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Oral Health Knowledge, Attitudes, and Practices of Parents of Preschool Children in Amman, Jordan 2019: A Descriptive Cross-Sectional Study

Ruba H. Alhabahbeh,[1] Saif Aldeen Alryalat[1] and Madi T. Al-Jaghbir[1]

Abstract

Background and Aims: Oral health is a vital part of early childhood care. Parents and guardians should have appropriate oral health knowledge and be aware of—and change their perception and attitudes to—their children's oral health to prevent oral disease. Our aim in this study was to investigate the oral knowledge, attitudes, and practices of parents of preschool children.

Materials and Methods: A cross-sectional study was conducted on a convenient sample of 386 participants from dental and pediatric clinics at Jordan University Hospital. Data were analyzed using SPSS. Descriptive analysis, Mann-Whitney test, and Spearman correlation were used to examine differences in oral health knowledge, attitudes, and practices of preschool children's parents, and to study the relationship between variables.

Results: The mean score for knowledge was 6.1 out of 10 (SD= 2), attitudes 14.6 out of 15 (SD= 0.86) and practices 1.6 out of 6 (SD=1.1). In this study, there was a statistically significant difference in the knowledge in relation to parents' education status (U=1587.0, p<0.001). Other socio-demographic variables (gender, age, occupational status), did not show any statistical significance. There was a statistically significant positive relationship between knowledge and practices, and between attitudes and practices (p<0.01). Moreover, there was a marginal but statistically significant positive relationship between knowledge and attitudes (p=0.05).

Conclusions: The level of oral health knowledge and practices of parents of preschool children was low despite having a positive attitude. In addition, there was a gap regarding appropriate practices, which may be attributed to cost, time, or commitment. Moreover, there was a statistically significant relationship regarding the knowledge and education level of parents. Also, there was a statistically significant relation between knowledge and practices, as well as attitudes and practices.

Keywords: Attitude, Knowledge, Oral health, Parents, Preschool children, Practice

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INTRODUCTION

Oral health is a common public health issue that affects people of all ages [1]. Oral health constitutes a vital part of early childhood care [1]. Oral and craniofacial disorders in children have a profound effect on their overall general health and well-being [2, 3]. Early childhood dental problems not only affect the child's oral health but may also have an effect on the quality of life, in addition to having long-term risks to permanent dentition [4]. There is mounting evidence to support the fact that the caries status of both primary and permanent dentition is interrelated, suggesting the importance of recognizing dental risk factors in children [5, 6].

Due to the magnitude of the problem, oral diseases are considered a serious global public health problem. Oral disease can result in pain and reduced work and school achievements, as well as potentially leading to a low quality of life, affecting individuals and their communities. However, there is a worldwide disparity in oral health, with the greatest burden affecting the disadvantaged and the poor [7]. In recent years, although significant oral health milestones have been reached in several countries, problems continue to affect, particularly the disadvantaged groups in both developing and developed countries [7]. For children, poor oral health may have detrimental consequences since it

[1] Department of public health and family medicine, University of Jordan School of Medicine, Amman, Jordan.
✉Corresponding author: r_habahbeh@hotmail.com

affects their growth and development [8]. In Jordan, it was reported that the prevalence of dental caries among children was higher than that in developed countries but lower than in other Arab countries of the Middle East [9]. A study by Sayegh and colleagues showed that two-thirds of children in Jordan aged four to five years had caries, and two-thirds of the same age group also had gingivitis [10]. Early childhood oral health knowledge is vital for parents [11], since oral health behaviors and habits are the responsibility of the caregiver during this precious time in the life of a child [12].

Despite this importance, there is a lack of studies in Jordan examining preschool parents' knowledge, attitudes, and practices concerning oral health. The aim of this study was, therefore, to investigate these factors and to serve as a reference for future studies.

METHODS

The study was approved by the Faculty of Graduate Studies at the University of Jordan and the Department of Family and Community Medicine, School of Medicine. Additionally, the study was approved by the Institutional Review Board (IRB) at Jordan University Hospital (Ref: 67/2018/2965). Regarding the participants, a brief description of the study and the reason for conducting it were offered to them. Informed consent was obtained from participants after reassuring them that their confidentiality would be preserved.

Design and settings

A descriptive cross-sectional design was used. A self-administered questionnaire was distributed to each participant to assess their demographic information, as well as their knowledge, attitudes, and practices regarding the oral health of their preschool children; however, in illiterate participants or those with poor eyesight, a face-to-face interview was conducted.

The study was performed at the Dental and Pediatric clinics at Jordan University Hospital (JUH), from January 21 to March 21, 2019. JUH is a tertiary care center; it provides general and specialized medical care to the community in Amman and all over Jordan. Dental clinics at the JUH serve both insured and self-paying patients. In addition, the dental student clinics provide a wide range of free-of-charge dental services under the supervision of pediatric dentists from the pediatric dentistry department at the University of Jordan.

Participants

The target population was parents of preschool children aged 3–5 years old attending dental or pediatric clinics at JUH. Participants were a convenient sample from the attendees of dental or pediatric clinics at JUH. After a brief explanation of the questionnaire and the objectives of the study, informed consent was obtained from all participants. The participants completed the survey themselves, while a face-to-face interview was offered to illiterate participants or those with poor eyesight. The data collection procedure took place four days a week for two months. A total of 395 parents were contacted, of whom 386 completed the survey, and nine failed to complete since they were called to their appointments and did not return; their data were excluded.

