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*Risk factors of dental caries versus the awareness of mothers  
raising small children*

Dental caries has numerous sources; however, carious bacteria, diet and oral cavity hygiene are the factors that play the most important part in its development (4, 7).

The aim of the study was evaluation of the knowledge of mothers raising small children on the selected factors of dental caries.

MATERIAL AND METHODS

Survey studies were conducted among 30 women aged 25–43 raising at least one child

The women were the patients of The Department of Conservative Dentistry of the Medical University of Lublin. Questions included in the survey concerned oral hygiene procedures and sources of information in this sphere, infectious aspect of dental caries, possibilities of dental treatment in pregnancy.

RESULTS

The analysis of the study results revealed that 13.3% of the surveyed brush their teeth once a day, 60% twice a day, 26.7% more than twice a day. All women use toothpaste, 66, 7% use mouth rinse, 60% dental floss. Sixty per cent of women declare having dental control check-ups every six months (Tab. 2), 90% think that they are allowed to have conservative treatment during the pregnancy, 60% think they are allowed to have teeth extractions (Tab. 3). The possibility of the transmission of the cariogenic bacteria by the saliva from mother to a child is observed by 63.3% of the surveyed (Tab. 4). Women enumerated the dentist (83.3%) and the mother (43.3%) as the major sources of their knowledge about dental hygiene. (Tab. 5). According to the surveyed, the lack of oral hygiene (56.7%), bad dietary habits (26.7%) and rare dental appointments (13.3%) were the factors negatively influencing the state of dentition (Tab. 6).

Table 1. Division of patients according to the number of children raised

Number of children	Number of patients	Percentage of patients
1	21	70.0
2	8	26.7
3	1	3.3

Table 2. Hygiene procedures and devices used for oral cavity hygiene

Types of hygiene procedures	Number of patients	Percentage of patients
Tooth brushing		
Once a day	4	13.3
Twice a day	18	60
More than twice a day	8	26.7
Dental floss		
Yes	18	60
No	12	40
Mouth rinse		
Yes	20	66.7
No	10	33.3
Use of toothpaste		
Yes	30	100
No	-	
Dental control check-up every six months		
Yes	18	60
No	12	40

Table 3. Possibility of taking up dental treatment in pregnancy according to the surveyed

Conservative treatment	n	%
Yes	27	90
No		
I don't know	3	10
Teeth extractions		
Yes	18	60
No	2	6.7
I don't know	10	33.3

Table 4. Possibility of the transmission of cariogenic bacteria through the saliva from mother to a child

Studied group	n	%
Yes	19	63.3
No	11	36.7

Table 5. Most frequent sources of knowledge concerning oral hygiene reported by the surveyed

Sources of knowledge of the surveyed concerning oral hygiene	Number of answers	%
Dentist	25	83.3
Mother	13	43.3
TV	8	26.7
Radio	4	13.3
Magazines	10	33.3
Teacher	4	13.3

Table 6. Factors negatively influencing the state of dentition mentioned by the surveyed

Type of factor	Number of answers	%
Lack of oral hygiene	17	56.7
Excess of carbohydrates in the diet	2	6.7
Rare dental appointments	4	13.3
Bad dietary habits	8	26.7

## DISCUSSION

The analysis of the study results revealed that 13.3% of the surveyed brush their teeth once a day, 60% twice a day, 26.7% more than twice a day. All women use toothpaste, 66.7% use mouth rinse, 60% dental floss for cleaning approximal surfaces and interdental spaces. The percentage of patients is not large enough because of the fact that our earlier studies conducted among women in the reproductive age showed that women who regularly use dental floss are observed to have essentially smaller number of dental surfaces affected by dental caries in comparison to women who do not use it (1).

It should be assumed that the knowledge about the necessity of regular dental control check-ups is not sufficient among patients. Survey studies conducted among pregnant women by Szczepańska et al. revealed that 66.65% women with higher education and 43.04% women with secondary education had the last control check-up at the dentist 3 months before, whereas 35.71% women with elementary education were at the dentist 2 years before or later (8). In our surveys only 60% declare to have regular dental check-ups every six months. This is a distressing observation, because in the studies already mentioned above we stated that women reporting for regular dental control check-ups every six months are observed to have essentially smaller number of teeth surfaces affected by carious process (1).

