Original Article

Exploring Self-Care Needs of Pregnant Women with Gingivitis: A Qualitative Study in Iran

Babak Nemat-Shahrbabaki[1], Arezoo Fallahi[2], Sina Valiee[3], Mozhdeh Zarei[4], Parisa Fallahi[5]

[1]M.S Health Service Management, Health Network of Sanandaj, [2]Environmental Health Research Center, Research Institute for Health Development, [3]Clinical Care Research Center, [4]Deputy of Research and Technology, Kurdistan University of Medical Sciences, Sanandaj, [5]Payam Noor University, Bijar, Iran

Abstract

Background: Oral self-care behaviors are not satisfactory among pregnant women; incidence of gingivitis is high in them and training programs have slightly improved their gingivitis. This study was aimed to explore self-care needs of pregnant women suffering from gingival inflammation. **Materials and Methods:** This study was carried out in Sanandaj, west of Iran, in 2017. Twenty pregnant women with gingivitis were included in the study. Data were collected via semi-structured individual and group interviews and note-taking, and were analyzed by conventional content analysis. To confirm the accuracy and strength of the data, credibility, confirmability, and transferability components were taken into account. **Results:** The results of data analysis yielded six major categories, including "organizational support," "dentist's professional competence," "increasing perceived threat," "increasing self-efficacy," "increasing perceived benefits," and "culture-making." Increased self-efficacy was the most important concern of pregnant women. **Conclusions:** The findings showed that self-care behaviors to prevent gingivitis in pregnant women are influenced by various factors. It is essential to consider the cooperation of the media and organizations, support of society, and attention of families and authorities to oral health education and disease prevention among women.

Keywords: *Gingivitis, Iran, pregnancy, qualitative research, self-care*

Introduction

Oral health is a significant public health index that is considered more important during pregnancy.[1] Hormonal changes during pregnancy provide the ground for gingival diseases; hence, it is essential to pay more attention to oral health in this period.[2] Periodontal diseases during pregnancy are associated with adverse outcomes such as gestational poisoning, preterm delivery, low birth weight, and prolonged neonatal hospitalization.[3,4] Despite the significance of oral health during pregnancy and its maternal and neonatal consequences, various studies have shown that oral health during pregnancy is poor and half of the mothers do not perform the cares and suffer from oral diseases such as infection and gingival inflammation.[5-7]

Studies have shown a poor status of oral health in the majority of women, especially pregnant women.[8] The use of dental cleaning tools in pregnant women has been reported to be low, and regular brushing and flossing rates have been found to be 43.4% and 14.2%, respectively.[9]

Studies emphasize presentation of oral healthcare trainings for pregnant women to improve their self-care behaviors.[9,10] Patients' self-care is quite effective in the control and treatment of diseases. Self-care, a set of learned, conscious, and purposeful tasks, is part of daily life activities performed by the people to provide, maintain, and promote their health to fulfill their social and psychological needs and prevent diseases or incidents. Self-care enhances the life-expectancy and life quality and reduces the costs and incidence of diseases along with its acute and chronic complications.[11] Despite oral health trainings presented in most of the studies, no improvement has been reported in the health performance (dental brushing, use of dental floss and toothpick), possibly due to disregarding the needs and real experiences of individuals.[12,13]

The studies conducted so far have not investigated the needs of women, especially pregnant women for appropriate health performance and prevention of gingival

How to cite this article: Nemat-Shahrbabaki B, Fallahi A, Valiee S, Zarei M, Fallahi P. Exploring self-care needs of pregnant women with gingivitis: A qualitative study in Iran. Iranian J Nursing Midwifery Res 2018;23:292-7.

Received: October, 2017. **Accepted:** January, 2018.

Address for correspondence:
Dr. Arezoo Fallahi, Assistant professor, Environmental Health Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran.
E-mail: arezofalahi91@gmail.com

Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.IJNMR_163_17

Quick Response Code:

inflammation using a qualitative study. Researchers in this study sought to answer the question: "What are the needs of pregnant women suffering from gingivitis in performing oral self-care behaviors based on the qualitative approach?" It is necessary to design preventive interventions and programs via qualitative methods and the viewpoint of the people who have experienced the phenomenon. The aim of the present study was to explore self-care needs of Iranian pregnant women with gingivitis.

