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THE AWARENESS LEVEL OF PARENTS IN SAUDI ARABIA REGARDING THE IMPORTANCE OF THE PRIMARY TEETH

Dema A. Alkharbid[1], Abdulmohsen H. Alanazi[2], Eyad A. AlTamimi[3], Ibrahim A. Al Baqami[3], Raghad M. Alghamdi[4], Muhammed F. Alharbi[3], Amnah F. Alshammari[5], Muzoon S. Abdullah[6], Norah S. Alwaday[4], Sara J. Alqahtani[4], Rashed A. Alghamdi[7], Faisal J. Alsiwat[2], Alwaleed S. Alsudais[2], Khams T. Alzahrani*[8].

[1]Pediatric dentistry department, Private institute, Riyadh, Saudi Arabia.
[2]Dental Intern, College of Dentistry, King Saud University, Riyadh, Saudi Arabia.
[3]Dental Intern, Qassim University, Qassim, Saudi Arabia.
[4]Dental student, King Khalid university, Abha, Saudi Arabia
[5]GDP, ministry of health, Hail, Saudi Arabia.
[6]Dental intern, King Khalid University, Abha, Saudi Arabia.
[7]Dental intern, Albaha University, Albaha, Saudia Arabia.
[8]BDS, PGD Endo from Stanford University, Saudi Board of Endodontic SR, King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia.

***Corresponding author**: Khames T. Alzahrani; **Email**: Dr.khames.Alzahrani@gmail.com

Abstract

Background: Oral health significantly influences the overall wellbeing of preschoolers. Misconceptions among parents about the temporary nature of primary teeth often lead to inadequate care, risking long-term dental issues in their children. Previous studies have highlighted gaps in parental awareness regarding the importance of primary teeth and recommended dental practices in Saudi Arabia. This study aims to assess the knowledge and awareness levels of Saudi parents concerning the significance of primary and permanent teeth during mixed dentition.

Methods: A cross-sectional study was conducted from August 2024 to November 2024, utilizing a self-structured questionnaire distributed via social media channels. The sample consisted of 708 Saudi parents aged 20 to 60, encompassing various provinces and socioeconomic backgrounds. Statistical analyses were performed to evaluate participant demographics and awareness levels.

Results: Among participants, 83.6% recognized the importance of primary teeth, yet 21.5% were unaware of cavity prevention methods, and 56.5% lacked knowledge of space maintainers. While 69.2% acknowledged the potential impact of early tooth loss on permanent teeth alignment, 59.9% believed that the first dental visit should occur after the child's first birthday. Awareness regarding the detrimental effects of nighttime feeding was high, with 66.9% and 72.6% recognizing risks associated with prolonged feeding practices. Demographically, mothers exhibited higher awareness levels than fathers ($P = 0.027$). Knowledge scores revealed that 41% had high awareness, 35.3% had low knowledge, and 30.8% displayed moderate awareness about the role of primary teeth.

Conclusion: Although a significant portion of Saudi parents are aware of the importance of primary teeth, substantial gaps exist in specific dental health knowledge and practices. Targeted educational

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interventions are imperative to equip parents with vital information regarding preventive dental care, thereby enhancing their children's oral health outcomes. This study underscores the need for comprehensive awareness campaigns to elevate parental understanding and promote better dental hygiene practices for children in Saudi Arabia.

Keywords: Knowledge, Awareness, primary teeth, Saudi Arabia

Introduction:

Oral health is essential to the health and wellbeing of preschoolers [1]. A popular misunderstanding among parents is that primary teeth are only temporary and will eventually be replaced by permanent teeth [2]. Early extraction of primary teeth before the recommended exfoliation period might result in underdevelopment of the basal bone, which can cause crowding in the permanent dentition, and space loss for the eruption of their permanent successor [3]. Also, children's primary teeth are essential for eating, speaking, maintaining oral hygiene, and maintaining room for permanent teeth [4]. However, Children who have issues with their primary teeth may experience discomfort in the form of soreness, swelling, and difficulty chewing or speaking [5]. Since parents are their children's primary caretakers, it is important for them to understand the primary teeth, their health, and proper care to instill confidence in their kids [6].

