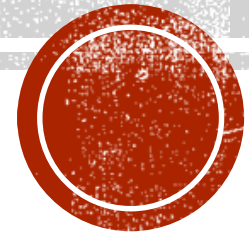


# **HEALTHCARE PROVIDERS' ACCOUNTS OF PARENTAL INFLUENCES ON THEIR BEHAVIOUR WITH RESPECT TO ANTIBIOTIC USE AMONG CHILDREN: AN EXPLORATORY STUDY IN CHINA**



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# STRUCTURE OF THE PRESENTATION

- Background: antibiotic resistance and antibiotic use in China
- Research questions
- Research methods
- Emerging themes from interviews with healthcare providers
- Conclusions



# ANTIMICROBIAL RESISTANCE (AMR) AND ANTIBIOTIC RESISTANCE (ABR) IN HUMANS

- Human AMR is an increasingly serious global problem (causes 700,000 deaths annually worldwide) with a high economic burden
- The '*Global Action Plan on Antimicrobial Resistance*' was adopted in *Sixty-eighth World Health Assembly* in 2015, and all member states committed to the WHA's Global Action Plan should have their national action plans ready by May 2017
- The increase in human ABR is the major driver of the overall increase in human AMR



# ANTIBIOTIC USE

- the use of antibiotics has been regarded as the most important factor contributing to ABR
- The volume of antibiotic consumption
- The way they are used, such as inappropriate use of antibiotics



# CHINA: HUMAN ABR AND ANTIBIOTIC USE

- The reported resistance rates of most common antibiotics among the human population are very high
- An extremely high total antibiotic usage and per capita antibiotic consumption
- Antibiotics are being inappropriately used by healthcare providers (paediatricians, GPs, pharmacists) and parents for children
- Tackling overuse and inappropriate use of antibiotics in healthcare system is a major goal of Chinese healthcare policy



# HEALTHCARE SYSTEM IN CHINA

- The key elements in healthcare provision
  - Hospital outpatient care
  - Primary care
  - pharmacies



# RESEARCH QUESTIONS

- Overarching aim of my PhD study: to identify factors shaping the use of antibiotics in China
- Focus on children's antibiotic use
- Focus on
  - **(a) healthcare providers' accounts of parental influences on their behaviour with respect to antibiotic use**
  - (b) parental accounts of influences on their behaviour with respect to antibiotic use (not discussed in this presentation)



# RESEARCH METHODS

- Study place:
  - Taiyuan City of China
- Study methods:
  - Interviews with healthcare providers
  - Questionnaires & focus groups with parents (not discussed here)





# RESEARCH METHODS (CONTINUED)

- **Study sites:** hospitals, community health institutions, retail pharmacies
- **Participants:** healthcare providers
  - Physicians (paediatricians and GPs)
  - Pharmacists (licensed pharmacists and retailers)



# RESEARCH METHODS (CONTINUED)

- **Methods:** semi-structured interviews
- **Data collection**
  - 20 interviews conducted with healthcare providers, including 6 pediatricians from hospitals, 6 GPs in the community health institutions, 4 pharmacists and 4 retailers from retail pharmacies.
- **Data analysis**
  - Interviews were transcribed and translated
  - Framework analysis method



# RESULTS: EMERGING THEMES

- **Theme 1 – broad cultural understandings**
  - Public understanding of causes and treatment of diseases built around traditional Chinese medicine (TCM)
  - Public understanding of antibiotics and antibiotic-related treatments
- **Theme 2 – maintaining parental trust**
  - The importance of maintaining parental trust and satisfaction
  - Maintaining a good relationship to avoid complaints
  - Maintaining a good relationship to avoid potential loss of custom



# PUBLIC UNDERSTANDING OF CAUSES AND TREATMENTS OF DISEASES ARE BUILT AROUND TRADITIONAL CHINESE MEDICINE (TCM)

- Most healthcare providers perceived that parents of ill children could understand their child's diseases and treatments through a TCM perspective. They also believed that parents understood the course of TCM treatment was longer than that of Western medicine (WM) treatment, and the TCM treatment was more suitable for chronic or minor diseases.
- *'They are most interested in why their child suffers from this disease, and whether [it is because] their child's body constitution is like that [easier to be suffered from this kind of disease] during the communication with doctors.'* [Paediatrician 3]
- *Overall, some young patients prefer to use Western medicines as they want to recover quickly, while the aged patients and patients with chronic diseases prefer traditional Chinese medicines more.'* [GP4]



