرة على ا لصحة مثل الإصابات العفوية و غسخدام التبغ وإحتساء الكحول وإستخدام الأدوية والسلوك الجنسي والسلوك التغذوي غير الصحي والنشاط الجسدي غير الملائم والسلوك ذات العلاقة بالصحة. تم تحديد صدق الإتساق الداخلي وثبات المحتوى للإستمارة الإستبائية من خلال الدراسة الإختبارية. جمعت البيانات من خلال إستمارة الإستمارة الإستبائية والمقابلة المنظمة كوسيلتين لجمع البيانات. تم تحليل البيانات من خلال تطبيق الأسلوب الإحصائي الوصفي لتحليل البيانات والذي تضمن التكرارات والنسبة المئوية والقيمة الكلية ومعامل الارتباط لفر ونيباخ ألفا.

النتائج: بينت نتائج البحث بأن أغلب الطلبة تعرضوا إلى سلوكيات خطرة على الصحة كالسلوك التغذوي غير الصحي والنشاط الجسدي غير الملائم والسلوك ذات العلاقة بالصحة بغض النظر عن تصنيف الكليات. تعرض الطلبة الذكور إلى السلوكيات الخطرة على الصحة كالإصابات غير المقصودة وإستخدام التبغ والسلوك الجنسي أكثر من الطالبات الإناث.

التوصيات: أوصت الدراسة إلى وجوب تصميم وتنفيذ برنامج عن سلوكيات الشباب الخطرة على الصحة والذي يزود الطلبة بكل المعلومات ذات الصلة بالوقاية والسيطرة على هذه السلوكيات مع وجود حاجة إلى بحوث إضافية لتحديد هل الدرجات المتدنية تقود إلى السلوكيات الخطرة على الصحة أو السلوكيات الخطرة على الصحة تقود إلى الدرجات المتدنية أو عوامل أخرى تقود إلى كلتا المشكلتين.

Abstract:

Objective(s): To evaluate youth's health risk behaviors in Baghdad City and to determine the relationship between such behaviors and the youth's demographic characteristics of age, gender and grade.

Methodology: A descriptive study, using the evaluation approach, is carried out to evaluate youth's health risk behaviors in Baghdad City for the period of January 26th 2016 to May 20th 2016. A non-probability "purposive" sample of (160) University students is selected for the purpose of the study from four groups of colleges (medical, engineering, sciences, and education) and it is equally distributed of (40) student from group of colleges. The sample is consisted of (50%) males and (50%) females. A questionnaire is constructed for the purpose of the study. It is comprised of eight parts which deal with youth's health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, sexual behavior, unhealthy dietary behavior, inadequate physical activity, and health related behavior. Internal consistency reliability and content validity are determined for the study instrument through pilot study. Data are collected through the utilization of the questionnaire and the application of the structured interview technique as means of data collection. Data are analyzed through the application of the descriptive statistical data analysis approach which includes frequency, percent, total score and Cronbach alpha correlation coefficient.

Results: The study depicts that most of the students have experienced health risk behaviors of unhealthy dietary behavior, inadequate physical activity and health related behavior regardless of their colleges' classification. Male students have been exposed to health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use and sexual behavior more than female students.

Recommendations: The study recommends that Youth Health Risk Behaviors Program should be designed and implemented to present these students with all the information for the prevention and control of such behaviors. Further research is needed to determine whether low grades lead to health risk behaviors or health risk behaviors lead to low grades, or some other factors lead to both of these problems.

Key Words: Evaluation, Youth's Health Risk Behaviors.

