

Relationship Between Pocket Money Trend And Dental Caries

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ABSTRACT

Background : The current pocket money trends in school children is steeply increasing. Pocket money accessed by the children has a direct influence on eating habit leading to bitter consequences on their oral hygiene. This trend turns out to be a risk factor for dental caries.

Objective : The aim of the study was to find the relationship between pocket money trend and dental caries in school going children.

Materials and Methods: A questionnaire based cross sectional study was carried among 200 school children of age 8 to 13 from two selected urban area schools of Ahmedabad. Informed consent was obtained from the respective school Principals and also verbal consent was taken from each participating child. Questionnaire used to collect relevant data required for the study was pretested and validated. The questionnaire form was given to each child to fill it and simultaneously oral examination using mouth mirror and explorer was carried by trained dentist according to WHO standard criteria. Data was collected and analyzed using SPSS version 26 software. The chi-square test was used to study the relationship between variables and compare means. Correlation analysis was used to determine the degree of association at 5% level of significance.

Results : A strong positive correlation ($r=0.9925$) was seen between pocket money and caries. The results showed that 89% of children received pocket money among which 63% children had dental caries.

Conclusion : This study concluded that children receiving allowances could be a potential risk indicator of caries.

Keywords: Allowances, eating habits, fast food, oral health, caries trends.

1. INTRODUCTION

In spite of substantial economic growth during the last few decades, consumption of fast and junk food has added a big problem in developing countries like India.¹ The pocket money trend is rising greatly among Indian children.² It appears that the idea of giving pocket money is gaining acceptance in India. Pocket money is the money that the children receives on daily, weekly or monthly basis from their parents or guardians to use for their day to day expenses.¹ The trend for providing allowances is on rise due to the increase in the family income. Working parents use it as a compensatory mechanism for decreasing caregiving roles. By these children get the freedom to use money according to their will.

Pocket money gives children a certain degree of autonomy in purchasing and consumption. Several studies in the literature had shown that pocket money is potential contributing factor for developing unhealthy dietary habits.^{3,4}, some of which entail some health risk like obesity, smoking and substance abuse.

Snacks were one of the most common spending categories found among children under 12(McNeal&Yeh,1996).⁵ Pocket money has been linked to direct influence on snacking and sweets rich in carbohydrate, a well-known factor that contributes to caries development.⁶ May be due to scarcity of data, pocket money allocation to children is a topic that has been under considered by caries -related research. However, little is known about a relation of pocket money to oral health. Taking this into consideration, present study was planned to evaluate the association of pocket money on the occurrence of dental caries.

2. MATERIALS AND METHODS

A cross-sectional study was designed to evaluate the influence of pocket money on dental caries. Children of age 8-13 years were included in the study from two different schools of Ahmedabad. Two stages random sampling was done, first stage included random selection of two schools from the internet database. The second stage was done to randomly select the children of age 8- 13 years from the selected schools with proportion to population sample selection technique. Finally, a total of 200 children were included in the study.

Consent for the participation was taken in written from the principals of the respective schools after explaining in detail about the methodology in a language well understood by them. A verbal consent was also taken from the participants before distribution of questionnaire. The questionnaire was formulated in English with 15 multiple choice questions related to pocket money. (i.e. parent's occupation, amount of pocket money received, who gives these allowances, frequencies of visit to fast food restaurants, preferences of fast food and sweet items, spending and saving money). Children were asked to select one appropriate option for each question. The evaluation of dental caries was followed by diagnostic criteria suggested by WHO. An intraoral examination was done visually with the aid of a mouth mirror and probe and the findings were recorded as deft/DMFT Index for primary and permanent dentition.

The data from the questionnaire was coded and entered into the SPSS version 26 for the statistical analysis. Descriptive and analytic approaches were used in the data analysis. Both Chi-square test and correlation test at 5% level of significance were used to determine the relationship between variables.

3. RESULTS

A total of 200 children(116males,84females) participated in the study. Cronbach's alpha value of 0.76 showed a good internal consistency of the questionnaire. The study depicted

89% of children received pocket money (51.5% males & 37.5 % females). 46.5% children spent their money in buying drinks, wafers and chocolates from the stalls present outside the schools. 63% of children were found to have caries. Results also presented in table 1

A strong positive co-relation (r=0.9925) was seen in between pocket money and dental caries, making it a potential risk indicator of dental caries (table 2).

The findings showed that 42.5% of children have 50-100 rupees as pocket money, also similar results were presented by Mishra HG in 2012. It was observed majority of children frequented the fast food stalls and presented more dental caries. No significant gender difference(p>0.05) seen in consumption of junk food between boys and girls (table 3).

Therefore, pocket money allocation is correlated with unhealthy eating behavior, which suggest a possible path that explains the link between pocket money and dental caries.

