

Study on *Pediculus humans capitis* in six primary-schools for girls at AL-Door/ south of Tikrit

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Abstract

pediculus humans infection is a widespread problem infect pupils in primary school. This study was carried out in november 2015 to determine the prevalence of *pediculosis capitis* among pupils aged 6-12 years of six primary-schools for girls included AL-Sharqiya , Tulkarem ,AL-Oula,, Mohammed El Dorry, AL-Tima aloula and AL- Fayhaa). The total prevalence of *pediculosis capitis* was 240(34.4%). In AL-Sharqiya school infection was 38(27.1%),Tulkarem 1(1.3%),AL-oula 66(48.2%),Mohammed El Dorry 39(43.3%), AL-Tima aloula 54(38.3%) and AL- Fayhaa 42(37.5%) and ratio of mothers employees of infected pupils was 39(16.3%) compared with 201(83.8%) of mothers non employees. Also our study recorded significant association between *pediculosis* and age, it was 160 (66.7%) for 6-10 years and 80 (33.3%) for those 11-12 years old.

Introduction

Pediculus humans capitis is condition found among people of all socioeconomic status in a certain country . children of primary-school are the most infected (1).Head lice are type of ectoparasite which infects the skin under human head hair (2). Primary-school children aged 6–12 years are most at risk, although adults and children of other ages who have direct or indirect contact with primary-school children are also susceptible(3). Head lice are not responsible for any disease agents, but parasitism causes complexities, such as bacterial infection, lesions of skin under human head hair caused by scratching, skin inflammation and chronic anemia (4). Many popular, economic and social factors play role in The spread of *pediculosis* such as bad hygiene and hair adjectives(5,6).

A few studies have been done In AL-Door south of Tikrit among

schoolchildren , for that cause our research was undertaken to delimiting the spread of *Pediculosis* especially what happened during 2014 after displacement of families and having to live in places lacking health conditions such as refugee camps and houses incomplete construction.

Materials and methods

Our research cover entirely 698 pupils, 6-12 years of age in six primary- girls schools of AL-Door south Tikrit during November 2015.By direct optical hair examination of nursing inspector, Ova and/or adult Lice were delimited and the information for mother's employment of the first , second and third infected pupils classes were collected from The school directorate ,the information of infected pupils mothers of other classes were obtained from the pupils themselves.

Results

A total of 698 pupils were screened in six primary –girls schools. The total prevalence of *Pediculosis humans capitis* infection was 240(34.4%). In AL-Sharqiya school infection was 38(27.1%), Tulkarem 1(1.3%), AL-oula 66(48.2%), Mohammed El Dorry 39(43.3%), AL-Tima aloula 54(38.3%) and AL- Fayhaa 42(37.5%). Table(1) fig.(1).

Ratio of mothers employees of infected pupils was 39(16.3%) compared with 201(83.8%) of mothers non employees. Table(2) fig.(2). In our study we found association between pediculosis and age, it was 160(66.7%) for 6-10 years and 80(33.3%) for those 11-12 years old. Table(2) fig.(3)

Discussion

In both progressing and non-progressing countries, *Pediculosis* between primary school pupils is a hygienic trouble (7).definitely, social, hygienic and economic condition effect the recrudescence of infection(8).

Infection ratio in a certain area differ from those in another area, however, this research shows that (34.4%)*Pediculosis* cases from 698 screened pupils, the result is roughly similar to Borges and Mendes showed (35%) in Brazil(9), Speare and Buettner, they showed (33.7%) in Australia(10), Oztirkcan et al showed (33%) out of 112 children(11) and Saleh, it was (30%) who recorded infection among female(12).As a result of the present study differs with AlBashtawy and Hasna, they showed (26.6%)(13), Saddozai and Kakarsulemankhel, they record (87%)(14), Vahabi et al showed (4.7%) among Children aged 10-11(15).

Our study also found the prevalence to be more in pupils who their mother does not have a job 201(83.8%) than those their mother have a job

39(16.3%) which does not agree with Al-Bashtawy and Hasna when they did not find relation between Mother's employment and *Pediculosis* in their study between primary school pupils (13), however may be because of low level of education , lacking hygienic knowledge of those mothers and how to control of pediculosis especially if in the family more than a girl long hair, Willems et al, Ali & Ramzan and Ramirez et al showed head lice infection is associated with hair length (16,7,17).