In 2022 there was a study that assessed the knowledge and awareness of mothers in Saudi Arabia regarding the importance of primary teeth and dental care for their children. The results showed that while most mothers (92.6%) recognized the importance of primary teeth, only 55.9% were aware of the recommended age for the first dental visit. Additionally, a significant proportion of mothers (47.4%) believed that primary teeth did not require the same level of care as permanent teeth. These findings highlight the need for improved education and awareness among parents regarding the crucial role of primary teeth and the importance of early and regular dental care for children [7].

Similarly, the study by Ansari et al. (2021) examined the knowledge and attitudes of Saudi parents toward the maintenance of primary dentition. The study found that while a majority of parents (77.8%) believed that primary teeth were important, only 41.3% were aware of the recommended age for the first dental visit. Additionally, the study revealed gender-based differences, with male participants demonstrating better knowledge compared to female participants. These results emphasize the need for targeted educational interventions to improve parental understanding and promote better dental care practices for children [8].

Another study conducted in 2024 in Jordan examined children's and parents' awareness, behaviors, and perceptions related to pediatric oral health. While many participants recognized the importance of oral health for overall wellbeing and saw it as an individual responsibility, the actual oral hygiene practices of children and parents were inadequate - most children brushed their teeth only occasionally, used toothpaste improperly, and failed to clean their tongues. Most participants came from large, low-income families. Despite having good general knowledge about oral health, awareness of children's actual oral health status was poor [9].

knowledge is a necessary component for behavioral changes, including behaviors related to oral health and oral disease prevention. Assessing parents' levels of knowledge on a wider scale can guide dentists to improve parents' knowledge about the importance of primary and permanent teeth and encourage them to visit the dentist regularly to prevent oral, dental, and orthodontic diseases, and avoid related complications. Only a few Saudi studies were found among the Saudi population about knowledge level assessment in parents of children 0-14 years old about primary teeth importance.

This research focuses on evaluating Saudi Arabian parents' knowledge of the importance of primary

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teeth and the eruption period of permanent teeth.

Methods:

Study design:

A cross-sectional study Conducted between August 2024 and November 2024, based on a self-structured questionnaire, this study evaluates Saudi Arabian parents' awareness and perception of the importance of primary and permanent teeth in mixed dentition. To acquire individuals from around Saudi Arabia, a sample recruiting approach will rely on social media platforms (such as Twitter, Snapchat, Instagram, WhatsApp, Facebook, etc.).

Inclusion and Exclusion Criteria:

The inclusion criteria were Saudi parents, males, and females, ages ranging from 20 to 60 years old, from all provinces of the Kingdom of Saudi Arabia, KSA general population subjects who have or do not have knowledge of the importance of primary and permanent teeth in mixed dentition., and subjects who would agree to participate in this study and complete questionnaires. Exclusion criteria non-Saudi parents.

Sample size:

The required sample size was determined to be 384 individuals based on calculations performed by (Raosoft, Inc., Seattle, WA, USA). This calculation involved using the provided formula and incorporating means and standard deviation. The selection of a 95% confidence interval along with a standard deviation of 1.96 and a maximum acceptable marginal error of 0.05 contributed to this determination. The sample size was estimated using the formula:

n = P(1-P) * Zα 2 / d 2 with a 95% confidence level.

n: Calculated sample size.

Z: The z-value for the selected level of confidence (1- a) = 1.96.

P: An estimated prevalence of knowledge.

Q: (1 – 0.50) = 50%, i.e., 0.50.

D: The maximum acceptable error = 0.05.

Therefore, the calculated minimum sample size was: n = (1.96)2 X 0.50 X 0.50/(0.05) 2 = 384.

Method for data collection and instrument (*Data collection Technique and Tools)*:

Structured questionnaire was used as a study tool. This tool was used in a relevant study conducted in Noida, India [10]. The final version of the questionnaire consisted of 17 with 3 sections. Section 1, starts with a brief description of the study and the consent question. Section 2 includes demographic features such as age, gender, residential area, and educational qualifications. Section 3, The participants were asked about their knowledge and awareness of the importance of the primary teeth, causes of cavities, and reasons for tooth loss.

