



The Relationship Between Intrinsic and Extrinsic Motivation in Tooth Brushing Against Index Debris Scores on Students At Sdn Sendangmulyo 02, Semarang City

Salikun , Anisa Puspita R , Hadiyat Miko , Muhammad Saleh

Abstract: Caries are one of the serious health problems in school-age children especially elementary school. Dental caries are one of which is influenced by the behavior of people in maintaining dental and oral health. Public behavior of dental health, one of which is influenced by a person's motivation in the habit of brushing teeth. The aim of the study was to analyse intrinsic and extrinsic motivational relationships in brushing teeth against the index debris score and tooth brushing skills at the students of SDN Sendangmulyo 02, Semarang in 2019. The types of research used are analytical surveys using questionnaires with cross sectional research plans. The samples in this study amounted to 53 samples and used purposive sampling techniques. Data analysis is conducted with the analysis of univariate and bivariate, test the relationship using the test of Spearman rank. Statistical test results showed there was a link between intrinsic motivation and extrinsic students in tooth brushing against index debris scores and tooth brushing skills, where intrinsic motivational variable statistical test results show the value of p -value = 0.489 (p -value > 0.05) and extrinsic motivation indicating the value of p -value = 0.095 (p -value > 0.05). Conclusion: There is no relationship between intrinsic motivation and extrinsic motivation to the index debris score in the students of SDN Sendangmulyo 02, Semarang City Central Java.

Keywords : motivation, index debris score, tooth brushing skills

I. INTRODUCTION

Dental and oral health is one of the unseparable parts of the overall body health. According to Indonesia LAW No. 36 year 2009 about health, mention that health is human rights and one of the welfare that must be realized according to the ideals of Indonesian nation as mentioned in Pancasila and the Constitution Republic of Indonesia in 1945.

Based on basic health Research (2013) The national

prevalence of dental and oral health issues is 25.9%, as 14 provinces have a prevalence of dental and oral problems over national numerals. It is supported by the latest data released by the Oral Health Media Centre in April 2012, showing as many as 60-90% of school-age children and almost all adults around the world have dental problems (Oral Health Media Centre, 2012).

Caries become one of the serious health problems in school-aged children, especially elementary school (SD). School-age children have a high vulnerability to dental caries, caused by a layer of dental email sections in school-aged children to have a eruption that is likely to occur in dental caries (Pratiwi, 2009).

Public behavior of Dental hygiene, one of which is measured by the habit of brushing teeth. From the population behavior percentage of people aged 10 years and above most (93.8%) Brushing teeth every day, but that has the habit of brushing the teeth properly only amounted to 2.3% (Riskasdas, 2013). Behaviors that tend to ignore dental hygiene and mouth are generally based on lack of knowledge of dental and oral health and its preservation (Tandilangi et al, 2016).

One person's motivation also has an important role in behavioral change (Uno, 2016). Children who brush teeth with a frequency that is not optimal can be caused because the child is not used to do dental rubbing activity early on by parents, so that the child has no awareness and motivation to maintain dental health and His mouth, the condition facilitates the child's teeth exposed to the risk of dental and oral diseases (Stecksen-Blicks and Holm, 1995).

Based on preliminary studies that have been conducted through dental and oral health screening, the main problem is OHI-S = 2.08 (moderate) with the score debris index = 1.92 (bad) and calculus index score = 0.16 (good). The score has not meet the national target $OHI-S \leq 1.2$, so it needs to improve knowledge and motivation dental health in particular how to brush teeth.

The aim of the study was to analyze the relationship of intrinsic motivation and extrinsic students in brushing the teeth against the index debris score and the dental brushing skills on the students of SDN Sendangmulyo 02, the City of Semarang

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II. METHODOLOGY

The type of research used in this research is a research analytical survey. Research with analytical surveys is directed to explain a circumstance or situation (Notoatmodjo, 2010). The design used in this study is cross sectional which is cause and effect variables or cases occurring in the research object are measured and collected simultaneously (at the same time) (Notoatmodjo, 2010). The population in this study is all grades IV students of SDN Sendangmulyo 02 amounting to 115 students. To define a large swatch use the formula Slovin, with a sample number of 53. The sampling technique in this study uses purposive sampling techniques that are based on a specific consideration made by the researchers themselves, based on the characteristics or properties of a known population Earlier (Notoatmodjo, 2010). Data obtained from the results of this study were analyzed using SPSS application with the initiated univariate analysis to know the knowledge score, motivation, and index debris presented in the frequency distribution table, then conducted test The normality of the Smirnov Kolmogorov with the result of data distribution is abnormal. Bivariate analysis uses a test of spearman rank to determine the relationship between variables