Materials and Methods

This qualitative study was conducted in Sanandaj, west of Iran, in 2017. Sanandaj, the capital of the Kurdistan province, with special culture, has a rich cultural heritage. This culture has its own set of rules, norms, beliefs, and behaviors that make it unique. Using content analysis, the needs of pregnant women suffering from gingivitis in doing self-care behaviors were explained. To determine degrees of gingivitis, the pregnant women referring to health comprehensive services centers were examined by dentist and then the research team invited them to participate in the study.

Twenty pregnant women from 20 health comprehensive service centers were included in the study through purposive sampling. They were selected from different areas of Sanandaj city. The inclusion criteria consisted of pregnant women with different degrees of gingivitis, referral to dentist due to gingivitis, and willingness for participation in the study. The exclusion criteria were gestational age <4 and >41 weeks. The study data were collected by semi-structured individual and group interviews and note-taking during and after interviews. The research team, who were experienced in conducting interview, collected the data and experiences of pregnant women with gingivitis after taking permission from the Research Council of Kurdistan University of Medical Sciences and making arrangements with participants for the time and place of interview. The initial questions included "Please express your experiences about gingivitis" and "In your opinion, what can be done to prevent gingivitis?." Based on the participants' responses, follow-up questions were asked. At the end of each interview, notes were taken. The mean scores of individual and group interviews were 52 and 33, respectively. Interviews were conducted in the respondents' homes, counseling room, or a quiet room in the health center and continued until data saturation. Data were collected by eleven individual interviews, two group discussions (four and five-person groups), and two observations and filed notes, and were analyzed simultaneously. Seven stages of the interview, including analyzing, transcribing, interviewing, designing, thematizing, verifying, and reporting, were taken into account.[14] Data were analyzed by conventional content analysis.[16] During the analysis, the interviews were transcribed and reviewed several times to obtain a general insight. Then, meaning units were determined, relevant codes were extracted and were placed in subcategories based on similarities, fitness, and matching. Finally, subcategories were included in the main categories. Continuous comparative analysis was carried out during the data analysis. The highest variation of samples was reported for age, education, income, gestational week, number of pregnancies, and career. To facilitate data analysis, MAXQDA (version 10) software was used.[15] For the strength and accuracy of data, criteria such as data acceptance, along with reviewing the accuracy of statements by respondents in the notes, long involvement of researcher in data and healthcare centers, good communication with participants and attracting their trust were taken into consideration. The confirmability of results was determined through reviewers' revisions, such that parts of interviews, codes, and categories were analyzed by experts. Reliability of data was confirmed by early transcription, accurate record of implementation of the work, integration of time and place, and data collection method.[16]

Ethical considerations

This qualitative study was approved by the Research Council of Kurdistan University of Medical Sciences in Sanandaj, Iran (the ethics committee code: IR.MUK.REC.1395.321 and approval date: 2017.2.3). For the purpose of ethical considerations, written and oral informed consents were taken from the concerned authorities and participants of the study and research objectives were explained to them. Moreover, voluntary participation and withdrawal from study at any stage as well as confidentiality of interview files and personal data in all the stages of the study, from the time of data collection to publishing the results, were taken into account. All data were anonymous, and the participants were identified by age, number of pregnancies, and gestational week.

Results

Twenty pregnant women participated in the study. Demographic characteristics of participants were shown in Table 1. Analysis of participants' experiences led to identification of 607 primary codes; after integration of which 98 codes were obtained according to similarity and matching that were classified into 15 subcategories and 6 main categories. Table 2 presents the categories and subcategories derived from analysis of statements by the pregnant women suffering from gingivitis.

Institutional support

The participants frequently reported the supportive role of family and government in women's health. Pregnant women expected their husbands to support them emotionally, pay attention to family oral health, and be a good model of oral health behavior. The respondents reported pregnancy conditions made them tired, impatient, and temperamental. They required encouragement and company of their

Table 1: Demographic characteristics of women with gingivitis

Mean (SD) age	34.20 (4.54)
Mean (SD) gingival index	2.12 (0.75)
Participant's literacy	
Illiterate	2*
Primary	5
Diploma	7
Bachelor	4
PhD	2
Family's income	
Bad	5
Average	10
Good	5
Participant's job	
Employee	6
Housekeeper	14
Husband's job	
Employee	8
Self-Employed	12

