

ORIGINAL ARTICLE

Pengetahuan Orangtua tentang Penularan COVID-19 dan Kepatuhan Perawatan Berulang Gigi Anak di RSGM Unsoed Selama Pandemi COVID-19Putri Sarah¹, Rr. Diyah Woro Dwi Lestari¹, Ali Taqwim¹, Fitri Diah Oktadewi¹, Fajar Dwi Anggono¹*1. Jurusan Kedokteran Gigi Fakultas Kedokteran, Universitas Jenderal Soedirman, Purwokerto, Indonesia**e-mail korespondensi: ali.taqwim@unsoed.ac.id***ABSTRAK**

Latar Belakang: Masalah kesehatan gigi rentan terjadi pada anak usia sekolah dan pengetahuan orang tua mengenai penularan COVID-19 diduga berperan dalam kepatuhan melakukan perawatan gigi berulang di masa pandemi. Penelitian ini bertujuan untuk mengetahui hubungan pengetahuan orang tua tentang penularan COVID-19 dengan kepatuhan anak melakukan perawatan gigi berulang. **Metode:** Penelitian ini merupakan penelitian observasional analitik dengan pendekatan cross-sectional. Metode pengambilan sampel adalah total sampling dengan kriteria inklusi dan eksklusi. Subjek terdiri dari 50 orang tua pasien anak usia 6-12 tahun yang pernah melakukan perawatan gigi berulang di RSGM Unsoed. Instrumen penelitian berupa angket online untuk mengukur pengetahuan. Analisis data dilakukan dengan menggunakan analisis univariat dan bivariat dengan uji chi-square. **Hasil:** Terdapat hubungan yang signifikan antara pengetahuan orang tua tentang penularan COVID-19 dengan kepatuhan anak melakukan perawatan gigi berulang ($p=0,006$). Nilai koefisien kontingensi sebesar 0,41 menunjukkan kekuatan hubungan yang moderat antara kedua variabel. **Kesimpulan:** Pengetahuan orang tua tentang penularan COVID-19 berhubungan dengan kepatuhan melakukan perawatan gigi berulang pada anak di RSGM Unsoed. Selain itu, memberikan informasi dan edukasi kepada orang tua tentang tindakan pencegahan COVID-19 di bidang kedokteran gigi penting untuk meningkatkan kepatuhan pengobatan.

Kata Kunci: COVID-19, tingkat pengetahuan, kepatuhan pasien kedokteran gigi anak, perawatan berulang gigi anak**Parental Knowledge of COVID-19 Transmission and Compliance with Children's Repeated Dental Treatment at RSGM Unsoed During the COVID-19 Pandemic**Putri Sarah¹, Rr. Diyah Woro Dwi Lestari¹, Ali Taqwim¹, Fitri Diah Oktadewi⁴, Fajar Dwi Anggono¹*¹School of Dentistry, Medical Faculty, Universitas Jenderal Soedirman, Purwokerto, Indonesia**Correspondence e-mail to: ali.taqwim@unsoed.ac.id***ABSTRACT**

Background: Dental health problems are prone to occur in school-age children and parental knowledge regarding COVID-19 transmission is thought to play a role in compliance with repeated dental treatment during the pandemic. This study aimed to determine the relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment. **Methods:** This was an analytic observational study with a cross-sectional approach. The sampling method was total sampling with inclusion and exclusion criteria. The subjects consisted of 50 parents of pediatric patients aged 6-12 years who had repeated dental treatment at RSGM Unsoed. The research instrument was an online questionnaire to measure knowledge. Data analysis was performed using univariate and bivariate analysis with chi-square test. **Results:** There was a significant relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment ($p=0.006$). The coefficient contingency value was 0.41, indicating moderate relationship strength between the two variables. **Conclusion:** Parental knowledge about COVID-19 transmission is associated with compliance with children's repeated dental treatment at RSGM Unsoed. Providing information and education to parents about COVID-19 prevention measures in dental settings is important to increase treatment compliance.

Keywords: COVID-19, knowledge level, pediatric patient compliance, repeated dental care

INTRODUCTION

Dental and oral health problems are prone to occur in school-age children, and the role of parents is crucial in bringing their children for repeated dental treatment [1]. The COVID-19 pandemic has caused parents to worry about taking their children for dental treatment, resulting in a decrease in patient visits to hospitals [2]. Parental knowledge about COVID-19 transmission plays an important role in patient compliance with dental care during the pandemic [3].

The Dental and Oral Hospital of Jenderal Soedirman University (RSGM Unsoed) provides dental and oral health services to the community and serves as a professional education facility for dentistry students. It is the first dental and oral hospital in Central Java, operating since 2012. During the pandemic, RSGM Unsoed has implemented special practice rules according to the Indonesian Dental Association (PDGI) guidelines, such as the use of level 3 personal protective equipment (PPE) by dentists and therapists, negative pressure treatment rooms, and aerosol suction devices [4].

Previous research on repeated treatment at RSGM Unsoed in 2021 stated that most patients were still non-compliant with repeated treatment [5]. Therefore, this study aimed to determine the relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment at RSGM Unsoed during the pandemic.

METHODS

This research was an analytic observational study with a cross-sectional approach. The research was conducted at RSGM Unsoed from July to September 2022. Ethical approval (Number Ref. 014/KEPK/PE/VI/2022) was obtained from the Health Research Ethics Committee, Faculty of Medicine, Jenderal Soedirman University.

Research Subjects

The population was parents of pediatric patients aged 6-12 years who underwent repeated dental treatment at RSGM Unsoed from 2020 to 2022, based on data from the Medical Record Unit. Total sampling was applied, considering inclusion and exclusion criteria. The inclusion criteria were pediatric patients aged 6-12 years who were undergoing or had undergone repeated treatment more than once and were willing to participate in the study. The exclusion criterion was uncooperative pediatric patients. The sample size was 50 respondents.