Scoring system:

In all, 17 questions served to assess the participants' attitudes and degree of knowledge. 7 statements for demographics, 6 for knowledge, and 4 for awareness. One point is given for correct answers, and zero points are given for incorrect answers. For scoring, we utilized binary scales. The **Knowledge Score** ranges from 0 to 6 points, determined by the responses to six specific questions that assess the participants' understanding of key dental health concepts. The classification for the Knowledge Score is as follows: **Low Level of Knowledge:** Participants scoring 3 points or below (≤ 3 points) are categorized as having a low level of knowledge. This indicates a limited understanding of the importance of dental health practices and concepts. **Moderate Level of Knowledge:** Participants

ISSN:1624-1940
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scoring exactly 4 points are considered to have a moderate level of knowledge. This reflects an adequate understanding of dental health principles but with room for improvement. **High Level of Knowledge:** Participants scoring 5 points or above (5 points) are classified as having a high level of knowledge. This demonstrates a strong grasp of dental health information and practices. The **Awareness Score** ranges from 0 to 5 points and is based on responses to five questions that assess the participants' awareness and attitudes toward dental health practices. The classification for the Awareness Score is as follows **Low Level of Awareness:** Participants scoring 2 points or below (≤ 2 points) fall into the low awareness category, indicating minimal awareness of preventive dental health measures and their significance. **Moderate Level of Awareness:** A score of 3 points places participants in the moderate awareness category, signifying a fair awareness level but with potential areas for increased education and understanding. **High Level of Awareness:** Participants scoring 4 points or above (≥ 4 points) are classified as having a high level of awareness, reflecting a well-rounded understanding and recognition of essential dental health practices. The **Overall Score** is calculated by combining the scores from the Knowledge and Awareness sections, resulting in a maximum possible score of 11 points. This cumulative score provides a holistic view of the participants' dental health knowledge and awareness. The classification for the Overall Score is aligned with Bloom's taxonomy and is as follows: **High Knowledge and Awareness:** A score ranging from 9 to 11 points (80.0% - 100.0%) signifies high knowledge and awareness. Participants in this category exhibit a comprehensive understanding and proactive attitude toward dental health. **Moderate Knowledge and Awareness:** Participants scoring between 7 and 8 points (60.0% - 79.9%) are categorized as having moderate knowledge and awareness. This reflects a reasonable understanding, though opportunities for enhancement exist. **Low Knowledge and Awareness:** A score of 0 to 6 points (below 60.0%) indicates low knowledge and awareness. Participants in this category may benefit from targeted educational interventions to improve their dental health knowledge and practices**.**

Pilot test:

Twenty people were given the questionnaire and asked to complete it. This was done to assess the study's viability and the ease of use of the questionnaire. The pilot study's results were not included in the study's final analysis.

Analyzes and entry method:

the "Microsoft Office Excel Software Windows (2021)." was used to input the data into the gadget, The Statistical Package of Social Science Software (SPSS) application, version 20, received the acquired data after that. (IBM SPSS Statistics for Microsoft Windows, Version 21.0.) for analysis using statistics.

Results:

Table (1) presents a comprehensive overview of the sociodemographic characteristics of the study participants (n=708). The majority of participants, constituting 52.5%, fall within the age range of 30 to 49 years, while a smaller proportion, 17.2%, are aged 50 years or older. Notably, the entire participant pool is comprised of Saudi nationals, with a considerable emphasis on employed individuals (54.5%) and a substantial unemployment rate of 24.3%. Educational attainment is skewed towards higher education, as 66.9% possess a bachelor’s degree or higher. Marital status reveals a predominantly married population (95.5%). Geographically, the participants are distributed across various governorates, with the Southern governorate housing the largest cohort (37.3%). In terms of monthly income, the data reflects a diverse economic spectrum, with the majority (26.0%) earning between 5,001 and 10,000 Rs. Additionally, regarding familial relationships, a significant proportion of respondents

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identifies as mothers (76.3%).

Table (1): Sociodemographic characteristics of participants (n=708)

Parameter		No.	Percent
Age Group	Younger than 30	214	30.2
	30-49 years old	372	52.5
	50 years or older	122	17.2
Nationality	Saudi	708	100.0
Occupational state	Self-employed	26	3.7
	Student	48	6.8
	Unemployed	172	24.3
	Retired	76	10.7
	Employee	386	54.5
Educational level	Bachelor degree	474	66.9
	Secondary school or lower	112	15.8
	Diploma degree	82	11.6
	Post-graduate degree	40	5.6
Marital state	Widowed	10	1.4
	Married	676	95.5
	Divorced	22	3.1
Residence	Southern governorate	264	37.3
	Eastern governorate	34	4.8
	Northern governorate	132	18.6
	Western governorate	110	15.5
	Central governorate	168	23.7
Monthly income	1000-5000 Rs	128	18.1
	10001-15000 Rs	158	22.3
	5001-10000 Rs	184	26.0
	Less than 1000 Rs	86	12.1
	More than 15000 Rs	152	21.5
Number of offspring	1	150	21.2
	2-3	282	39.8
	4 or more	276	39.0
Relation to child	Father	168	23.7
	mother	540	76.3

