

Original Article

KNOWLEDGE AND ATTITUDE REGARDING USE AND MISUSE OF ANTIBIOTICS IN PATIENTS REPORTING TO RURAL HEALTH CENTER (RHC) SANN

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ABSTRACT

Background: Antibiotics are amongst the most widely used drugs across the globe but owing to their inappropriate use, people tend to develop resistance. Many factors are associated with their irrational use. This study was conducted in an attempt to understand and evaluate the knowledge and attitude of the patient regarding the use and misuse of antibiotics.

Material and Methods: This cross-sectional study was conducted at Rural Health Center (RHC) Sann over 10 months from 1st November 2018 to 31st August 2019. Both males and females over the age of 15 years were included in this study subject to their willingness. The sample size was 1200. A pre-tested, pre-validated structured questionnaire was used for data collection.

Results: The sample size was 1200, out of which 43.3% were male and 56.7% were female. 78.4% were married. 68% of respondents thought that antibiotics were always safe to use. 71% responded that they take antibiotics from friends and family without even consulting a medical practitioner. 42% responded that they completed the course of treatment even if they felt better.

Conclusion: This specific study reflects a gap regarding the appropriate knowledge about the usage of antibiotics and owing to this the misuse is likely to happen.

Key Words: Attitude, Antibiotics, Rural Health Center

INTRODUCTION

Humans are using drugs in all forms for ages in different forms but in recent times antibiotics are amongst the quite regularly used and prescribed medications for different ailments. The sole purpose of these drugs was to contribute effectively to the cure of disease, but this needed to be prescribed by the authorized health care provider. This led to the drafting of drug regulatory guidelines but in the majority of the under developed and developing countries, over-the-counter sale of antibiotics without any authentic prescription became a routine practice. Such irrational use of antibiotics contributed significantly to drug resistance and people are generally not aware of it at all. The World Health Organization set the theme of World

Health Day as “Combat Antimicrobial Resistance: No Action Today, No Cure Tomorrow.”¹

Globally, 50% of antibiotics are purchased without any prescription, and many pharmacies and vendors without having any license had a major share in such type of illegal activity.^{2,3} Factors including lack of awareness regarding proper usage of the drug, illiteracy, lack of strict drug regulation and monitoring policies, and illegal sales emerged as a source of developing resistance.⁴ Although antibiotics cover a wide range of infections and when prescribed properly, they do contribute to the healing effect.⁵

Literature has contributed significantly in pinpointing the situations where irrational use of antibiotics, self-medication made the treatment questionable and reported an increase in patients asking for antibiotics unnecessarily.⁶⁻⁸ In countries like Pakistan, where rural population due to lack of awareness follow word of mouth and use drugs just on the recommendation of friends

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and family. Many studies conducted in different parts of the world do report unsatisfactory knowledge about the use of antibiotics.^{9,10} Keeping in view the trend in antibiotic usage, this study was conducted in rural populations to get a better understanding of the level of knowledge and practices observed while using antibiotics.

MATERIAL AND METHODS:

This cross-sectional study was conducted at RHC Sann, Jamshoro from 1st November 2018 to 31st August 2019. A similar parallel study was conducted in dental out patient department of the same rural health center for six months. A nonprobability, convenient sampling technique was incorporated and patients (male & female) of age >15 years were included in the study after seeking consent. The sample size was calculated using openepi.com with 95% CI, absolute precision of 3%, and anticipated knowledge regarding harm related to misuse of antibiotics as 59%. The calculated sample size was 1032 but to increase the statistical power to study the sample size was increased to 1200. The questionnaire covered the demographic profile, knowledge, and practices about the use and misuse of antibiotics. The confidentiality of all the participants was ensured. Data were analyzed using SPSS version 24. Frequencies and percentages were used to represent the responses.

RESULTS

In this study, a total of one thousand and two hundred participants were included and the response rate was 100%. Table 1 represents the demographic profile of the participants including gender, age, marital status, and educational status of the participants out of 1200. 43.3% were male and 56.7% were female. The age group of 15-49 years showed the maximum percentage of 81.5%. The number of married participants (78.4%) was more than unmarried (18.4%). Regarding educational status, 68.7% were uneducated, 16.9% were middle pass and 14.3% were high school pass.

Table-1: Demographic profile of the participants

Characteristic		Frequency	Percentage %
Gender	Male	520	43.3%
	Female	680	56.7%
Age	15 – 49	979	81.5%
	50 & above	221	18.41%
Marital status	Married	941	78.41%
	Unmarried (single)	259	21.58%
Educational status	Uneducated	825	68.75%
	Middle	203	16.9%
	High school & above	172	14.3%

Table 2 represents the knowledge, attitude, and practices of the study participants regarding the use and misuse of antibiotics in the respondents.

Table-2: Knowledge and attitude regarding use and misuse of antibiotics

Questions	Yes	No
Antibiotics are always safe to use	68.3%	31.7%
Antibiotics treat any type of infection regardless of its nature (bacterial, viral)	71%	29%
Taking antibiotics speeds up recovery	78%	22%
Regular use of antibiotics develops resistance	26%	74%
Antibiotics can be harmful for children teeth	32%	68%
Antibiotics are safe to use during pregnancy	35%	65%
Ever purchased antibiotic from outside the hospital at least once	63%	37%
Ever purchased antibiotic without prescription	65%	35%
Take antibiotics mentioned by friends or family without even consulting doctors	71%	29%
Complete the full course of treatment even if you feel better	42%	58%
Keep unnecessary antibiotics at home to be used later	57%	43%
Self-request doctors for antibiotics prescription even if it is not needed/ unnecessary	81%	19%
Use antibiotics even for cough and sore throat on self-medication basis	86%	14%
Keep antibiotics in kitchen cabinets/ open	63%	37%

DISCUSSION

This study was an attempt to get a better understanding of the rural population's knowledge and practices while using antibiotics. 68.3% labeled the antibiotics to be safe for use and 78% thought that they speed up their recovery. The results of this study showed that 71% of the participant responded about the antibiotic use for any type of infection were in line with another similar study.^{11,12} Similarly, 68% of the respondents were ignorant regarding the effect of antibiotics on their child's dentition which closely follows the result of a Saudi Arabian and Indian study in this regard.^{12, 13} Without prescription antibiotics, the purchase was practiced by around 65% of the study participants which was also reported in studies conducted in different parts of the world.¹⁴⁻¹⁶ This also led to another practice of using antibiotics without consulting any physician but on the recommendation of peers and family members. Both these practices are closely knit and interlinked. The participants (58%) reported not complete the full course of treatment which is also established from literature to be a leading cause of drug resistance.¹⁷

Since this study was conducted in a rural area, patient pressurizing physicians for unnecessary drug prescriptions was also observed as 81% self-request for antibiotics. They were found to be strongly believing that the more the number of drugs is prescribed, the more rapid is their recovery. Once refused, the ease of getting over-the-counter medications helps them to practice their belief. The results projected in table-2 strongly reflect the gap in the appropriate knowledge regarding the proper usage of antibiotics.

CONCLUSION

Based on the results of this study, it was evident that respondents were not having adequate knowledge about antibiotics usage. To minimize the irrational usage of antibiotics, there is a dire need to provide the appropriate awareness at all levels, especially to rural communities.

AUTHOR'S CONTRIBUTION

SAK: Drafting and review
 MA: Conception of idea
 GSO: Data collection & editing

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