

FEASIBILITY OF RESEARCH DATA COLLECTION TO AN ONLINE DATABASE USING SMARTPHONES AND TABLETS FOR A COMMUNITY SURVEY ON SEXUAL DYSFUNCTIONS



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Introduction

- Tablet devices and smartphones are being used to collect research data in developed countries (Jonathan et al 2013)
- Enabling factors are -
 - Availability and affordability
 - Customized apps
 - Quality mobile connectivity
- Not adequately exploited by researchers
- Better quality data

Introduction contd.

Online questionnaire and data base

- No printed questionnaires
- No manual data entry
- Cost saving
- Data can be visualized online



Introduction contd.

- Sexual dysfunctions
 - relatively common but seldom diagnosed
 - Prevalence ?
 - Significance
 - No community based studies
 - Sensitive nature of the subject

Introduction contd.

We wanted to know

- Prevalence
- Correlates
- Consequences

-of sexual dysfunctions among adult females and males aged 21 to 60 years in the Kegalle district

Methodology

Study design	A community based cross sectional analytical study
Study area	102 Grama Niladhari (GN) divisions in Kegalle District
Study population	Females and males aged 21 to 60 years, residing in the Kegalle District
Sample size	2040 (1020 female and 1020 males)
Sampling method	Probability proportionate to size, multi stage cluster sampling
Cluster size	20 (10 females and 10 males)

Objective

To describe the feasibility and acceptability of using smartphones and tablets for a community survey on sexual dysfunctions among adults aged 21 to 60 years in the Kegalle District



Study instruments

- Two web applications for male and female questionnaires
- User interface (front end) - html/jquery/css
- Data bases (back end) - mysql/php
- Features
 - ✓ Data validation rules
 - ✓ Skip patterns
 - ✓ Reset buttons
- Hosting server



Study instruments contd.

- Two structured databases
- Interviewer administered questionnaires
- Validation and pretesting
- Mobile broad band technology
- Tablets and smart phones
- Pretesting for online data entry

In the field

- Pre-intern medical graduates as research assistants
- Two day training programme
- A feasibility testing in the field
- Relevant amendments
- Interviews in house hold/field setting
- Data- anonymous and confidential

Training of pre-interns



Feasibility testing in the field



Feasibility testing in the field



Results

- Mobile broad band coverage was 97%
- Lack of coverage experienced in 3 GN divisions
- None of the participants objected (n=1631)
- Data collection was transparent

Results contd.

- Data collectors could see the data entered then and there
- Enabled data collectors to resend data if any errors occurred
- Principal investigator can do the corrections without delay
- Enabled monitoring of the progress of data collection
- Easier to do the analysis periodically



Image of the questionnaire(male) in web application

මිලග ප්‍රශ්න කිහිපය ඔබගේ ප්‍රජනක සෞඛ්‍ය ගැන තොරතුරු ලබාගැනීම සඳහායි.

SECTION B

B18. ලිංගික ජීවිතයේ කරුණු ඔබගේ සාමාන්‍ය සහකාරිය(Regular Partner) සමඟ කතාකිරීම ඔබට කොතරම් පහසු ද ?

1. අපි ලිංගික කරුණු ගැන කතා කරන්නේ නැත.
2. එය අපහසුයි,ඒත් අපි ලිංගික කරුණු ගැන කතා කරලා තියෙනවා.
3. පවුලේ සාමාන්‍ය කරුණු වගේම අපි ඒ ගැනත් කතා කරනවා.
4. පිළිතුරු දීමට අකමැතියි.

Reset

Skip

Next

SECTION B

B19. වර්ථමානයේ ඔබගේ සාමාන්‍ය සහකරු සමඟ(Regular Partner) ඇති ලිංගික සම්බන්ධතාවය ගැන ඔබගේ තෘප්තිමත් භාවය කෙසේද?

1. ඉතාමත් තෘප්තිමත්

2. තෘප්තිමත්



Image of the data base in web application

Result sheet														Download
serial number	date and time	gs division	index no	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	
477	Friday 8th of May 2015 10:48:35 AM	5	@3/3	32	1	1	1	1	1	5	4	8	3	
478	Friday 8th of May 2015 11:03:06 AM	05	@2/2	43	1	1	1	1	1	3	2	9	3	
479	Friday 8th of May 2015 11:07:10 AM	05	@4/3	37	1	1	1	1	1	6	4	8	3	
480	Friday 8th of May 2015 11:12:07 AM	05	@6/2	30	1	1	4	1	1	6	4	8	3	
481	Monday 11th of May 2015 10:42:23 AM	25	@1/1	38	1	1	1	1	1	4	4	8	3	
482	Monday 11th of May 2015 10:48:38 AM	25	@4/1	45	1	1	1	1	1	3	4	8	3	
483	Monday 11th of May 2015 10:52:26 AM	25	@2/1	42	1	1	1	1	1	2	2	9	3	

Number of interviews uploaded up to 5th of September 2015

	Number of interviews
Female	930
Male	701
Total	1631

Drawbacks

- Battery life
- Sun glare
- Protection
- Fonts
- Broadband coverage

Conclusions

- Use of smart phones and tablets is feasible
- Acceptability was 100%
- Facilitates
 - better quality data
 - Monitoring the progress
 - Analysis of data
- Saved time and cost
- Mobile broad band coverage is a prerequisite

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