Self-Medication of Antibiotics Use among Private Pharmacies Visitors in Coast Hadhramout Governate - Yemen

التطبيـب الذاتي لاستخدام المضادات الحيويـة بين مرتادي الصيدليات الخاصة في ساحل- محافظة حضـرموت - اليمن

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Self-Medication of Antibiotics Use among Private Pharmacies Visitors in Coast Hadhramout Governate- Yemen

Abstract:

Background: Self-medication might certainly albeit gradually lead to self-killing in the worst cases. According to the world health organization, the self-medication is defined as “selection and use of medicines by individuals (or a member of the individuals’ family) to treat self-recognized or self-diagnosed conditions or symptoms” (1).

The main problem with self-medication with antibiotics is the emergence of pathogenic resistance which is an existing problem worldwide. Some studies in the USA have also revealed considerable self-medication with antibiotics obtained from leftovers previous courses, at a local pharmacy or outside the country (2).

The problem of self-medication is widely spread in developing countries; Yemen is one of this country. In Yemen the quality of healthcare services isn’t in a good condition, and it needs great efforts to be developed. The private sector’s pharmacies are the most accessible health facilities and people can obtain most types of medication without prescription making the self-medication easy to be practiced. A previous study was conducted in Yemen about the antibiotics self-medication among the children and showed highly alarming percentage representing 60% (1, 2).

In our study we will explore the prevalence of self-medication of antibiotics use without medical prescription among private pharmacies visitors in Coast Hadhramout governate –Yemen.

Objective: To assess the self-medication of antibiotics use among private pharmacies visitors in Coast Hadhramout governate –Yemen.

Subject and Methods: A cross-sectional descriptive study was conducted on private pharmacies in different areas of Coast Hadhramout governate. It was carried out from October to December 2015 which was using self-administered questionnaire among 300 private pharmacies visitors selected randomly.

Results: This study shows that the prevalence of self-medication of antibiotics use without medical prescription is highly percentage 85%, which amoxicillin is the most used self-prescribed antibiotic and previous prescription use (74%) is the most common self-medication of antibiotics information source. Difficulty of accessing health services is the main reason for the self-medication among private pharmacies visitors in Coast Hadhramout governate.

Conclusion: The present study indicate that self-medication of antibiotics practice has been common among private pharmacies visitors in our local community. So we recommend to the ministry of health to do more efforts to make close observation for private pharmacies to prevent vivid medications without prescription.

Key Words: Self medication, Antibiotics, Private pharmacies visitors, Hadhramout, Yemen.
المملوكة باللغة العربية:

المقدمة: التطبيب الذاتي قد يؤدي وليد تدريجيا إلى قتل النفس لطبيباً الحالة. وضعف تعريف النظامية الصحية العامة، فإن التطبيب الذاتي هو "اختيار واستخدام الأدوية من قبل الأفراد (أو أحد أفراد الأسرة) لعلاج الحالات بحسب المعرفة الذاتية أو تشخيص الذاتي أو الأعراض" (1).

يمكن ارتباطHeavy usage of the medicine للأشخاص من الأعراض من المشاهك الرئيسي للتطبيق الذاتي مع مضادات الالتهابات وهي مشكلة موجودة في جميع أنحاء العالم، ولا سيما في البلدان النامية، كما شفت بعض الدروس في الولايات المتحدة الأمريكية عن وجود التطبيب الذاتي مع مضادات الحيوية التي يتم الحصول عليها من محلات الأدوية أو بيغاي سابقه للصيدليات المحلية من خارج الدولة (2).


النتائج: أظهر التحليل الإحصائي للبيانات المدنية ان الدراسة ارتفاع نسبة انتشار التطبيب الذاتي في استخدام مضادات الحيوية بدون وصفة طبية 45 %، حيث أن الأدوبيسيلةين هو اصطلال مضادات الحيوية استخداماً ذاتياً وتعتبر الوصفات الساقية هي مصدر المعلومات للتطبيب الذاتي. صوعة الوصول للخدمات الصحية في اليمن الساقية الرئيسية للتطبيب الذاتي بمضادات الحيوية بين مرتادي الصيدليات الخاصة في حضرموت - محافظة حضرموت - اليمن. يستخدم مضادات الحيوية.

