

# Knowledge, Attitude and Practices of Pregnant Females Regarding Oral Health

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## ABSTRACT

**Aim:** To determine knowledge, attitude and practices of oral hygiene among pregnant females.

**Methods:** A total of 121 pregnant women regardless of age, financial status, social class or ethnic group were interviewed in the outpatient department of Lady Wallington Hospital, Lahore to evaluate the knowledge, attitude and practices of pregnant women regarding oral health. After taking consent, a self-structured questionnaire was filled by the principal investigator with each question having two responses as yes or No. Data was analyzed using SPSS 21. A chi square test of association was also applied and P-value < 0.05 was taken as significant. Cross tabulation between sociodemographic variables such as gender, residency, education, income and Knowledge about oral health was also measured.

**Results:** Mean age of the pregnant women was 25.90, SD± 3.218, among them 19.8% were illiterate, and 36.4% had less than 15000 monthly income. Most common oral hygiene practice was cleaning through tooth brush and tooth paste 62%, and mostly do before breakfast almost 95%. Only 20.7 % think it is important to visit dentist during pregnancy, 22.3% think treatment is safe during pregnancy, and 56.2% believed scaling can cause losing teeth.

**Conclusion:** Primary prevention of oral diseases among pregnant ladies need to enhance to reduce burden of diseases.

**Keywords:** oral health seeking behavior, dental visit, access to dentist, pregnant women

## INTRODUCTION

Good oral health is considered to be a fundamental component of general health. Many dental diseases can be preventable by creating awareness among individuals, which can eventually reduce and eliminate the burden of certain diseases at individual level.<sup>1,2</sup> Dental caries and periodontal problems are the two major causes of tooth loss among the general population however there are certain factors which aggravate the pathophysiology of these diseases.<sup>3</sup> Many physiological conditions like puberty, pregnancy and menopause are such factors that bring some reversible changes in oral health of a woman. Hormonal changes during pregnancy and neglected oral hygiene practices due to lack of awareness tend to increase the incidence of periodontal problems like gingivitis in particular.<sup>4,5</sup> Gingivitis or bleeding and tender gums are the most common oral health issues affecting almost 60-70% of women. This exaggerated inflammatory response of gingiva to bad oral hygiene in expecting mothers is known as pregnancy gingivitis.<sup>6,7</sup> Periodontitis is a more severe and advanced form of periodontal disease which is characterized by actual attachment loss followed by bone loss. High levels of C reactive protein along with other clinical and radiographic findings is an important systemic indicator of exaggerated response of the body during pregnancy.<sup>8,9</sup>

Since most of the pregnant women and general population believe that dental treatment during the

pregnancy period is harmful for the baby and should not be pursued, so they deliberately delay treatment. Most of these women also don't know the negative effects of bad oral hygiene on their pregnancy, hence the situation gets worse.<sup>9,10</sup> It is another dilemma of our society that if a pregnant woman develops any of the above mentioned oral health problems, instead of seeking proper professional help they start trying various home remedies for these diseases and this eventually lead to worsening of the condition.<sup>11</sup>

So in our social set up it is highly mandatory to aware the pregnant women about the common dental problems during pregnancy and the significance of good oral health and its effects on pregnancy.<sup>12</sup> In this regard all health care professionals specially the gynecologists should educate their patients to seek for their oral health assessment at very early stage so that all local factors which aggravate these changes during pregnancy period can be minimized. Moreover these women should be encouraged to go for oral health assessment even before they are planning to go on family way.<sup>13</sup> Because pregnancy is the right time for many preventive measures to take as during such period patients and their attendants are more concerned towards their general health so if they are communicated about oral health importance, their counselling can bring promising outcome.<sup>14,15</sup> Oral health promotion is primary prevention which can be done at any stage of pregnancy. By changing the oral health behavior such as regular brushing dietary practices and regular visit for early detection of oral diseases has positive oral health outcome.<sup>16</sup> Purpose of this study was to determine knowledge attitude and practices of pregnant women regarding oral hygiene practices, dietary habits and prevention of oral diseases.

