Developing Domains to Assess Understanding Regarding Sexually Transmitted Infections among Sexually Transmitted Infection Clinic Attendees: A Qualitative Study

Bansari L. Chawada, Jayesh K. Kosambiya1, Vipul P. Chaudhari

Department of Preventive and Social Medicine, Medical College Baroda, Vadodara, 1Department of Community Medicine, Government Medical College, Surat, Gujarat, India

Abstract

Objective: To develop and validate domains to assess attendee’s gain at sexually transmitted infection (STI) clinic and their understanding after utilizing services at STI Clinic. Methods: Study was done in two phases. In-depth interviews were conducted to explore attendee’s perception. Domains generated through the first phase were validated by conducting another 50 structured interviews. Results: Major domains developed were perceptions on STI, the source of information, treatment seeking behavior, understanding of treatment, laboratory test, and follow-up. Friends and counselor played an important role as the source of right information, while elder family female played a role in delayed seeking care. Conclusion: Developed domains can be used to assess STI clinic attendee’s perspective on STI. Poor understanding of STI care component especially prevention, partner treatment, and referral was noted after the clinic visit.

Keywords: Perception, sexually transmitted infection, sexually transmitted infection treatment seeking behavior

INTRODUCTION

Sexually transmitted infections (STIs) are among the common infectious diseases; 340 million new infections of STIs occur in developing countries.[1] Almost 6% of the adult population in India suffer from STIs with poor treatment seeking behavior.[2] Spread of human immunodeficiency virus (HIV) with subsequent behavioral changes has resulted in changed epidemiological patterns of STI.[3,4] The increase in viral STIs may be attributed to greater self-reporting by patients, indiscriminate use of antibiotics, and syndromic approach of the treatment. Due to dynamic nature of the STIs, it is desirable that such changes in STIs are acknowledged and tracked. Control of viral diseases, to a great extent, depends on primary prevention and counseling. Review of literature documents that in spite of high reporting of STI symptoms, two third of the patients do not go for treatment. STI care-seeking behavior and the effect of symptoms on seeking care are poorly understood.[5,6] As most resources for STI control and treatment are placed in the public sector, it is necessary to explore client’s perception toward choosing the services at public health centers. There is definite need of reappraisal of clinic attendee’s understanding on sexual and health-care services.

In India, STI services are provided through public sector under the joint collaborations of National Health Mission and National AIDS Control Organization (NACO). Surat Municipal Corporation (SMC) was the first municipal corporation in India to provide STI services by partnering with NACO. “SMC-STD care Project” was started in the year 2002, where STI services were initially planned to provide through outpatients departments (OPDs) of 25 Urban Health Centers (UHCs). Since then, the project is successfully delivering STI care services in all UHCs. Annual report 2012, SMC reported around 30 thousand cases as coverage of the service. Syndromic approach followed as per NACO guidelines, where

Access this article online

Quick Response Code:

Website: www.ijcm.org.in

DOI: 10.4103/ijcm.IJCM_92_16

Address for correspondence: Dr. Bansari L. Chawada, Department of Preventive and Social Medicine, Medical College Baroda, Vadodara, Anandpur - 390 001, Gujarat, India. E-mail: bansarichawada@gmail.com

How to cite this article: Chawada BL, Kosambiya JK, Chaudhari VP. Developing domains to assess understanding regarding sexually transmitted infections among sexually transmitted infection clinic attendees: A qualitative study. Indian J Community Med 2017;42:151-4.

Received: 01-04-16, Accepted: 13-04-17
trained clinician gives diagnosis. Educating clinic attendees on STI, pre- and post-HIV test counseling, medicines, and follow-up is the role of counselor. All clinics have laboratory facility and devoted education materials on STIs in the form of banner and live screen messages at appropriate places.

**Objectives**
The study was done with the objective to develop domains to assess STI patient’s perspective on seeking treatment and their understanding after utilizing services at STI clinic. Second objective of the study was to validate these domains by conducting structured exit interviews.

**Methods**

**Study design**
The study was a mixed of qualitative–quantitative approach and done in two-phases. In the first phase of the study, in-depth interviews were conducted to develop domains for assessing attendee’s understanding. Developing domains from the in-depth interviews were used to prepare structured interview tool, which was used in the second phase of the study to validate and strengthen the findings of the first phase.