Table 1 Pocket money related questionnaire variables with percentage		
Pocket money received	M – 51.50% F – 37.50%	
Frequency of pocket money given	Alternative day-6% Monthly –39% Weekly –23% Daily -21%	
Amount of pocket money received	<50 - 32.5%	
	50-100- 42.5%	
	100-200- 11%	
	>200- 3%	
Pocket money received from	Father -58% Grandparents – 10% Mother – 17.5% Both parents – 3.5%	
Schools providing lunch	2%	
Food stalls type- snacks, sweets, Drinks	60.5%	
Frequency of buying junk food	Once a week-33% Twice a week-31.5% >Thrice a week-30%	
Habit of saving the pocket money	59%	
Pattern of consumption of pocket money	Enjoying with -buying food-	M -13%
		F -13.5%
	Electronic gadgets-	M -10%
		F -4%
	Stationary stuff	M -14%
		F -14.5%
	Movies-	M -1%
		F -1%

	Others like going to restaurants..	M -12.50%
	Did not answer	F -4%
Visit to betel or tobacco shops		12.5%
	M –45.5%	
	F – 33%	
Products purchased at betel or tobacco shops	Tobacco products-64%	
	Wafers / chocolates -36%	

Table 2 : Relation between pocket money and dental caries		
Pocket money	Dental caries	
Receive	Present	Absent
178	161	39

Correlation coefficient (r) is 0.9925

Table 3 : Relationship between junk food consumption and gender		
Gender	Junk food consumption	
	Consume junk food	Not much junk food consumed
Male	108	8
Female	78	6

Chi square value is 0.0045; p value is 0.946278

4. DISCUSSION

The study shows that in today's era majority of children receives pocket money by which they gain more autonomy and decision-making power related to dietary behavior. This exponential rise may be because of presumed term "Six-pocket syndrome", wherein a child gets pampered by mainly six adults, namely father, mother, grandmother-grandfather and uncle - aunt. Current demographic patterns show, parents nowadays prefer fewer children, and hence this only child to the parents receive all the love and affection enormously that makes a child reluctant to listen "no" in return of a demand. ⁷ The shifting trend of families is also one of the prime reasons giving rise to pestering power. Nuclear families with working guardians stipulate that children don't get sufficient time to spend with their parents. This stigma drives the parents to give more money to children and due to this more money children are easily attracted towards consumption of unhealthy food and this unhealthy habit leads to bitter consequences on oral and social health. ⁷ The main areas where the child probably tries to imply pressure to obtain whatsoever, he or she desires is the choice of food and soft drinks. This pressure is influenced by things like menus at fast food restaurants, television advertisements and perceptions of the peer-group and this gives rise to term called pester power. ^{4,7}

In the present study, it was seen that the source of pocket money was mostly the father (58%) and amount of pocket money received by a male is higher than their counterparts in accordance with study by VC Punitha et al. in 2014. 32% children visited food stalls outside the school twice in a week, this pocket money consumption pattern is in accordance with study done by Miao Li in 2017 and VC Punitha et al. in 2014. 59% children were good in saving pocket money amount which was also shown in study conducted by A. Furnham 1999.

It was also observed that there was a strong positive relation between child's pocket money and dental caries suggestive of the trend of buying unhealthy food through pocket money, this may be because pocket money could influence the frequency of visits to fast food restaurants, increase in between meal snacking. Snacking has been proved to have an important part as a lifestyle associated element of danger in developing dental caries. Low nutrient and high energy based foods often contain high content of added sugar, but several modern snack products such as wafers, popcorn and shrimp crackers, though being not so sweet, are still potentially cariogenic because of their content i.e extensively hydrolyzed starch.⁶ These results were in accordance with Wilkins et al. stating that pocket money can lead more sugar consumption and in turn caries.⁶ Pocket money trend imposes other health issues such as weight gain, tobacco addiction, sedentary lifestyle. Obesity is now considered to be a global pandemic.⁸ These all health issues together hinders child's performance in school and also affects his/her physical and extracurricular activities.

Our study has several public health implications like parents and guardians should be educated about the potential adverse health impacts of pocket money and should be encouraged to instill healthy consumption behaviors in children like using pocket money in sports and other physical activities. As major outlet, schools have become a key target for intensive food marketing and for students purchasing junk food items from stalls outside schools.⁸ Our findings suggest improving the school guidelines and policy in influencing child's behavior and health. Other adults in family like grandparents also should be educated and motivated about pocket money and its impact on health. Government policies should be directed to reduce the interests of commercial organizations that target young age groups and initiative should also be taken to impart financial literacy to school teachers and students.

This empirical evidence suggests that pocket money induces undesirable behaviour in children affecting overall health.

5. CONCLUSION

Dental caries is a disease whose one of factor also includes diet. In our study allowances given to children influenced their visits to fast food stalls and we found its association with dental caries. Children those who receive pocket money are carried away by advertisement and opt for unhealthy junk food and suffer from the problem of dental caries. Teenagers getting pocket money could influence their eating habits and can indulge in consumption of tobacco products which in turn affects oral health. Parents and teachers should motivate children on healthy and appropriate spending of their pocket money. By encouraging children to budget and allocate money for spending, giving and saving they begin to learn the responsibility and agency that comes with money. Dental disease is largely due to the habits of the individual and therefore oral health promotion/education is fundamental to control this disease.

Clinical relevance :

Pocket money trend is a fantastic opportunity for every child to learn the importance of money and discretionary spending. Pocket money consumption pattern is changing nowadays with junk food and fizzy drinks being on the top list. Pocket money coupled with poor oral hygiene and eating habits poses a great risk for dental caries and other health issues.

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