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## MATERIAL AND METHODS

A descriptive cross sectional study was conducted in the outpatient department of Lady Wallingdon Hospital, Lahore to evaluate the knowledge, attitude and practices of pregnant women regarding oral health. Permission to conduct this survey was taken from the concerned authorities along with formal approval from the IRB of de'Montmorency College of Dentistry, Lahore. A total of 121 pregnant women regardless of age, financial status, social class or ethnic group were included in this survey. Those who were uncooperative, didn't respond or those who were not willing to participate were excluded from the study. After taking consent, a self-structured questionnaire was filled by the principal investigator with each question having two responses as yes or No. Data was analyzed using SPSS 21. Descriptive statistics were given in the form of percentage and frequency. A chi square test of association was also applied and P-value < 0.05 was taken as significant. Cross tabulation between sociodemographic variables such as gender, residency, education, income and **Knowledge about oral health** was measured.

## RESULTS

Table 1: Sociodemographic characteristics of pregnant women in Lady Wallingdon Hospital Lahore (n=121)

Demographic characteristics	No.	% age
<b>Education</b>		
No education	24	19.8
Less than 8 years education	30	24.8
8-12 Years education	45	37.2
13-14 years education	18	14.9
Greater than 14 year education	4	3.3
Total	121	100
<b>Financial Status</b>		
less than 15000	44	36.4
15000-50000	67	55.4
50001-80000	7	5.8
Greater than 80000	3	2.4
Total	121	100
<b>Working status</b>		
House wife	91	75.2
Working women	30	24.8
Total	121	100
<b>Trimester of pregnancy</b>		
First trimester	24	19.8
Second trimester	44	36.3
3 <sup>rd</sup> trimester	53	43.80
Total	121	100.0
<b>Residency</b>		
Urban	77	63.6
Rural	44	36.4
Total	121	100.0
<b>Health insurance card</b>		
No	121	100.0

Mean age (continuous) mean (25.90) SD± (3.218)

Table 2: Knowledge attitude and practices among pregnant women in Lady Wallingdon Hospital Lahore (n=121)

Question	Frequency	%age
<b>Do pregnant female think that xrays are safe during pregnancy?</b>		
No	105	86.8
Yes	16	13.2
Total	121	100.0
<b>Do pregnant female think that extractions can be done during pregnancy??</b>		
No	101	83.5
Yes	20	16.5
Total	121	100.0
<b>Do Pregnant female think that high sugary diets can damage teeth?</b>		
No	8	6.6
Yes	113	93.4
Total	121	100.0
<b>Do respondent thinks that regularly visiting dentist is important?</b>		
No	96	79.3
Yes	25	20.7
Total	121	100.0
<b>Do pregnant female thinks that dental treatment are safe during pregnancy?</b>		
No	94	77.7
Yes	27	22.3
Total	121	100.0
<b>Do respondent thinks that scaling can make teeth loose?</b>		
No	53	43.8
Yes	68	56.2
Total	121	100.0
<b>How do you clean your teeth?</b>		
Brush and paste	75	62.0
any home remedy	7	5.8
Combination of above	39	32.2
Total	121	100.0
<b>Do you clean your teeth before breakfast?</b>		
No	6	5.0
Yes	115	95.0
Total	121	100.0
<b>Do you clean your teeth after breakfast?</b>		
No	118	97.5
Yes	3	2.5
Total	121	100.0
<b>Do you clean your teeth before dinner?</b>		
No	114	94.2
Yes	7	5.8
Total	121	100.0
<b>Do you clean your teeth after dinner?</b>		
No	97	80.2
Yes	24	19.8
Total	121	100.0
<b>Do you clean your teeth before prayer?</b>		
No	117	96.7
Yes	4	3.3
Total	121	100.0
<b>Do respondent clean her teeth with floss?</b>		
No	118	97.5
Yes	3	2.5
Total	121	100.0
<b>Do respondent use mouthwash?</b>		
No	116	95.9
Yes	5	4.1
Total	121	100.0

Table 3: Cross tabulation between knowledge about oral health and Sociodemographic variables pregnant women in Lady Wallingdon Hospital Lahore (n=121)

Variables	Knowledge about oral health			P value
	No	Yes	Total	
<b>Working status</b>				<b>.578</b>
House wife	2	89	91	
Working women	1	29	30	
Total	3	118	121	
<b>Education</b>				<b>0.488</b>
uneducated	1	23	24	
Educated	2	95	97	
Total	3	118	121	
<b>Family income</b>				<b>0.770</b>
Less than 50000	3	108	111	
More than 50000	0	10	10	
Total	3	118	121	
<b>Residency</b>				<b>0.46</b>
Urban	0	77	77	
Rural	3	41	44	
Total	3	118	121	

Table 3 is depicting the cross tabulation between the demographic variables and knowledge about oral health. No value was found significant.