Introduction:

The concept of health risk behavior has been used to describe behaviors with potentially negative effects on health, such as substance use, early onset of sexual activity or unsafe sexual practices, risky driving, violent or suicidal behaviors, antisocial behaviors, and disordered eating, among others⁽¹⁾. There is evidence that health risk behaviors tend to cluster together, with similar risk factors for many different risk behaviors. Often exploratory, risk behaviors can be considered a normal aspect of adolescent development.⁽²⁾

Risk behaviors increase with age⁽³⁾, and their prevalence differs according to gender^(4,2), although boys seem to have a higher number of concurrent risk behaviors⁽⁵⁾. Academic track can also play a role, with adolescents in vocational schools being more likely to engage in risk behaviors than those in more academically focused schools^(6,7). Socioeconomic status (SES) has also been linked to risk behaviors, although with differing conclusions. Some studies have indicated that family income has no relation with adolescents' sexual behavior⁽⁸⁾, others have reported that low family SES is indirectly associated with substance use problems⁽⁹⁾, and yet others have described high-SES teenagers as being more likely to use substances⁽¹⁰⁾. Anxiety and depressive disorders are associated with risk behaviors⁽¹¹⁾. Although some studies have indicated that risk behaviors predict an increased likelihood of depression⁽¹⁰⁾,

others have reported that depression predicts later risk behaviors⁽¹¹⁾. It is also worth noting that while chronic conditions are associated with increased emotional distress and depression⁽¹²⁾. Self-reported health status is also associated with emotional well-being⁽¹³⁾ and may influence participation in risk behaviors by chronically ill adolescents. However, the few studies that have controlled for health status have failed to show any association with smoking or other risk behaviors⁽¹⁴⁾.

Health risk behaviors frequently affect everyone in the community. Some aspects of wellness are outside of our control. Therefore, learning how to manage health risk behaviors is tremendously important. Making a positive change from a negative lifestyle to a healthy lifestyle can benefit all those in his or her network.

Based on the early stated facts, the present study aims at investigating the health risk behaviors that youth may experience throughout their lifespan and determining the relationship between such behaviors and the youth's demographic characteristics of age, gender and grade.

Methodology:

A descriptive design, using the evaluation approach, is carried throughout the present study to evaluate youth health risk behaviors in Baghdad City for the period of January 26th 2016 to May 20th 2016.

A non-probability, purposive, sample of (160) university students is selected and (40) student is assigned to each group of colleges as medical, engineering, sciences

and education. The sample is consisted of (50%) males and (50%) females.

A questionnaire has been designed and constructed by the investigator to measure the variables underlying the present study. It is employed to gather the data and to achieve the purpose of the present study. It is comprised of two parts; the first part is dealing with youth demographic characteristics of age, gender, and grade. The second part is consisted of (82) items that measure youth's health risk behaviors. These behaviors are categorized into (8) categories which are Unintentional injuries (18 items), Tobacco use (16 items), drinking alcohol (6 items), drug use (13 items), sexual behavior (8 items), unhealthy dietary behavior (11 items), inadequate physical activity (5 items) and health related behavior (5 items). These categories are measured as:

- 1. Unintentional injuries:** low (16-40), moderate (41-65), high (66-89)
- 2. Tobacco use:** low (16-36), moderate (37-57), high (58-78)
- 3. Drinking alcohol:** low (6-16), moderate (17-27), high (28-38)
- 4. Drug use:** low (13-28), moderate (29-44), high (45-61)

5. Sexual behavior: low (8-15), moderate (16-23), high (24-33)

6. Unhealthy dietary behavior: low (11-33), moderate (34-54), high (55-73)

7. Inadequate physical activity: low (5-13), moderate (14-22), high (23-32)

8. Health related behavior: low (5-9), moderate (10-14), high (15-20)

Internal consistency reliability of the questionnaire is determined through split-half technique and the computation of Cronbach alpha correlation coefficient ($r=0.87$) and content validity of the questionnaire is established by panel of (10) experts.

Data are collected through the use of the study instrument and the interview technique as means for data collection from the period of February 2nd 2016 through April 7th 2016.

Data are analyzed through the application of descriptive statistical data analysis approach which includes frequency, Cronbach alpha correlation coefficient and total scores for the evaluation of the youth's health risk behaviors categories.