النتائج: تشير هذه الدراسة إلى اتصالات فعالية استخدام الصيدليات للتطبيب الذاتي بين مرتادي الصيدليات الخاصة في حضرموت - اليمن. لذا نوصي وزارة الصحة بتكييف جهودها في مراقبة الصيدليات الخاصة في حضرموت - اليمن.

المملوكة باللغة الإنجليزية:

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Introduction:

Self-medication might certainly albeit gradually lead to self-killing in the worst cases. According to the world health organization, the self-medication is defined as “selection and use of medicines by individuals (or a member of the individuals’ family) to treat self recognized or self-diagnosed conditions or symptoms” (1).

The growing global resistance to antibiotics and the documented health problems related to their inappropriate use, may have major public health policy implications. Antibiotics resistance is dramatically increasing worldwide in response to inappropriate antibiotic use (2,9). The main reasons for the increase of antimicrobial resistance include unregulated drug availability, inadequate antimicrobial drug quality assurance, inadequate surveillance, and widespread attitude to antimicrobial misuse, including self-medication (9). The prevalence of self-medication in different countries ranges from low percentage in Ethiopia 26.2%, Bambui 54%, (4). Palestine (56.0%), (3). to high percentage in Indonesia 60% (1,5), Brazil 86.4%, (1,6). UAE 89.2% (1,7). Finally in Slovenia 94.9% (1,8).

There are many dangers of self-medication as reported in some studies such as the incorrect self-diagnosis of diseases or health problems, incorrect dose of drugs, incorrect duration and frequency (1).

In developing countries, antibiotic consumption appears to be increasing steadily due to expanded population, and improved access to health care. In contrast with developed countries, where outpatient antimicrobials are largely restricted to prescription-only use (10,11,12).

The deficit of self-medication data is the lack of clinical assessment of the condition by a qualified medical professional, which could result in overlooked diagnosis and hindrances in appropriate treatments (1).
The aim of this study is to examine the prevalence of antibiotics use without medical prescription among private pharmacies visitors in Coast- Hadramout Governate- Yemen.

**Subject and Methods:** A cross sectional descriptive study was conducted on private pharmacies in different areas of Coast Hadramout governate was carried out from October to December 2015 which was using self-administered questionnaire among 300 private pharmacies visitors selected randomly.

**Research design:** A descriptive retrospective design was used with purposive sampling

**Setting:** This study carried out between pharmacies visitors, in random selected six private pharmacies in Rural Mukalla (2 private pharmacies), Alhami(2 private pharmacies), and Gail baweizir (2 private pharmacies) cities in Coast Hadhramout governorate, Yemen.

**Sampling:** The study sample included randomly selected 300 private pharmacies visitors, who take antibiotic without prescription (self-medication) from six different private pharmacies each Pharmacy would be 50 visitors randomly choosing.

**Data collection procedure:** Self-administrated questionnaire was designed, which included the following:

1. The personal data (age, sex, level of education) of the private pharmacies visitors.
3. The most common self-medication of antibiotics use among private pharmacies visitors in Mukalla, Alhami, and Gail baweizir city.
5. The main reasons of private pharmacies visitors take antibiotics without prescriptions.
Data Processing and Statistical analysis:

All data collected was entered into a personal computer, using SPSS program version 18.0 and analysis purpose. Descriptive statistics such as frequencies and percentage were calculated, and then study results were presented in tables as appropriate.