Figure 1 presents the responses of participants regarding the perceived importance of primary teeth. The data indicates a significant awareness among parents, with 83.6% affirming the importance of primary teeth, while only 16.4% expressed the contrary view. This finding suggests a predominantly positive recognition of primary teeth's role in overall dental health and development among parents in Saudi Arabia, highlighting a potential area for further educational initiatives to enhance awareness and address the concerns of the minority who may underestimate their significance.

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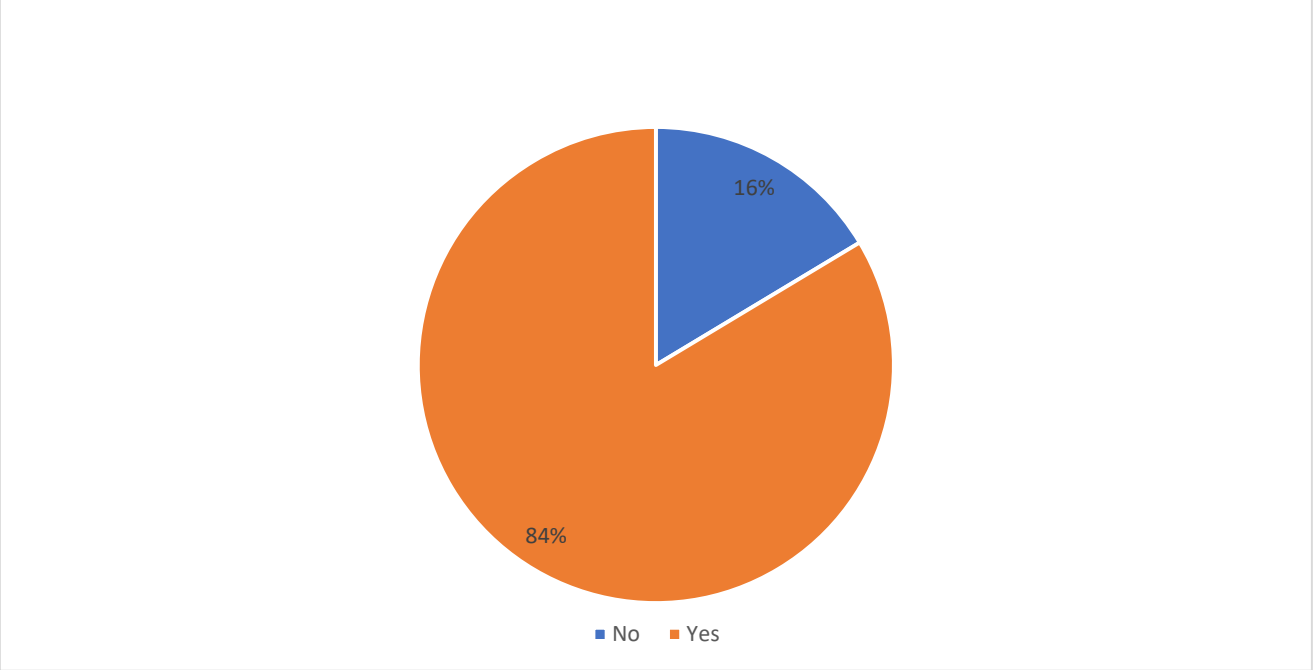
Figure (1): Shows what participants think about primary teeth being important.



As illustrated in table (2), the data provides a comprehensive overview of the knowledge levels concerning the importance of primary teeth among parents in Saudi Arabia, as delineated by a sample size of 708 participants. A significant majority, comprising 83.6%, acknowledged the importance of primary teeth, indicating a positive awareness regarding their fundamental role in dental health. In contrast, a notable portion of respondents exhibited gaps in knowledge regarding specific dental health concepts; for instance, 21.5% were unaware of cavity prevention methods, and over half (56.5%) did not recognize the function of space maintainers. Furthermore, the finding that 59.9% of parents believe the first dental visit should occur after the child's first birthday raises concerns about the potential implications for early dental care and monitoring of pediatric oral health. Importantly, while 69.2% of participants understood that early loss of primary teeth could negatively affect the alignment of permanent teeth, the fact that 30.8% remain uninformed underscores the need for targeted educational interventions to enhance understanding among parents about the critical nature of primary dentition and its long-term effects on children's oral health.

