

Extent of Knowledge on Oral Health Status of Mothers: An Advocacy Program

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Abstract- *The global oral health situation is alarming, and urgent action is required. The study examines the most risk factors, challenges facing the health system, and potential reforms that affect the oral health of the mothers in Dinalaoan, Calasiao, Pangasinan. The purpose of the study was to determine the mothers' oral hygiene habits and state of oral health. The researcher used the Philippine Dental Association's (PDA) dental report chart and employed a descriptive quantitative study design. The findings revealed that the mothers spent less on themselves. Additionally, many respondents either did not visit the dentist regularly or only sought dental care once a year. These findings suggest that although regular brushing is practiced, other critical oral hygiene habits are not integrated into daily routines, potentially leading to long-term oral health issues. The low frequency of dental visits also indicates a lack of prioritization for professional dental care, possibly due to financial constraints or low awareness. Nevertheless, the prevalence of oral health issues among the respondents suggests that the government should take action to improve the lives of women in the community.*

Indexed Terms- *community, health system, mothers, oral health, oral hygiene*

I. INTRODUCTION

The state of oral health around the world is concerning and calls for immediate action to promote advocacy for improved oral health priorities at the international, national, and regional levels by providing policymakers and a broad range of stakeholders with a reference (Belandres, 2016). Oral health disorders are common noncommunicable diseases that affect 3.5 billion people worldwide, or roughly half of the world's population, throughout their lives, from early childhood to old age, according to the World Health Organization reports on oral health status (2022). The report highlighted the

widespread effects of oral disease on health and well-being and call attention to the stark disparities that exist, with the most vulnerable and marginalized populations having a higher disease burden both within and between countries. However, in close coordination with member states/countries and other important stakeholders, the WHO plans to take the initiative and lead in establishing the global oral health policy agenda. As stated by Chen, et al. (2020), monitoring disease burden, risk factors, health service utilization, and other oral health trends, evaluating new and emerging evidence, including cost-effective analyses of oral health interventions, and offering leadership and technical assistance to nations on the development and execution of oral health policies are some of the ways the program supports the establishment of norms and standards. Moreover, according to the study of Silva-Junior, et al. (2021), there is a strong correlation between a mother's dental health and that of her children. The probability that children with the same issues will have mothers who have untreated dental caries highlights the importance of maternal health education and treatment. In the findings of Dolinska, et al. (2022), socioeconomic factors were also considered, indicating that underprivileged groups have difficulty accessing preventive dental care, which makes the problem worse. Ultimately, the study provides a thorough overview of the issues and strategies related to early childhood caries, urging greater awareness and action to improve oral health in young children. It highlights the relationship between maternal self-efficacy and how frequently children wash their teeth, demonstrating that mothers who are confident in their ability to take care of their children's teeth are more likely to establish appropriate oral hygiene habits. In an effort to highlight the crucial link between oral health and the general health of mothers and their children, the World Federation of Public Health Associations published a study on oral health as an integral part of maternal and child health buy which the study found that untreated dental issues in mothers are associated with increased risks of dental negative outcomes, such as low birth weight and preterm births (Al Salami, et., 2018; Barbieri, et al., 2018; and Shimpi, et al., 2019).

In Asia, a number of risk factors lead to issues with mothers' dental health. Momeni, et al. (2022) revealed in their study the variables linked to pregnant women's dental hygiene practices in a province in northeastern Thailand by which they found out that oral healthcare behavior determines oral health status. Depending on oral healthcare behavior-related factors, pregnant women, who are at risk of developing oral health issues, may have varying oral hygiene practices. This aimed to look at aspects associated with the oral healthcare practices of pregnant women. Due to higher levels of education and oral health literacy, pregnant women demonstrated better oral healthcare habits at younger ages than at older ages. As to the belief of Lee, et al. (2019), several elements fall into the broad categories of behavioral, biological, and socioeconomic determinants. Therefore, hormonal changes brought on by biological variables affecting mothers' oral health and pre-existing oral health issues raise the risk of gingivitis and periodontitis. Among the behavioral variables, in the study of Abdat and Ramayana (2020), are poor oral hygiene habits, including not brushing and flossing frequently, which can cause plaque and tartar to build up and raise the risk of dental issues.