As well as our study recorded significant association between pediculosis and age, it was (66.7%) for 6-10 years and (33.3%) for those 11-12 years old, which is roughly similar to Amirkhani et al(18) and Rashmi et al(19). These differences might be associated with behavioral variations in the different age groups (20).

Meet by chance , some mothers of infected pupils are teacher in same study schools and when we talked with them about the reasons they complained of displacement to Kurdistan Iraq, having to live in places lacking health conditions and attendance their daughter to overcrowded schools give rise to increase *Pediculosis*.

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دراسة عن قمل الرأس في ست مدارس ابتدائية للبنات في قضاء الدور/جنوب تكريت
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الخلاصة:-عدوى قمل الرأس هي مشكلة واسعة الانتشار تصيب الأطفال في المدارس الابتدائية. وقد أجريت هذه الدراسة في تشرين الثاني 2015 لتحديد مدى انتشار داء القمل الرأس بين التلاميذ الذين تتراوح أعمارهم بين 6-12 سنة في ست مدارس ابتدائية للبنات تضمنت الشرقية، طولكرم، الاولى، محمد الدوري، التيماء الاولى والفيحاء الابتدائية للبنات. لقد كان انتشار القمل الكلي 240 (34,4%). في مدرسة الشرقية كانت الاصابة 38 (27,1%)، طولكرم 1 (1,3%)، الاولى 66 (48,2%)، محمد الدوري 39 (43,3%)، التيماء الاولى 54 (38,3%) والفيحاء 42 (37,5%) وكانت نسبة الأمهات الموظفات للتلاميذ المصابة 39 (16,3%) مقارنة مع 201 (83,8%) من الأمهات غير الموظفات. كذلك سجلت الدراسة علاقة بين داء القمل والعمر حيث كان النسبة 160 (66,7%) لـ 10-6 سنوات و 80 (33,3%) لأولئك بعمر من 11-12 سنة.

Table (1). Entirely infected & uninfected pupils with Pediculosis

schools			No. of pupils	No. negative pupils	%	No. positive pupils	%
AL-Sharqiya primary girls school			140	102	72.9	38	27.1
Tulkarem primary girls school			78	77	98.7	1	1.3
AL-Oula primary girls school			137	71	51.8	66	48.2
Mohammed El Dorry primary girls school			90	51	56.7	39	43.3
AL-Tima aloula primary girls school			141	87	61.7	54	38.3
AL- Fayhaa primary girls school			112	70	62.5	42	37.5
Total/Average			698	458	65.6	240	34.4

