

Original Research



Perceived strengths, weaknesses, opportunities and threats related to the utilization of oral health services among pre-conceptive married women before their first pregnancy in Kalutara District

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Abstract

Introduction: Utilization of oral health services during pre-conceptive period is important for a woman to accomplish a healthy oral environment prior to her pregnancy.

Objectives: To describe the perceived strengths, weaknesses, opportunities and threats (SWOT) related to the utilization of oral health services among pre-conceptive married women before their first pregnancy in Kalutara District

Methods: In-depth interviews among pre-conceptive married women before their first pregnancy in Kalutara District were conducted using semi-structured interview guide. Purposive sampling method was used to select 18 study participants. Data were analysed manually using the thematic analysis method. The inductive method was used to identify and generate codes and themes from the data itself. The theoretical perspective of qualitative data analysis carried out in this study was the 'grounded theory approach'.

Results: Identified strength was knowledge on benefits of oral health for the pregnancy and quality of life of women. Identified weaknesses were lack of motivation regarding oral health care seeking, lack of awareness that the pre-conception period is a crucial period for the oral health promotion among married women, fear for dental treatment, myths related to the oral health and barriers related to attending dental clinics due to personal-level factors. Identified opportunities were availability of oral health component in the Healthcare for Newly Wedded Programme (HNWP), provision of the oral health education by the medical officer of health (MOH) office staff at the HNWP sessions, help and guidance from the MOH office staff at the HNWP sessions to clarify oral health related issues, satisfactory provision of the government dental services, dental clinics in the MOH office premises and favourable working hours of the private dental clinics. Identified threats were barriers related to attending dental clinics due to service-related factors and lack of information regarding the oral health component of the HNWP from peer groups.

Conclusions & Recommendations: Perceived SWOT related to the oral health services among pre-conceptive married women were identified. These findings will be important to the policy makers and service providers to plan an effective oral health service for married women before their first pregnancy.

Keywords: *women, female, qualitative research, oral health, utilization*

Introduction

According to the World Health Organization, preconception care is provision of biomedical, behavioural and social health interventions to women and couples before conception occurs (1). The concept of preconception care is achieving a good health status in a woman before she becomes pregnant (1). As oral health plays an important part of the general health and pregnancy of a woman, oral health will invariably become a part of this concept.

According to the literature, there are high prevalences of dental caries and periodontal diseases among reproductive aged females worldwide (2-4). Oral health status of women can be affected by the reproductive hormonal changes (oestrogen and progesterone) during their lifecycle from menarche to menopause as well as the usage of hormonal contraceptives (5). Changes in saliva amount and composition, increase in bacterial colonization, dry socket following extraction and exaggerate pre-existing inflammations could be resulted due to the high level of oestrogen and progesterone (6-7).

Epidemiological studies showed that oral diseases of pregnant women may negatively affect the pregnancy, newborn baby and mother's systemic health. Periodontal diseases may cause adverse pregnancy outcomes such as preterm babies, low birth weight babies and gestational diabetes mellitus (8-9). Furthermore, babies of mothers with dental caries are more prone to oral diseases since cariogenic bacteria can transmit from mother to baby (10). Therefore, it is important to maintain better oral health during pregnancy.

The main aim of providing pre-conceived oral health care is to accomplish a healthy oral environment of a pre-conceptive woman prior to her pregnancy. Pre-conception care for newly married couples is provided through the Healthcare for Newly Wedded Programme (HNWP) in Sri Lanka (11). There is an oral health component in the HNWP. A small description of the importance of oral health during

pregnancy is given in the booklet of the newly married couples and health staff (12-13). Furthermore, untreated tooth decay and gingival diseases are included in the screening tool (14). As per the handbook to guide health staff, provision of oral care for newly married couples is recognized as part of the HNWP (12).

Utilization of oral health services is essential to maintain better oral health. However, previous studies revealed that oral health services utilization among reproductive aged women is low (2-3, 15-17). Several factors for under-utilization were explored by previous studies in the worldwide. Some of them are lack of knowledge and awareness regarding oral health, ignorance of dental problems, financial factors, transport problems, difficulty in getting leave from workplaces and fear for dental treatments (16, 18-21).