* Frequency distribution of participants

Table 2: Self-care needs of pregnant women with gingivitis

Categories	Subcategories
Organizational support	Family support
	Government support
Dentist's professional competence	Reinforcing dentist-patient relationship
	Dentist's reliability
Increasing perceived threat	Increasing perceived severity
	Increasing perceived sensitivity
Increasing self-efficacy	Increasing skills
	Overcoming barriers
	Reduced fear
Increasing perceived benefits	Increasing motivation
	Effect of oral health on mother
	Effect of maternal oral health on fetus
Culture-making	Training
	Advertisement
	Improving beliefs

families. They also considered emotional and informational support more important than financial and instrumental support. A participant stated: "*if my husband has a good behavior and understands me, I get motivated and pay more attention to health*" (*participant 11*).

From the perspective of the participants, the routine and coherent programs of government at health centers for oral health in gestational ages and pregnancy period should be included in priority to prevention, fluoridation of water, insurance coverage, and regular trainings. Several women reported that governmental supports and programs should be more for pregnant women's health than other women. Some participants reported negative experiences about access to dental cares during childhood, adulthood, and pregnancy, as well as poor governmental support. Most of them considered high costs and lack of insurance as factors preventing them from dental visits. In all individual interviews and group discussions, women stated they needed complete, easy, and inexpensive access to dental services in health centers. A participant stated "*it is very strange that government has no accessible, regular and accurate program for pregnant women's oral health*" (*participant 7*).

Dentist's professional competence

Referring to the importance of dentists' experience, skill, and commitment, the respondents considered use of clean dental instruments, giving preventive advice for gingivitis during pregnancy, dentist's good communication with them and eloquent presentation of trainings by them as important factors involved in performing self-care behaviors. They reported attention to time, understanding their conditions, encouraging them, improving the disease, and oral health training as their significant needs while referring to the dentist. A number of them stated they received oral health trainings while visiting the dentist, but these trainings did not change their attitude, performance, and beliefs. They believed dentist's friendly behavior and sympathy were the most important factors affecting the implementation of the trainings. A participant said: "*it is important for the dentists to be friendly, respect the patient and value the patient's time, if it is not so, anybody listens to them…*" (*participant 4*). The respondents in this study asserted that women's conditions during pregnancy is different from other times; they need to have a good relationship with dentists to refer to them during pregnancy with more trust, without stress, and spending too much time and apply their recommendations. A participant reported: "*the patients should trust the dentist's skill and expertise; otherwise they will be confused in finding a reliable dentist*" (*participant 15*).

Increasing perceived threat

Participants evaluated their oral health to be good and considered gingivitis to be a normal phenomenon during pregnancy. Most of them were not aware of the possible risk of oral diseases, their severity, complications and outcomes in their children and themselves; they did not even know they were likely to be at the risk of oral diseases due to poor oral health. The participants considered a healthy mouth as a painless mouth. A few of them had acquired some information from their friends, media, and dentists; however, it was implied they had a completely superficial look at this issue, had not understood it and no change had occurred in their attitude and performance. A participant stated: "*look, I may have bad breath but my gums are healthy and have no problems …, I have no pain, it is impossible that I have infection*" (*participant 1*).

Increasing perceived severity and sensitivity to oral diseases before, during, and after pregnancy were the

most significant needs of the pregnant women. Lack of knowledge about the severity of oral diseases, especially in women with poor oral health was one of the concerns of pregnant women. When they were asked to express their experiences of gingivitis, many of them did not even imagine they were suffering from this disease, and they got worried about its possible adverse effects on their newborns and themselves when they learned about it. Sometimes, when information was given to the interviewee by the interviewer, it was new to them; they were unaware of it and started talking about it. A pregnant woman said: "*gingivitis has really dangerous consequences! What are its effects on my infant and me? (Expressed with sadness and surprise)*" (*participant 5*).

Increasing self-efficacy

It is implied from the participants' statements that self-efficacy was among the most significant concerns and needs of pregnant women suffering from gingivitis. They regarded self-efficacy to be skills such as use of toothpick, dental floss, and brushing; reducing barriers such as negative attitudes toward treatment; reducing psychological conflicts, fatigue, impatience, nausea, and vomiting; decreasing dental fear and increasing motivation. As for using dental cleaning tools, a participant reported: "*my brushing may not be correct, I have heard that brushing needs skill, but I have never gone after it., when you have skill, you do the behavior more easily*" (*participant 3*). The participants did not know bad breath was because of lack of skills and incorrect use of dental cleaning tools.

