*SATISFACTION LEVEL OF PERIODONTITIS PATIENTS WITH TEETH LUXATION POST SPLINTING TREATMENT at RSGM UMY*

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 **Abstract :** Periodontal disease is one of the global oral health problems and periodontitis is still the leading cause of tooth loss in adults worldwide. The negative impact of periodontitis is that it causes discomfort. This discomfort is related to tooth loss during eating due to loose teeth. Loss of teeth, either one or several teeth can cause functional and aesthetic disturbances that can affect a person's level of satisfaction. There are several treatments to treat tooth loss, one of which is splinting treatment. Splinting is a therapy that connects several teeth with the aim of increasing the stability of the teeth due to periodontitis. The purpose of this study was to describe the level of satisfaction of patients with periodontitis with tooth luxation after splinting at RSGM UMY.

This research method is descriptive observational, with a total sample of 38 respondents. The sample inclusion criteria were all patients who had splinting done by a Co-Ass at RSGM UMY and all patients who had splinting done by a Co-Ass at RSGM UMY with a tooth luxation degree 2. The sample exclusion criteria were patients who were not willing to be respondents. The results of the study based on all dimensions showed that 26.95% of patients were very satisfied, 62.63% of patients were satisfied, 8.74% of patients were not satisfied, 1.47% of patients were dissatisfied, and 0.21% of patients were very dissatisfied. The results of the questionnaire were analyzed using descriptive statistical analysis, namely the frequency distribution, so that the percentage of satisfaction level of research results will be known. The conclusion based on the level of patient satisfaction with splinting at RSGM UMY was satisfied with the percentage of 62.63%.

**Keywords :** Patient Satisfaction, Periodontal Splinting, RSGM UMY

**INTRODUCTION**

Periodontal disease is a global oral health problem and periodontitis is still the leading cause of tooth loss in adults worldwide. The World Health Organization recently reported that severe periodontitis accounts for 5-20% of the adult population and most children and adolescents show signs of gingivitis.(1) The 2001 Ministry of Health Household Health Survey (SKRT) report stated that the prevalence of dental and oral diseases was the highest covering 60% of the population. According to the 2013 Basic Health Research (RISKESDAS), periodontal disease is a dental and oral health problem that has a fairly high prevalence in society where periodontal disease in all age groups in Indonesia is 96.58%. Periodontal disease is generally categorized into gingival disease (Gingivitis) and periodontitis.(2) Besides malocclusion, crowding of teeth can be a problem for sufferers. Crowded teeth are very difficult to clean by brushing. The causes of periodontal disease consist of local factors and systemic factors. Local factors are causes that are in the environment around the teeth, such as plaque. Systemic factors are causes that are usually associated with metabolism and general health, such as hormones. Periodontitis is generally caused by plaque.(2) The negative impact of periodontitis is a discomfort felt by patient. This discomfort is related to tooth loss during eating due to loose teeth.(3) Loss of teeth, either one or several teeth can cause functional and aesthetic disturbances that can affect a person's level of satisfaction.(4) Splinting is a therapy that connects several teeth in periodontitis patient. The aim of this therapy is to increase the stability of the loose teeth. A study revealed that stabilization of tooth mobility using periodontal splinting has a good prognosis for patients.(2) The purpose of dental and oral care is to improve the appearance of the teeth which in turn will lead to patient confidence and satisfaction in every patient.(5) Patient satisfaction with dental and oral health services is a comparison between perceptions of the services they received and their expectations before getting the services. Expectations that are fulfilled show that the quality of service provided is good and creates maximum satisfaction.(5) Determination of service quality can be determined by five main dimensions, there are tangible, reliability, responsiveness, assurance, and empathy. The quality of health services is one of the factors that can increase patient satisfaction.(6) According to the Minister of Health (2004), the Dental and Oral Educational Hospital (DOEH/ RSGM) is a hospital that provides dental and oral health services, which are also used as a means of learning, education, and research processes for the dental health profession, which includes dental dentistry student of the professional program (Co-Ass) and other health workers, it is bound through collaboration with the faculty of dentistry. RSGM Universitas Muhammadiyah Yogyakarta (UMY) is a dental and oral hospital located at Jalan HOS Cokroaminoto No. 17A, Pakuncen, Wirobrajan, Yogyakarta City. Services at RSGM UMY include primary, secondary and tertiary dental services with excellent service standards as well as supporting services including laboratories, radiology and material processing laboratories. Along with the increasing need for educational and family dentist clinics facilities and also as clinical skills for Co-Ass’s improvement, for example the use of splinting for patients with tooth luxation. RSGM UMY can supports the effective teaching and learning process for academic activities and it also as symbol of quality assurance from UMY’s dentist graduates as human resources who are ready go to in the community.