Data Collection

The research instrument was a questionnaire on parental knowledge about COVID-19 transmission, consisting of 18 favorable questions with two choices (true or false). The questions covered understanding and causes (questions 1 and 2), transmission (questions 3, 4, 5, 6, and 7), signs and symptoms (questions 8, 9, and 10), prevention (questions 12, 13, 14, 15, and 18), complications (question 16), and follow-up (questions 11 and 17). The questionnaire's significance value on the validity test was $p < 0.001$, and the Cronbach's alpha value was 0.94, indicating excellent internal consistency.

Data collection was carried out by filling out an online questionnaire via Google form to parents who met the inclusion criteria. Respondents were given two weeks to complete the questionnaire. Previously, the researcher explained matters related to their participation and asked respondents to approve the informed consent.

Data analysis

Data analysis was performed using SPSS. Univariate analysis described the frequency and percentage distribution of respondent characteristics. Bivariate analysis using the chi-square test was conducted to determine the relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment. The contingency coefficient was calculated to determine the degree of association between the two variables. A p -value < 0.05 was considered statistically significant.

RESULTS

Respondent characteristics

The respondent characteristics presented in Table 1. The majority of pediatric patients were aged 10-12 years (56%), compliant with repeated dental treatment (54%), and underwent endodontic treatment (100%). Most of the parents had higher education (72%), were employed (86%), and had a monthly income of IDR 1,500,000-2,500,000 (54%). Regarding knowledge about COVID-19 transmission, 42% of parents had good knowledge.

Table 1. Respondent characteristics (N=50)

CHARACTERISTICS	n	%
<i>Child's age (years)</i>		
6-9	22	44
10-12	28	56
<i>Compliance with repeated dental treatment</i>		
Compliant	27	54
Non-compliant	23	46

<i>Type of repeated dental treatment</i>		
Endodontic	50	100
Orthodontic	0	0
<i>Parental education</i>		
High school	14	28
Higher education	36	72
<i>Parental employment</i>		
Employed	43	86
Unemployed	7	14
<i>Monthly income (IDR)</i>		
>2,500,000	15	30
1,500,000-2,500,000	27	54
<1,500,000	8	16
<i>Knowledge about COVID-19 transmission</i>		
Good	21	42
Moderate	15	30
Poor	14	28

Relationship between parental knowledge and treatment compliance

Table 2 presents the results of the bivariate analysis. There was a significant relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment ($p=0.006$). The coefficient contingency value was 0.41, indicating a moderate relationship strength between the two variables.

Table 2. Relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment

Parental knowledge	Compliance				Total		p-value	CC
	Compliant		Non-compliant		N	%		
	n	%	n	%				
Good	16	32	5	10	21	42	0.006*	0.41
Moderate	8	16	7	14	15	30		
Poor	3	6	11	22	14	28		

* p-value <0.05: statistically significant

CC: coefficient contingency

DISCUSSION

This study found a significant relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment at RSGM Unsoed during the pandemic ($p<0.006$). The coefficient contingency value of 0.41 indicated a moderate relationship strength between the two variables. These results align with a study by Sun et al. [6] which found that adequate knowledge about COVID-19 transmission through modern media sources providing the latest information on the pandemic could facilitate public understanding. News media, television, and mobile devices play a role in disseminating information during national emergencies and health crises, shaping perceptions through the delivered news content [7].

Sufficient parental knowledge about the COVID-19 pandemic is influenced by parental awareness and the efficiency of media in providing the latest news about the pandemic. In contrast, a study by Sharma et al. [8] found that most parents who understood about COVID-19 refused to bring their children to the dentist even if they had severe dental pain. This was influenced by limited knowledge about the dental clinic environment's conditions in relation to COVID-19 transmission. Parental concerns about visiting the dentist were a preventive measure to avoid their children getting infected [8]. However, that study cannot be fully compared to the current one due to differences in the year and community conditions after the COVID-19 vaccination began to be promoted by governments in various countries.

Reopening pediatric dental clinics after the decline in COVID-19 cases requires various adjustments to meet the safety needs of patients and dentists. Strategies used to protect dentists and patients in pediatric dental clinics during the pandemic include triaging and screening patients for COVID-19 exposure history. Patients at risk of having COVID-19 are declined treatment and instructed to come after they are no longer infected. Another strategy is minimizing aerosol-generating procedures that produce droplets. Until now, reopening pediatric dental clinics has begun to be possible, but the situation cannot fully return to the pre-pandemic state [9].

Few studies have shown that parents are compliant and willing to seek treatment for their children during the pandemic. Some studies, such as those by Havale *et al.* [10] and Ekinçi *et al.* [11], showed that parents, especially those with low education, refused to visit the dentist during the pandemic. Another study by Abuhammad [12] stated that the clinical characteristics and parental understanding of the potential for COVID-19 transmission in children are very important. The current study's results indicated good parental knowledge about the potential for COVID-19 transmission

in children, which could help develop educational programs to increase parental awareness about visiting the dentist to check their children's oral health during the pandemic. This study can be one of the initial studies showing that as the pandemic spread decreases, parents have begun to comply with bringing their children to the dentist again.

The limitations of this study include not examining children's dental experiences and parental anxiety factors due to the COVID-19 pandemic situation on compliance with children's repeated dental treatment. Further research is needed to explore these aspects.

CONCLUSION

There was a significant relationship between parental knowledge about COVID-19 transmission and compliance with children's repeated dental treatment at RSGM Unsoed. Providing education to parents about COVID-19 prevention measures in dental settings is important to increase treatment compliance.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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