#### 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)	6

# 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







#### 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

මීලග පුශ්ණ කිහිපය ඔබගේ පුජනක සෞඛා ගැන තොරතුරු ලබාගැනීම සදහායි.

SECTION B

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

1. 🔵 අපි ලිංගික කරුණු ගැන කතා කරන්නේ නැත.

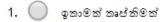
2. 🔵 එය අපහසුයි,ඒත් අපි ලිංගික කරුණු ගැන කතා කරලා තියෙනවා.

- 3. 🔘 පවුලේ සාමානා කරුණු වගේම අපි ඒ ගැනත් කතා කරනවා.
- 4. 🔵 පිළිතුරු දීමට අකමැතියි.

Reset Skip Next

#### SECTION B

B19. වර්ථමානයේ ඔබගේ සාමානාස සහකරු සමග (Regular Partner) ඇති ලිංගික සම්බන්ධතාවය ගැන ඔබගේ කෘප්තිමත් භාවය කෙසේද?



2 🔘 තාස්තිමත්

#### Image of the data base in web application

Result sheet	lt sheet						Download							
serial number	date and time	gs division	index no	A1	A2	A3	<b>A</b> 4	A5	A6	A7	<b>A</b> 8	A9	A10	
	101101077111													4
477	Friday 8th of May 2015 10:48:35 AM	5	@3/3	32	1	1	1	1	1	5	4	8	3	l
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	25	@2/1	42	1	1	1	1	1	2	2	9	3	•
483	of May 2015	25	@2/1	42	1	1	1	1	1	2	2	9	3	

# Number of interviews uploaded up to 5<sup>th</sup> 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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