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

1.Sinai najy muhsin AL-doury 2. madlen qassm abbas aL-tabatbai.
1,2. University of Tikrit/ Collage of dentistry/ Department of Basic Science

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 Pediculus 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-Fayhhaa 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), Oztirirkcan 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 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.

**References**


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Dr. ا��ة نأحىٌ حضىٌ الدور/ جنوب تكريت
1.2 جامعه تكريت / كلية طب الأسنان/ قسم العلوم الأساسية

12-15

درسة عن قُم الاضعف في ست مدارس ابتدايية للبنات في قضاء الدور/ جنوب تكريت

سنهاة ناجي محسن الدوري، ومادلين قاسم عباس الطباطيسي

الخلاصة: عددى قُم الاضعف في ست مدارس ابتدائية للبنات في قضاء الدور تم تسجيل عدد أطفال التلاميذ الذين تتراوح أعمارهم بين 6-12 سنة في ست مدارس ابتدائية للبنات تضمنت الإشارة الاتجاهية، طولكرم، الأولي، محمد الديري، التيماء الأولي والفقهاء الابتدائية للبنات. بلغ عدد أطفال الاضعف في كل مدرسة 240 (4,4)% طولكرم (1,3%), الأولي (66,48,2%), محمد الديري (39,33,3%), التيماء (54,38,3%) والفقهاء (42,37,5%) وبلغ عدد أطفال الاضعف في كل مدرسة 201 (83,8%) من الأمهات غير الموظفات. كذلك وقعت الدراسة علاقة بين داء الاضعف والعمر حيث كان نسبة 60,16,7% لـ 6-10 سنوات و(33,3%) لأولئك بعمر من 11-12 سنة.
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Table (1). Entirely infected & uninfected pupils with Pediculosis

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

Fig. (1):- Entirely infected & uninfected pupils with Pediculosis
Table (2):- infected pupils and their mother’s employment

<table>
<thead>
<tr>
<th>schools</th>
<th>No. infected pupils</th>
<th>Mother’s employment</th>
<th>age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Employed outside the home</td>
<td>Not employed outside the home</td>
</tr>
<tr>
<td>AL-Sharqiya primary girls school</td>
<td>38</td>
<td>4</td>
<td>34</td>
</tr>
<tr>
<td>Tulkarem primary school</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>AL-Oula primary girls school</td>
<td>66</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>Mohammed El Dorry primary school</td>
<td>39</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td>AL-Tima aloula primary girls school</td>
<td>54</td>
<td>10</td>
<td>44</td>
</tr>
<tr>
<td>AL-Fayhaa primary school</td>
<td>42</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>34.4%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

Fig. (2):- ratio of Employed outside the home and Not employed outside the home mothers
Fig. (3):- Comparison between infected age groups.