Negative experiences of participants about referring to the dentist and their fears acquired during childhood were factors that prevented from visiting dentist during pregnancy. Participants stated that in spite of suffering from dental problems, they had not referred to the dentist for a long time due to dental fear. They needed to overcome this fear and change the treatment experiences to a fear and stress-free experience. A participant said: "*mothers are really afraid of dental visits during pregnancy, and they even transfer this fear to their children*" (*participant 14*). Some mothers, in addition to dental fear, reported fear of oral healthcare. Fear of gingival bleeding during brushing as well as the risk of other diseases such as hepatitis while referring to dental offices were some of these fears.

An important need of pregnant women suffering from gingivitis was increasing motivation for performing self-care behaviors. A participant stated: "*household chores, impatience or boredom during pregnancy do not allow you to do healthy behaviors easily…, of course sometimes you forget to brush your teeth…*" (*participant 2*). The participants reported maintaining mother and child health, ensuring pain improvement, eliminating oral diseases and increasing life quality brought about motivation and self-efficacy for doing oral health behaviors. A pregnant woman stated: "*mothers should know oral diseases are origin of many other diseases, if bad breath is gone by brushing, it is better to do it*" (*participant 18*).

Increasing perceived benefits

When the participants were asked about the benefits of oral health in mothers and their children, lack of understanding of the benefits of oral health was an ordinary issue for the majority of them. Most of them had not ever thought about this question and needed time to answer the question. Also, the majority of them were unaware of the effect of oral health on preventing physical illnesses, inducing psychological health, maintaining social relations, beautiful appearance, creating self-confidence, and increasing life expectancy, as well as their fetus's and newborn's health. Their concerns were visiting the dentist and ensuring the health of their embryo. They sparsely cared for their physical health and were not aware of the outcomes of the failure to observe oral health. A few of them reported they had information about oral health, but they saw no association between oral health and general health of themselves and their children. A pregnant woman surprisingly said: "*brushing prevents oral and gingival diseases! Really! I did not think so; I have never thought about it!*" (*participant 9*). Failure to understand the benefits of oral health among pregnant women deeply and tangibly was quite normal. It was implied from their statements that they could not understand the effects of oral health on their children based on what they heard, and they had to see and sense the effects and benefits. When asked about the effect of unhealthy oral conditions on the embryo, one of them said: "*I cannot imagine gingival infection affects my child…., I will do whatever you say to protect my child*" (*participant 5*).

Culture-making

When the participants were asked "what factors can promote the oral healthcare behaviors?" they referred to make culture through education, advertisement, and improvement of beliefs. They considered training by various methods, reinforcing religious beliefs, modifying incorrect cultural and social beliefs related to oral health, oral health education of girls in school and during childhood, advertising via media and encouraging oral health behavior as factors involved in maintaining and promoting women's oral health and making culture in society. A participant stated: "*before pregnancy, mothers should be trained, most of them have no information…. they should be taught during pregnancy too*" (*participant 13*). The pregnant women were aware of the significance of media in providing information and behavior change, but believed the performance of media in line with the health of pregnant women was poor. A pregnant woman said: "*so far, I have not seen a pregnant woman on TV talking about the importance of her teeth…*" (*participant 11*).

It can be implied from the participants' remarks that they have an urgent need to modify and change incorrect beliefs.

Beliefs such as "drinking fruit juice does not cause dental caries," or "calcium has no role in dental health" were a few examples that prevented the behavior. A participant reported: "*scaling destroys the enamel and …. Even the noise of scaling affects the embryo…*" (*participant 6*).

Discussion

This is the first qualitative study to show the self-care needs of pregnant women suffering from gingivitis. The results provided a coherent and complete picture of the needs of pregnant women suffering from gingivitis. Our findings showed that increasing perceived benefits and perceived threats were among the most important needs of pregnant women to prevent from gingivitis. A study in Iran showed that perceived benefits, sensitivity, and severity toward oral health during pregnancy have an impact on self-care behaviors.[17]

Lack of attention and insufficient sensitivity by caregivers toward the oral health of pregnant women along with their poor presentation of trainings, tendency of mothers to receive training by professionals, and their disregard for the trainings provided by caregivers can be the reasons for poor perception of the benefits of performing the behavior and low perceived threat in pregnant women in the current study. Studies have indicated that pregnant women require increasing perceived benefits, sensitivity, and severity of oral health.[17,18]