Maternal oral health issues are a major public health concern in the Philippines. According to a study on the link between maternal periodontal disease and preterm birth, oral health is the most neglected aspect of health in the country; therefore, there may be a link between maternal oral health issues and specific diseases (Indriyanti, et al., 2021). Dental caries is another significant danger, as oral health care in the Philippines reveals that low socioeconomic status may be one of the main obstacles to oral health, showing poor health-seeking behavior. Furthermore, dental health is commonly overlooked when talking about public health issues in developing countries like the Philippines. However, dental health is crucial to a person's overall health, especially for middle-class adults and developing children. Many mothers' understandings of nutrition and how it affects dental health are also very important when it comes to their eating habits. For this reason, oral health education is crucial to preventing oral health issues. Pattanshetti, et al. (2020) stated that mothers' awareness of the dental health of preschool-aged children view the threats to their oral health and their propensity to take preventative action. The important variables are perceived vulnerability, severity, advantages, and obstacles, as well as cues to act and self-efficacy, all have an impact on health behaviors. Mothers may be aware of their vulnerability to periodontal disease and oral disorders, especially

dental caries, as a result of inadequate oral hygiene habits or restricted access to dental care. The perceived seriousness of oral health issues, as well as how they could affect pregnancy outcomes like low birth weight and premature birth, may also affect their desire to take preventative action. Another, in the study of Chala, et al. (2018), it revealed how social factors and self-regulation shape behavior. The study emphasized reciprocal determinism, which holds that interactions between environmental, behavioral, and personal factors that affect health outcomes. It was also emphasized that environmental factors including family influence and availability to dental care also have an impact on women's oral health practices in addition to their knowledge and views. Since mothers are likely to model good dental hygiene for their children, observational learning is essential. Furthermore, whether mothers regularly practice good oral hygiene, receive dental examinations, and teach their children these habits depend on their level of self-efficacy, which is the belief in one's capacity to engage in favorable oral health behaviors. However, there are challenges to uncover to determine the needs. Peres, et al. (2018) supplemented that not all mothers have access to trustworthy oral health information since socioeconomic status has a significant influence on oral health practices and knowledge. To deal with oral health care issues, it is essential to increase mothers' awareness of oral health through targeted education program activities and assessments.

II. METHODOLOGY

To evaluate mothers' oral health, this study utilized a quantitative descriptive research approach. Using a standardized checklist and the Philippine Dental Association (PDA) dental chart, the study sought to collect empirical data on the respondents' demographic characteristics, oral health problems, and hygiene habits. The study used statistical analysis to determine the most common oral health problems and investigate potential relationships between oral health behaviors and demographic characteristics. Dinalaoan, Calasiao, Pangasinan served as the study's locale,

III. RESULTS AND DISCUSSIONS

Table I. Oral Health Status of Mothers in Barangay in Calasiao, Pangasinan

Respondents reveal that many of them have missing teeth as a result of dental caries. The first molar in both the upper and lower jaw, or the 37th tooth ($f=29$), has the largest number of caries-related tooth loss on record. Additionally, it shows that mothers

who have more than one child and more than one pregnancy are most likely to ignore their dental care. As a result, mothers who practice poor oral hygiene are more likely to set an example for their children, which can have a domino effect.

Indicators		Frequenc	Percentage
Dental Treatment History	✓	31	44.29
	×	38	54.29
Toothy Anomalies	Yes	0	0
	No	70	100.00
	If any	0	0
Dental Caries Status	Yes	49	70.00
	No	21	30.00
Gingivitis	Yes	33	47.14
	No	37	52.86
Presence of Periodontal	Yes	9	12.86
	No	61	87.14
Dental Calculus Status	Yes	46	65.71
	No	24	34.29
Presence of Neoplasm	Yes	1	1.43
	No	69	98.57
Number of Missing	0	11	15.71
	1	5	7.14
	2	11	15.71
	3	6	8.57
Number of	0	10	14.29
	1	7	10.00
	2	10	14.29
	3	11	15.71
	4	10	14.29
	5	3	4.29
	6	3	4.29
	7	1	1.43
	8	1	1.43
	9	9	12.86

This findings emphasize the vital connection between a mother's dental health and that of her offspring. The results indicate that respondents frequently experience tooth loss as a result of dental caries, with the first molars (thirty-seventh tooth) being the most frequently impacted. According to this tendency, mothers who have several pregnancies and children frequently ignore their oral hygiene, which can have a serious negative impact on their dental health. The study of Barbieri, et al. (2018) shows that mothers'

oral health practices have a direct impact on children's dental habits and caries risk, which lends credence to this assertion. Inadequate oral hygiene by mothers creates a behavioral paradigm in which children unintentionally take up poor hygiene habits. Furthermore, Momenimeni, et al. (2022) stress that socioeconomic variables, like low health literacy and restricted access to dental treatment, also play a role in oral health neglect. Addressing this issue calls for community actions, education initiatives, and easier access to healthcare. It also ensures that mothers obtain sufficient oral health education to stop dental issues from recurring in successive generations.