Research instrument

The questionnaire was a modified structure adopted from a questionnaire tested and used by Jain [13]. The original questionnaire was translated into Arabic and validated by Mahmoud [14] in a study in Sharjah, United Arab of Emirates, which has cultural similarities to our study population. The researcher received permission to use the modified version of the questionnaire from Mahmoud [14].

The questionnaire was organized into four parts as follows (see Appendices):

Part 1: Included information on the sociodemographic variables of participants, including age and gender of the child, and educational level and occupation of parents.

Part 2: This section included ten questions with multiple-choice options addressing the oral health knowledge of parents regarding their children. These questions addressed primary dentition issues, the role of fluoride in toothpaste, the most common dental diseases, food items leading to caries, ways to prevent dental caries, causes and prevention of periodontal disease, causes of irregular teeth, and whether irregular teeth can be placed correctly.

Part 3: A three-point Likert scale with five questions on the attitudes of parents toward the oral health of their preschool children. Participants who responded 'agree' were given three points. Participants who responded 'uncertain' were given two points. Those who responded 'disagree' were given one point. These questions addressed parental beliefs regarding regular dental visits, mothers' observation of teeth cleaning, the relation between oral health and general health, and the importance of primary teeth.

Part 4: This included six questions with multiple-choice options addressing the oral health practices of parents regarding their preschool children. These questions addressed oral behaviors regarding timing for the first dental visit, the regularity of dental visits, initiation of teeth cleaning, frequency of teeth cleaning, the frequency of changing the toothbrush, and when to give sugary food items.

Statistical Analysis

All data were analyzed using Statistical Package for the Social Sciences (SPSS version 21, Chicago, IL, USA). For the descriptive analysis, mean and standard deviation were calculated for the total score of knowledge, attitudes, and practices. Data were screened and cleaned for errors and missing data. Missing data were treated appropriately, and a parametric test, such as normal distribution, was used to run the analysis. A Shapiro-Wilk test for normality was applied to test the normality of the knowledge, attitudes, and practices questionnaire. The analysis showed significant results (0.961, p=0.000) (not normally distributed); thus, non-parametric tests were applied [15].

A Mann-Whitney test was applied to examine the differences in knowledge, attitudes, and practices in relation to socio-demographic variables to answer research question three. A Spearman correlation was applied to test the relationship between the study variables to answer research question four.

The sample size was calculated using Cochran's formula [16]: $n_0 = \frac{Z^2 pq}{e^2}$

Where, n_0 is sample size, z is standard normal variate, p is expected prevalence, q is (1- p), and e is margin of error. Assuming the probability of having knowledge is 50%, with a 95% confidence interval, the sample size was calculated to be 384.

RESULTS

In this study, 386 participants participated in the study and completed the questionnaire. Sample characteristics are displayed in Table 1. The descriptive results of the study variables (knowledge, attitudes, and practices) are displayed for the 386 participants in Tables 2–4. The mean score of knowledge was 6.1 (SD= 2), attitudes 14.6 (SD= 0.86), and practices 1.6 (SD= 1.1).

Table 1: Sample Characteristics n= 386

Variable	No. (%)
Gender of the child	
Male	177 (46)
Female	209 (54)
Mother's Age	
20–39	316 (82)
40–59	70 (18)
Father's Age	
20–39	206 (53)
40–59	180 (47)
Education level of mother	
High school and below	157 (41)
Above high school	229 (59)
Education level of father	
High school and below	166 (43)
Above high school	220 (57)
Occupation status of mother	
Unemployed	226 (59)
Employed	160 (41)
Occupation status of father	
Unemployed	30 (8)
Employed	356 (92)

Table 2: Description of Knowledge Items

Variable	No. (%)
How many milk teeth are there in a child's mouth	
10	8 (2)
12	34 (9)
20	**85 (22)**
28	55 (14)
I do not know	204 (53)
Does toothpaste contain fluoride?	
Yes	**291 (75)**
No	38 (10)
I do not know	57 (15)
What is the role of fluoride in toothpaste?	
Prevents tooth decay	**288 (75)**
Prevents gum problems	24 (6)
Gives freshness	19 (5)
I do not know	55 (14)
What is the most common dental disease in a child?	
Tooth decay	**361 (94)**
Bleeding gums	7 (2)
Discolored teeth	16 (4)
I do not know	2 (0.5)
Which of the following food items can lead to tooth decay?	
Chocolates	128 (33)
Bakery products	1 (0.3)
Soft drinks	24 (6)
All of the above	**231 (60)**
I do not know	2 (0.5)
Which of the following do you think prevents tooth decay?	
Restricting sweets	22 (6)
Tooth brushing	65 (17)
Regular dental visits	12 (3)
Fluoridated toothpaste	7 (2)
All the above	**280 (73)**
Causes for gum disease?	
Improper brushing	121 (31)
Tartar	29 (8)
All of the above	**175 (45)**
I do not know	61 (16)
Which of the following do you think prevents gum disease?	
Regular brushing and mouth wash	157 (41)
Professional cleaning	15 (4)
All of the above	**190 (49)**
I do not know	24 (6)
Which of the following can lead to irregular teeth?	
Thumb sucking/tongue thrusting/mouth breathing	174 (45)
Runs in the family	49 (13)
All of the above	**124 (32)**
I do not know	39 (10)
Can irregularly placed teeth be aligned in the correct position?	
Yes	**315 (82)**
No	58 (15)
I do not know	13 (3)