Attention should be drawn to the fact that 10% women do not possess the information whether they are allowed to have conservative treatment in pregnancy, at the same time 90% give positive answer and 33.3% do not know whether they are allowed to have teeth extractions in pregnancy. This is upsetting information. Kruszyńska- Rosada and Borysewicz stated, that in children of mothers with numerous, not treated cavities amount of cariogenic *Streptococcus mutans* bacteria is higher than in children of mothers with better state of dentition (5). It has been documented, that *Streptococcus mutans* bacteria play essential part in the initiation of carious process and are transmitted by the saliva from man to man (6). Mothers, who have in their mouths large amounts of *Streptococcus mutans*, transmit these microorganisms to their children e.g. by kissing, eating with the same spoon. It may lead to the occurrence of early caries of milk teeth in children and early colonized milk teeth may infect permanent teeth (3). When asked about the possibility of cariogenic bacteria transmitted by mother's saliva to the child, 63.3% of the surveyed gave positive answer.

Among factors negatively influencing the state of dentition, women that we surveyed mentioned the lack of oral hygiene, bad dietary habits, and rare dental appointments. Among factors negatively influencing the state of dentition meagre percentage of the surveyed consider carbohydrates being cariogenic. It would be good if the declared knowledge was applied in health behaviours of mothers both in relation to themselves and their children. In large extent hygiene habits are rooted in children by their parents in the first years of their lives and they are rooted especially by mothers. In our studies concerning oral hygiene for 43.4% of the surveyed it was their mother who was the source of this knowledge. Therefore, educational campaigns promoting the necessity of maintaining proper oral hygiene should be directed towards the women in the reproductive age.

## CONCLUSIONS

1. There exists the need of propagating proper oral hygiene including the necessity of performing regular dental check-ups.

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## SUMMARY

Survey studies were conducted among 30 women aged 25–43 raising at least one child. The women were the patients of The Department of Conservative Dentistry of the Academy of Medicine in Lublin. Questions included in the survey concerned oral hygiene procedures and sources of information in this sphere, infectious aspect of dental caries, possibilities of dental treatment in pregnancy. The studies revealed that 13.3% of the investigated brush their teeth once a day, 60% twice a day, 26.7% more than twice a day. All of the surveyed women use toothpaste. 66.7% use mouth rinse, 60% dental floss. 60% of women declare having dental control check-ups every six months, 90% think that they are allowed to have conservative treatment during the pregnancy, 60% think they are allowed to have teeth extractions. The possibility of the transmission of the cariogenic bacteria by the saliva from a mother to a child is observed by 63.3% of the surveyed. Women enumerated the dentist (83.3%) and the mother (43.3%) as the major sources of their knowledge about dental hygiene. According to the surveyed, the lack of oral hygiene, bad dietary habits and rare dental appointments were the factors negatively influencing the state of dentition.

Czynniki ryzyka choroby próchnicowej a świadomość matek wychowujących małe dzieci

Badania ankietowe przeprowadzono wśród 30 kobiet w wieku 25–43 lat wychowujących co najmniej jedno dziecko. Kobiety były pacjentkami Zakładu Stomatologii Zachowawczej AM w Lublinie. Pytania zawarte w ankiecie dotyczyły przeprowadzania zabiegów higienicznych w obrębie jamy ustnej oraz źródeł wiedzy na ten temat, aspektu zakaźnego próchnicy zębów, możliwości

leczenia stomatologicznego w okresie ciąży. Analiza wyników badań wykazała, że 13,3% badanych szczotkuje zęby 1 x dziennie, 60% 2 x dziennie, częściej niż 2 x dziennie 26,7%. Wszystkie ankietowane kobiety stosują pasty do zębów, 66,7% używa płynów do płukania jamy ustnej, 60% nitki dentystycznej. Badania kontrolne stanu zdrowia jamy ustnej co sześć miesięcy deklaruje 60% kobiet, 90% uważa, że można w okresie ciąży leczyć zachowawczo zęby, 60% – że można wykonywać ekstrakcje zębów. Możliwość przeniesienia bakterii próchnicotwórczych poprzez ślinę z matki na dziecko dostrzega 63,3%. Kobiety jako główne źródła swojej wiedzy na temat higieny jamy ustnej wymieniały stomatologa (83,3%), matkę (43,3%). Czynniki wpływającymi negatywnie na stan uzębienia według ankietowanych były brak higieny jamy ustnej, złe nawyki dietetyczne, rzadkie wizyty u stomatologa.