Even though there is an existing programme to address the pre-conceptive oral health, previous studies indicated that oral diseases are a major public health problem among pregnant women in Sri Lanka (22-23). Furthermore, due to physiological problems such as nausea, vomiting and postural difficulties, some dental treatments are difficult to perform during pregnancy (24). Therefore, pre-conceptive oral care is important for preparing females for the pregnancy and to reduce oral health complications during their pregnancy period. Early identification and addressing the oral diseases of married women before their first pregnancy would prevent progression of their oral diseases into more advanced stages that require advanced dental treatments during pregnancy. Screening of every married woman before their first pregnancy by a dental surgeon is essential. Therefore, there should be a strong mechanism to improve the utilization of oral health services of married women before their first pregnancy and to make them oral disease free when they become pregnant. Since, the HNWP is an existing programme in Sri Lanka, improving oral health among this target group through the HNWP is

effective. There may be several underlying causes for under-utilization. It is important to identify the underlying causes from the consumer's perspective before planning a programme or intervention to improve the utilization of oral health services.

There are limited studies done regarding the oral health services utilization among pre-conceptive married women. Therefore, this is an attempt to fill the gap of scarcity of data related to the perceived SWOT among married women before their first pregnancy in Sri Lanka. Therefore, the main purpose of this study was to describe the perceived SWOT related to the utilization of oral health services among married women before their first pregnancy.

Methods

A qualitative study was conducted in Kalutara District from April 2019 to August 2020, where government and private oral health services are available. There are 35 government dental clinics in this district including hospital dental clinics (20), adolescent dental clinics (7), community dental clinics (4) and medical officer of health (MOH) office dental clinics (4). In addition, private dental clinics are available in all MOH areas of the district.

The study population consisted of women in their reproductive age (15-49 years) and before their first pregnancy. Women who had been married for 6-24 months and had attended the HNWP at least 3 months ago were included. Women who were residing in the district for less than 3 months were excluded. Study participants were purposively selected with the help of public health midwives to obtain rich and relevant information on the oral health component of HNWP and the utilization of oral health services. Furthermore, active involvement in the interviews, convenience to participate and willingness of the participants were considered when selecting the sample. The number of interviews to be conducted was decided based on the theoretical saturation point at which new

information was not being generated. Further data were obtained from three participants after the theoretical saturation point was reached. The interviews were conducted using a pre-tested semi-structured interview guide. It was prepared to explore information on perceived SWOT related to the utilization of oral health services. After taking permission, the interviews were conducted in Sinhala language by the principal investigator (PI) in a comfortable and confidential place. The PI noted down all the verbal and non-verbal responses of the participants and audio recorded the interviews.

Data analysis

Data analysis was done manually by the PI and second investigator (SI) using the thematic analysis method. The inductive method was used, therefore codes and themes were identified and generated from the data itself. The theoretical perspective of qualitative data analysis carried out in this study was the 'grounded theory approach', as the theory was grounded in the data, which was inductively derived from the data. The PI and SI transcribed data independently to ensure accuracy, reliability and validity of the transcriptions. Immediately after each interview, transcriptions were made by going through all the notes and recordings repeatedly. Noted data were read repeatedly and actively, while searching for meanings and patterns. Repeated patterns (themes) were identified by systematically going through the dataset and coding them. This process was done repeatedly. Most descriptive wordings for topics to form categories were selected for secondary coding. Similar topics were amalgamated. The list of categories was finally abbreviated as codes.

Results

Among study participants, 5 (27.8%) were in the 18-24-year age group, 11 (61.1%) in the 25-31 age group and 2 (11.1%) in the 32-38 age group. Most of them (55.6%) have been married for 13-18 months, employed (77.8%) and drawing a monthly household

income of \geq Rs. 50 000 (77.8%) (Table 1).