# PUBLIC UNDERSTANDING OF CAUSES AND TREATMENTS OF DISEASES ARE BUILD AROUND TCM (CONTINUED)

- A majority of healthcare providers said that trust in TCM is related to parents' resistance to WM treatment, including their resistance to using antibiotics for their ill child.
  - *'...parent refuse to use antibiotics very firmly and insist on using oral traditional Chinese medicines. ... There are some parents who insist on using traditional Chinese medicine, they only accept traditional Chinese medicines.'* [Paediatrician 4 pre-fieldwork visit]
  - *'Yes, there are [parents who refused an antibiotic prescription]. They all trust the traditional Chinese medicine more.'* [GP1]



# PUBLIC UNDERSTANDING OF ANTIBIOTICS AND ANTIBIOTIC-RELATED TREATMENTS

- Healthcare providers' accounts showed that one of parents' common misunderstandings of antibiotics was that antibiotics were equal to anti-inflammatory drugs. The accounts also indicated that parents believed that antibiotic-related treatments could cure all kinds of diseases quickly.
- *'But parents are not very clear about the concept of antibiotics. The public is not clear about it until now. ...the public still believe that the antibiotic is same as anti-inflammatory drug and is used to treat inflammation. Actually, the thing they [the public] called 'anti-inflammatory drug' is an antibiotic.'* [Paediatrician 5]
- *'They [patients] think only antibiotics can cure their diseases quickly. If you don't use antibiotics for them, what other kinds of drugs can be used and cure their diseases?'* [GP6]



# THE IMPORTANCE OF MAINTAINING PARENTAL TRUST

- The healthcare providers' accounts suggested that the distrust of China's healthcare institutions was a common phenomenon among parents; therefore, healthcare providers were concerned to preserve the trust from parents.
- *'After all, here is only a community health centre, and trust is a problem. .... Therefore, the problem in the community health institution may be that the trust level is relatively low.'* [GP2]
- *'when parents become unsatisfied or angry with you due to your refusing [them to prescribe antibiotics], they will challenge you in a conflictual way and the things you said. They will not trust you anymore no matter how you explain to them. I think it is a worse situation than prescribing unnecessary antibiotics to them.'* [Paediatrician 1]



# TO AVOID COMPLAINTS AND POTENTIAL LOSS OF CUSTOM

- Most healthcare providers reported concerns about parental dissatisfaction and the resulting difficulties in their relationship with parents as factors that made them more likely to prescribe antibiotics for ill children. In addition, healthcare providers from community healthcare institutions and retail pharmacies emphasised the financial implications of not maintaining a good relationship, noting this as an influence on their antibiotic prescribing decisions.
  - *‘For instance, when consumers cannot get the antibiotics they really wanted, some of them will think that you intentionally refuse their requirements and become very angry. Moreover, they will not trust you no matter how you explain to them, and they will blame you like ‘Such a poor pharmacy!’ [LP4]*
  - *‘For the GPs in the community health institution, one of the main characteristics of them [GPs] is that you must control patients’ symptoms, and then patients will come back to your clinic when they become ill again.... if no patients come again, you will not be able to survive too.’ [GP6]*





# CONCLUSIONS

- The analysis of the interview data has identified healthcare providers' perception of **public's broad cultural understandings** and of the importance of **maintaining a good relationship with parents** were among the key influences on their antibiotic prescribing behaviour with respect to children in China.



# CONCLUSIONS

- **Similar influences** compared with western countries
  - Maintaining a good relationship
- **Different influences** compared with western countries
  - The importance of non-western understandings of the disease and treatment
  - The distrust of healthcare institutions
  - The influence of the availability of non-prescription antibiotics



**THANK YOU !**