Results:**Table (1): Distribution of Youth Health Risk Behaviors for medical Students by Age, Gender and Grade**

College	Grade		Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items	
Medical	Male	First	5	30-40	25-57	6-25	13-34	9-19	41-62	21-30	5-10
		Second	5	29-46	24-46	6-31	15-37	11-25	42-60	18-27	7-14
		Third	5	29-39	23-61	6-28	13-24	10-22	37-63	8-31	9-19
		Fourth	5	29-45	25-58	6-13	16-19	9-24	45-56	18-24	7-14
	Female	First	5	27-40	19-34	6	16-13	8-10	46-60	18-29	10-11
		Second	5	28-33	23-27	6-8	13-17	9-10	38-54	18-26	7-15
		Third	5	29-34	22-27	6-9	16-13	9-13	38-62	21-26	8-13
		Fourth	5	27-34	25-32	6	15-16	8-24	42-54	20-27	6-13
College	Grade		Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items	
Medical		18-19	3	31-39	25-44	6-11	13-25	9-19	41-62	21-30	5-10
		20-21	4	30-40	31-57	6-31	16-37	9-21	42-60	20-27	8-14
		22-23	10	29-46	23-61	6-28	13-24	10-25	37-63	8-31	6-19
		24 ≥	3	29-41	25-32	6-13	16-19	9-24	46-55	18-27	7-11
		18-19	6	37-40	19-34	6	13-16	8-10	38-60	18-29	9-14
		20-21	6	28-34	23-27	6-9	14-17	9-13	38-54	20-26	7-15
		22-23	6	27-34	22-32	6	13-16	9-24	39-62	18-27	7-13
		24 ≥	2	28-34	25	6	16	8-12	46-53	20-26	6-11

Unintentional injuries: low (16-40), moderate (41-65), high (66-89)

Tobacco use: low (16-36), moderate (37-57), high (58-78)

Drinking alcohol: low (6-16), moderate (17-27), high (28-38)

Drug use: low (13-28), moderate (29-44), high (45-61)

Sexual behavior: low (8-15), moderate (16-23), high (24-33)

Unhealthy dietary behavior: low (11-33), moderate (34-54), high (55-73)

Inadequate physical activity: low (5-13), moderate (14-22), high (23-32)

Health related behavior: low (5-9), moderate (10-14), high (15-20)

This Table depicts that these students have experienced greater health risk behaviors of unhealthy dietary behavior, inadequate physical activity, and health related behavior. Male students have experienced more health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, and Sexual behavior than female ones. No significant difference has been noticed relative to their age and grade.

Table (2): Distribution of Youth Health Risk Behaviors for Engineering Students by Age, Gender and Grade

College	Gender	Grade	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Engineering	Male	First	5	28-38	21-40	6	15-16	8-10	45-60	14-26	11-13
		Second	5	32-43	27-50	6-20	13-17	9-29	31-60	19-30	9-12
		Third	5	27-55	23-47	6-13	16-44	8-22	32-50	12-24	11-15
		Fourth	5	31-53	24-50	6-9	16-19	8-27	31-55	5-25	9-13
	Female	First	5	26-31	22-32	6	13-16	7-13	36-53	24-30	7-13
		Second	5	29-36	22-39	6-9	14-19	8-14	41-53	17-27	10-12
		Third	5	27-33	21-33	6	13-16	8-12	42-59	25-32	7-12
		Fourth	5	20-53	24-50	6-21	6-43	8-13	42-57	18-24	8-10
College	Gender	Age (Years)	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Engineering	Male	18-19	5	28-38	21-40	6	15-16	8-10	45-60	14-26	11-13
		20-21	7	27-43	24-47	6-20	13-18	8-22	31-57	12-30	9-15
		22-23	5	31-55	23-50	6-13	16-44	9-27	31-50	5-25	9-12
		24≥	3	32-34	24-50	8-9	16-19	8-29	48-60	12-23	10-13
	Female	18-19	4	26-31	22-27	6	13-16	7-10	36-53	18-30	7-13
		20-21	10	20-53	25-50	6-21	13-43	8-14	36-53	19-28	7-12
		22-23	3	27-36	22-29	6-10	16-19	13-19	41-59	17-30	7-12
		24≥	3	27-30	21-25	6	16	8-10	45-57	18-32	8-11

Unintentional injuries: low (16-40), moderate (41-65), high (66-89)