Table (2): Parameters related to knowledge regarding importance of primary teeth (n=708).

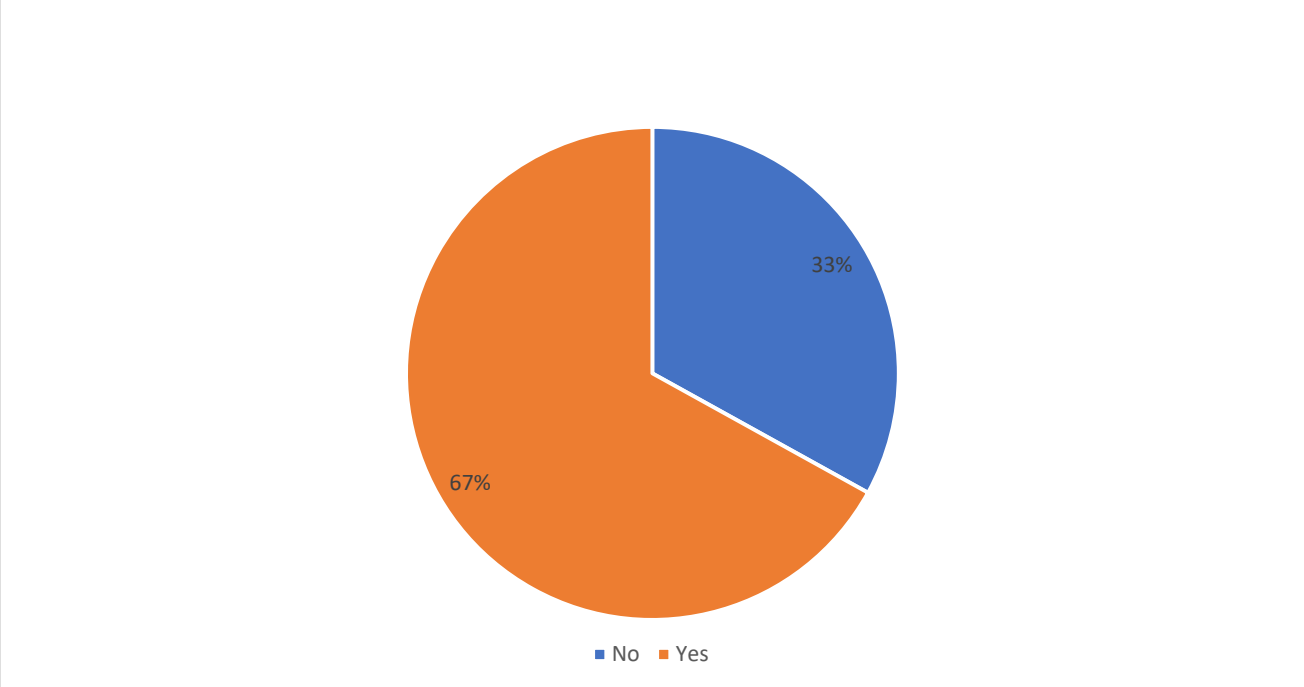
Parameter		No.	Percent
Do you think Primary teeth are important?	No	116	16.4
	Yes	592	83.6
Do you know what causes a cavity?	No	72	10.2

ISSN:1624-1940
http://magellanes.com/

	Yes	636	89.8
Do you know how cavities can be prevented?	No	152	21.5
	Yes	556	78.5
Do you think the first dental visit should be before the child's first birthday?	No	424	59.9
	Yes	284	40.1
Are you aware that early loss of primary teeth can affect the alignment of permanent teeth?	No	218	30.8
	Yes	490	69.2
Do you know what a space maintainer is and its purpose?	No	400	56.5
	Yes	308	43.5

The survey results indicate a significant awareness gap among parents in Saudi Arabia regarding the relationship between nighttime bottle or breastfeeding and the risk of tooth decay in primary teeth. Specifically, 66.9% of respondents acknowledged the potential for nighttime feeding practices to contribute to dental caries, while 33.1% dismissed this concern. This data underscores the necessity for enhanced educational initiatives aimed at informing parents about the impact of nocturnal feeding on oral health, thereby promoting better preventative measures for their children's dental well-being.