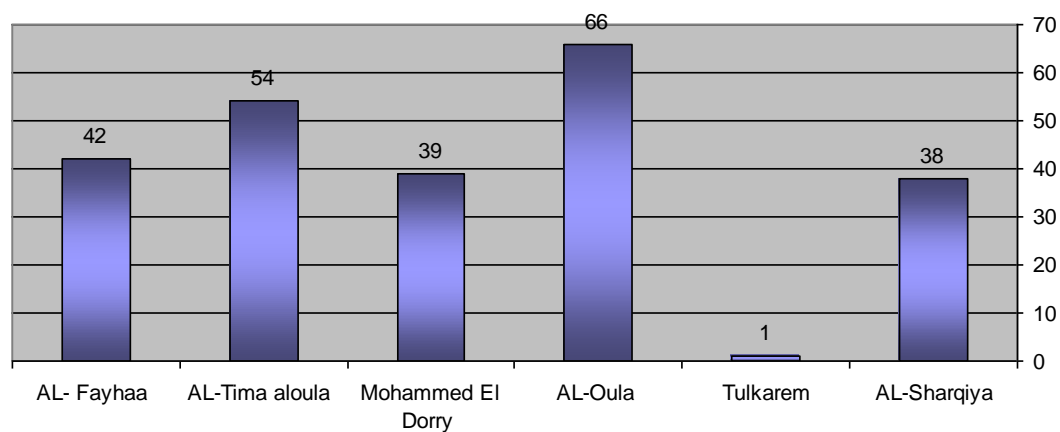


Fig. (1):- Entirely infected & uninfected pupils with Pediculosis

Table(2):- infected pupils and their mother's employment

schools	No. infected pupils	Mother's employment		age	
		Employed outside the home	Not employed outside the home	No. +ve 6-10 years	No. +ve 11-12 years
AL-Sharqiya primary school girls	38	4	34	31	7
Tulkarem primary school girls	1	-	1	1	-
AL-Oula primary school girls	66	16	50	43	23
Mohammed El Dorry primary girls school	39	6	33	26	13
AL-Tima aloula primary school girls	54	10	44	33	21
AL-Fayhaa primary school girls	42	2	40	26	16
Total	240	39	201	160	80
	%	%	%	%	%
	34.4	16.3	83.8	66.7	33.3

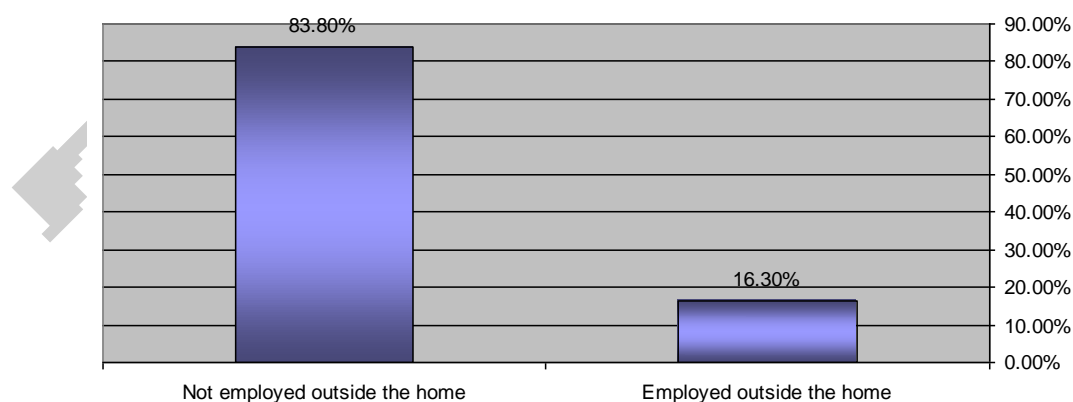


Fig. (2):- ratio of Employed outside the home and Not employed outside the home mothers

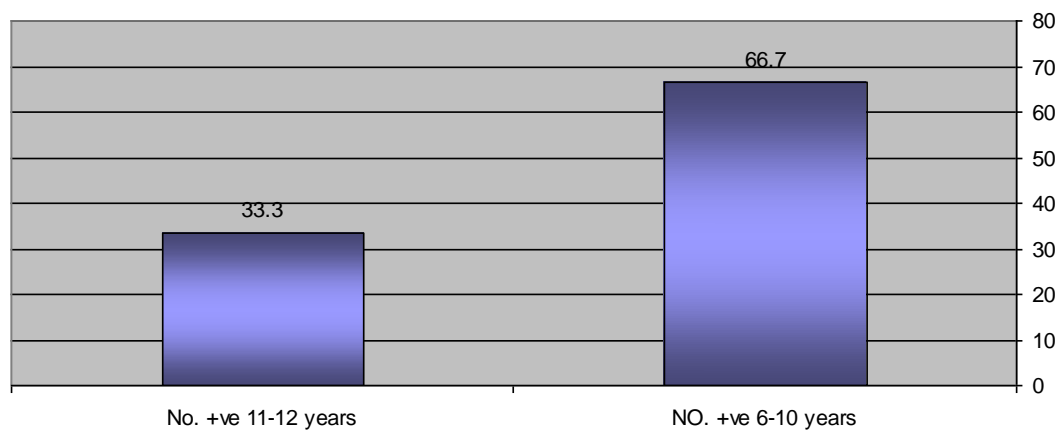


Fig. (3):- Comparison between infected age groups