Tobacco use: low (16-36), moderate (37-57), high (58-78)

Drinking alcohol: low (6-16), moderate (17-27), high (28-38)

Drug use: low (13-28), moderate (29-44), high (45-61)

Sexual behavior: low (8-15), moderate (16-23), high (24-33)

Unhealthy dietary behavior: low (11-33), moderate (34-54), high (55-73)

Inadequate physical activity: low (5-13), moderate (14-22), high (23-32)

Health related behavior: low (5-9), moderate (10-14), high (15-20)

This table presents that these students have experienced greater health risk behaviors of unhealthy dietary behavior, inadequate physical activity and health related behavior. Male students have been exposed to more health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, and sexual behavior than female ones. No significant difference has been reported relative to their age and grade.

Table (3): Distribution of Youth Health Risk Behaviors for Sciences Students by Age, Gender and Grade

College	Gender	Grade	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Scientific	Male	First	5	31-35	34-52	6-9	14-20	8-10	39-57	12-29	8-11
		Seco	5	24-44	21-47	6-19	13-16	9-16	39-61	13-32	8-12
		Third	5	30-48	27-44	6-23	13-35	12-25	37-54	8-22	8-12
		Fourt	5	26-53	25-47	6-24	16-18	8-25	48-54	16-32	8-21
	Female	First	5	27-34	24-31	6-9	9-17	8-10	45-57	21-28	8-10
		Seco	5	30-33	28-30	6-7	14-19	8-11	40-59	21-29	7-10
		Third	5	28-34	24-32	6	13-18	9-12	37-58	19-28	9-13
		Fourt	5	29-42	25-38	6-12	26-29	8-20	36-55	19-28	8-14
College	Gender	Grade	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Scientific	Male	18-19	1	34	39	8	51	9	9-48	12	11
		20-21	5	31-44	29-52	6-19	14-26	8-16	39-56	16-27	8-11
		22-23	8	24-48	21-44	6-23	13-19	9-25	37-60	8-32	8-12
		24 ≥	6	26-53	5-47	6-24	16-35	8-25	48-57	16-32	8-21
	Female	18-19	3	27-32	24-31	6-9	16-17	8-10	49-57	21-24	8-11
		20-21	4	30-34	26-30	6-7	9-16	8-11	45-52	17-28	8-11
		22-23	1	28-42	24-38	6-12	16-29	8-20	36-59	29-29	7-19
		24 ≥	2	29-30	28-31	6	13-17	8-9	40-56	17-28	10-12

Unintentional injuries: low (16-40), moderate (41-65), high (66-89)

Tobacco use: low (16-36), moderate (37-57), high (58-78)

Drinking alcohol: low (6-16), moderate (17-27), high (28-38)

Drug use: low (13-28), moderate (29-44), high (45-61)

Sexual behavior: low (8-15), moderate (16-23), high (24-33)

Unhealthy dietary behavior: low (11-33), moderate (34-54), high (55-73)

Inadequate physical activity: low (5-13), moderate (14-22), high (23-32)

Health related behavior: low (5-9), moderate (10-14), high (15-20)

This table reveals that these students have experienced greater health risk behaviors of unhealthy dietary behavior, inadequate physical activity, and health related behavior. Male students have been exposed to more health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, and sexual behavior than female ones. No Significant difference has been reported relative to their age and grade.

Table (4): Distribution of Youth Health Risk Behaviors for Education Students by Age, Gender and Grade