Figure (2): Illustrates what participants think about nighttime bottle/breastfeeding.



The data presented in Table (3) offers a compelling insight into the awareness levels of parents in Saudi Arabia regarding the importance of primary teeth. A significant majority of respondents, 66.9%,

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acknowledge that nighttime bottle or breastfeeding can lead to tooth decay, which underscores a general understanding of the detrimental effects of prolonged exposure to sugary liquids. Furthermore, an even more pronounced awareness is evident regarding the implications of frequent and prolonged feeding practices, with 72.6% of parents recognizing the associated risk of tooth decay. In addition to these insights, an overwhelming 92.9% of parents believe that children's teeth should be brushed or cleaned under supervision, suggesting a strong inclination towards promoting good oral hygiene practices. However, there remains a degree of ambiguity surrounding the transmission of harmful bacteria, as only 67.5% of parents are aware that tooth decay can arise from sharing feeding utensils.

Table (3): Questions illustrating awareness regarding importance of primary teeth (n=708).

Parameter		No.	Percent
Do you think nighttime bottle/breastfeeding can cause tooth decay?	No	234	33.1
	Yes	474	66.9
Do you think frequent and prolonged bottle/breastfeeding can cause tooth decay?	No	194	27.4
	Yes	514	72.6
Do you think a child's teeth should be brushed/cleaned under supervision?	No	50	7.1
	Yes	658	92.9
Do you think tooth decay is caused by bacteria that are transmitted by sharing feeding utensils?	No	230	32.5
	Yes	478	67.5

Table 4 presents the distribution of knowledge scores among participants regarding the importance of primary teeth. The data indicate that a significant proportion of parents in Saudi Arabia possess high knowledge levels, accounting for 41.0% of the respondents. In contrast, 35.3% exhibited low knowledge, while 23.7% demonstrated moderate knowledge. These findings underscore a notable awareness gap, suggesting that while a substantial segment of parents is informed, a considerable proportion remains undereducated about the critical role of primary dentition in children's overall health.

Table (4): Illustrates knowledge score results among the participants.

	Frequency	Percent
High knowledge	290	41.0
Low knowledge	250	35.3
Moderate Knowledge	168	23.7
Total	708	100.0

ISSN:1624-1940
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Table 5 presents the awareness scores concerning the importance of primary teeth among participating parents in Saudi Arabia. The data indicates that a significant portion, 42.9%, demonstrate a high level of awareness, suggesting a commendable understanding of pediatric dental health. Conversely, 30.8% exhibit a low awareness level, while 26.3% fall within the moderate awareness category. These findings highlight a need for targeted educational interventions, particularly aimed at the 30.8% with low awareness, to enhance overall parental knowledge and promote better dental care practices for young children.

Table (5): Shows awareness score results among the participants.

	Frequency	Percent
High awareness level	304	42.9
Low awareness level	218	30.8
Moderate awareness level	186	26.3
Total	708	100.0

The data in table (6) indicates that a minority of respondents, 28.2%, exhibited high knowledge and awareness, while a substantial proportion, 37.0%, demonstrated low awareness levels. Conversely, 34.7% of participants fell into the moderate knowledge category.

Table (6): Shows the cumulative knowledge and awareness score results among the respondents.

	Frequency	Percent
High knowledge and awareness	200	28.2
Low knowledge and awareness	262	37.0
Moderate knowledge and awareness	246	34.7
Total	708	100.0

Table (7) elucidates the intricate relationship between various sociodemographic parameters of the participants and their cumulative knowledge and awareness scores regarding primary dental health, drawing on a sample of 708 parents in Saudi Arabia. Notably, the findings reveal statistically significant differences ($P < 0.05$) related to the participants' relationship to the child, age group, residency, number of offspring, income, and educational level. For instance, the data indicates a higher proportion of mothers (74.0%) possessing a high cumulative awareness score compared to fathers (26.0%), with a

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significant P value of 0.027. Furthermore, the age group analysis suggests that those aged 30-49 years exhibited the highest awareness levels (55.0%), presenting a P value of 0.0001, which underscores a critical age demographic with enhanced awareness. Additionally, variations in awareness scores based on residency and family size, with P values of 0.002 and 0.0001 respectively, demonstrate that geographic and familial structures significantly influence parental knowledge. In contrast, the occupational level did not yield significant results (P = 0.113), indicating that employment status may not be a decisive factor in shaping awareness regarding the importance of primary teeth.