Table 1: Characteristics of the study participants (N=18)

Characteristic	No.	%
Age (years)		
18 - 24	5	27.8
25 - 31	11	61.1
32 - 38	2	11.1
Time since marriage		
6 - 12 months	7	38.9
13 - 18 months	10	55.6
19 - 24 months	1	5.6
Highest educational level		
Advance Level	7	38.9
Diploma/Technical/Vocational training	5	27.8
Universities/Higher education	6	33.3
Current occupation status		
Unemployed	6	33.3
Employed	12	66.7
Average monthly household income level (LKR)		
Less than 20 000	1	5.6
20 000 - 50 000	3	16.7
More than 50 000	14	77.8
Ethnicity		
Sinhala	15	83.3
Tamil	2	11.1
Muslim	1	5.6

Given below are the themes generated through interviews (Table 2).

- Perceived strengths**

Theme 1 – Knowledge among target women on the benefits of oral health for pregnancy and quality of life

All the participants agreed on the benefits of maintaining good oral health for pregnancy and quality of life of women. Their ideas were expressed as follows:

“We know healthy mouth is vital in pregnancy.”

“Dental problems and dental pain can affect day-to-day activities.”

“Bad smell affects social relationships and

family life.”

- Perceived weaknesses**

Theme 1 – Lack of motivation for seeking oral health care

Even though they know the benefits of oral health, results showed lack of motivation for seeking oral care among participants. Participants expressed their ideas as follows:

“I know I am having dental problems but I think I can get dental treatment later. I did not think it can cause serious problems even if I postpone the dental treatments.”

“I do not think much about oral health problems and do not take them seriously.”

“I did not consider oral health care as a

priority in this HNWP and in my life.”

Theme 2 – Lack of awareness that the pre-conception period is a crucial period for oral health promotion among married women

Even though participants know common benefits of oral health for pregnancy and quality of life, most of them were not aware that the pre-conception period is the most crucial period to obtain better oral health among pre-conceptive married women. Almost all of them thought that oral health care could be started after they are pregnant.

One participant said, “I know that better oral health during pregnancy is very important, but I thought oral care after getting pregnant is enough to obtain good oral health during my pregnancy.”

Another participant stated, “I do not know pre-conception oral care is important to improve the oral health during pregnancy.”

Theme 3 – Fear of dental treatment

Some participants said that they are scared to undergo dental treatment and it is the reason for the under-utilization of dental services.

One woman stated, “I am scared of some dental treatment procedures, especially tooth removals and fillings.”

Another woman said, “I am scared of dental injections.”

Another respondent stated, “I cannot bear the feeling arising during drilling my teeth.”

Theme 4 – Myths among target women on oral health

According to the ideas of the respondents, myths related to oral health could be identified as a weakness. Participants expressed their ideas as below:

“Nerve fillings may cause more problems than extractions.”

“Extractions can affect vision.”

“Extractions can cause problems with the fullness of jaws.”

“Tooth cleaning can damage tooth surfaces and gums.”

Theme 5 – Barriers for attending dental clinics due to personal factors

Participants who have actual needs face several barriers for attending dental clinics due to personal factors as follows:

“It is difficult to get leave from workplaces to visit government dental clinics.”

“I came to this area after marriage. I do not know how to go to the dental clinic without my husband. So, husband has to get leave from his work.”

• Perceived opportunities

Theme 1 – The availability of oral health component in the HNWP

Most of the respondents perceived that availability of an education booklet and a screening tool in the HNWP is an opportunity.

One respondent said, “The screening tool includes two cages for tooth decay and gum diseases to mark it whether we have dental problems.”

Another respondent said, “We could get oral health knowledge through the booklet.”

Theme 2 – The provision of oral health education by MOH staff at the HNWP sessions

One respondent said, “MOH staff gave knowledge on the importance of oral health for married life and for pregnancy at the HNWP sessions.”

Another respondent stated, “We could improve our knowledge regarding the oral health for pregnancy during the HNWP sessions.”