III. RESULTS AND DISCUSSION

a. Intrinsic motivation of students in tooth brushing

Table 1 intrinsic motivation frequency distribution students in brushing teeth

Table 1 intrinsic motivation frequency distribution students in brushing teeth

Motivation	f	%
High	53	100
Low	0	0
Total	53	100,0

Based on table 1 It is known that the intrinsic motivation of students is largely in the high category of 53 students (100%)

b. Extrinsic motivation of students in tooth brushing

Table 2 extrinsic motivation frequency distribution students in brushing teeth

Motivation	f	%
High	46	86,6
Low	7	13,2
Total	53	100,0

Based on table 2 Known that extrinsic motivation of students in brushing most of the teeth in the high category as much as 46 students (86,6%).

c. Student index debris Score

Table 3. Student index Debris score frequency distribution

Index Debris criteria	f	%
Good	2	3,8
Medium	21	39,6
Bad	30	56,6
Total	53	100

Based on table 3 unknown that the student's index debris score mostly in category as many as 30 students (56.6%)

d. Intrinsic motivational relationship in tooth brushing against the student's index debris score

Table 4 Cross tabulation of intrinsic motivation against the student's index Debris score

Index debris score	Bad (%)	Medium (n)	Good (n)
Motivation			
High	30	21	2
Low	0	0	0

Based on table 4 It is known that most students have high intrinsic motivation with a bad index debris score of 30 students

Table 5 Intrinsic motivational relationship to the student's index Debris score

Variable	p value	Interpretation
Intrinsic motivation to index debris score	0,489	There is no relationship

Based on table 5 Known statistical test results show the value of p -value = 0.489 (p -value > 0.05) in other words there is no link between intrinsic motivation of students in brushing teeth against the index debris score.

e. Extrinsic motivational relationship in tooth brushing against the student's index debris score

Table 6 Cross tabulation of intrinsic motivation against the student's index Debris score

Index debris score	Bad (n)	Medium (n)	Good (n)
Motivation			
High	27	17	2
Low	3	4	0

Based on table 6 It is known that most of the students are found to have high extrinsic motivation with a moderate index debris score of 21 students

Table 7 An extrinsic motivational relationship to the student index Debris score

Variable	p value	Interpretation
Extrinsic motivation to index debris score	0,095	There is no relationship

Based on table 7 Known statistical test results show p -value = 0.095 (p -value > 0.05) or there is no link between the students extrinsic motivation in brushing the teeth against the index debris score. The results of the variable research on intrinsic and extrinsic motivation of students show that most in high criteria, this is because students have gained encouragement both from within him, others as well as facilities gained in activities Brushing the teeth. This is in line with the theory expressed by Sariningsih (2012) that the child's motivation to brush their teeth regularly after eating-sweet food can prevent the occurrence of dental diseases and mulutby properly brushing teeth, will be more Easy and cheaper than treating dental and oral ailments.

The index debris score is largely in the bad criteria of 56.6% with an average score of 1.76 and has not fulfilled the national target, so it should be done with tooth cleansing by brushing the tooth.

Whereas, the skills of students in brushing teeth are mostly included in the category less than that is 49.1%.

The results of the variable research on intrinsic and extrinsic motivation of students show that most of the criteria are high, this is because students have gained encouragement both from within him, others and facilities acquired. Based on the results of intrinsic motivation research included in the High category (100%) and extrinsic motivation belongs to the High category (86.8%). The results of the statistical test Spearman rank, obtained a value ρ -value > 0.05 i.e. there is no meaningful relationship between students' motivation in brushing teeth against the physical index debris score, both intrinsic motivation and extrinsic motivation.

The results of this study were supported by the theory that Prayitno (1989) stated that an act of motivation occurred when the consequences of the action could thrill an individual's emotions, i.e. being like or dislikes. When the consequences of an action cause a sense of love, the action becomes strong, but if that action poses a dislike, then that action will be abandoned. The results of this study were in line with the research conducted by Praditia (2016) stating that there is no link between the maintenance motivation of dental and oral health and the status of dental and oral health in flight attendants

IV. CONCLUSION

1. The student index debris score is largely included in the bad category (56.6%), intrinsic motivation of students in tooth brushing belongs to the High category (100%), and the extrinsic motivation of students in brushing most teeth in the high category (86.8 %).
2. There is no relationship between intrinsic motivation to students in tooth brushing against the index debris score, it is evidenced by the test result of the Spearman rank obtained > 0.05 result.
3. There is no link between the students' extrinsic motivation in tooth brushing against the index debris score, it is evidenced by the test result of the Spearman rank obtained by the results of ρ -value > 0.05 .

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