Note: the most frequent answer is bolded	

Table 3: Description of the Attitude Scale

Variable	Agree No. (%)	Uncertain No. (%)	Disagree No. (%)
Regular dental visits	370 **(96)**	11 (3)	5 (1)
Teeth cleaned by the mother	377 **(98)**	7 (2)	2 (0.5)
Cleaning the teeth after each meal	340 **(88)**	26 (7)	20 (5)
Good oral health is related to good general health	358 **(93)**	21 (5)	7 (2)
Healthy milk teeth essential to chew	363 **(94)**	20 (5)	3 (0.8)

In this study, 54% (n= 209) of the children were female and 46% (n= 177) were male. In regard to the mother's age, 82% (n= 316) were between 20 to 39 years old. Fathers aged 20 to 39 years were of lower frequency, 53% (n= 206), than that of mothers of the same age group. Among mothers, 59% (n= 229) had an education level above high school compared to 57% (n= 220) of fathers. In regard to employment status, 59% (n= 226) of mothers were not employed, while 92% (n= 356) of fathers were (Table 1).

Table 4: Description of Practice Items (n=386)

Variable	No. (%)
First dental visit	
Six months after birth	7 (2)
After eruption of first milk tooth	26 (7)
One year after birth	**171 (44)**
Not regular	182 (47)
Visit to the dentist	
Only for problems	128 (33)
Every six months	**161 (42)**
Every year	53 (14)
Not regular	44 (11)
Commencing the cleaning of children's teeth	
After milk tooth eruption	**66 (17)**
After 4–6 milk teeth have erupted	48 (12)
After all the milk teeth have erupted	227 (59)
Do not remember	45 (12)
Times of teeth brushing	
Once a day	112 (29)
Twice a day	**148 (39)**
After every meal	36 (9)
Not regular	90 (23)
Changing toothbrush	
Once every 15 days	18 (5)
Once in a month	75 (19)
One every 2–3 months	154 (40)
Once the bristles fray out	**53 (14)**
Not regular	86 (22)
Giving sugary food to child	
With meals	**24 (6)**
Between meals	159 (41)
Before going to bed	2 (0.5)
Not regular	201 (52)
Note: the most favorable answer is bolded	

Table 5: Sample Characteristics n= 152

Variable	No. (%)
Gender	
Male	28 (18)
Female	124 (82)
Parents' age	
20–39	115 (76)
40–59	37 (24)
Parents' Education level	
High school and below	56 (37)
Above high school	96 (63)
Occupation status of the parent	
Unemployed	76 (50)
Employed	76 (50)

The study indicated that 53% of respondents did not know the correct number of teeth. Seventy-five percent of the participants had knowledge of the role of fluoride in preventing caries. The majority of participants (94%) identified tooth decay as the most common oral disease in children. Table 2 displays participants' responses to the knowledge questionnaire. Table 3 shows the answers regarding the attitude scale. The majority of the sample (88–98%) exhibited a positive attitude. Most participants (98%) agreed on the importance of the mother cleaning the child's teeth. Additionally, the majority of participants had a positive attitude regarding the importance of regular dental visits (96%), the importance of healthy milk teeth (94%), and the relation between good oral health and general health (93%). Table 4 shows the participants' answers to the oral practices part of the questionnaire. The majority of participants failed to give the correct answers to the questions. In regard to the first dental visit, 44% responded correctly; however, 47% said they had not yet taken their child to the dentist.

To answer the question regarding the oral health knowledge, attitudes, and practices in relation to sample characteristics, we included sociodemographic information for 152 participants from the same sample only for this section of the study (Table 5). To examine the differences between study variables and the sample characteristics, a non-parametric Mann-Whitney test was applied; gender, parental age, education level, and occupational status were organized into two categories each as required for the test.

Table 6: Differences in Knowledge, Attitudes and Practices in Relation to Socio-Demographic Variables n=152

Variable	Knowledge		Attitudes		Practices	
	U value	*P* value	*U* value	*P* value	*U* value	*P* value
Parents' gender	1639.5	0.64	1727.5	0.95	11041.0	0.50
Parents' age	1960.5	0.47	2103.5	0.87	2052.0	0.73
Parents' education status	1587.0	0.000***	2574.0	0.51	2273.0	0.10
Parents' occupation status	2648.0	0.37	2809.0	0.66	2819.0	0.79

Note: *U*= Mann-Whitney
**. Mann-Whitney is significant at the 0.01 level (2-tailed)
***. Mann-Whitney is significant at the 0.001 level (2-tailed)

Table 7: Mann-Whitney Test Mean Rank

Variables	Knowledge	Attitudes	Practices
	Mean Rank	Mean Rank	Mean Rank
Parents' gender Male	73.1	76.2	81.3
Female	77.3	76.6	76.4
Parents' age			
20–39	75.05	76.7	77.2
40–59	81.01	75.9	74.5
Parents' employment status			
Not employed	73.3	77.5	75.6
Employed	79.7	75.5	77.4
Parents' education status			
High school and below	56.8	78.5	69.1
Above high school	87.9	75.3	80.8

In this study, a statistically significant difference in knowledge in relation to parents' education status was found (U= 1587.0, p<0.001) (Table 6). According to the mean rank, parents with an education level above high school scored higher than parents with an education level below high school (Table 7) and (Figure 1). Figures 2 and 3 display participants' attitudes and practices answers in relation to the level of education. In regard to other socio-demographic variables, no significant results were found (Table 6).

