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Irrational Usage of Antibiotics in El-Mohandeseen Area in September 2015

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SUMMARY

Irrational refer to inappropriate use of antibiotics in modern times, this descriptive cross-sectional community-based study was conducted in El-Mohandeseen area in the period from January to September 2015 to study the knowledge, attitude and practice towards the irrational use of antibiotics. A sample of 117 residents was taken randomly from the residents. We found that 51.3% of the residents have knowledge about the consequences and side effects of the antibiotics, while 48.7%of the residents have no knowledge about the consequences and side effects of the antibiotics.

A sum of 66.7% use antibiotics without a medical prescription, while 33.3% do not use antibiotics on their own.

Most of the residents seek medical advice if they don't feel better after using antibiotics. And we formed some recommendations that may prevent the irrational use of antibiotics, namely: Presence of a regulatory destination to pharmacies to prevent dispatch of antibiotics without prescription must be present.

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Introduction

Irrational use of antibiotics in modern times defined as the use of drugs to treat self-diagnosed illness or symptoms, it is intermittent or continued use of a prescribed antibiotics according to chronicity or recurrent of the disease [1]. It is a major problem in developing countries; most of diseases are treated irrationally by self-medication [2]. The main shortfall of irrational use of medication is the lack of clinical evaluation of the condition by a medical professional, that lead to missed diagnosis and delays in treatments [3]. The main problem of irrational use of antibiotics is the drug resistance. Antibiotics resistance is a current world-wide problem especially in developing countries, where antibiotics are often available over the counter [4-10].

Main Reasons for this resistance are self-diagnosis and over the counter use of antibiotic [6]. In Sudan there is suspicion that irrational use of antibiotics is high. A reason for this is the fact that in Sudan most drugs can be obtained from pharmacies without prescription. As a result of that, minor ailments are often treated with antimicrobials.

Self-medication with antibiotics has the potential to harm community at large as well as the individual patient. Policy makers should be concerned if the spectrum of drugs available without a prescription includes antibiotics. The increase in antibiotics resistance in developing countries is of current public health challenge as it results in multiple resistant organisms hard to treat [7]. Studies on the prevalence and factors associated with irrational use of antibiotics in Sudan are necessary to help with the planning of interventions to improve the use of medicines in the country.

In this study we estimate the prevalence of self-medication with antibiotics so the purpose of this research was to study the irrational use of antibiotics among residents of Al Mohandeseen area in January-September 2015. Irrational use of antibiotics and self-prescribing without the permission of a physician is harmful for both patient and society, it helps bacteria to develop resistance to what was ones effective in treating it .the irrational antibiotics are one of the top ten causes of mortality and morbidity around the world.

Methods

Cross-sectional community based study

sample method was Convenient sample because it is Simple, Data collection in short duration , cheapest to implement 117 participant was taken from the residents of Al-Mohndessen area at the period of January-September\2015 after acquiring a verbal consent from the participants and giving them description about the significance of the study.

Data Collection obtain by a structured Questionnaire consisted of both closed- and open-ended questions. In addition to questions on

demographic information, the questionnaire included questions on socio-economic variables such as monthly income, health seeking behavior, previous self-use of antibiotics, conditions for which antibiotics were self-prescribed, sources of the antibiotics, sources of information on antibiotics and reasons for self-prescribing of antibiotics.

questionnaire was prepared containing 3 sections, the first one contain the socio-demographic variables such as age, sex and occupation ,the second one contain the main causes that lead to irrational use of antibiotic and the third section about the level of knowledge about antibiotics adverse effect.

Results

Table 1: Age of residence in El-Mohandeseen area (Males-Females) September 2015

Age	Percentage (Males)	Percentage (Females)
20-25	53.8%	12.8%
25-30	10.2%	8.5%
30-35	11.1%	3.4%

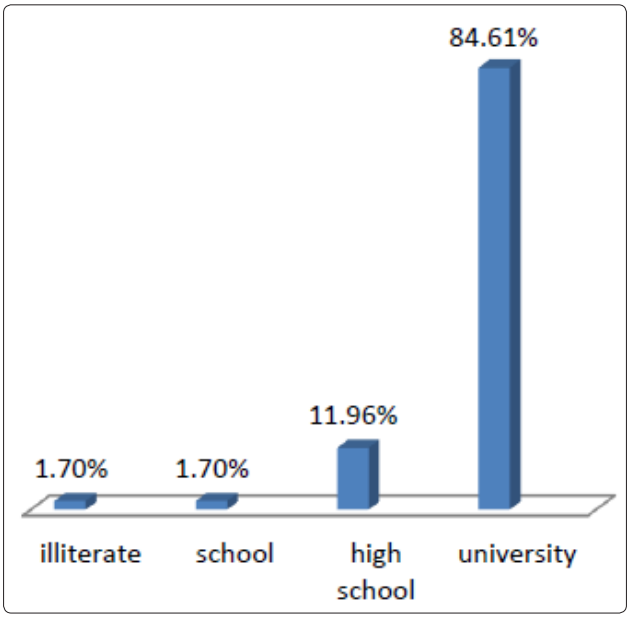

Figure 1: Educational level of El-Mohandeseen residences (Males-Females) September 2015