**Study period**
The study was done during November–December 2012.

**Study setting**
A total of 25 UHCs which have been delivering STI care services were selected as these 25 centers were originally started with project. The selections of centers were done on assumption that the clinics which were providing services since more than 10 years would be better performing clinics. Selecting clients from these clinics would serve the best representative sample to achieve objectives. Since nearly all clinic attendees were female, study could include only female participants.

**Ethics**
Ethical approval for the study was obtained from Institute Ethical Committee after getting written permission from the corporation. Study objectives were shared with clinic staff. All the study participants for both phases of the study were contacted after completion of consultation; immediately at exit from OPD after obtaining informed written consent in vernacular language. Visual and auditory privacy was maintained by conducting all the interviews in separate room at clinic building. Anonymity of the participants was maintained by using unique code numbers. All the participants were provided hard copy of information sheet including the details of study, contact details of researchers, and one pager leaflet on STI basics for education in vernacular language. Clients requiring further treatment and/or counseling were referred back for the respective services at the end of interviews.

**Sampling**
Only clients who were diagnosed as new case of STI were enrolled for both phases of the study. To maintain quality during data collection, maximum two interviews were conducted in 1 day. To obtain variety of responses from heterogeneous group, appropriate mix of age groups, parity, marital status, and occupation were selected for the first phase of the study. In-depth interviews were continued till the responses get saturated, and no new information were coming out.[7] For the second phase of the study, total 50 attendees, two consecutive STI attendees per UHC, were interviewed.

**Study tool**
In-depth interview topic guide was prepared with 11 questions in the vernacular language.[8] Internal consistency of the topic guide was checked with the help of experts by using agreement response Likert scale (Cronbach’s alpha level - 0.8). Initial 10 min time was devoted for setting of privacy, rapport building, and briefing about the study. For the second phase of the study, structured tool was prepared by incorporating the domains developed from the first phase of the study.

**Analysis**
In-depth interviews were transcribed to verbatim on the same day of the interview. Content analysis method was adopted to analyze the qualitative data of interviews, where free texts were read several times, and emerging themes were identified. Verbatim and statements were clubbed to create themes and analyzed as codes. Themes developed from the codes were combined to prepare major domain.[9] The result of in-depth interviews is reported as description of domain, as per standards for reporting qualitative research.[10] These domains were incorporated to prepare structured interview tool for the second phase of the study where 50 exit interviews conducted with the develop tool. Results of the second phase are given as frequency and proportion with each domain.

**Results**
Analysis of the data in the first phase was done simultaneously as and when the interviews were conducted [Figure 1]. Saturation of responses was obtained with 17 in-depth interviews. In-depth interviews took average 20–30 min.
In the second phase, 50 interviews were conducted to validate and strengthen findings of the first phase. Mean age of participants was 27.62 + 9 years. Most of the clinic attendees (82%) were homemakers, and rests were daily earners like tailors, weaving workers, and students. Main complaints among clients were genital discharge (66%) followed by itching at genital region (32%), burning micturition (22%), lower abdominal pain (14%), and menstrual problems (14%).

Perceptions
When discussing the possible reasons of their complaint, few participants could not give any response. Few of the females, who could describe infection/unhygienic conditions and sexual relation as a reason, belong to the younger age group.

- “It may be due to some infections.”... (ID 3, 18-year-old student)
- “Doctor said that I have some infection in the private part.”... (ID 5, 24-year-old married woman)
- “It may be due to uncleanliness of the parts.”... (ID 7, 20-year-old unmarried girl).

Some clients believed that food was responsible for their complaints:

- “Whenever I take sour food, I feel this problem.”... (ID 12, 23-year-old unmarried female describing her surety on sour food as a reason of STI)
- “I think white-colored food like milk and banana produce this white discharge ...!”... (ID 16, 33-year-old married female).

Out of 50 attendees interviewed, more than half (56%) of the clients could not reply regarding the reasons of STI complaints. Only 34% of clients were able to describe infection/unhygienic conditions as a reason for their complaints. Few of (10%) the clients believed that food habits could be the reason for their STI symptoms.

Source of information
The elderly female relative influenced STI knowledge of the client:

- “My Grandmother asks me to leave hot and sour food, whenever I have this complaint.”... (ID 12, 23-year-old unmarried female)
- “I discussed this problem with my aunt, and she told me not to worry and take rest to recover.”... (ID 13, 20-year-old female, initial contact for advice describing possible delay to seek treatment).