**MATERIALS AND METHODS**

 This research uses descriptive observational research method with cross-sectional research design and quantitative data types using questionnaires. This research was conducted in January – April 2019 at RSGM UMY. Based on the results of the preliminary survey, the total population was 50 people. The sample in this study used the slovin formula so that 38 respondents were obtained. Respondents in this study were periodontitis patients with degree of luxation ( ≥2) who had splinted by a Co-Ass at RSGM UMY as the criteria of this research. The sampling technique used was purposive sampling. The variable in this study was single variable, it is the level of patient satisfaction with splinting by Co-Ass at RSGM UMY. The operational definition of satisfaction felt by patients with the treatment is the result of operator's care quality. The research instrument was used a knowledge questionnaire, informed consent, stationery, and a computer with SPSS 15.0 software.

**RESULTS**

Table 1. Distribution of patient’s characteristics

|  |  |  |
| --- | --- | --- |
| Characteristics | Amount | Percentage |
| Gender |  |  |
| Man | 26 | 68,4% |
| Woman | 12 | 31,6% |
| Age |  |  |
| 26-45 years old | 18 | 47,37% |
| 46-65 years old | 19 | 50% |
| >65 years old |  1 | 2,63% |
| Education |  |  |
| Elementary School Graduates | 1 | 2,6% |
| High School Graduates | 3 | 7,9% |
| High School Graduates | 21 | 55,3% |
| College Graduates | 13 | 34,2% |

Based on Table 1, the most found respondents in this study were 50% patients with the age categories of 46-65 years, 68.4 % males and 55.3 % respondents with high school graduates.

Table 2. Patient’s Satisfaction with Splinting Treatment Based on Tangibility Dimensions

|  |  |  |
| --- | --- | --- |
| Number |  Statement | Respondent |
| Tangibility | Very Not Satisfied | Not Satisfied | Less Satisfied | Satisfied | Very Satisfied | Amount |
|  1 | Completeness of splinting’s  | 0 | 0 | 0 | 35 | 3 | 38 |
|  2 | Hygiene of splinting’s equipment  | 0 | 0 | 0 | 29 | 9 | 38 |
|  3 | Hygiene of examination room | 0 | 0 | 0 | 22 | 16 | 38 |
|  4 | Hygiene of dental chair | 0 | 0 | 1 | 18 | 19 | 38 |
|  5 | A Co-Ass who looks clean and tidy | 0 | 0 | 1 | 28 | 9 | 38 |
|  | Total | 0 | 0 | 2 | 132 | 56 | 190 |
|  | Percentage | 0% | 0% | 1,06% | 69,47% | 29,47% | 100% |

Table 2 shows the results of the percentage of patient’s satisfaction on the tangibility dimension, the majority of patients were satisfied is 69.74% and patients who were very dissatisfied and dissatisfied is 0%.