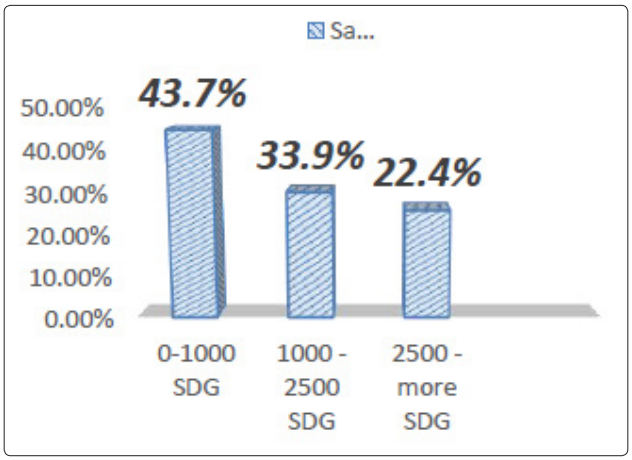

Figure 2: The monthly wage of El-Mohandeseen residences (Males-Females) September 2015

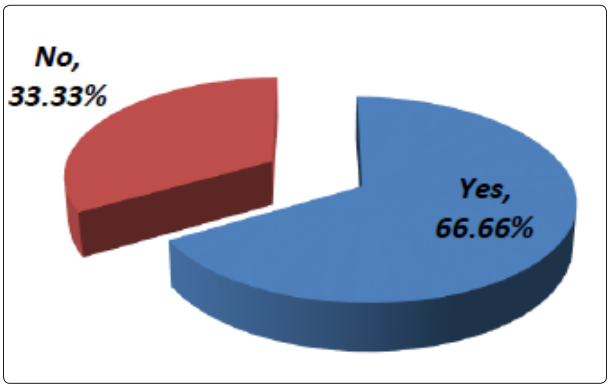

Figure 3: Antibiotic usage without prescription in El-Mohandeseen residences (Males-Females) September 2015

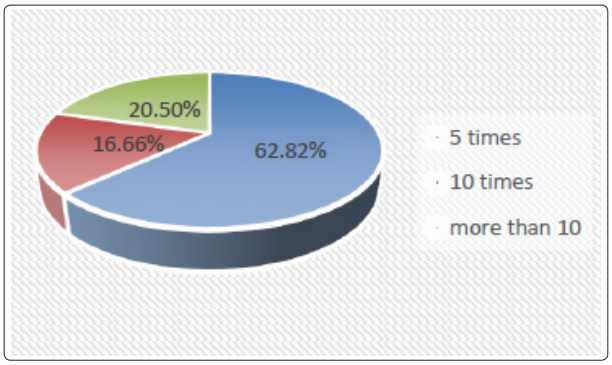

Figure 4: Antibiotic usage without prescription per year in El-Mohandeseen area (Males-Females) September 2015

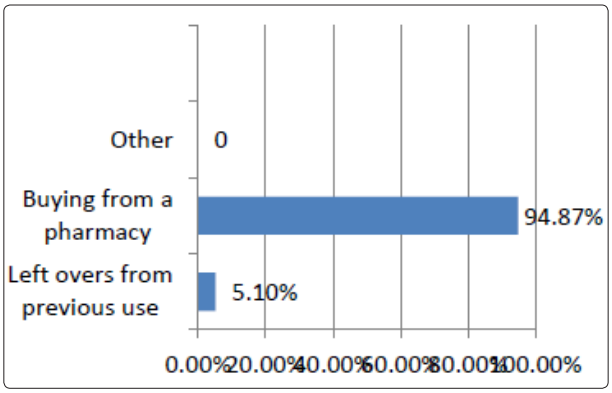

Figure 5: The source of antibiotics in El-Mohandeseen area September 2015

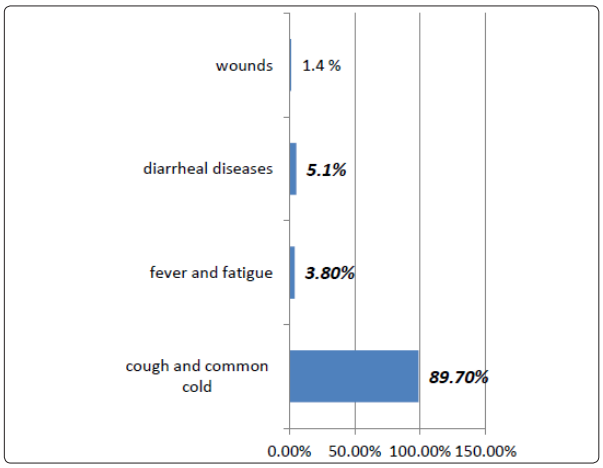

Figure 6: Frequency of symptoms requiring the usage of antibiotics in El-Mohandeseen area September 2015

