

The process to revise and finalise the questionnaire for the study "Bacterial Vaginosis and Medicinal Practice among Pregnant Women in Dhaka, Bangladesh"

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1. Background and Significance:

Since the discovery of antibiotics, we have benefited enormously from them. However, the misuse and overuse of antibiotics are leading to antibiotic resistance, posing a significant public health problem. Moreover, the use of antibiotics has various adverse effects, and disturbs the function of the microbiota, which is attracting worldwide attention. In developing countries, regulation of antibiotic use is quite weak, and people have little information about it.

In Bangladesh, the degree of self-sufficiency in medicine is 98%, and Bangladeshi people can get high-quality medicine (they cleared WHO standard in 2005) at a reasonable price (1/20 in price compared to western countries). On the other hand, according to the survey conducted in Rajshahi city in 2014, the prevalence of self-medication with antibiotics was 27%, although the non-prescription sale of antibiotics is illegal in Bangladesh. A study conducted in three cities in Bangladesh in 2013 revealed that 63% of patients visited unqualified doctors, and they gave antibiotics to the patients who were suffering mainly from cold and fever, infections, diarrhoea and gonorrhoea, although 83% of prescriptions have no clinical test for using antibiotics. Moreover, reproductive tract infections (RTIs) are a global health problem among reproductive age group women. The prevalence of bacterial vaginosis (BV) among married women in Matlab, Changpur in 1995 was 5.9%. The prevalence of BV among pregnant women in Ethiopia in 2012 was 19%, and more than half of BV positive pregnant women were asymptomatic. In 2006, an intervention study using a prebiotic agent (fructooligosaccharide: FOS) was conducted in an urban slum area of Dhaka. It showed that daily intake of FOS was associated neither with the children's growth nor with the number of diarrhoea episodes, but a significant reduction in the duration of diarrhoea was observed.

2. Objective:

The task during this one-month visit to Bangladesh was to revise and finalise my questionnaire for the following study based on the social and medical situation in the local community.

The objective of the study is to examine the relationship between bacterial vaginosis and medicinal practice among pregnant women in Dhaka, Bangladesh. This study is part of an intervention study on prebiotics in preventing low birth weight, which will be conducted in Nandipara, Dhaka. All pregnant women of less than 12 gestational weeks are invited to participate in the study "Promoting health in foetal and postnatal growth by modulating gut microbiota with supplementation of prebiotic agent (fructooligosaccharide: FOS) in pregnant women: an exploratory study". One of the exclusion criteria of the main study is having a Nugent score of 7.0 or above at the time of enrolment, indicating they have bacterial vaginosis. This study will use the data from the screening test of the main study, and investigate the recent use of medicine among participants, their knowledge and attitudes toward medication, and whether there is any association between these data and their Nugent score. At the screening of the main study, subjects will be interviewed according to the questionnaire. This study's questionnaire is incorporated into the main questionnaire, containing 39 questions. It investigates four main areas: basic and demographic information, recent use of medicine, knowledge, and attitude.

3. Implementation:

I had already prepared my questionnaire in Japan, but I needed to check whether the questions and choices were suitable for the participants through their reaction to my questionnaire, and revise the questionnaire as necessary. The questionnaire is written in English and the interview was conducted in Bangla; the

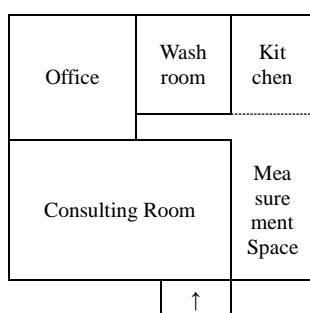


questionnaire of the main study is also written in English. The interviewer was a Bangladeshi woman, who works at icddr,b as an assistant researcher. During the whole month of April, we conducted pre-tests three times and interviews with drug dispensers (people who sell drugs at pharmacies) once.

Date		Pre-tests	Interview
Apr. 09 (Thurs)	1 st	8 pregnant women	
Apr.16 (Thurs)	2 nd	5 pregnant women	4 drug dispensers
Apr. 21 (Tue)	3 rd	4 pregnant women	
Apr. 27 (Mon)		4 pregnant women	



Pre-tests were held at Nandipara field clinic, which is run by icddr,b and where the main study will be conducted. Nandipara is a peri-urban community of Dhaka city, with a population of approximately 30,000 (2005). The clinic is on the ground floor of an



apartment block, and it has only two rooms (see diagram). Some nurses and health workers work there every day, and the doctor (our researcher/ MBBS) visits there a couple of times per week. The participants of current studies come to follow-up, and they and their family members can see the doctor there whenever they need. For the interview, the researchers usually use the office. Due to the main study starting within one month, the health workers have started to list pregnant women of less than 12 gestational weeks and we asked these women to participate in this pre-test.



4. Findings:

The most important things we found through the pre-tests are:

- The participants are not aware of the term “antibiotics”, nor do they remember the commercial names of medicine.
- The participants use only a little medicine, and they do not have leftover medicine for future use at home.
- The participants seldom suffer from illness.
- Most of the drug dispensers in Nandipara have finished at least a two-year diploma course. They have knowledge about new medicines and remedy methods, which is provided by pharmaceutical company representatives, but they have poor knowledge about basic medicine.

I revised and finalised the questionnaire so that I can capture the slight differences among participants who live in a peri-urban community of Dhaka city, where the characteristics of residents are estimated to be quite similar. I believe this study can also contribute as an external validity of the main study.

Aside from the above findings directly related to the study, I experienced and learned various things, such as the ability to communicate, both verbal (in English and a little in Bangla) and non-verbal, negotiation skills, and an understanding of the culture in urban Bangladesh. I am really grateful to all the participants of the pre-tests and the interview. I also would like to thank the people at icddr,b and University of Tsukuba for their support and assistance in conducting these pre-tests.

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