Table II. Intraoral Examination- Lower Teeth of Mothers in Barangay in Calasiao, Pangasinan

Table 4 displays information on the evaluation of mothers' top teeth based on the intraoral examination. However, tooth loss brought on by decayed post-serious matter or caries impacts both oral health and looks by which F=39 teeth are missing and decaying. This suggests a complex association between childbearing and dental health because it primarily affects their quality of life, poor oral health that may also have an impact on their relationship with their child.

Lower Teeth	Condition	F
32	Missing due to caries	4
34	Decayed	3
34	Missing due to caries	4
35	Composite Filling	4
35	Missing due to caries	11
35	Root Fragment	3
36	Decayed	8
36	Missing due to caries	16
37	Decayed	13
37	Missing due to caries	29
37	Root Fragment	4
38	Decayed	11
38	Unerrupted	7
38	Missing due to caries	18
45	Missing due to caries	11
45	Root Fragment	3
46	Decayed	8
46	Missing due to caries	40
47	Decayed	18
47	Missing due to caries	26

48	Decayed	14
48	Missing due to caries	21
48	Unerupted	26

The data from the intraoral examination strongly supports the notion that motherhood and oral health are closely related, showing a strong relationship between the two. The fact that 39 of the mothers' teeth were missing or damaged indicates that dental caries and severe tooth loss are common, impacting both the mothers' functional oral health and looks. According to Pattanshetti, et al. (2020), mothers who have poor oral health may experience difficulties with chewing and digestion, which can affect their energy levels and capacity to care for their children. This might result in nutritional inadequacies. Furthermore, Momeni, et al. (2022) indicates that maternal dental hygiene practices have a direct impact on children's dental habits, perpetuating a generational cycle of poor oral health. Hence, there is an established need of preventive measures by pointing out that women who have untreated dental caries are more likely to have early childhood caries. Additionally, there are psychological ramifications of dental health. Mothers who experience tooth loss and oral pain may have problems with their self-esteem, which can impact their social contacts and emotional bond with their children. Addressing these issues calls for integrated healthcare strategies, such as community-based oral health education, prenatal dental care programs, and easily available treatment alternatives to end the cycle of poor oral health in families. Improving the dental health of mothers not only enhances personal wellbeing but also promotes better family relationships, guaranteeing that children develop good oral hygiene practices and better health outcomes in general.

Table III. Intraoral Examination- Upper Teeth of Mothers in Barangay in Calasiao, Pangasinan

The information on disorders affecting the lower teeth emphasizes how common dental caries and tooth loss are, especially for molars and premolars. There is an urgent need for preventive measures because of the high prevalence of decay and missing teeth, such as tooth 16 (f=39) and tooth 26 (f=25).

Lower Teeth	Condition	F
11	Decayed	10
11	Missing due to Caries and	6
12	Root Fragment, Decayed,	19
13	Missing due to Caries	10
14	Missing due to caries	15

15	Missing due to Caries	15
16	Decayed and Missing due to	39
17	Decayed	12
17	Missing due to Caries	18
18	Decayed	16
18	Unerupted	12
21	Decayed	7
21	Missing due to Caries	13
21	Composite Filling	3
22	Decayed	4
22	Missing due to Caries	11
23	Missing due to Caries	9
23	Decayed	5
24	Amalgam	1
24	Decayed	3
24	Missing due to Caries	18
25	Missing due to Caries	17
26	Missing due to Caries	25
26	Decayed	10
26	Root Fragment	4
27	Decayed	14
27	Missing due to Caries	17
28	Unerupted	12
28	Missing due to Caries	18
28	Decayed	4