Ethical Consideration: All participants were assured that information collected will be used for scientific and research purpose only. Privacy and confidentiality of their information was respected during analysis the self–administered questionnaire

Results: Three hundred respondents were approached for participation. All of them provided complete information. The demographic characteristics of the respondents are presented in Table (1). In our study, most of the participants were males (74%), and (26%) were female, and their prevalence rates for taking antibiotics without a prescription were (87%), (13%) respectively. On the Other hand, the majority percentage of the age was between (25 - 35) years (47%,) and their prevalence rates for taking antibiotics without a prescription were the highest percentage (50%). But according to level of education, secondary school was the highest percentage which (42%) and their prevalence rates for taking antibiotics without a prescription were (49%)

Among the participants ever treated with antibiotics , Figure (1) shows that (15%) reported using prescribed antibiotics, while 85% reported non-prescribed use. The prevalence rates for taking antibiotics without a prescription were the highest percentage .From statistical analysis for data obtained in this study showed that self-medication of antibiotics use among private pharmacies visitors in Coast Hadhramout governate -Yemen was a serious problem in our local community which was 85% .

Figure (2) shows that the majority of non-prescribed antibiotics are amoxicillin, cefadroxil, ampiclox , ampicillin, tetracycline and ciprofloxacin. It is reported that amoxicillin is the most used self-prescribed antibiotic of the study among private pharmacies visitors in Coast Hadhramout In Rural Mukalla city is reported that cefadroxil
is the most used self-prescribed antibiotic of the study respondents (46%), on the other hand, Amoxicillin was the highly used non-prescribed drug (33%) in Gail bawzeer, and in Al-hami (27%).

Figure (3) shows that the most common self-medication of antibiotics information source among private pharmacies visitors in Coast Hadhramout governate was previous prescription use (74%) and the pharmacist advice was (56%) but the least source of medication reported by the participants was T.V representing only (20%).

Nearly 40% of respondents prescribed an antibiotic completed the course; however, More than half (61%) reported that they did not finish their last antibiotic course as prescribed because they felt better. On the other hand, (50.7%) changed the antibiotic If it did not make them feel better that results shows in table (2).

The main reasons of self-medication of antibiotics use (without prescriptions) that shows in table (3) the participants vary in responding to the causes of self-medication The highest percentage was for “. The difficulty of accessing health services” as compared to the lowest percentage “No trust in medical doctor”. This statistical.

Table (1): Socio-demographic characteristics of participants:

<table>
<thead>
<tr>
<th>Socio-demographic characteristics among private pharmacies visitors</th>
<th>Frequency</th>
<th>%</th>
<th>Prevalence percentage of taking antibiotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25 years</td>
<td>84</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>25-35 years</td>
<td>141</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>35-45 years</td>
<td>66</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>≥45 years</td>
<td>9</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>222</td>
<td>74%</td>
<td>87%</td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>26%</td>
<td>13%</td>
</tr>
<tr>
<td>Level of Education:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>illiterate</td>
<td>36</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>Primary</td>
<td>36</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>Secondary</td>
<td>126</td>
<td>42%</td>
<td>49%</td>
</tr>
<tr>
<td>Bachelors</td>
<td>102</td>
<td>34%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Figure (1): Prevalence of self-medication of antibiotics use among private pharmacies visitors in Coast Hadramout governate

Figure (2): The most common self-medication of antibiotics use among private pharmacies visitors in Coast Hadramout governate - Yemen.
**Table (2) Self-medication reported principles of antibiotics use:**

<table>
<thead>
<tr>
<th>Principles of self-medication of antibiotics use</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) I stop taking the antibiotic when I feel better</td>
<td>Yes: 183, No: 117</td>
<td>61% 39%</td>
</tr>
<tr>
<td></td>
<td>Yes: 152, No: 148</td>
<td>50% 49.3%</td>
</tr>
<tr>
<td>3) I take antibiotics as prescribed by my physician/pharmacist (complete the course)</td>
<td>Yes: 120, No: 180</td>
<td>40% 60%</td>
</tr>
</tbody>
</table>