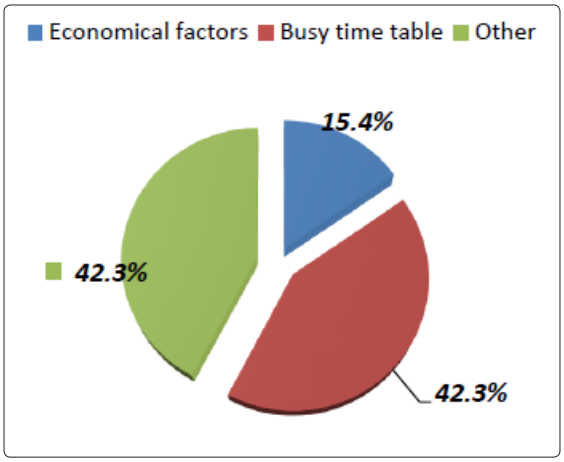

Figure 7: The main reason behind self-prescription in El-Mohandeseen area in September 2015

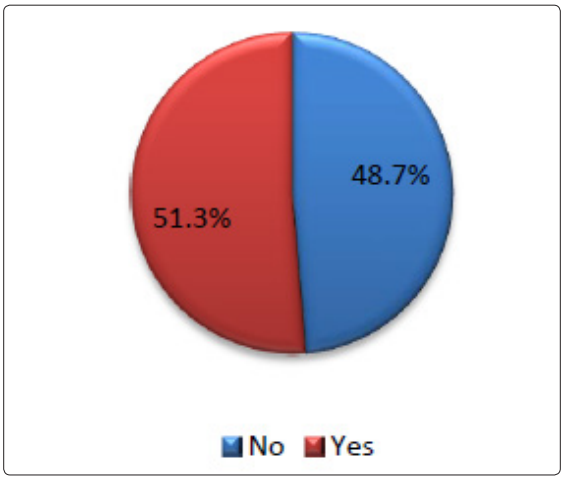

Figure 8: Knowledge about antibiotic consequence/side effects among the residence of El-Mohandeseen area in September 2015

The results showed that most of the residents ages in this study are ranged from (20 to 25) years which constitute about (66.6%). This indicates that most of El-Mohandeseen area is of young ages who consider the most income with a short time which may lead to frequently use antibiotics more than other age groups. Most of the resident's educational level is university or above (84.6%), those who had only had high school degrees are (11.96%), those who only had school degrees are (1.7%) and those who are illiterate are (1.7%) so there is high percentage of will educated people despite that they used antibiotic irrationally.

The average of monthly income of the residents in this study are about (43.7%) ranged from0 to 1000 SDG, about (33.9%) ranged from 1000 to 2500 SDG, and about (22.4%) have 2500 SDG or more Most of the community consist of students whose monthly wage is mostly up to 1000 SDG which Make them believe they are enable to self-prescribe antibiotics as they're educated and don't need to visit the doctor. Around (66.7%) of the residents use antibiotics without a medical prescription, while (33.3%) do not. About (62.82%) of the residents use antibiotics 5 times or less per year, while (16.66%) use antibiotics between 5 to 10 times per year, and (20.5%) use antibiotics more than ten times per year. The increasing numbers in using antibiotics indicates the beginning of some sort of resistance to antibiotics leading to frequent usage and self-prescription.

Most of the residents (94.9%) get antibiotics from the pharmacy, the rest (5.1%) find antibiotics from leftovers of previous use. This result shows that pharmacies and pharmacists are major factors in this dilemma.

The most common symptoms for which antibiotics are used are cough and common cold (89.7%), diarrhoea (5.1%), fever and fatigue (3.8%), wounds (1.3%).

The main reason behind self-prescription is busy time table (42.3%) and others (42.3%) while economic factors play a role in (15.4%) (Rephrase). It is evident now that the main reason of self-prescription in that kind of community is their busy time table rather than economic factors. Most of the residents have some knowledge about the consequences and adverse effects of antibiotics (51.3%), while (48.7%) have no knowledge about the adverse effects. about more than half the community have some background on the adverse effects of antibiotics as part of their general knowledge or by reading the medical brochure but they are still use antibiotic without medical prescription even for their families.

Conclusions

From the study results we found that in spite of high percentage of knowledge and attitude of residents about antibiotics there is a high percentage of residents who use antibiotic without prescription and the study showed also that the main source of antibiotics without prescription is the pharmacy [11].

Recommendations

- The results showed that Most of the residents get antibiotics from the pharmacy & pharmacies and pharmacists are major factors in this dilemma. Presence of a regulatory destination to pharmacies to prevent despatch of antibiotics without prescription must be present.
- The results showed that Most of the resident's educational level is university or above .there is high percentage of will educated people despite that they used antibiotic irrationally. There is a need for educating programmes to educate residents about appropriate use of drugs that used commonly in their life (especially antibiotics) and the risks that arise when these drugs are used inappropriately.
- The results showed that the increasing numbers in using antibiotics indicates the beginning of some sort of resistance to antibiotics leading to frequent usage and self-prescription Educational campaigns should be directed towards changing the public attitude and behaviour to rationalize antibiotics use and limit self –medication and over use.
- The results showed that main reason of self-prescription in that kind of community is their busy time table. We recommended that educational programmes to educate residents about appropriate use of antibiotics should be done.

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