Theme 3 – Help and guidance from the MOH staff at HNWP sessions to clarify oral health related issues

Most of the participants had a positive idea on the guidance given by the MOH staff at the HNWP

sessions to clarify their oral health related issues, especially for guidance to find a suitable dental clinic.

One participant said, “We could ask about our dental problems from the MOH staff, and they guide us to get dental treatment.”

Another participant stated, “Public health midwife guided me to attend dental clinic in the MOH office premises to get treatment for my dental problems.”

Theme 4 – Satisfactory provision of the government dental services

During the discussion, some opportunities related to the government dental services were identified.

One participant said, “When we attend hospital dental clinics, dental doctors treat us without any problem.”

Another participant stated, “There are no problems related to the availability of dental clinics and availability of dental doctors. We have satisfactory level access to the hospital dental clinic.”

Another woman said, “No transport problems or any other problems to reach the dental clinic.”

Theme 5 – Dental clinics in the MOH office premises

Some of the participants expressed their view as, “It is easy to seek dental care, if there is a dental clinic in MOH office premises.”

Theme 6 – Favourable working hours of the private dental clinics

Some participants said “Working hours of private dental clinics are more favourable. So, it is easy to attend private dental clinics.”

• Perceived threats

Theme 1 – Barriers related to attending dental clinics due to service-related factors

Participants face several barriers to attend dental clinics even though they have an actual need to seek

oral care. Views of the participants regarding the barriers for attending government dental clinics due to service-related factors were expressed as follows:

“Government dental clinics are not functioning on holidays.”

“I am studying in a university. I am living in a boarding place in Colombo and go home during weekends and holidays. When I am at home during holidays, I cannot visit dental clinics since hospital dental clinics are not functioning on holidays.”

Some participants expressed their views regarding the barriers for attending private dental clinics.

“Even though clinic opening time is favourable, cost of dental treatment is high.”

Theme 2 – Lack of information regarding the oral health component of the HNWP from peer groups

One participant said, “No one who participated in the HNWP previously told about the oral health component to us.”

Discussion

Many SWOT items related to the oral health service utilization were identified through the present study. Since this group is relatively young, they have access to different methods of gathering oral health knowledge such as the internet, books, magazines and newspapers. Therefore, all of them know the benefits of oral health. Furthermore, dental clinics are situated in some MOH office premises. Almost all the government hospitals are located in close proximity to the MOH offices in Kalutara District and at least one government hospital dental clinic is in every MOH area. Therefore, oral health services can be provided by the government sector. There are some private dental clinics in the main centres of the district. Since the transport system is relatively satisfactory in the district, women have easy access to dental clinics. However, some women do not seek oral care on time due to various reasons such as lack of motivation, barrier for attending dental clinics,

myths and fear regarding dental treatments.

Some findings of the study done by Rad et al. in Iran were similar to the findings in the present study. Location and dental service provision were identified as causes for satisfaction in Rad's study while satisfactory provision of the government dental services and dental clinics in MOH premises were opportunities in the present study. Furthermore, some factors revealed in the Rad et al. (2009) study were not comparable with the present study, such as lack of good insurance for dental treatment, delay in attending to patients causing patients' time wasting, incomplete treatment with insufficient timing, insufficient number of nurses, lack of options to pass time in the waiting rooms and lack of confidence in the quality of dental materials. Differences of the results of two studies could be due to the socio-economic variations and health system variations in the two countries (25).

According to the study of Toivanen et al. (1999) in Finland (26), their identified weaknesses were lack of communicating to patients the causes and risk of developing oral diseases, lack of informing them about different treatment possibilities and lack of including patients in decision-making when choosing restorative materials. However, similar weaknesses were not seen in the present study. It could be due to the differences in health systems and attitudes of people of Finland and Sri Lanka.

Some factors revealed by the study of Linjewile-Marealle (2017) in the Lesotho conforms with the present study. They were fear and anxiety, knowledge of oral health services provided, availability of services and opening hours of the facilities. Some factors which were reported in this study were not aroused in the present study. They were poor attitude and unfriendly behaviour of oral health personnel, knowledge about treatment options, ineffective communication and traditional beliefs and using traditional medication rather than seeking dental treatments (27). Inconsistency of

results between the present study and this study could be attributed to the differences in the context and differences of the attitudes and expectations regarding the health system among study participants.