**Table (3): The main reasons of self-medication of antibiotics use (without prescriptions)**

<table>
<thead>
<tr>
<th>The main reasons of self-medication of antibiotics use (without prescriptions)</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>1. Drug supply in hospitals was unavailable</td>
<td>226</td>
<td>75.3%</td>
<td>49</td>
</tr>
<tr>
<td>2. Availability of medicine without prescription</td>
<td>247</td>
<td>82.2%</td>
<td>29</td>
</tr>
<tr>
<td>3. The difficulty of accessing health services</td>
<td>252</td>
<td>84.1%</td>
<td>32</td>
</tr>
<tr>
<td>5. Uses of drugs in emergency cases</td>
<td>203</td>
<td>67.7%</td>
<td>23</td>
</tr>
<tr>
<td>6. High costs of treatment</td>
<td>222</td>
<td>74%</td>
<td>50</td>
</tr>
<tr>
<td>7. Busy schedule</td>
<td>188</td>
<td>62.8%</td>
<td>57</td>
</tr>
<tr>
<td>8. Have enough knowledge</td>
<td>187</td>
<td>62.3%</td>
<td>50</td>
</tr>
<tr>
<td>9. No trust in medical doctor</td>
<td>66</td>
<td>21.5%</td>
<td>45</td>
</tr>
<tr>
<td>10. Previous experience with disease and treatment</td>
<td>195</td>
<td>64.9%</td>
<td>58</td>
</tr>
</tbody>
</table>
Figure (3): Self-Medication of antibiotics information source use among private pharmacies visitors in Coast Hadhramout governate - Yemen.

Discussion:

Self-medication is the treatment of common health problems with medicines that are taken on patient's own initiative or on advice of a pharmacist, without professional supervision. It is now becoming a common practice in many countries mainly due to lack of access to health care, easy availability of OTC drugs in market and poor drug regulatory practices. (13).

Concerning the demographic characteristics, of the respondents were the prevalence in various age groups (25-35) years (50%), genders males (87%), and education levels secondary school (49%). The prevalence rate of self-medication practice was 85% during the last three months (prior to data collections) which was higher than what have been reported in countries like Nepal 59%, Bambui 54%, Mexico 34%, Ethiopia 26.2%, 61.2% Pakistan, Indonesia around 60%, Honk Kong of China 63.1%, Palestine 56.0%, Malaysia 62.7%, Puduchery in India 71% and finally in Uganda 75%. but This result is in agreement with the Self-medication practice among Yemeni patients in Ibb city (1).
In our study the most common antibiotic used self medication by private pharmacies visitors in coast Hadhramout was amoxicillin. This result agree with study by Khalid A Bashrahil (2002) in Yemen he reported that highest percentage of the common antimicrobial drugs used as over-the-counter in Hadhramout was amoxicillin (39.40%) (22). This finding is similar to study done by Greek study (Mitsi et al. 2005) that showed Amoxicillin was the most more frequently purchased antibiotic without prescription. (21).

Self medication is frequently associated with very short courses and inappropriate drug and dose choices (4,17,18). The respondents in this study, 61% of them did not complete the course of antibiotic therapy when they feel better and changed to other antibiotic, thereby promoting antibiotic resistance. These findings correspond to other studies confirming that patients often do not adhere to their treatment. A patient survey in 11 countries across the world showed that 22.3% of patients who received antibiotic medication admitted to not finishing the therapy (4,19). Moreover, patients may store antibiotics from uncompleted courses, even beyond the expiration date, and later self-administer these drugs for self-diagnosed conditions or dispense them to family members and friends (4,20).

The respondents in this study identified several reasons for the self-medication, including that the highest percentage was “. The difficulty of accessing health services” as compared to the lowest percentage “No trust in medical doctor”. This result is in agreement with the result reported by Alghanim S.(2011) (23). More than two thirds of the participants reported that the “previous prescriptions (74%)” was the main source of information for self medication. More than half of the participants explained that they depend on the pharmacies or Nursing advice in self-medications. This result is in agreement with the previous results reported which confirmed that pharmacies and previous prescriptions are the main sources of information. (1,14,15,16).
Conclusion:
The present study indicate that self-medication of antibiotics use among private pharmacies visitors in Coast Hadramout governate was be a serious problem in our local community, so we recommend to the ministry of health to do more efforts to make close observation for all pharmacies(private and government) to prevent giving medications without prescription

Reference:


