Prevalence of Headache among students at Kirkuk University

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Abstract

Background: Headache is the most common reason for seeking medical help. In fact there approximately 13 million visit each year in the United States to physician office, urgent care clinic and emergency department. Migraine affect about one in ten of population at some time of life.

Aims: Are to determine the prevalence rate of headache among students at Kirkuk University as defined by International Headache Society (IHS), and to identify symptoms that accompany the attack of headache and the effect of headache on student's college attendance.

Subjects and Methods: After taken the agreement of department of community medicine: about 1140 students (26% of the total university students),chosen randomly; across-sectional study was done during the academic year (2010-2011).A special questionnaire form designed and consist demographic data questions about headache and associated symptoms and possible effect of headache on university attendance was recorded.

Results: About 39.1% of the study sample had headache episodes unrelated to febrile illness in the year preceding the survey. The prevalence of migraine headache as well as non-migraine headache was higher among females than males' students and also higher among age group 19-21 years. Approximately more than one third of them were absent from the university due to headache.

Conclusion: Headache is prevalent among Kirkuk's university students and higher among females and it affects their academic performance.

Key wards : Headache, Prevalence, University students

Introduction

The prevalence of headache in university students in several studies varies from 33 to 98.5% and the prevalence of migraine varies from 2.4 to 46.3 %.(1,2,3,4,5)

It is estimated that globally, among the adult population,46% have headache in general,11% have migaine,42% have tension-type headache and 3% have chronic daily headache.(6)

Some studies suggest that headache can contribute to reduction in students academic performance.(7,8)

Migraine alone is responsible for 4,016,076 consultation in primary care setting in Brazil, and 13 million visit in United States.(9,10,11)

Migraine affect about one in ten of population at some time of life and approximately 18% of women and 6% 0f men in United States suffer from it and over 80% suffer from headache disability.(12,13)

The aims of the study are to determine the prevalence of headache among students at Kirkuk University as defined by International Head Society (IHS) ,to identify symptoms accompany its attack and its effect on college attendance.(14)

Subjects and Methods:

This cross-sectional study was conducted among students of Kirkuk University during the period of 1st.Oct.2010- 28Feb.2011. About 1140 students (represent 26% of total university students) were selected randomly for the purpose of the study; and all students gave informed consent before filling the questionnaire form by them and the researchers explain to them how to answer the question correctly and the study was approved by the department of community medicine. A special questionnaire designed for the study's purpose which contain information about age,gender,whether he or she suffered from headache in the previous year before the study and if the answer is yes; the student asked about its numbers, their duration and if they were related to any febrile illness, the possible effect of headache on their college attendance and about the common symptoms associated with migraine. The type of headache and its diagnosis was defined by (HIS) criteria. The categorical variables were compared across groups using Chi-Square test and the significance level of the statistical test was fixed at 5%.

Results

Table 1 shows the prevalence of headache among the sample study by age and sex where 33.5% males and 43.4% females were suffering from headache, and the prevalence was highest among the age group 19-21years (43.2%) in both genders and the lowest prevalence was for those under 18years (27.4%) ;and it was higher among females than among males in both age group. The of migraine headache among the sample study by age and gender is shown in table 2 ;where it was higher among females than males in all age group and it was higher among the age 19-21 years for both genders (9.2%,8.2% respectively|), and the same thing is also true for the non-migraine headache as shown in table 3.More than one third (38.3%) of students were absent from the college because of headache, and the prevalence was increased among those suffering from migraine headache (61.2%) than those suffering from non-migraine headache (32.3%) and it was higher among females (63.1%) than among males (58.3%) for those suffering from migraine as shown in table 4.

The frequency distribution of symptoms that were commonly associated with headache is shown table 5; where the increased intensity

with physical activity constitute about (59%) of the study sample followed by pulsating pain (57.6%) and least percentage (18.6%) was for those students suffering from nausea and vomiting.

Discussion

The prevalence of migraine is frequent among university students and headache can lead to a reduction in students' academic performance (15).

The impact of headache is more evident among migraines students than students with episode tension headache in 62.7% verses 24.4% respectively (16). Migraine is the second most common primary headache disorder at prevalence of 12% (17,18,19,20,21).

The present study has examined one-year prevalence of headache and stated that 43.4 % of female students and 33.5% of male students was suffered from headache, and these figures were lower than that of Stovner L. et al and Hugo R. et al studies (6,22); but identical with Sedar R. *et al* study(23) and these differences may be attributed to differences in case definition, methodology and socio-economic factors in the sample study itself ;meanwhile the differences between sex may be due to the differences in the hormonal and pubertal changes in males than in females whose puberty starts earlier.

The prevalence of headache (migraine or non-migraine) was increasing among the age group 19-21 years; a result which identical with Winner P. et al study (24) and this may attributed to the role of estrogen in headache.