Further evidence similar to the findings of the present study was also presented in the study done by Dodd et al. in North Florida. It was low personnel susceptibility to oral diseases. Furthermore, benefits of preventive oral care were identified by Dodd et al. (2014) as appearance, aesthetic benefit and preventing cavities. Identified difficulties for seeking oral care were finances, transportation and fear. Some factors were in contrast with the present study such as past oral disease experiences of family members, negative aesthetic effects stemming from lack of regular care, issues related to Medicaid use and parents/caregivers accessing dental care for their adolescents (28). Health system of North Florida is different from the Sri Lankan system in addition to the socio-economic background. Furthermore, knowledge, attitude and behaviours related to the utilization of oral health services are different in these two countries. These reasons could be attributed to the differences of the results. Some issues which appeared in the qualitative study of Vazquez et al. (2015) in Piracicaba, Southeast Brazil were similar to the present study. They were dental treatment is not important or urgent and fear of the pain, injections or dental treatments (29-30).

Conclusions & Recommendations

Perceived strength was identified related to the participants' knowledge on benefits of oral health. Perceived weaknesses were identified related to motivation, awareness, barriers to attend dental clinic due to personal factors, fear and myths related to the oral health services utilization. Perceived opportunities were identified related to the oral health services availability and provision. Perceived threats were identified related to the barriers for attending dental clinics due to service-related factors.

Before planning an intervention to improve the utilization of oral health services, it is important to identify underlying perceived factors related to the utilization. This notion was reflected by the findings of the qualitative explorations among the target women. These findings will be important to the

policy makers for developing policy regarding the provision of preventive and curative oral health services and service providers to plan an effective oral health service for the pre-conceptive married women before their first pregnancy while addressing the identified perceived SWOT items.

Table 2: Perceived strengths, weaknesses, opportunities and threats related to the utilization of oral health services

Perceived strengths	Perceived weaknesses
<ul style="list-style-type: none"> Knowledge among target women on benefits of oral health for the pregnancy and quality of life of women 	<ul style="list-style-type: none"> Lack of motivation regarding oral health care seeking Lack of awareness that the pre-conception period is a crucial period for the oral health promotion among married women Fear for dental treatment Myths among target women related to the oral health Barriers related to attending dental clinics due to personal-level factors
Perceived opportunities	Perceived threats
<ul style="list-style-type: none"> Availability of oral health component in the HNWP Provision of the oral health education by the medical officer of health (MOH) office staff at the HNWP sessions Help and guidance from the MOH staff at the HNWP sessions to clarify oral health related issues Satisfactory provision of the government dental services Dental clinics in the MOH office premises Favourable working hours of the private dental clinics 	<ul style="list-style-type: none"> Barriers related to attending dental clinics due to service-related factors Lack of information regarding the oral health component of the HNWP from peer groups

Public Health Implications

- Oral health denotes an important perspective of health for every woman since it affects to their pregnancy as well as throughout their life cycle. Even though they have knowledge on benefits of oral health and access to satisfactory provision of oral health services, some other factors such as barriers for attending dental clinic, fear and myths may cause negative impact on their oral health services utilization. Therefore, it is important to provide them an effective and accessible oral health service. Identifying underlying strengths, weaknesses, opportunities and threats is necessary before planning an intervention to improve their oral health services utilization.

Author Declarations

Competing interests: The authors declare that they have no competing interests.

Ethics approval and consent to participate: Ethics clearance was granted by the Ethics Review Committee of the Faculty of Medicine, University of Colombo. Informed written consent was obtained from each participant prior to data collection (EC-19-021).

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Author contributions: VG participated in study designing, collected data, performed the analysis, interpreted data and drafted the manuscript. NR participated in study designing, performed the analysis, interpreted data and drafted the manuscript.

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