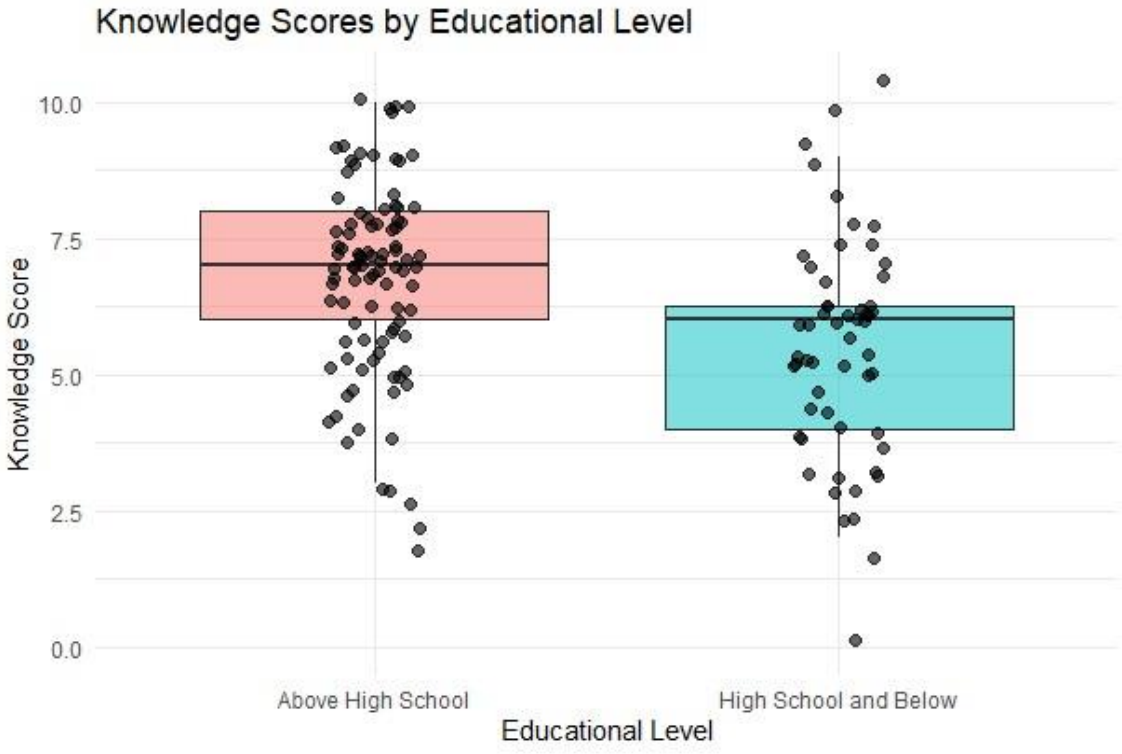

Figure 1: Knowledge score based on parents' educational level

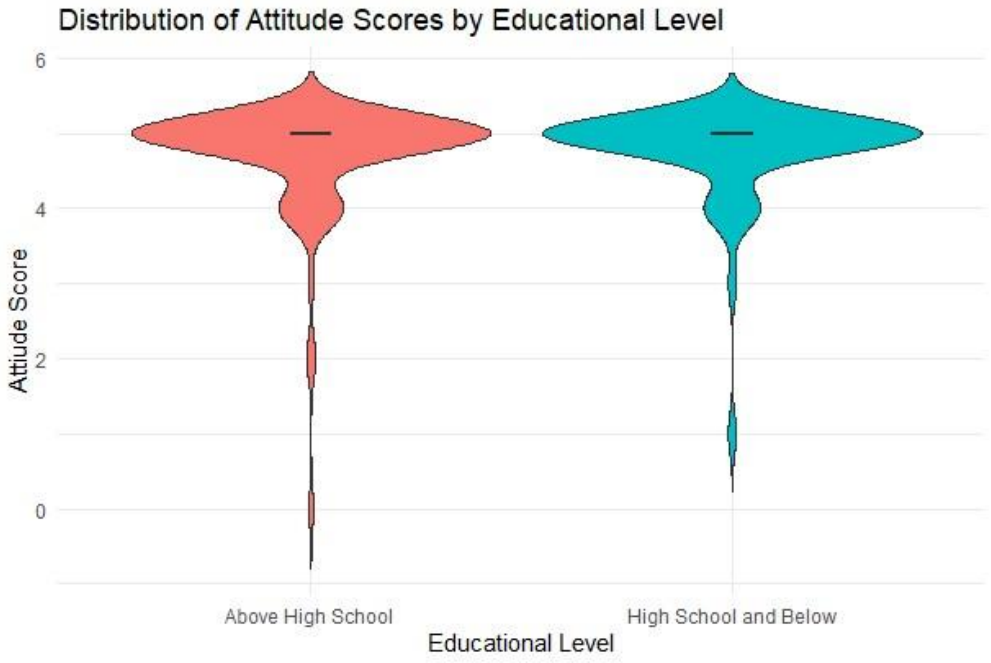

Figure 2: Attitude score based on parents' educational level

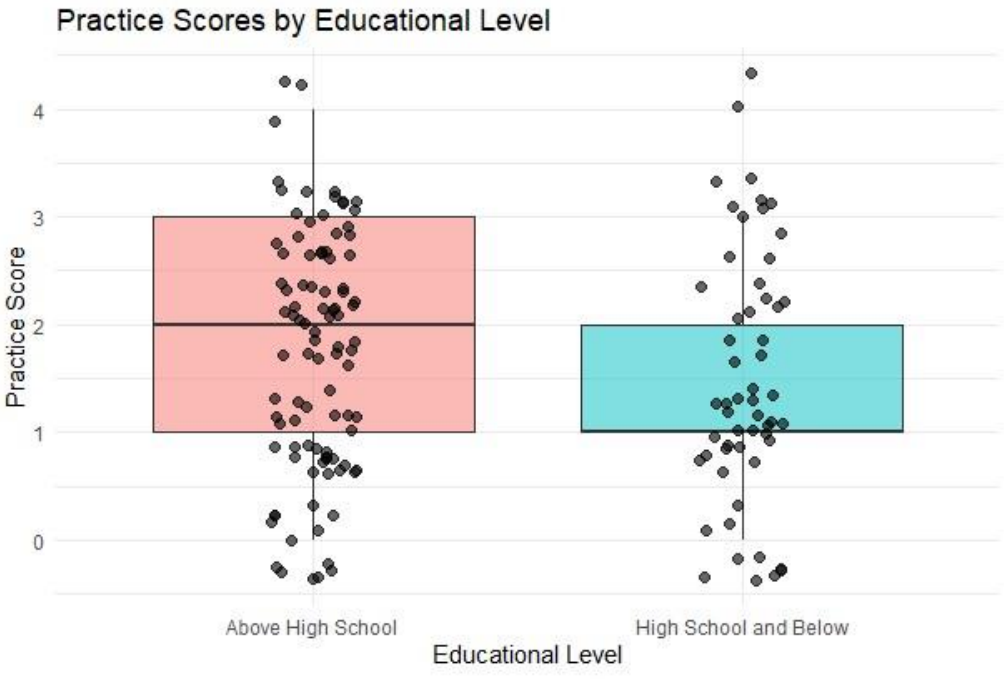

Figure 3: Practice scores based on parents' educational level

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To test the relationships between the study variables, Spearman rank-order correlation was carried out. The results revealed a slight positive relationship between attitudes and knowledge [$r_s(384)= 0.128$, $p=0.012$], knowledge and practices [$r_s(384)= 0.248$, $p<0.001$], and attitudes and practices [$r_s(384)= 0.142$, $p=0.005$], which were statistically significant. Even though the absolute value of r_s was considered very weak, the relationship between these two variables was still positive. The following categories were applied to the correlation results: little relationship (0.00–0.25), low (0.26–0.49), moderate (0.50–0.69), high (0.70–0.89), and very high (0.90–1.00) [15].

DISCUSSION

This study showed a significant positive relationship between knowledge and practices, and between attitudes and practices ($p<0.01$). Additionally, there was a significant positive relationship between knowledge and attitudes ($p=0.05$). Traditionally, the theory of building the capacity to change attitudes through the acquisition of new knowledge has been used in many health educational programs [17]. Jain et al. [13] reported a significant correlation between attitudes and practices ($p=0.000$), and between knowledge and attitudes ($p=0.002$), while no significant relation was found between