It was noted that source of the right information was from friends, media, and counselors:

- “I know it because we had discussed this in my friend group”... (ID 7, 20-year-old unmarried girl while giving source of her knowledge on sexual route as mode of transmission)
- “I talk with ‘Mrs R’ (counselor of STI clinic), she said like that only”... (ID 5, 24-year-old married woman).

Among 50 participants, only 38% of the clients could mention sexual route of transmission. For them, counselors (63.2%) and media (36.8%) were the sources of this information.

Influence on treatment seeking behavior
It was very interesting that myths prevalent among the elder women, resulted in delay in clinic visit. It was found that college friends and teacher encouraged them for clinic visit:

- “Then I was not relieved with itching for 1 month and my friend asked me to visit this clinic for treatment.”... (ID 13, 20-year-old female while stimulation after delay in treatment)
- “I discuss my problem with my teacher, and she informed me about this clinic”... (ID 3, 18-year-old student describing inspiration of treatment seeking).

While listing the reasons of choosing the particular clinic, it was found that “less waiting;” “presence of lady doctor;” “friendly staff;” “counseling services;” “explanation for drugs;” and “for undergoing blood test” were the responses of the clients.

Treatment understanding
While discussing partner treatment component, only couple of participants could recollect advice related to partner treatment and few had poor understanding on complete treatment.

- “Mr L’ (counselor of STI clinic) ask me to come with my husband, when come after 2 days... He also needs medicine for complete treatment.”... (ID 15, 29-year-old female talking on partner treatment)
- “Why I should use ‘Nirodh’ with my husband? My problem will be cured with the medicine I get from here.”... (ID 8, 26-year-old married woman)

All (50) the clients were explained for how to take drugs. Almost 82% of the clients could correctly repeat the advice of medicines while 18% repeated it partially. About 76% of the clients could remember advice of partner treatment, out of them, 34% of clients had understanding of partner notification and referral.

Follow-up
While discussing when to come back, all the attendees were aware of follow-up date to collect blood test report.

“I will visit again on Thursday, after 2 days”... (ID 1, 31-year-old female revealing follow-up day)

In the second phase of study, almost all were aware of the name of blood test performed. All the participants were given advice by the counselor regarding follow-up. Almost 98% client could tell the exact day of follow-up.

Discussion
Exploring the perceptions of the clients, 32% of the clinic attendees perceived STI as infection in contrast to a community-based study done during 1998 in North India.
where around 98% of respondents lacked awareness regarding STIs.\textsuperscript{[11]} Results of low awareness were noted by Garg et al. in a community-based study done in 2007.\textsuperscript{[12]} It indicates that attendees might gain right information from clinic visit. The study identified STI symptoms among attendees which is similar to the published study among high-risk group.\textsuperscript{[13]}

While exploring treatment seeking behavior, it was found that college friends, teacher, and counselor were the positive stimulation for clinic visit. The study finds that myths regarding STI symptoms were prevalent among the elder female relatives, which resulted to delay in clinic visit. Kinds of 10 common myths associated with STIs are described by Chuh et al. in 2006.\textsuperscript{[14]} Myths were still a part of the attendee’s perception, even after STI clinic visit. It reflects the poor understanding of attendees “how does they got STIs?” even after entire consultation. Malta et. al conclude that perceived stigma and the lack of counseling appeared to impact the patient’s knowledge.\textsuperscript{[15]} Client education is the core of counseling services. Current study has identified lacunae in patients understanding even after visiting STI clinic. Although advice on drugs was fully understood by clients, clinic attendees could not comprehend partner treatment and referral, which is a very important part in STI treatment.

Quantitative data once revealed can be used as a background for further research using qualitative evidence or vice versa. For this, the grounded theory approach using inductive codes helps to derive the emerging domains, which are helpful in health research, particular for policy development and decision making. Similar studies for quantitative data being supported with overarching qualitative themes were done to explore factors associated with default in multidrug-resistant tuberculosis in India and Armenia.\textsuperscript{[16,17]}

**Conclusion**

The current study has identified and validated the domains to assess clinic attendee’s knowledge particularly factors influencing treatment behavior, prevalent myths, and specific area of poor understanding. This study reveals specific domains where patients fail to gain information. Based on these findings, the service delivery component can be improved at STIs clinics. This can be done through counseling special focus on client education and completion of treatment. The finding of the study has implications on improving quality services care of STI clinic.