Table 3. Patient’s satisfaction with Splinting Treatment Based on Responsiveness Dimensions

|  |  |  |
| --- | --- | --- |
| Number | Statement | Respondent |
| Responsiveness | Very Dissatisfied | Not Satisfied | Not Enough Satisfied | Satisfied | Very Satisfied | Amount |
| 6 | The Co-Ass was quick to deal with the patient’s complaints  | 0 | 0 | 1 | 29 | 8 | 38 |
| 7 | Co-Ass doing splinting treatment is not too long | 0 | 0 | 10 | 24 | 4 | 38 |
| 8 | Co-Ass doing splinting treatment carefully | 0 | 0 | 1 | 22 | 15 | 38 |
|  | Total | 0 | 0 | 12 | 75 | 27 | 114 |
|  | Percentage | 0% | 0% | 10,53% | 65,79% | 23,68% | 100% |

Table 3 shows the results of the percentage of patient’s satisfaction on the responsiveness dimension, the majority of patients were satisfied is 65.79% and patients who were very dissatisfied and dissatisfied is 0%.

Table 4. Patient’s Satisfaction with Splinting Treatment Based on Assurance Dimensions

|  |  |  |
| --- | --- | --- |
| Number | Statement | Respondent |
| Assurance | Very Not Satisfied | Not Satisfied | Not Enough Satisfied | Satisfied | Very Satisfied | Amount |
| 9 | Co-Ass is skilled when using equipment for splinting treatment | 0 | 0 | 6 | 27 | 5 | 38 |
| 10 | The splinting treatment performed by a Co-Ass is painless | 0 | 0 | 1 | 34 | 3 | 38 |
| 11 | I feel safe and confident when splinting is done by a Co-Ass | 0 | 0 | 1 | 35 | 2 | 38 |
| 12 | Co-Ass explains the procedure and what actions will be carried out before treatment | 0 | 0 | 1 | 21 | 16 | 38 |
|  | Total | 0 | 0 | 9 | 117 | 26 | 152 |
|  | Percentage | 0% | 0% | 5,93% | 76,97% | 17,10% | 100% |

 Table 4 shows the results of the percentage of patient’s satisfaction on the assurance dimension, the majority of patients were satisfied is 76.97% and patients who were less satisfied is 10.53%.

Table 5. Patient’s Satisfaction with Splinting Treatment Based on Reliability Dimensions

|  |  |  |
| --- | --- | --- |
| Number | Statement | Respondent |
| Reliability | Very Not Satisfied | Not Satisfied | Not Enough Satisfied | Satisfied | Very Satisfied | Amount |
|  13 | Co-Ass doing splinting until it's done | 1 | 0 | 0 | 20 | 17 | 38 |
| 14 | Co-Ass doing splinting seriously | 0 | 0 | 1 | 22 | 15 | 38 |
| 15 | When chewing food I feel pain in my teeth that have been splinted | 0 | 9 | 9 | 20 | 0 | 38 |
| 16 | The splinting material used on my teeth looks natural | 0 | 0 | 2 | 35 | 1 | 38 |
| 17 | The pain in my teeth after splinting is gone | 0 | 0 | 8 | 28 | 2 | 38 |
| 18 | The discomfort in my teeth after splinting is gone | 0 | 0 | 16 | 18 | 4 | 38 |
| 19 | I feel comfortable with the condition of my teeth after splinting | 0 | 0 | 12 | 16 | 10 | 38 |
| 20 | I easily brush my teeth that have been splinted | 0 | 5 | 10 | 22 | 1 | 38 |
|  | Total | 1 | 14 | 58 | 181 | 50 | 304 |
|  | Percentage | 0,33% | 4,60% | 19,08% | 59,54% | 16,45% | 100% |

Table 5 shows the results of the percentage of patient’s satisfaction on the reliability dimension, the majority of patients were satisfied is 59.54% and patients who were very dissatisfied is 0.33%.

Table 6. Patient’s Satisfaction with Splinting Treatment Based on Empathy Dimensions

|  |  |  |
| --- | --- | --- |
| Number | Statement | Respondent |
| Empathy | Very Not Satisfied | Not Satisfied | Not Enough Satisfied | Satisfied | Very Satisfied | Amount |
| 21 | Co-Ass gave full attention to my complaint | 1 | 0 | 0 | 23 | 14 | 38 |
| 22 | Co-Ass understands my situation and feelings during the treatment  | 0 | 0 | 1 | 21 | 16 | 38 |
| 23 | Co-Ass performs splinting regardless my social status | 0 | 0 | 1 | 18 | 19 | 38 |
| 24 | Co-Ass being polite to me | 0 | 0 | 1 | 18 | 19 | 38 |
| 25 | Co-Ass greets and welcome me well | 0 | 0 | 0 | 13 | 25 | 38 |
|  | Total | 1 | 0 | 2 | 90 | 97 | 190 |
|  | Percentage | 0,53% | 0% | 1,05% | 47,37% | 51,05% | 100% |

Table 6 shows the results of the percentage of patient’s satisfaction on the empathy dimension, the majority of patients were very satisfied is 51.05% and patients who were dissatisfied patients is 0%.

Table 7. Patient’s Satisfaction with Splinting Treatment Based on Total Dimensions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dimension | Very Not Satisfied | Not Satisfied | Not Enough Satisfied | Satisfied | Very Satisfied | Amount |
| *Tangibility* | 0 | 0 | 2 | 132 | 56 | 190 |
| *Responsiveness* | 0 | 0 | 12 | 75 | 27 | 114 |
| *Assurance* | 0 | 0 | 9 | 117 | 26 | 152 |
| *Reliability* | 1 | 14 | 58 | 181 | 50 | 304 |
| *Emphaty* | 1 | 0 | 2 | 90 | 97 | 190 |
| Total | 2 | 14 | 83 | 595 | 256 | 950 |
| Percentage | 0,21% | 1,47% | 8,74% | 62,63% | 26,95% | 100% |

Table 7 shows patient’s satisfaction with splinting services based on all dimensions, the highest percentage is those who are satisfied is 62.63% and patients who were very dissatisfied is 0.21%.

**DISCUSSION**

The result in this study, there are 5 dimensions, there are tangibility, responsiveness,

assurance, reliability, and empathy. Based on the results of the study, on the tangibility dimension the most results were satisfied is 69.74%. Several things related to the respondent's satisfaction with the tangibility dimension are the completeness and hygiene of the equipment used to perform splinting procedure, also the hygiene of the examination room and dental chair, and the appearance of Co-Ass who is clean and tidy. Evidence related to respondent satisfaction with the tangibility dimension is according to research conducted by Hastuti, et al (2017) which says that patient trust in health services affects the completeness of the equipment they have. (7) Other evidence is also in accordance with research conducted by Putranti (2016) which says that facility factors such as tidiness, comfort, cleanliness of the dentist's practice or clinic greatly affect the level of patient satisfaction.(8) This is because patients are satisfied with the service facilities at RSGM UMY so they feel comfortable to received splinting treatment at that place. In the dimension of responsiveness (responsiveness), the most results are satisfied that is equal to 65.79%. Several things related to the respondent's satisfaction with the responsiveness dimension are the speed of Co-Ass in dealing with patient complaints, dentists in splinting not taking too long, and dentists performing splinting actions carefully. According to Kahar, et al (2017) said that the responsiveness dimension is related to health workers in providing a service that does not require a long time and does not pose a greater risk to patients.(9) Hutauruk, et al (2017) revealed that long waiting time is associated with a decrease in patient satisfaction in health services, because time spent with doctors is the strongest predictor of patient satisfaction.(10) Research from Saputra and Andesma (2019) also revealed the same thing, showing that waiting time data is an indicator of organizational performance in providing health services.(11) In the dimension of assurance, the results obtained are the most satisfied, which is 76.97%. According to Irmawati (2017), the patient's assessment of health workers such as doctors and nurses as health providers they are considered capable if they are provide guarantees such as having skills and being agile in using tools, being thorough in providing care, and being able to explain medical actions to be taken.(13) In this study, the patient was satisfied with the performance of the young doctor when performing splinting, where the patient did not feel pain at all, thus making the patient feel safe and comfortable. The patient was satisfied with the young doctor due to the explanation of the splinting procedure given before carrying out the treatment so that the patient already knew in advance all the procedures to be carried out. In the dimension of reliability (reliability) the most results obtained are satisfied that is equal to 59.54%. Several things related to respondents' satisfaction with the reliability dimension are Co-Ass performing splinting until it's finished, Co-Ass taking splinting seriously, patients feeling pain when chewing food on teeth that have been splinted, the splinting material used looks good. naturally, the pain in the splinted tooth disappeared, the discomfort in the splinted tooth disappeared, the patient felt comfortable in the splinted tooth, and the splinted tooth was easy to clean. The reliability dimension is the responsive attitude of Co-Ass (professional students) and the efforts of Co-Ass to serve patients accurately.(14) Irmawati's research (2017) states that the reliability of health workers is the ability of dentists and nurses to take action to meet patient needs.(13) In the dimension of empathy (empathy) the most results obtained are very satisfied that is equal to 51.05%. Several things related to respondents' satisfaction with the empathy dimension are the full attention that Co-Ass give to patients, Co-Ass understand the patient's condition and feelings when performing splinting, Co-Ass perform splinting regardless of the patient's social status, doctors Co-Ass are polite to patients, and Co-Ass greet and welcome patients in a friendly manner. Patients will feel comfortable and feel valued because of the caring attitude of the service provider.(15) This is in line with the research of Vera, et al (2019) that the attention given by health workers has a relationship with the satisfaction felt by patients.(16)