knowledge and practices ($p=0.250$). Ashkanani and Al-Sane [18] demonstrated that having a positive attitude ($p<0.001$) was strongly associated with good practices, but having knowledge had a weaker association with good practices ($p=0.007$). In another study by Vanagas et al. [19], a significant association was reported between parental attitudes regarding the oral health of their children and oral health behavior.

In this study, 94% of the participants were knowledgeable regarding the recognition of the most common dental disease; this finding is comparable to those in studies by Khanal and Cheba [20] and Schroth and Acharya [21], in which 91% of participants identified caries as the most common oral disease in children. On the other hand, Sehrawat et al. [22] reported that 44.1% of participants recognized that the most common dental disease in children is tooth decay, but 23.6% did not know the answer. Also in this study, 75% of the participants were aware of the role of fluoride in preventing dental decay, comparable to a similar study in Canada (75.5%) [20]. Only 22% of the study participants knew the correct number of deciduous teeth, comparable to the 22.2% found in a study conducted by Mahmoud et al. [14]. In two other studies by Jain et al. [13] and Sehrawat et al. [22], 36.5% and 59.2% of the participants, respectively, knew the correct number of teeth. Lack of knowledge about the number of primary teeth, as seen in these studies, may indicate that parents do not perceive primary dentition to be as important as permanent dentition; the reasons for this are either inadequate oral health awareness or because primary dentition is temporary.

