

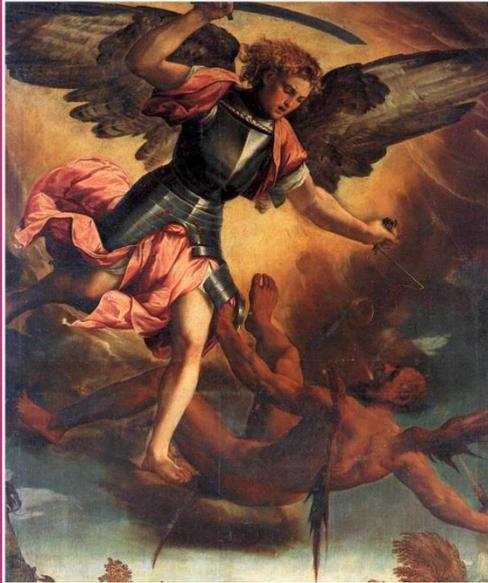
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# Knowledge, Attitude and Practices of Oral Health among Parents and Pre-School Children

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## Abstract

The aim of the study is to investigate the knowledge, attitude and practices of oral health among parents and pre-school children via comparative qualitative research methods. As a result, there is significantly correlation between frequency of tooth brushing in parents and frequency of tooth brushing in their children. Children learn many of their habit and skill from their parents. In conclusion, knowledge, attitude and practice of patents are the most important characteristic factors that have influence on oral hygiene of their preschool children.

**Key Word:** Knowledge, attitude, practices, oral health, preschools

## *Conocimientos, actitudes y prácticas de salud bucal entre padres e hijos en edad preescolar*

### **Resumen**

El objetivo del estudio es investigar el conocimiento, la actitud y las prácticas de salud oral entre los padres y los niños en edad preescolar a través de métodos comparativos de investigación cualitativa. Como resultado, existe una correlación significativa entre la frecuencia del cepillado dental en los padres y la frecuencia del cepillado dental en sus hijos. Los niños aprenden muchos de sus hábitos y habilidades de sus padres. En conclusión, el conocimiento, la actitud y la práctica de las patentes son los factores característicos más importantes que influyen en la higiene oral de sus niños en edad preescolar.

**Palabras clave:** Conocimiento, actitud, prácticas, salud bucal, preescolares.

### **1. INTRODUCTION**

Children usually behave based on parent's behaviors particularly their mother behaviors. Then they learn the principle of hygiene from their family. Oral health is one of the important aspects of hygiene in children that they learn from their family. During the first three years in life of the children, parents have the most important role to provide oral health for them (Dabawala et al., 2017; Nisawa, 2018). During this time parent usually learn to their children the habit of tooth brushing. Even though the status of oral health significantly

has improved in preschool children in developed countries dental caries still exists now and it is affecting quite a number of children around the world.

Current studies have shown that the oral health status of children directly associates with parent's oral health behavior and lifestyle. Therefore, since oral health of children directly depends on knowledge, attitudes and perception of their parents about oral health status of their children, the incidence of this problem could be reduced involve parents in public enlightenment and public health programs to teach them the important strategically for preventing their children oral problem. Although it seems that many studies were performed on the association of oral health of children and Studies between children oral health and their parent's knowledge, behaviors and belief, but there is no review article to show that changes in knowledge, attitude and beliefs are linked to change in the oral health of a child clearly. This study aimed to review the knowledge, attitude and practice of parents and its association with oral health of pre-school children systematically.

## **2. METHODOLOGY**

The design of this study was a systematic review to review the association between knowledge, attitude and practice of parents and oral health of pre-school children. Related articles were found by the searching database, including PubMed, web of science, Scopus,

Google Scholar by using keywords such as knowledge, attitude, practices, oral health, and preschools. Inclusion criteria were English original article, articles with publishing date December 2010 to December 2018. Furthermore, exclusion criteria were articles that were not assessed the relation between knowledge, attitude and practice of parents and oral health of pre-school children and articles with publishing date before the 2010 year (Indriastuti, 2019; Abramova et al., 2016).

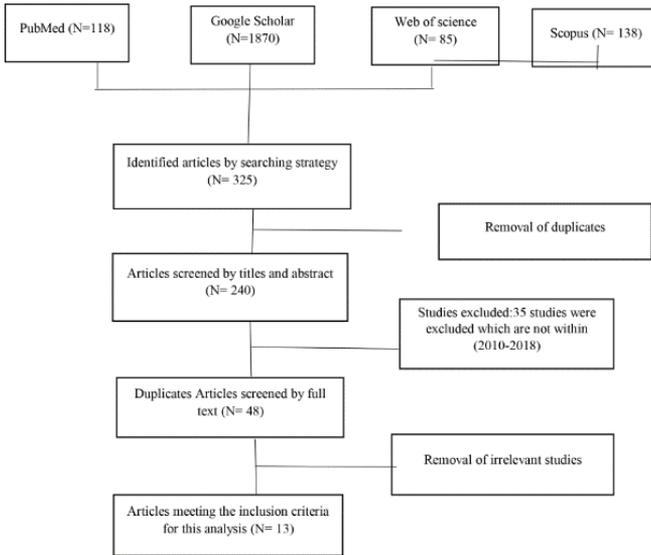


Figure 1: Flow diagram of the selection process of the study to review the knowledge, attitude and practice of parents and its association with oral health of pre-school children 2010- 2018

### **3. RESULTS**

Totally 13 articles were entered in this study. The researchers screened them. The findings from those articles explained into five subtitles including: the relation between parent's characteristics and oral health among preschool children, the relation between parent's knowledge and oral health among preschool children, the relation between parent's attitude and oral health among preschool children, the relation between parent's practice and oral health among preschool children, and Associations among Knowledge, attitude and practice of parents with oral health of preschool children.

1. The relation between the parent's characteristics and oral health among preschool children

2. The relation between parent's knowledge and oral health among preschool children (Yang et al., 2019; Soo et al., 2019).

3. The relation between parent's attitude and practice and oral health among preschool children

The attitude of parents about oral hygiene directly influences on hygiene performance of children. Bozorgmehr et al. (2013) performed a study in the 2013 year. They showed in those study that there is a significant correlation between the frequency of tooth brushing in parents and the frequency of tooth brushing in their children. Children learn many of their habit and skill from their parents. Oral hygiene skill such as brushing is one of them that directly related to the attitude of patents about it. Furthermore, several studies have shown improving attitude and practice of parents related to oral hygiene with education

could be helping to tackle the dental disease in preschool children (Daly et al., 2016; Ardakani et al., 2015).

1. Associations among Knowledge, attitude and practice of parents with oral health of preschool children

Based on information mentioned above and current studies knowledge, attitude and practice of patents related to oral hygiene are significantly related to oral hygiene of children. The relation between them is that at first knowledge will be increased by education, after that, when knowledge about importance of oral hygiene, this information generates a positive to change in practice about oral hygiene and daily caring from tooth by brushing (Chen et al., 2017; Khodadadi et al., 2016).

NO	Authors & Years	Size	Region	Finding	Summary
1	Bozorgmehr et al. (2013)	222 parents and children participated in the study	Iran	There was a significant relationship between history of having dental problems in parents and dmft index in their children. There was a significant relationship between parental frequency of tooth brushing and child frequency of	promoting parent knowledge and attitude could affect their children oral health behavior and status

				tooth brushing; however, there was no significant relationship between parental frequency of dental visits and those of their children	
2	Hooley et al (2012)	Systematic review (Fifty-five studies were included from an initial identification of 1805 studies.)	Australia	All studies testing associations between dental caries and socio-demographic factors, feeding practices, parent attributes, behaviours, oral health, attitudes, knowledge and beliefs in children aged 0–6 years, published between 2006 and 2011.	To date, most research has focused on the association between caries and socio-demographic and feeding factors with few studies exploring parents' attributes, attitudes, knowledge and beliefs, and none exploring possible pathways between the multiple layers of influences potentially accounting for how

					determinants of ECC operate and traverse individual, familial, community, and socio-cultural contexts
3	Dabawala et al (2017)	Two hundred and eleven children with ECC and equal number of controls participated in this case-control study	India	Majority of parents of children with and without ECC had authoritative parenting style	Improper oral health practices are the risk factors for ECC. The association of parenting style with ECC could not be confirmed.
4	Kumar et al (2017)	1539 parents	India	Parents' oral hygiene behaviour was positively ( $\beta=0.18$ , $P=0.009$ ), and power assertion negatively ( $\beta=-0.06$ , $P=0.041$ ) associated with children's oral hygiene behaviours.	Children had higher dental caries experience when they lived in families with lower SES and used more power assertion parenting practices.
5	Pan et al (2017)	1900 students	Guangzhou	Children who had worse performance on oral hygiene	Oral health knowledge, behaviors and parental practice