**CONCLUSION**

Based on the data above, it can be concluded that:

1. The description about level of patient satisfaction with splinting at RSGM UMY in terms of all 5 dimensions are satisfied with the percentage of 62.63%.
2. The satisfaction level of periodontitis patients with teeth luxation post splinting treatment at RSGM UMY in terms of all 5 dimensions are satisfied with the percentage of 62.63%.
3. The dimension that has the highest level of satisfaction is the assurance dimension with a percentage of 76.97%.

**REFERENCES**

1. Jin, L.J., Armitage, G.C., Klinge, B., Lang, N.P., Tonneti, M., dan Williams, R.C. (2011). Global Oral Health Inequalities: Task Group-Periodontal Disease. *Adv Dent Res,* 23(2): 221-226
2. Carranza, Fermin A., Klokkevold, Ferry R., Newman, Michael G., dan Takei, Henry H. (2015). *Carranza’s Clinical Periodontology,* 12th Edition. California: Elseiver
3. O’Dowd, LK., Durham, J., McCracken, Giles I., Preshaw Philip M. (2010). Patients’ experience of the impact of periodontal disease. *Journal of Clinical Periodontology,* 37: 334-339
4. Gunadi, H.A., Margo, A., Burhan, L,K., Suryatenggara, F., Setiabudi, I. (1991). *Ilmu Geligi Tiruan Sebagian Lepasan*. Jilid I. Jakarta: Hipokrates
5. Mariane, S., Opod, H. and Hutagalung, B. S. P. (2014). Gambaran Tingkat Kepuasan Pasien Terhadap Perawatan Gigi Dan Mulut Di Puskesmas Bahu*. Jurnal e-Gigi (eG),* 2.
6. Embrik, I. S., Handayani, D., dan Nusyirwan, M. S. (2013). Magister Manajemen Rumah Sakit, Universitas Muhammadiyah Yogyakarta.
7. Permenkes. (2004). *Tentang Rumah Sakit Gigi Dan Mulut*: Peraturan Menteri Kesehatan Republik Indonesia Nomor 1173/MENKES/PER/X/2004
8. RSGM UMY. (2018). *Profil Rumah Sakit Gigi dan Mulut UMY.* RSGM UMY: Yogyakarta