Many sugars in food are hidden, and people cannot estimate the amount of sugar in products unless they can adequately interpret the nutritional information printed on the label, if one is present at all. Additionally, many food and drink products are advertised as healthy, misleading parents and their children alike. In Jordan, a study by Sayegh et al. [23] stated that around 70% of children consumed sweets, cakes, and sweetened drinks between meals, demonstrating negligence or a lack of knowledge concerning the proper time and frequency of providing snacks. This indicates that information on good dietary habits for children should be given to parents, including expectant mothers, to raise their awareness regarding the oral health of their children.

Public health policies should be targeted to increase awareness of the harmful effects of sugars and restrict the availability and affordability of carcinogenic food or drinks, such as by taxing food and drink with a high level of sugar.

Despite the good knowledge and attitude levels of this study sample, the overall mean level of practices was low at 1.6 out of 6.0. A study by Kamolmatyakul [24] stated that although parents may demonstrate a good level of knowledge and have a positive attitude concerning the oral health of their children, this did not translate into appropriate behavior. This issue could be attributed to the pace of life of individuals or social determinants, such as economic, social norm, and cultural factors that affect the ability to ensure good oral hygiene practices. Further studies are needed to help bridge the gap between knowledge, attitudes, and practices to overcome this issue.

Although the majority of this study's participants agreed that regular dental visits are essential (96%), a much lower figure of 42% actually followed this recommendation, and 33% reported that taking their children to visit the dentist was mainly due to dental

[1] Department of public health and family medicine, University of Jordan School of Medicine, Amman, Jordan.
✉Corresponding author: r_habahbeh@hotmail.com

pain and not routine. These findings are similar to those of a study by Kamil et al. [25]. In addition, Sehrawat et al. [22] reported that 63.5% of participants took their child to the dentist only for dental problems. Barriers to dental visits could be attributed to cost, lack of motivation, lack of knowledge, dental fear, lack of accessibility to dental facilities, and time [26].

The current study's findings emphasize the importance of oral health education to motivate and implement good oral health behaviors and practices among parents. Furthermore, due to the highly positive attitude demonstrated by the study participants, health personnel (including dentists, pediatricians and public health officials) should encourage this positive attitude by providing assistance such as regular free dental care and education clinics in different areas. Although the relationships between the study variables and some of the sociodemographic factors were not statistically significant, we cannot underestimate their effect, since turning knowledge into positive health practices usually requires desirable social and economic factors [12].

Several limitations of the study should be acknowledged. First is the use of a cross-sectional design, which limits the capacity to infer any causal relationship between variables. Second, the sample population for the study was a convenience sample from only one center due to limited time and resources; as such, results cannot be generalized. Furthermore, the reliance on self-reported information means we cannot exclude the possibility of bias. In addition, some participants were recruited from dental clinics; the fact that they were already visiting dental clinics may have led to selection bias.

CONCLUSIONS

Despite the availability of dental clinics and advances in the management of dental disease in Jordan, we continue to face a lack of adequate prevention, especially in regard to knowledge and practices. This study has indicated that the level of oral health knowledge and practices of parents of preschool children was low, despite their having a positive attitude. In addition, the gap between adequate knowledge and practices may be attributed to cost, time or commitment. Further studies should be conducted to include more than one center with a larger sample, dental examinations, questions on the reason for visiting a clinic, source of knowledge, and where people would prefer to receive more knowledge.

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دراسة عن مدى الوعي و الاعتقادات و أساليب الرعاية السنية عند أولياء أمور الأطفال قبل سن المدرسة في عمان، الاردن 2019: دراسة مقطعية وصفية

ربى حيدر الهباهبة[1]، سيف الدين الريالات[1]، ماضي الجغبير[1]

[1] قسم طب المجتمع و طب الأسرة، كلية الطب، الجامعة الأردنية، عمان، الأردن

الملخص

المقدمة: تعد صحة الفم عنصراً مهماً في الرعاية المبكرة للطفل. هناك صلة مباشرة بين صحة الفم الرديئة و مخرجاتها في مرحلة الطفولة المبكرة، تمتد لتشمل صحة الفم عند الأفراد في مرحلة البلوغ. لذلك لابد من وجود معرفة جيدة و صحيحة عند أولياء الأمور ولابدّ لهم من الانتباه وتغيير معتقداتهم الخاطئة المتعلقة بالصحة الفموية إن لزم الأمر.

غاية الدراسة: يهدف البحث الى دراسة مدى معرفة واعتقادات وممارسات اولياء امور الاطفال في مرحلة ما قبل المدرسة بالامور المتعلقة بصحة الفم لدى اطفالهم

منهجية البحث: تمّ إجراء دراسة مقطعية وصفية عن طريق استبيان تمت تعبئته من قبل 386 مشارك في عيادات الأطفال و عيادات طب أسنان الأطفال في مستشفى الجامعة الأردنية. احتوى الإستبيان على أربعة محاور تضم معلومات ديموغرافية و معلومات عن المعرفة و الإعتقادات و الممارسات. تم تحليل البيانات باستخدام SPSS النسخة 21؛ تم عمل تحليل وصفي، اختبار مان ويتيي ، و معامل ارتباط سبيرمان لدراسة الاختلافات و العلاقات بين متغيرات الدراسة.