The prevalence of absenteeism in the present study was 38.3% which was higher than that found in a study done in Brazil done by Hugo R. et al (30.8%) and this difference may be attributed to the possible differences in perception and tolerance of pain among the different sample study. (22)

This study shows that increased intensity with physical activity appear to be the most associated symptoms for migraine, followed by pulsating pain and photophobia and was identical with figures reported by Winner et al when studied migraine characteristics.(24)

Conclusion:

A high prevalence of headache in the studied population with greater prevalence among females than males was vitrified and a high headache impact on a student's life was associated with worse academic performance.

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Table1. Prevalence of headache among Kirkuk University students by age and sex

Age	Male		Female		Total	
(Year)	No.*	%	No.	%	No.	%
<18	13	2.9	18	26.5	31	27.4
19-21	86	33.7	183	49.4	269	43.2
22-24	54	34.4	68	37.8	122	36.2
25-27	11	33.3	13	37.1	24	35.3
Total	164	33.5	282	43.4	446	39.1
No.* : Number : X^2=6.83, d.f.=3 , P<0.05						

Table 2 Prevalence of migraine headache among Kirkuk University students by age and sex

Age (Year)	Male No.	%	Female No.	%	Total No.	%
<18	3	6.7	5	7.3	8	7.o
19-21	21	8.2	34	9.2	55	8.8
22-24	10	6.4	15	8.3	25	7.4
25-27	2	6.0	3	8.6	5	7.3
Total	36	7.3	57	8.7	93	8.1

X^2 =10.23 d.f.=3 P<0.05

Table 3-Prevalence of non-migraine headache among Kirkuk University student by age and sex

Age (Year)	Male No.	%	Female No.	%	Total No.	%
<18	10	22.2	13	19.1	23	20.3
19-21	65	25.4	149	40.6	214	34.3
22-24	44	28.0	53	29.4	97	28.9
25-27	9	27.2	10	28.6	19	27.9
Total	128	26.1	225	34.6	353	30.9

X^2 =8.1 d.f.=3 P<0.05

Table 4- Frequency distribution of absenteeism of students by Type of headache

Category	Male		Female		Total	
	No.	%	No.	%	No.	%
Migraine	21	58.3	36	63.1	57	61.2
Non-migraine	56	43.7	58	25.8	114	32.3
Total	77	47.0	94	33.3	171	38.3
X^2= 10.23 d.f.=1 P<0.05						

Table 5-Frequency distribution of symptoms commonly associated with migraine and non-migraine headache

Type of Symptom	No.	%
Increased intensity with physical activity	263	59.0
Pulsating pain	257	57.6
Phonophobia	220	49.3
Photophobia	162	36.2
Unilateralism	130	29.1
Nausea and vomiting	83	18.6

الخلاصة:

يعتبر الصداع من الاسباب المهمة لطلب المساعدة الطبية، وقد وجد في الولايات المتحدة ان هنالك حوالي ثلاثة عشر مليون زيارة الى عيادة الاطباء وطب الطوارئ بسبب الصداع ، وان شخص لكل عشرة اشخاص يشكون من داء الشقيقة في احدى فترات حياتهم.

طريقة اجراء البحث: اجريت دراسة استبيانية لشريحة مقطعية لطلبة جامعة كركوك خلال العام الدراسي 2010-2012 وشملت 1140 طالب وطالبة (والتي تمثل 26% من مجمل طلبة الجامعة) تم اختيارهم بشكل عشوائي وتم استخدام الاستمارة الاستبيانية والتي تحتوي على معلومات احصائية لها علاقة بالصداع والاعراض المصاحبة له وهل هنالك تأثير له على دوامهم الجامعي.

الاهداف:

لتحديد نسبة انتشار الصداع لدى طلبة جامعة كركوك ومعرفة الاعراض المصاحبة للصداع وتأثير الصداع على الدوام.

النتائج : لقد وجد بأن 39,1% من العينة التي اجريت عليها الدراسة قد شكت من صداع عرضي لا علاقة له بمرض او حمى وذلك من خلال العام الدراسي الماضي وان معدل الانتشار كان مرتفع بين الاناث عما هو بين الذكور في حالتي الاصابة بالشقيقة (8,7% مقابل 7,3%) او الصداع العائد لاسباب اخرى غير الشقيقة(34,6% مقابل 26,1%).كما وجد بأن 38,3% منهم قد انقطعوا عن الدوام في الجامعة .

الخاتمة والتوصيات: يعتبر الصداع منتشرا بين طلبة الجامعة وخاصة بين الطالبات ، لذا ينصح الباحثون المؤسسات الصحية والمجتمعية بزيادة الاهتمام بتلك المشكلة العصبية الشائعة بين الطلبة.