## DISCUSSION

In this study many pregnant women reported their perceived oral health problems during pregnancy. Majority 62 % brush teeth regularly with tooth paste, and 32% have other cleaning practices along with tooth brush. Similar results were also reported in India by Leelavathi<sup>18</sup>. 60.8% pregnant women brush their teeth regularly once a day, also reported similar findings about the brushing practice among pregnant women in Iran<sup>17,18</sup>. However pregnant women have high percentages of brushing habits, 98.5% pregnant ladies used paste and brush as a method of cleaning their teeth<sup>14,20</sup>. Results of the current study shows that 97% pregnant women do not use dental floss, however Leelavathi reported that 82.2% women do not use interdental cleaning aids for oral hygiene maintenance,<sup>17</sup> similarly Bamanikar reported that almost more than half women do not use dental floss.<sup>21</sup> While 97.5% ladies said that they do not use floss and in a study done by Avulawho conducted a KAP assessment of oral health and adverse pregnancy outcomes among 359 pregnant women visiting three maternity care centers in Hyderabad, India, stated that none of their respondent had use floss.<sup>22</sup> Questions were asked regarding use of mouthwash and 95% ladies reported that they do not use mouth wash these results are higher than reported by Rjesh, that 80% of respondent do not use mouthwash.<sup>23</sup> Regarding the timing of cleaning 95% respondent said that they clean their teeth before breakfast, only 2.5% respondent said that they clean their teeth after breakfast, 5.8% ladies said that they clean their teeth before dinner, 19.8% ladies clean their teeth after dinner and 3.3% ladies said that they clean their teeth before namaz. Almost similar results were found in another study done in UAE in 2014.<sup>24</sup>

Knowledge of pregnant women about the safe treatment during pregnancy only 13.2 % thinks it is safe and remaining 86.8% considered it harmful however, Ashok reported in his study regarding perception of dental

radiograph that 80% of respondent consider dental x rays unsafe for pregnant ladies.<sup>25</sup> Wali reported that dental X-rays during pregnancy is considered safe with appropriate shielding<sup>13</sup>. Only 8.3% gynecologists refer them to seek dentist and remaining said they were not advised to seek dentist, however 85.5% gynecologists refer pregnant women to seek dentist for oral health problems as reported by Hashim and Akbar in United Arab Emirates, when gynecologists were probed in this regard<sup>24</sup>. Sugary diet can damage teeth almost 93.4% think and remaining did not consider it dangerous for their teeth, regular visit are important 20.7% believe, and remaining believed it does not important, while in a study conducted by Nogueira, it was reported that 42.17% respondent weren't aware that sugar can Affect teeth<sup>26</sup>. In present study only 10% respondent said that they consider it important to visit dentist during pregnancy. Whereas Gupta also stated that majority of respondent didn't consider dental checkups important during pregnancy<sup>20</sup>. In a study done by Chacko, he reported that only 17% subjects feel the need of regular dental visits<sup>27</sup>. Regarding safety concern in a study 72% of pregnant women believed that dental treatment during pregnancy may not be safe<sup>28</sup>. While on contrary a study done by Katherine stated that 84% pregnant ladies consider dental visit safe during pregnancy<sup>29</sup>. Kirca in 2018 published few determinants of not seeking dentist among pregnant women as financial difficulties, no perceived oral health problem, perceived no importance regarding visit, not knowing the effects on pregnancy, and not reaching at the service<sup>9</sup>.

## CONCLUSION

Gynecologist need to refer pregnant women to oral healthcare center for oral prophylaxis and for routine checkup. Intersectoral coordination between oral health care personnel and antenatal care provider personnel need to enhance for pregnant women. Health education and health promotion in this particular group required to increase for prevention of the oral diseases. By visiting oral health care center individual health education regarding oral hygiene practices can be achieved and early diagnosis of the oral diseases like gingivitis; dental caries and other lesion can be done for the betterment of the pregnant women.

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