Table (7): Illuminates the relation between sociodemographic parameters of the participants and their cumulative knowledge and awareness score results (n=708).

		cumulative knowledge and awareness score results			Total (N=708)	P value
		High (n=200)	Low (n=262)	Moderate (n=246)		
Relation to child	Father	52	72	44	168	**0.027**
		26.0%	27.5%	17.9%	23.7%	
	Mother	148	190	202	540	
		74.0%	72.5%	82.1%	76.3%	
Age group	30-49 years old	110	130	132	372	**0.0001**
		55.0%	49.6%	53.7%	52.5%	
	50 years or older	28	34	60	122	
		14.0%	13.0%	24.4%	17.2%	
	Younger than 30	62	98	54	214	
		31.0%	37.4%	22.0%	30.2%	
Residency	Southern governorate	72	100	92	264	**0.002**
		36.0%	38.2%	37.4%	37.3%	
	Eastern governorate	4	20	10	34	
		2.0%	7.6%	4.1%	4.8%	
	Northern governorate	26	54	52	132	
		13.0%	20.6%	21.1%	18.6%	
	Western governorate	32	36	42	110	
		16.0%	13.7%	17.1%	15.5%	
	Central governorate	66	52	50	168	
		33.0%	19.8%	20.3%	23.7%	
Number of offspring	1	42	58	50	150	**0.0001**
		21.0%	22.1%	20.3%	21.2%	
	2-3	66	132	84	282	
		33.0%	50.4%	34.1%	39.8%	
	4 or more	92	72	112	276	
		46.0%	27.5%	45.5%	39.0%	
Income	1000-5000 Rs	30	50	48	128	**0.0001**
		15.0%	19.1%	19.5%	18.1%	
	10001-15000 Rs	46	52	60	158	
		23.0%	19.8%	24.4%	22.3%	

ISSN:1624-1940
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	5001-10000 Rs	34	86	64	184	
		17.0%	32.8%	26.0%	26.0%	
	Less than 1000 Rs	26	34	26	86	
		13.0%	13.0%	10.6%	12.1%	
	More than 15000 Rs	64	40	48	152	
		32.0%	15.3%	19.5%	21.5%	
Educational level	bachelor	134	186	154	474	**0.009**
		67.0%	71.0%	62.6%	66.9%	
	Secondary school or less	20	42	50	112	
		10.0%	16.0%	20.3%	15.8%	
	Diploma	30	26	26	82	
		15.0%	9.9%	10.6%	11.6%	
	Postgraduate studies	16	8	16	40	
		8.0%	3.1%	6.5%	5.6%	
Occupational level	Self-employed	10	8	8	26	0.113
		5.0%	3.1%	3.3%	3.7%	
	Student	14	20	14	48	
		7.0%	7.6%	5.7%	6.8%	
	Non-employed	36	66	70	172	
		18.0%	25.2%	28.5%	24.3%	
	retired	16	28	32	76	
		8.0%	10.7%	13.0%	10.7%	
	Employed	124	140	122	386	
		62.0%	53.4%	49.6%	54.5%	

Discussion:

Primary teeth play a crucial role in functions like eating, speaking, and aesthetics, in addition to guiding the eruption and preserving space for permanent teeth [11]. Many people hold the belief that permanent teeth will ultimately replace primary teeth, which leads to parents often neglecting the necessary dental care for these teeth. On one hand, parents with a proper understanding and knowledge of oral health are more likely to positively impact their child's dental well-being. Conversely, a lack of awareness and understanding of oral health by parents can negatively affect their children's attitudes and behaviors regarding dental care in the long run [12]. Additionally, the majority of parents still seek dental care for their children more for corrective reasons than for preventive ones [13]. This highlights the need to further evaluate and enhance parental attitudes and knowledge concerning the importance of primary teeth [14]. It is essential for pediatric dentists to adequately educate both the child and their parents on how to care for both primary and permanent teeth [15]. Thus, we aimed in this study to assess knowledge and awareness level regarding the importance of primary and permanent teeth in mixed dentition

