

# Client's Attitude Regarding Antibiotics Misuse in Primary Health Care Centers

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## Abstract

Antibiotics are powerful drugs that fight some infections and can save lives when used properly. It either stops the bacteria from multiplying or destroying them.

**Objectives:** The study aims to: 1. Evaluate the client's position regarding the abuse of antibiotics in primary health care centers. 2. Identification of relationships of abuse of antibiotics and social demographics (age, sex, place of residence, level of education, economic status, profession, marital status).

**Methods:** A descriptive study (quantitative design) was carried out using a cross-sectional design to study the assessment of the client's position on the misuse of antibiotics in primary health care centers in Diwaniya from July 2018 to July 2019 .A sample of 450 female clients and 221 women in primary health care centers in Diwaniyah (Al Jazira Health Center, Al Talea Health Center, Al Taqia Health Center, New Health Center, Al Furat Health Center) The questionnaire was created through a comprehensive review of available literature and related studies.

**Results:** The results of the study show that the clients do not agree with the negative attitude regarding the misuse of antibiotics. Therefore, the study reveals a relationship between the social demographic and the second part. The result shows that there is a very large relationship between all elements of the second part with age, Educational level, economic status, occupation, social status. While there is little correlation with gender and place of residence

**Keywords:** Client's Attitude, Antibiotics, Primary Health Care Centers

## Introduction

Antibiotics are powerful medicines that fight certain infections and can save lives when used properly. They either stop bacteria from reproducing or destroy them. The first antibiotic was penicillin. There are several types of modern antibiotics, and they are usually only available with a prescription in most countries. Topical antibiotics are available in over-the-counter creams and ointments (OTC). (There are different types of antibiotic, which work in one of two ways: A bactericidal antibiotic, such as penicillin, kills the bacteria. A bacteriostatic stops bacterium from multiplying <sup>6</sup>.

Antibiotic resistance occurs when bacteria change in some way that reduces or eliminates the effectiveness of drugs, chemicals or other agents designed to cure or prevent the infection. Thus, the bacteria survive and

continue to multiply causing more harm. Widespread use of antibiotics promotes the spread of antibiotic resistance (Lu, L., and Gao, M., 2018) Several studies conducted across the globe in low, middle- and high-income countries have revealed inappropriate antibiotic use, which correlates positively with antibiotic resistance development (Rather, I. A., 2017). Antibiotics are appearing to be used not only in excess but also inappropriately and this accounts for 20% to 50 % of all antibiotics used (Porter, G., and Grills, N., 2015)

## Literature Review

Study's Imogene King's goal attainment theory was used as conceptual framework. She defined nursing as "a process of action, reaction and interaction by which nurse and client share information about their perception in a nursing situation" and "a process of human interactions

between nurse and client whereby each perceives the other and the situation, and through communication, they set goals, explore means, and agree on means to achieve goals (Alligood, M. R., 2017).

Antibiotics are drugs used for treating infections caused by bacteria. Also known as antimicrobial drugs, antibiotics have saved countless lives. Misuse and overuse of these drugs, however, have contributed to a phenomenon known as antibiotic resistance. This resistance develops when potentially harmful bacteria change in a way that reduces or eliminates the effectiveness of antibiotics (Cantavella J., and Martínez, A., 2011)

The six main causes of antibiotic resistance have been linked to: Over-prescription of antibiotics, Patients not finishing the entire antibiotic course, overuse of antibiotics, Poor infection control in health care settings, Poor hygiene and sanitation Absence of new antibiotics being discovered. (Mendelson, M., and Matsoso, M. P., 2015)

### Methodology

#### Design of the Study:

A descriptive study was carried out by using a cross-sectional design to study Client’s Attitude Regarding Antibiotics Misuse in AL-Diwaniya City’s Primary Health Care Centers from July 2018 up to July 2019.

#### Setting of the Study:

The study was conducted primary health care centers in AL-Diwaniya City.

AL- Diwaniya city is one of the rich cities in health care facilities; it contains many primary health care centers (AL- Jazaeir Health Center, Al - Tali’ah Health Center, AL-Taqiya Health Center, AL- Jadeda Health Center, and Al Furat Health Center).

#### Reliability of the Study Instrument:

To identify the reliability of the study instrument, Alpha Correlation Coefficient (R) was applied for the purpose of measuring the internal consistency of the study instrument by applying of Statistical Package for Social Science Program (IBM SPSS) version 20.0.