A systematic study by Abdat and Ramayana (2020) found that socioeconomic determinants are closely related to oral health disparities, with untreated dental caries being more common in lower-income groups. The Centers for Disease Control and Prevention (CDC) also highlights how community-based interventions, such as dental sealant programs, can effectively lower the prevalence of dental cavities in children. Studies have demonstrated that including oral health education in primary school curricula greatly enhances dental hygiene practices and lowers the prevalence of caries. School-based interventions have also produced encouraging effects. Reducing the long-term consequences of poor oral health necessitates a diversified strategy. Enhancing these programs can help vulnerable groups achieve improved oral health outcomes and lessen the burden of dental illnesses. Untreated dental caries is still one of the most prevalent noncommunicable diseases in the world, and the statistics on missing and rotting teeth highlight how pervasive this condition is. According to Lee, et al. (2019), the financial toll of dental caries show that those from underprivileged

backgrounds pay more for dental care since late-stage fixes rather than preventative therapy are more costly. The results indicate that the prevalence of dental caries can be considerably decreased by early intervention and preventative measures such as fluoride treatment, school-based dental programs, and better healthcare regulations. A study on early childhood caries and delayed dental care highlights how crucial it is to incorporate oral health education into primary healthcare systems to reduce treatment delays and enhance long-term results. The fact that dental caries continues to be a significant public health concern emphasizes the necessity of thorough preventative care along with equitable access to dental services. It is possible to lessen inequities in oral health by addressing socioeconomic barriers through policy-driven interventions, community-based programs, and educational activities. In addition to improving oral health outcomes for individuals, increasing early identification and treatment accessibility would lessen the financial burden of severe dental illnesses.

Table IV. Oral Hygiene Practices of Mothers in Barangay in Calasiao, Pangasinan

Mothers' dental hygiene habits in Barangay Calasiao, Pangasinan, show both good habits and room for development. 78.57% of mothers brush their teeth three times a day, according to the research, demonstrating a high dedication to basic oral hygiene. Gum disease and plaque accumulation might result from poor flossing habits, since 88.57% of respondents said they never floss. In a similar vein, 74.29% of the mothers do not use mouthwash, thereby losing out on an extra line of defense against bacteria. Concerningly, 47.14% of mothers do not consult the dentist, and only 52.86% do so once a year—below the suggested frequency for preventive treatment.

Indicators		Frequency	Percentage
Brushing Habit	1x a day	5	7.14
	2x a day	10	14.29
	3x a day	55	78.57
Flossing Habit	0	62	88.57
	1x a day	8	11.43
Mouthwash	0	52	74.29
	1x a day	18	25.71
Dental Habit	0	33	47.14
	1x a year	37	52.86

Mothers' dental hygiene habits show both positive and alarming patterns. 88.57% of them never floss, and 74.29% never use mouthwash, despite the fact that the majority (78.57%) brush their teeth three times a day. According to Perez, et al. (2021), flossing dramatically lowers the incidence of cavities and gum disease, highlighting the significance of interdental cleaning. Another significant issue is the lack of routine dental appointments; according to Shimpi, et al. (2019), 47.14% of mothers never consult a dentist, a trend associated with postponed treatment and deteriorating oral health conditions. Also, evidence indicates that children's dental habits are directly impacted by their mothers' poor oral hygiene, which feeds the cycle of neglect. Chala's (2018) study on oral health inequities also shows that lack of awareness and financial obstacles lead to differences in access to preventative care. Community-driven initiatives including free dental exams, awareness campaigns, and reasonably priced oral healthcare programs are necessary to close these disparities. In addition to enhancing individual well-being, strengthening maternal oral health will break the cycle of inadequate dental care by laying the groundwork for future generations to adopt better oral hygiene practices.

CONCLUSION

The high percentage of missing and rotten teeth indicates that treatment and preventive dental care are insufficient, which could lead to long-term issues with oral health. The most often lost teeth were molars, which are essential for digestion and chewing. There were several decaying and missing teeth, and some responders had unerupted teeth and pieces of root tissue, which suggested a history of inadequate dental care and postponed treatment. These disorders have the potential to cause pain, oral infections, and more tooth loss if left untreated. Even while most respondents said they brushed their teeth several times a day, most of them omitted to use mouthwash and floss, two crucial oral hygiene practices. Furthermore, a large number of respondents either sought dental care once a year or did not visit the dentist on a regular basis. These results imply that while brushing is done on a regular basis, other important oral hygiene practices are not incorporated into daily routines, which may result in long-term problems with oral health. Possibly as a result of limited awareness or budgetary limitations, the low frequency of dental appointments also suggests an insufficient level of prioritization for professional dental care.

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