In a comparative analysis of parental knowledge regarding primary dental health, our study revealed that a significant majority (83.6%) of parents recognized the importance of primary teeth for dental health. This finding aligns with previous studies, such as that conducted by Manohar and Mani, which noted a concerning lack of awareness, with only 10% of parents knowing the appropriate age for their child's first dental visit [16]. In concordance with our results, a study conducted in Dammam City, Saudi Arabia, found that over 60% of parents acknowledged the equality of primary and permanent teeth in

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importance, highlighting a degree of awareness similar to our context [17]. However, in stark contrast, Fatmah AlMotawah et al. identified that more than half (54.2%) of parents only sought dental care for their children in emergencies, indicating a gap in preventive dental health practices that mirrors our finding of significant knowledge gaps concerning cavity prevention methods (21.5%) and the role of space maintainers (56.5%) [18]. The impact of early tooth loss on the alignment of permanent teeth was acknowledged by 69.2% of participants in our study, which is consistent with the awareness levels reported by Setty and Srinivasan, where only 39% of parents understood the significance of deciduous teeth in preserving space [19]. Additionally, while our study found that 59.9% of parents believed the first dental visit should occur after their child's first birthday, this reflects an unfortunate trend captured by other research, which emphasizes delayed dental visits among parents; for instance, Alshammari et al. recorded that only 38% of parents brought their children to the dentist annually [20]. Moreover, our results indicated that 66.9% of participants were aware of the risks associated with nighttime feeding leading to tooth decay, while 72.6% recognized the dangers of prolonged feeding practices. This level of awareness showcases parental recognition of common dental health issues, although similar studies reflect that the overarching knowledge regarding dental hygiene practices remains markedly insufficient. For instance, Nassar et al. reported that 63% of parents doubted their child's ability to effectively brush teeth independently, which highlights a general lack of confidence in foundational dental care practices [21]. Notably, our results showed that parental supervision was deemed important, with 92.9% of parents believing that children's teeth should be brushed under supervision. This is corroborated by previous findings indicating low awareness among Saudi parents regarding space maintainers, where only 17.9% were aware of their significance and 76% had never heard of them [22], [23]. This lack of knowledge is juxtaposed with our findings on the awareness of bacteria transmission through shared utensils, where only 67.5% recognized this risk. In terms of overall parental knowledge, we identified that 41% demonstrated a high level of understanding, contrasting with studies where only medium levels of knowledge were reported. For instance, Fatimah Alshammari et al. found an average score of 7.97 out of 16 points relating to dental health knowledge. Additionally, the socio-demographic factors influencing knowledge levels in our study revealed that mothers exhibited higher awareness compared to fathers, which aligns with a broader recognition of the role of primary teeth, yet previous studies indicated a troubling perspective where many mothers dismissed the value of primary dentition as temporary [24]. While our findings indicate a relatively higher recognition of the importance of primary teeth, significant gaps in knowledge regarding preventive practices, such as cavity prevention measures and the role of space maintainers, persist and necessitate targeted educational interventions to enhance parental understanding of primary dental health for young children. This call to action is echoed in the literature, underscoring the need for comprehensive awareness campaigns that foster improved oral health practices among parents [25].

Conclusion:

In conclusion, this study highlights that while a significant majority of parents in Saudi Arabia comprehend the importance of primary teeth, substantial knowledge gaps remain regarding their care and management. Notably, 83.6% of parents acknowledge the importance of primary teeth; however, only 55.9% were aware of optimal timing for the first dental visit, emphasizing a critical need for improved awareness of early dental care. Our findings reveal that although many parents recognize risks such as nighttime feeding and the necessity of supervision during teeth brushing, gaps in understanding preventive measures, such as case of cavity prevention and the importance of space maintainers, persist. Furthermore, significant discrepancies in awareness related to sociodemographic factors underscore the need for tailored educational interventions. Overall, this study underscores the necessity for

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comprehensive awareness campaigns to foster parental understanding of pediatric dental health, thereby promoting better oral health outcomes for children across Saudi Arabia.

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Ethical approval

An informed consent was obtained from each participant after explaining the study in full and clarifying that participation is voluntary. Data collected were securely saved and used for research purposes only.

Funding

There was no external funding for this study.

Conflict of interests

The authors declare no conflict of interest.

Informed consent:

Written informed consent was acquired from each individual study participant.

Data and materials availability

All data associated with this study are present in the paper.

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