College	Gender	Grade	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Scientific	Male	First	5	20-50	25-45	8-23	8-30	8-23	45-63	15-31	8-13
		Secon	5	29-55	25-59	6-40	13-22	8-28	36-53	21-24	8-13
		Third	5	29-40	30-63	5-11	9-19	11-23	49-59	15-31	11-16
		Fourt	5	29-39	26-40	6-17	8-17	10-24	41-58	18-31	8-14
	Female	First	5	32-36	21-26	6	13-17	18-15	31-59	21-29	11-14
		Secon	5	27-32	25-32	8-6	13-15	8-12	49-54	21-27	9-13
		Third	5	25-37	25-32	6-9	16-17	8-9	46-57	21-30	6-9
		Fourt	5	26-37	20-34	6	14-16	9-10	39-63	21-28	6-14
College	Gender	Grade	Student	Unintentional injuries (16-89) 18 item	Tobacco use (16-78) 16 item	Drinking alcohol (6-38) 6 items	Drug use (13-61) 13 item	Sexual behavior (8-33) 8 items	Unhealthy dietary behavior (11-73) 11 item	Inadequate physical activity (5-32) 5 items	Health related behavior (5-20) 5 items
Scientific	Male	18-19	1	34	25	23	25	9	63	20	10
		20-21	5	33-35	39-40	7-40	8-19	10-24	42-53	15-31	7-13
		22-23	7	22-37	25-48	5-9	13-30	9-23	45-57	22-31	7-13
		24 ≥	7	29-55	26-59	8-27	9-22	8-28	40-58	13-31	10-14
	Female	18-19	6	27-36	23-32	6-8	13-17	8-15	43-59	21-22	7-14
		20-21	7	29-37	21-35	6-9	13-16	8-15	31-57	23-30	8-10
		22-23	2	26-32	20-32	6	15-17	9	45-48	21-26	8-9
		24 ≥	5	25-33	23-34	6-7	14-16	9-10	39-63	21-28	6-14

Unintentional injuries: low (16-40), moderate (41-65), high (66-89)

Tobacco use: low (16-36), moderate (37-57), high (58-78)

Drinking alcohol: low (6-16), moderate (17-27), high (28-38)

Drug use: low (13-28), moderate (29-44), high (45-61)

Sexual behavior: low (8-15), moderate (16-23), high (24-33)

Unhealthy dietary behavior: low (11-33), moderate (34-54), high (55-73)

Inadequate physical activity: low (5-13), moderate (14-22), high (23-32)

Health related behavior: low (5-9), moderate (10-14), high (15-20)

This table reveals that these students have experienced greater health risk behaviors of unhealthy dietary behavior, inadequate physical activity, and health related behavior. Male students have been exposed to more health risk behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, and sexual behavior than female ones. No Significant difference has been reported relative to their age and grade.

Discussion:**Part I: Evaluation of Youth Health Risk Behaviors**

Throughout the course of data analysis, such evaluation indicates that the greater number of students has experienced health risk behaviors of unhealthy dietary behavior, inadequate physical activity and health related behavior (Table 1, 2, 3 and 4). These findings provide evidence that these behaviors have emerged due to two reasons: First, these students may experience lack of knowledge which creates deficit in their awareness towards these health risk behaviors, and they experience life-style by which these health risk behaviors have been created.

Supportive evidence to these findings has been presented by researchers who indicate that over the last decade. Youth health risk behaviors of poor nutrition, inadequate physical activity, and health related behaviors have been improved⁽¹⁵⁾.

Part II: The Relationship between Youth Health Risk Behaviors and Demographic Data

Analysis of such relationship depicts that male students have experienced more health risk

behaviors of unintentional injuries, tobacco use, drinking alcohol, drug use, and sexual behavior than female ones regardless of the type of college (Table 1, 2, 3, and 4). This finding presents the fact that male students feel free to practice such behaviors and become at greater risk than female students due to cultural orientation.

Supportive evidence to such finding is presented through a study which reports that health risk behaviors of injury-related behavior, unsafe sexual behavior, tobacco use, drug use, and alcohol use have increased during the last ten years⁽¹⁵⁾.

No Significant difference has been reported relative to Students age and grade (Table 1, 2, 3, and 4). This can be interpreted in a way that these variables have no major impact upon these Student behaviors. Unfortunately, no Supportive evidence is available in the literature for such findings.

Recommendations

Based on the early discussed and interpreted findings, the study can recommend that:

1. Youth health risk behaviors can be included in the universities

curriculum to increase students' awareness about these behaviors.

2. Youth Health Risk Behaviors Education Program should be designed

and implemented to present these students with all the information for

the prevention and control of such behaviors.