**Acknowledgment**

Authors highly acknowledge all study participants, SMC STD Care Project staff for their hearty support throughout the study period. Authors are also thankful to Dr. Hemant Desai (Deputy Commissioner, H and H), Surat Municipal Corporation for permission for the study. Authors acknowledge the technical support received from the Fogarty International Grant/USNIH: Grant # 1D43TW006793-01A2-AITRP.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**References**

1. World Health Organization. Global Prevalence and Incidence of Selected Curable Sexually Transmitted Infections: Overview and Estimates. Geneva: World Health Organization; 2009. Available from: http://www.who.int/ hiv/pub/sti/who_hiv_aids_2001.02.pdf. [Last cited on 2015 Jul 14].
2. National AIDS Control Organization. Behavioural Surveillance Survey (BSS). New Delhi: National AIDS Control Organization; 2006. p. 6. Available from: http://www.aidsdatahub.org/national-behavioural-surveillance-survey-bss-2006-general-population-national-aids-control-organisation. [Last cited on 2015 Jul 15].
3. De Schryver A, Meheus A. Epidemiology of sexually transmitted diseases: The global picture. Bull World Health Organ 1990;68:639-54.
4. Narayan BN. A retrospective study of the pattern of sexually transmitted diseases during a ten-year period. Indian J Dermatol Venereol Leprol 2005;71:333-7.
5. Prasad JH, Abraham S, Kurz KM, George V, Lalitha MK, John R, et al. Reproductive tract infections among young married women in Tamil Nadu, India. Int Fam Plan Perspect 2005;31:73-82.
6. Khan AA, Naghma-e-Rehan, Qayyum K, Khan A. Care seeking for STI symptoms in Pakistan. J Pak Med Assoc 2009;59:628-30.
7. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. Field Methods 2006;18:59-82.
8. Mack N, Woodsong C, MacQueen KM, Guest G, Namey E. Qualitative Research Methods: A Data Collector’s Guide. North Carolina, USA: USAID; 2005. Available from: http://www.fhi.org/en/RH/Pubs/ booksReports/QRM_datacoll.htm. [Last cited on 2015 Jul 15].
9. Boyce C, Neale P. Conducting In-depth Interviews: A Guide for Designing and Conducting In-depth Interviews for Evaluation Input. Watertown, MA, USA: Path inder, 2006. Available from: http://www.pathfind.org/site/DocServer/in_e_tool_serles_ind dept_interviews.pdf?docID=6301. [Last cited on 2015 Jul 13].
10. O’Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: A synthesis of recommendations. Acad Med 2014;89:1245-51.
11. Roy V, Bhargava P, Bapna JS, Reddy BS. Treatment seeking behaviour in sexually transmitted diseases. Indian J Public Health 1998;42:133-5.
12. Garg S, Singh MM, Nath A, Bhalla P, Garg V, Gupta VK, et al. Prevalence and awareness about sexually transmitted infections among males in urban slums of Delhi. Indian J Med Sci 2007;61:269-77.
13. Desai VK, Kosambiya JK, Thakor HG, Unrrigar DD, Khandwala BR, Bhuyan KK. Prevalence of sexually transmitted infections and performance of STI syndromes against aetiological diagnosis, in female sex workers of red light area in Surat, India. Sex Transm Infect 2003;79:111-5.
14. Chuh AA, Wong WC, Lee A. Sexually transmitted infections – Ten common myths. Aust Fam Physician 2006;35:127-9.
15. Malta D, Bastos FI, Stratheard SA, Cunningham SD, Pilotta JH, Kerrigan D. Knowledge, perceived stigma, and care-seeking experiences for sexually transmitted infections: A qualitative study from the perspective of public clinic attendees in Rio de Janeiro, Brazil. BMC Public Health 2007;7:18.
16. Shringarpure KS, Isaakidis P, Sagili KD, Baxi RK, Das M, Dafary A, et al. “When treatment is more challenging than the disease”: A qualitative study of MDR-TB patient retention. PLoS One 2016;11:e0150849.
17. Sanchez-Padilla E, Marquer C, Kalon S, Qayyum S, Hayrapetyan A, Varaine F, et al. Reasons for defaulting from drug-resistant tuberculosis treatment in Armenia: A quantitative and qualitative study. Int J Tuberc Lung Dis 2014;18:160-7.