Perceived benefits of behavior and its effects on the mother's and child' health are among the fundamental bases of doing the behavior regularly. Without this perception, adverse consequences will threaten the mother and child. In agreement with our study, other studies have also shown that a poor perception of the benefits of behavior may increase behavioral barriers.[9,19,20]

The participants called for family, government support, and culture-making to improve self-care behaviors and maintain oral health. In line with our findings, a study showed that possibility of visiting pregnant women at home and providing them with free services, combining oral health programs with school and university curricula, supervision over oral health programs of pregnant women and attention of concerned authorities and caregivers to educational programs can be some measures for government to take to promote oral health in pregnant women.[21] High dental costs and absence of insurance coverage, incomplete dental services in government sectors and people's distrust in their quality, poor access to services and clients' dissatisfaction are some challenges of the state sector in Iran. These challenges can cause lack of culture-making and oral health behaviors among pregnant women. Increasing pregnant women's motivation through training their husbands, moving from individual training programs to mandatory programs and rules, advertising via media to increase knowledge and perceived severity and sensitivity of oral diseases, correcting false beliefs, creating self-help groups of pregnant women for oral healthcare and training oral health professionals can provide a ground for making culture as well as maintaining and promoting oral health in pregnant women.

The participants believed expertise, skill, and appropriate communication and interaction of the healthcare team, especially dentists, were important requirements for performing self-care behaviors to prevent gingivitis. In line with our findings, studies showed that dental teams are in a key position to reduce oral diseases among pregnant women.[8,22]

In health comprehensive service centers of Iran, client's examination by the dentist is short, most often the communications are poor and trainings are inadequate. It is noteworthy that trainings provided by the healthcare team may be informative, they do not address the main concerns, such as fear of care for pregnant women.

Self-efficacy was the most important concern in doing oral health-related behaviors among pregnant women with gingivitis. In line with our results, other studies have reported that reducing fear and anxiety and increasing the power and motivation enhance the self-efficacy of pregnant women in doing the behavior.[23,24] Oral health campaigns to increase commitment, motivation, and skill, and to overcome barriers and fear of dental care during pregnancy are crucial and can improve the behavior and enhance the ability of mothers and their children in doing other health behaviors. Several women in this study reported pregnancy conditions and their changing lifestyle during this period made the behavior problematic; therefore, these campaigns would be better to be conducted before pregnancy and even during school ages. Failure to follow the qualitative results over time, absence of pregnant women with other oral diseases as well as healthy pregnant women were the limitations of this study, which undermine the generalizability of the qualitative findings.

Conclusion

The findings showed that self-care behaviors to prevent gingivitis in pregnant women is influenced by various factors. It is essential to consider the cooperation of the media and organizations, support of society and attention of families and authorities to oral health education and disease prevention among women. The results of this study can be helpful to healthcare professionals and caregivers in designing educational interventions related to pregnant women's oral health. Designing oral health interventions for pregnant women to increase perceived self-efficacy, benefits, sensitivity and severity, analyzing the association of demographic characteristics with oral diseases and explaining the self-care needs of pregnant women with gingivitis can be investigated by researchers in future studies.

Acknowledgements

This article was taken from a research proposal (IR.MUK.REC.1395.321) approved by the Vice Chancellor for Research and Technology, Kurdistan University of Medical Sciences, Sanandaj, Iran. The authors would like to extend their gratitude to all the pregnant women who participated in the study and provided the authors with their precious experiences and viewpoints.

Financial support and sponsorship

Kurdistan University of Medical Sciences.

Conflicts of interest

Nothing to declare.