النتائج: أظهرت الدراسة أن الوسط الحسابي للمعرفة كان 6.1 من أصل 10، و للإعتقادات 14.6 من اصل 15 ، و للممارسات 1.6 م اصل 6. بالإضافة إلى ذلك بينت الدراسة أن هناك علاقة إحصائية إيجابية بين المعرفة و الممارسات و بين الإعتقادات و الممارسات.

الخلاصة: أظهرت الدراسة أن مستويات المعرفة و الممارسات لم تكن بالمستوى المطلوب على صعيد بعض المحاور خصوصاً المتعلقة بالممارسات على الرغم من أن العينة كانت تتحلى بمستويات عالية في الإعتقادات السليمة. بالنسبة إلى الممارسات يمكن أن يعزى هذا الأمر إلى التكلفة العالية و الوقت و الإلتزام.

الكلمات الدالة: سلوك، معرفة، صحة الفم، الوالدين، مرحلة ما قبل المدرسة، ممارسة.

Appendices

Arabic Version of the Questionnaire

صحيفة جمع بيانات

الجنس: ☐ ذكر ☐ انثى

تاريخ ميلاد الطفل: __يوم __ شهر __ سنة

عمر الأم: ☐ 20-29 ☐ 30-39 ☐40-49 ☐ 50-59

عمر الأب: ☐ 20-29 ☐ 30-39 ☐40-49 ☐ 50-59

المستوى التعليمي للأم: ☐ غير متعلمة ☐ تعليم أساسي ☐ تعليم ثانوي ☐ جامعية

المستوى التعليمي للأب: ☐ غير متعلم ☐ تعليم أساسي ☐ تعليم ثانوي ☐ جامعي

الوضع الوظيفي للأم: ☐ غير موظفة ☐ طالبة ☐ سيدة أعمال ☐ موظفة

الوضع الوظيفي للأب: ☐ غير موظف ☐ طالب ☐ رجل أعمال ☐ موظف

معلومات:

1. **كم عدد الأسنان اللبنية في فم طفلك؟**
   ☐ 28 ☐ 20 ☐ 12 ☐ 10 ☐ لا أعلم
2. **هل يحتوي معجون الاسنان على عنصر الفلورايد؟**
   ☐ نعم ☐ لا ☐ لاأعلم
3. **ما هي وظيفة عنصر الفلورايد في معجون الأسنان؟**
   ☐ يمنع تسوس الأسنان ☐ يمنع مشكلات اللثة ☐ يمنع الانتعاش ☐ لا أعلم

4. ما هي مشاكل الأسنان الأكثر شيوعاً لدى الأطفال؟

☐ تسوس الأسنان ☐ نزيف اللثة ☐ تغير لون الأسنان ☐ لا أعلم

5. أي من العناصر الغذائية التالية يؤدي إلى تسوس الأسنان؟

☐ الشكولاتة ☐ منتجات الخبز ☐ المشروبات الغازية ☐ جميع ما سبق ☐ لا أعلم

6. أي مما يلي تعتقد أنّه يمنع تسوس الأسنان؟

☐ الحد من تناول الحلويات ☐ غسل الأسنان بالفرشاة ☐ زيارة طبيب الأسنان بصفة دورية ☐ معاجين الأسنان المحتوية على عنصر الفلورايد ☐ جميع ما سبق

7. أسباب التهاب اللثة؟

☐ عدم غسل الأسنان بالفرشاة بشكل جيد ☐ الجير ☐ جميع ما سبق ☐ لا أعلم

8. اي مما يلي تعتقد أنه يمنع الأصابة بأمراض اللثة؟

☐ غسل الأسنان بالفرشاة وغسل الفم بإنتظام ☐ التنظيف في عيادة الأسنان ☐ جميع ما سبق ☐ لا أعلم

9. أي مما يلي يمكن أن يسبّب عدم انتظام اصطفاف الأسنان؟

☐ مصّ الإبهام/دفع اللسّان/التنفس عن طريق الفم ☐ بسبب الوراثة ☐ جميع ما سبق ☐ لا أعلم

10. هل يمكن معالجة الأسنان غير المنتظمة لتصبح منتظمة في محلها الأصلي؟

☐ نعم ☐ لا ☐ لا أعلم

<u>الموقف:</u>

1 . اصطحاب طفلك في زيارات دورية منتظمة إلى طبيب الأسنان يعدّ ضرورياً ؟

☐ أوافق ☐ غير متأكد ☐ لا أوافق

2 . يجب على الأم المساعدة و الإشراف بشكل مباشر على عملية تنظيف أسنان الطفل؟

☐ أوافق ☐ غير متأكد ☐ لا أوافق

3 . تنظيف أسنان الأطفال يعدّ ضرورياً بعد تناول كل وجبة غذائية؟

☐ أوافق ☐ غير متأكد ☐ لا أوافق

4 . ترتبط صحة الفم الجيّدة بسلامة الصحة العامة؟

☐ أوافق ☐ غير متأكد ☐ لا أوافق

5 . تعدّ الأسنان اللبنية الصحية مهمّة للأطفال لمضغ الطعام بشكل جيّد؟

☐ أوافق ☐ غير متأكد ☐ لا أوافق

ممارسة:

1. **متى كانت أول زيارة لطفلك إلى طبيب الأسنان ؟**

☐ بعد 6 شهور من ولادته ☐ بعد بروز أول سن لبنيّة ☐ بعد سنة من ولادته ☐ لم يزره حتى الآن

2. **متى يجب اصطحاب طفلك لزيارة طبيب الأسنان؟**

☐ عند ظهور مشاكل فقط ☐ كل ٦ أشهر ☐ كل سنة ☐ ليس بصفة دورية

3. **متى بدأتي تنظيف أسنان طفلك؟**

☐ بعد فترة وجيزة من بزوغ أول الأسنان اللبنية ☐ بعد 4-6 أشهر من بزوغ الأسنان اللبنيّ ☐ بعد بزوغ جميع الأسنان اللبنيّة ☐ لا أتذكر

4. **كم عدد المرات التي تفرشين فيها أسنان طفلك؟**

☐ مرّة يومياً ☐ مرتين يومياً ☐ عد كل وجبة غذائية ☐ ليس بشكل منتظم

5. **متى تغيّرين فرشاة أسنان طفلك؟**

☐ مرّة كل 15 يوماً ☐ مرّة كل شهر ☐ كل 2-3 شهور ☐ بمجرد أن تبلى الشعيرات ☐ ليس بصفة منتظمة

6. **في أي وقت تطعمين طفلك أصناف الطعام السكرية؟**

☐ مع الوجبات الغذائية ☐ فيما بين الوجبات الغذائية ☐ قبل الخلود إلى النوم ☐ ليس بصفة منتظمة

Appendices

English Version of the Questionnaire

DATA COLLECTION SHEET

Child name: ……

Child Medical file No.: ☐☐☐☐☐☐☐☐☐☐☐☐

Gender: ☐ Male ☐Female

Child Date of birth: d/d ☐☐ m/m ☐☐ y/y ☐☐☐☐

Mother's age:

Education level: ☐ none ☐ Primary education ☐ Secondary education ☐ Tertiary education

Occupational Status: ☐ Unemployed ☐ Student ☐ Businesswomen ☐ Professional

Father's age:

Education level: ☐ none ☐ Primary education ☐ Secondary education ☐ Tertiary education

Occupational Status: ☐ Unemployed ☐ Student ☐ Businessman ☐ Professional

Knowledge:

1- **How many milk teeth does a normal child have in his mouth?**

   ☐ 10 ☐ 12 ☐ 20 ☐ 28 ☐ I don't know

2- **Does the toothpaste you are using for your child contain fluoride?**

   ☐ Yes ☐ No ☐ I don't know

3- **What is the role of fluoride in toothpaste?**

   ☐ Prevents tooth decay ☐ Prevents gum problems ☐ Gives freshness ☐ I don't know

4- **What is the most common dental disease in children?**

   ☐ Tooth decay ☐ Bleeding gums ☐ Discolored tooth ☐ I don't know

5- **Which of the following food items can lead to tooth decay?**

   ☐ Chocolates ☐ Bakery products ☐ Soft drinks ☐ All of the above ☐ I don't know

6- Which of the following do you think prevents tooth decay?

☐ Restricting sweets ☐ Tooth brushing ☐Regular dental visits ☐ Fluoridated toothpaste ☐ All the above

7- What are the causes of gum disease?

☐ Improper brushing ☐ Tatar ☐ all of the above ☐ I don't know

8- Which of the following do you think prevents gum disease?

☐ Regular brushing and mouth wash ☐ Professional cleaning ☐ All the above ☐ I don't know

9- Which of the following can lead to irregular teeth?

☐ Thumb sucking /tongue/thrusting /mouth breathing ☐ Runs in family ☐ All of the above ☐ I don't know

10- Can irregularly placed teeth be aligned in the correct position?

☐ Yes ☐ No ☐ I don't know

Attitudes

1- **It is necessary to take the child for regular dental visits**

☐ Agree ☐ Uncertain ☐ Disagree

2- Cleaning of the child's teeth should be done by mothers

☐ Agree ☐ Uncertain ☐ Disagree

3- It is necessary to clean the child's teeth after every meal

☐ Agree ☐ Uncertain ☐ Disagree

4- Good oral health is related to good general health

☐ Agree ☐ Uncertain ☐ Disagree

5- Healthy milk teeth are essential for children to chew food properly

☐ Agree ☐ Uncertain ☐ Disagree

Practices

1- **When was your child's first dental visit?**

☐ 6 months after birth ☐ after eruption of first milk tooth ☐ 1 year after birth ☐ not yet visited

2- **When do you take your child to visit the dentist?**

☐ Only during problems ☐ every 6 months ☐ every year ☐ not regular

3- **When did you commence the cleaning of your child's teeth?**

☐ Soon after first milk tooth eruption ☐ After 4-6 milk teeth eruption ☐ After all milk teeth eruption ☐ Don't remember

4- **How many times do you brush your child's teeth?**

☐ Once in a day ☐ Twice in a day ☐ After every meal ☐ not regular

5- **When do you change your child's toothbrush?**

☐ Once in 15 days ☐ Once a month ☐ Every 2-3 months ☐ Once the bristles fray out ☐ not regular

6- **At what time do you give sugary food items to your child?**

☐ With meals ☐ In between meals ☐ Before going to bed ☐ Not regularly