

EXPLORING KNOWLEDGE AND ATTITUDES OF COMMUNITY RESIDENTS TOWARDS ANTIBIOTICS: PENANG STATE, MALAYSIA



Lyna Irawati^{1*}, Mohamed Azmi Hassali¹, Fahad Saleem¹, Alian Aaly Alrasheedy²

¹Discipline of Social and Administrative Pharmacy, School of Pharmaceutical Sciences, Universiti Sains Malaysia, Malaysia

²Pharmacy Practice Department, College of Pharmacy, Qassim University, Saudi Arabia

INTRODUCTION

- There is a general lack of knowledge about antibiotics among the general public.
- Community residents' knowledge and attitudes towards antibiotics play a vital role in the success of treatment and the prevention of antibiotic resistance.

OBJECTIVE

- To explore the knowledge and attitudes of community residents towards antibiotics in Jelutong District, Penang, Malaysia.

METHODS

- **Study design:** A qualitative approach was adopted to gain a deeper understanding of the residents' knowledge and attitudes towards antibiotics.
- **Study setting:** This study was conducted at 1Malaysia Community in Makloom Street, Jelutong between 11th October 2014 and 8th November 2014.
- **Sampling and sample size:** A purposive sample of the residents (aged ≥ 18 years) were interviewed with the aid of a semi-structured interview guide until data saturation was achieved.
- **Data analysis:** All of the interviews were audio recorded, transcribed verbatim and thematically analysed.
- **Ethical approval:** This study was approved by the Joint Ethics Committee of School of Pharmaceutical Sciences, Universiti Sains Malaysia—Lam Wah Ee Hospital on Clinical Studies (USM-HLWE/IEC/2014 (0010)).



Lyna Irawati interviewing a community resident about her knowledge and attitudes towards antibiotics.

RESULTS

- A total of twenty-two participants (P1–P22) aged between 21 and 70 years (mean = 48 years) were interviewed.
- The participants were from different gender, ethnic, educational and socio-economic backgrounds.
- Five major themes were identified.

Theme 1: Understanding the term 'antibiotics' and their use

- The majority of the participants lacked the knowledge about the use of antibiotics. They stated that antibiotics are medicines that kill viruses and can be used to hasten recovery from viral infections:

'Antibiotics are medicines that kill viruses. They are powerful medicines used to speed up recovery from colds and flu.' (P7)

- Only two participants stated that antibiotics are medicines that kill bacteria and therefore they are used to treat bacterial infections:

'Antibiotics are medicines that kill germs called bacria [bacteria]. They are effective for the treatment of bacria [bacterial] infections.' (P1)

Theme 2: Acquiring antibiotics

- More than half of the participants had been prescribed antibiotics by their physicians:

'I never ask for antibiotics. My doctor prescribes them for me.' (P12)

- Some participants purchased antibiotics from community pharmacies without a prescription as they wanted to recover quickly from viral infections:

'When I have a cold or cough, I buy antibiotics in a pharmacy because I want to make a speedy recovery. Anyway, the pharmacist agrees to give me the antibiotics. If there is no improvement after taking them, I'll see a doctor.' (P7)

Theme 3: Attitudes towards physicians' decisions on prescribing antibiotics

- Most participants would abide by the physician's decision and would not request antibiotics because they trust the physician:

'I trust my doctor's professional opinion. If she doesn't prescribe antibiotics, I won't ask for such medicines. I'll take any medicines given by the doctor.' (P5)

- Some participants would demand antibiotics from the physician even when they have viral infections and would consult another physician if the request is not granted:

'I'll certainly expect antibiotics from my doctor when I have a cold or sore throat because antibiotics will help me to get over it faster. If he doesn't prescribe antibiotics, I'll see another doctor.' (P4)

Theme 4: Attitudes towards adherence to antibiotic therapy

- Half of the participants reported that they took antibiotics according to the instructions on the label. However, they discontinued taking them when they felt better:

'I follow the instructions on the label, but I stop taking them when I feel better. Honestly, I don't see any reason why I have to take the full prescribed course of antibiotics when symptoms have cleared up.' (P10)

Theme 5: Knowledge of the adverse effects of antibiotics

- Most participants were unaware that antibiotics have adverse effects:

'I don't know whether or not antibiotics have side effects.' (P2)

- Only a few participants were aware of the adverse effects of antibiotics:

'Oh yes, antibiotics have side effects. If I'm not mistaken, they can cause diarrhoea and rashes.' (P17)

DISCUSSION

- The majority of the participants stated that antibiotics are medicines that kill viruses. In addition, they perceived antibiotics as powerful medicines used to improve symptoms of viral infections. These misconceptions can lead them to pressurize physicians to prescribe antibiotics regardless of the type of infection.
- Half of the participants discontinued taking antibiotics when their symptoms improved. This indicates that they were unaware of the importance of taking the full prescribed course and had little awareness of antibiotic resistance.

CONCLUSIONS

- The community residents held misconceptions and had negative attitudes towards antibiotics.
- The study identified areas that should be focused on when designing educational interventions to promote the responsible use of antibiotics among community residents in Malaysia.

ACKNOWLEDGEMENT

- This study was supported by a research university grant (1001/PFARMASI/816263) from Universiti Sains Malaysia.

REFERENCES

- Gualano MR, Gili R, Scaiola G, Bert F, Siliquini R. General population's knowledge and attitudes about antibiotics: a systematic review and meta-analysis. *Pharmacoepidemiol Drug Saf.* 2015;24(1):2-10.
- World Health Organisation. Worldwide country situation analysis: response to antimicrobial resistance. Geneva 2015.

CORRESPONDENCE

- Lyna Irawati (e-mail: lyna.irawati@gmail.com)