				habits and good parental practice in the baseline survey were more likely to obtain beneficial change.	among migrant children significantly improved at the follow up assessment.
6	khodadaddi et al (2016)	384 children aged 21 months to 84 months	Iran	Parents with inadequate OHL had children with more dental caries ( $p=0.005$ ), however this relation had no significance while controlling for Background factors. Increasing children's dental fillings was significantly related with families living in urban Regions ( $p=0.01$ , 95% CI: 0.11 to 1.12), and parents with adequate OHL ( $p=0.02$ , 95% CI: 0.08 to 1.05).	Inadequate parents' OHL was associated with children having high dental caries and less dental Fillings. Therefore, providing interventions to improve parents' OHL would be valuable in children's dental health promotion programs, especially in countries with a developing oral health system
7	Ji et al (2016)	A total of 3015 children	China	For family factors included, parents'	Parents' behaviors

		in grades 4, 5, and 6 from 16 elementary schools and their parents in Beijing and Guangzhou, China, were selected through multistage stratified cluster random sampling.		modeling behaviors (PMB), socioeconomic status (SES), parents' indirect controlling behaviors (PICB), and parents' oral health knowledge and attitudes (POHKA) demonstrated positive relationships with children's oral health behaviors (COHB)	shared relatively high similarities with COHB and family factors were associated with COHB greatly. The relationship between PMB and COHB was less than that between COHKA and COHB in migrants. The association between family factors and COHB in disadvantaged populations should be considered when designing children's health education programs.
8	Chen et al (2017)	570 children were invited to participate, and 501 completed the oral examination	Hong Kong	children who visited a dentist, who were taken care of primarily by grandparents and whose parental dental knowledge	The caries prevalence of the children was related to their frequency of sugary snack intake, dental attendance

				levels were moderate had higher dmft scores	and socio-economic background.
9	Gomes et al (2015)	843 Brazilian children between 3 and 5 years of age	Brazil	The following variables were significantly associated with parental perceptions of children's oral health	Parental perceptions of oral health are influenced only by clinical conditions with symptoms, such as dental caries with toothache. Other oral conditions, such as malocclusion or traumatic dental injury, were not associated with parental perceptions of their child's oral health
10	Nagarajappa et al (2013)	470 parents	India	Majority of the parents had good knowledge regarding tooth eruption, but had a poor knowledge of cleaning (58.7%) and development of caries (48.5%). Parents in the age	Parent's knowledge on IOH care was inadequate. Health professionals, who are the first to come into contact with expectant and new mothers,

				group of 25-30 years showed significantly higher mean knowledge (25.90 ± 3.93), attitude (15.71 ± 2.23), and practice (20.09 ± 2.50) scores. Female parents showed a significantly higher mean knowledge (21.45 ± 4.27) and attitude scores (14.97 ± 2.15) than the male parents.	need to disseminate appropriate and accurate information about oral health-care for infants.
11	Daly et al (2016)	1323 parent/infant pairs were enrolled in the study	India	Parents who perceived they provided excellent/very good/good care for the infants' teeth	Parents who provide good infant oral health care are more likely to perceive they provide good care and more likely to have better Personal dental health behaviors. This agrees with previous studies concerning

					older children.
12	Shaghaghian et al (2017)	396 parents and their 3- to 6- year- old children		Children of aware parents had lower dmft (P < 0.001) and better oral hygiene (P = 0.001) than those of unaware parents.	Many parents were not aware of their child's oral hygiene. Educational interventions should be provided to young families to increase parental knowledge and skills that help them recognize their child's dental needs. The interventions are more necessary for low socioeconomic parents and for the parents of children with poor oral hygiene.
13	Dye et al (2011)	1,184 mother/child pairs for children aged 2 through 6 years	Baltimore	The children of mothers with high levels of tooth loss were more than three times as likely (OR, 3.3; 95 percent CI, 1.8-	Mothers' oral health status is a strong predictor of the oral health status of their children

				6.4) to have higher levels of caries experience compared with children of mothers with no tooth loss; for mothers with moderate tooth loss	
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Table 1.

#### 4. CONCLUSION

Oral problems are serious conditions that have severe consequences for individuals. Preschool children completely depend on health knowledge and behaviors their parents about their oral hygiene. Based on this review we found that knowledge, attitude and practice of patents are the most important characteristic factors that have an influence on oral hygiene of their preschool children. It is noteworthy that education in the best way to increase of health knowledge of parents to make a change in their attitude and practice and finally reduce the oral problem in preschool children.

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