**Table (1): Reliability of pilot study**

Reliability	Client’s Attitude Regarding Antibiotic Misuse
Alpha Correlation (r)	0.80

### 3.10. Data Collection

The researcher obtained data from (450) samples of clients within five primary health care centers (AL-Jazaeir Health Center, Al - Tali’ah Health Center, AL-Taqiya Health Center, AL- Jadeda Health Center, Al Furat Health Center) by using a constructive questionnaire format that was answered through self-report.

### Results

#### Discussion

The result of this study shows the majority (39.6%) of the present study are in the last week taking antibiotics, ( 71.6%) of the present study are get the antibiotics prescription from a doctor, ( 46.0%) of the present study are get the antibiotics prescription from a nurse, (72.9%) of the present study are received advice from a doctor or nurse on how to take antibiotics for 7 days, ( 70.0%) of the present study are get the antibiotics from Pharmacy, (57.3) of the present study are stop taking antibiotics when you feel better.

These finding agree with the result of <sup>2</sup> who reported that (62.1 %) of the respondents took medication by consulting a physician, and disagree with the same previous study who shown that (17.3%) of the respondents get antibiotics and advice from pharmacist, followed by the finding disagree with the obvious study where 8% of them seeking the advice of family/friend member regarding the source of antibiotics.

The finding is supported by the result of Nawafleh, H., et al., (2016) who reported in their study that the majority of participants (33.7%) were getting information from physician about using the antibiotics. and disagree with the same previous study who stated that (18.2%) of the respondents get antibiotics and advice from pharmacy, while (15.2%) of them get from the Previous experience. But the finding agreed with previous study who shown that (10.4%) of participants getting information from friends

The result of this study shown that the most of client's answers are yes in all items of this part, where the item number (4) (level of education can contribute to the misuse of antibiotics especially, patients in our community), this item formed the high percentage (54.2) than the other items in this part. While the items number (9,15) (Patients not finishing the entire antibiotic course- is a major cause of antibiotic resistance, Primary reason for people to indulge in self-medication is the expensive healthcare system) formed the low percentage (50.4) than the other items in this part.

### Conclusion

Based on the study results, the researcher concludes the following:

- Most of clients were elementary school graduate according to level of education, Regarding place of residence, most of clients (54.7%) were urban
- Most of the clients who misused the antibiotics received it from the pharmacy with an old medical recipe.
- Doctors and pharmacists don't devote enough time to explain the treatment and side effects.
- The absence of counseling, educational courses and posters by health institutions is one of the most important factors for the misuse of antibiotics
- Client's negative attitude toward health institutions and around drugs is the most common factor for misuse of antibiotics

**Financial Disclosure:** There is no financial disclosure.

**Conflict of Interest:** None to declare.

**Ethical Clearance:** All experimental protocols were approved under the College of Nursing, Iraq and all experiments were carried out in accordance with approved guidelines.

### References

1. Abasaed A , Vlcek J , Abuelkhair M , Kubena A. Self-medication with antibiotics by the community of Abu Dhabi Emirate, United Arab Emirates. *The Journal of Infection in Developing Countries*, 2009;3(07): 491-497.
2. Abdelrahman T , Alsaed M , Karam R , Alkthami A , Alswat O , Alzahrani, A , Jawad H. Misuse of antibiotics and antibiotic resistance: a public population-based health survey in Altaif-Saudi Arabia. *WJPMR*, 2017;2: 54-62.
3. Adams V. *An introduction to modern English word-formation*. Routledge. 2016.
4. Agarwal R , Jain P , Ghosh M S , Parihar K S. Importance of primary health care in the society. *International journal of health sciences*, 2017;1(1):6-11.
5. Al Omari S , Al Mir H , Wrayde S , Merhabi S , Dhaybi I , Jamal S , Al Atrouni A. First Lebanese Antibiotic Awareness Week campaign: knowledge, attitudes and practices towards antibiotics. *Journal of Hospital Infection*, 2019;101(4):475-479.
6. Alsultan AA , Evans BA , Elsayed E A , Al-Thawadi SI , Al-Taher AY , Amyes SGB , Hamouda A. High frequency of carbapenem-resistant *Acinetobacter baumannii* in patients with diabetes mellitus in Saudi Arabia. *Journal of medical microbiology*, 2013;62(6):885-888.
7. Arason VA , Sigurdsson J A. *The problems of antibiotic overuse*. 2010.