3. Further research can be carried out with large sample size and different

characteristics.

4. Further research is needed to determine whether low grades lead to

health-risk behaviors, health-risk behaviors lead to low grades, or

some other factors lead to both of these problems.

References:

1. Igra, V. and Irwin, E.: Theories of adolescent risk-taking behavior. In: DiClemente, R.; Hansen, W. and Ponton, L.: **Handbook of Adolescent Health Risk Behavior**. New York: Plenum, 1996, pp. 35–51.
2. Duberstein, L.; Boggess, S. and Williams, S.: **Multiple Threats: The Co-occurrence of Teen Health Risk**

Behaviors. Washington, DC: Urban Institute; 2000. Available at: www.urban.org/UploadedPDF/multiplethreats.pdf.

3. Viner, R.; Haines, M. and Head, J.: Variations in Associations of Health Risk Behaviors among Ethnic Minority Early Adolescents. **Journal of Adolescents Health**, 38 (1), 2006, p. 55.
4. Rhee, D.; Yun, S. and Khang, Y.: Co-occurrence of Problem Behaviors in South Korean Adolescents: Findings from Korea Youth Panel Survey. **Journal of Adolescents Health**, 40 (2), 2007, pp. 195– 197.
5. Brener, N. and Collins, J.: Co-occurrence of Health-risk Behaviors among Adolescents in the United States. **Journal of Adolescents Health**. 22 (3), 1998, pp. 209– 213.
6. Kohn, L.; Dramaix, M.; Favresse, D.; Kittel, F. and Piette, D.: Trends in Cannabis Use and Its Determinants among Teenagers in the French-speaking Community of Belgium. **Rev. Epidemiol. Sante Publique**, 53 (1), 2005, pp. 3– 13.
7. Rodondi, P.; Narring, F. and Michaud, P.: Drinking Behavior among Teenagers in Switzerland and Correlation with Lifestyles. **Eur. J. Pediatr.**, 159 (8), 2000, pp. 602– 607.

8. Santelli, J.; Lowry, R.; Brener, N. and Robin, L.: The Association of Sexual Behaviors with Socioeconomic Status, Family Structure, and Race/Ethnicity among US Adolescents. **Am. J. Public Health**, 90 (10), 2000, pp. 1582– 1588.
9. Fothergill, K. and Ensminger, M.: Childhood and Adolescent Antecedents of Drug and Alcohol Problems: A longitudinal Study. **Drug Alcohol Depend**, 82 (1), 2006, pp. 61– 76.
10. Hanson, M. and Chen, E.: Socioeconomic Status and Substance Use Behaviors in Adolescents: the Role of Family Resources versus Family Social Status. **J. Health Psychol.**, 12 (1), 2007, pp. 32– 35.
11. Hallfors, D.; Waller, M.; Ford, C.; Halpern, C.; Brodish, P. and Iritani, B.: Adolescent Depression and Suicide Risk: Association with Sex and Drug Behavior. **Am Journal of Preventive Medicine**, 27 (3), 2004, pp. 224– 23.
12. Haarasilta, L.; Marttunen, M.; Kaprio, J. and Aro, H.: Major Depressive Episode and Physical Health in Adolescents and Young Adults: Results from a Population-based Interview Survey. **Eur. J. Public Health**, 15 (5), 2005, pp. 489– 493.
13. Huurre, T. and Aro, M.: Long-term Psychosocial Effects of Persistent Chronic Illness: a Follow-up Study of Finnish Adolescents Aged 16 to 32 Years. **Eur. Child Adolesc. Psychiatry**, 11(2), 2002, pp. 85– 91.
14. Bush, T.; Richardson, L. and Katon, W.: *Anxiety and Depressive Disorders are Associated with Smoking in Adolescents with Asthma.* **J. Adolesc. Health**, 40 (5), 2007, pp. 425– 432.
15. Irwin, C.; Burg, S. and Cart, C.: America's Adolescents: Where Have We Been, Where Are We Going? **Journal of Adolescent Health Care**, 31,2002,pp.91-121.