References

1. Kisely S. No Mental Health without Oral Health. Can J Psychiatry 2016;61:277-82.
2. Shamsi M, Hidarnia A, Niknami S, Atarha M, Jadidi R. Oral health of pregnant women in Arak, Iran. Payesh J 2013;12:355-65.
3. Ryalat S, Sawair F, Baqain Z, Barghout N, Amin W, Badran D, *et al*. Effect of oral diseases on mothers giving birth to preterm infants. Med Princ Pract 2011;20:556-61.
4. Srinivas S, Parry S. Periodontal Disease and Pregnancy Outcomes: Time to Move On? J Womens Health 2012;21:121-5.
5. Bahri N, Iliati H, Bahri N, Sajjadi M, Boloochi T. Effects of Oral and Dental Health Education Program on Knowledge, Attitude and Short-Time Practice of Pregnant Women (Mashhad-Iran). J Mash Dent Sch 2012;36:1–12.
6. Thomas N, Middleton P, Crowther C. Oral and dental health care practices in pregnant women in Australia: A postnatal survey. BMC Pregnancy Childbirth 2008;21:13.
7. Strafford K, Shellhaas C, Hade E. Provider and patient perceptions about dental care during pregnancy. J Matern Fetal Neonatal Med 2008;21:63-71.
8. Hashemian M, Fallahi A, Gharibi F, Fallahi P. Explaining process of dental caries from women's viewpoint: Study with grounded theory approach. Sci J Sch Pub Health Inst Pub Health Res 2014;11:65-84.
9. Hashemian M, Falahi A, Tavakoli G, Zarezadeh Y, Nemat Shahr Babaki B, Rahaei Z. Study of the Impact of Education on Inter-Dental Cleaning behavior based onTrans-Theoretical Model. J Oral Health Prev Dent 2012;1:37-46.
10. Shamsi M, Hidarnia A, Niknami S. Self-Reported Oral Hygiene Habits and Self-Care in the Oral Health in Sample of Iranian Women During Pregnancy. World Appl Sci J 2013;22:647-56.
11. Yamaguchi Y, Miura S, Urata H, Himeshima Y, Yamatsu K, Otsuka N, *et al*. The effectiveness of a multicomponent program for nutrition and physical activity change in clinical setting: Short-term effects of PACE+ Japan. Int J Sport Health Sci 2003;1:229-37.
12. Al-Hussainia R, Al-Kandaria M, Hamadia T, Al-Mutawaa A, Honkalab S, Memona A. Dental Health Knowledge, Attitudes and Behaviour among Students at the Kuwait University Health Sciences Centre. Med Princ Pract 2003;12:260-5.
13. Sheiham A, Watt RG. The Common Risk Factor Approach: A rational basis for promoting oral health. Community Dent Oral Epidemiol 2000;28:399-406.
14. Kvale S. InterViews—An introduction to qualitative research interviewing: Thousand Oaks, CA: Sage; 1996.
15. Mayring P. Qualitative content analysis. Forum Qual Soc Res 2000;1:1-10.
16. Hsieh H, Shannon S. Three approaches to qualitative content analysis. Qual Health Res 2005;15:1277-88.
17. Nickbin Poshtamsary S, Emami Sigaroudi A, Farmanbar R, Radafshar G, Atrkar Roushan Z, Bayat-Movahed S. An Investigation into the Predictors of Behavior Promoting Oral and Dental Health in Pregnant Women Based on the Health Belief Model (HBM). J Dentomaxillofac Radiol Pathol Surg 2016;5:24-30.
18. Solhi M, Shojaei Zadeh D, Seraj B, Faghih Zadeh S. The Application of the Health Belief Model in Oral Health Education. Iran J Public Health 2010;39:114-9.
19. Tavakoli G, Falahi A. The effect of educating mothers in inter-dental cleaning behavior on their children's dental health behavior: testing the transtheoretical model. HEHP 2013;1:5-19.
20. Parappa Sajjan P, Pattanshetti J, Padmini C, Nagathan V, Sajjanar M, Siddiqui T. Oral Health Related Awareness and Practices among Pregnant Women in Bagalkot District, Karnataka, India. J Int Oral Health 2015;7:1-5.
21. George A, Johnson M, Duff M, Ajwani S, Bhole S, Blinkhorn A, *et al*. Midwives and oral health care during pregnancy: Perceptions of pregnant women in south-western Sydney, Australia. J Clin Nurs 2012;21:1087-96.
22. Watt RG, Williams DM, Sheiham A. The Role Of The Dental Team In Promoting Health Equity. Br Dent J 2016;1:11-4.
23. Shenoy R, Chacko V. Utilization of dental services due to dental pain by pregnant women in India: A qualitative analysis. J Interdiscip Dent 2013;3:18-20.
24. Buerlein J, Horowitz AWC. Perspectives of Maryland women regarding oral health during pregnancy and early childhood. J Pub Health Dent 2011;71:131-5.