

Dental Health Care Model In Premature Contact Patients With Partial and Complete Removable Denture Installation At Rsgm Semarang Muhammadiyah University

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ABSTRACT

Prosthetic specialist dentistry services are services for the patient's rehabilitative needs with the aim of restoring the function of the oral cavity such as teeth and mucosa by paying attention to the comfort and anxiety of the patient during treatment. The complaints that often occur in premature contact patients with partial and complete denture installation are discomfort, pain, anxiety, and bad breath. There is no government policy in providing guidelines for dental and oral health care for patients specifically for prosthodontics. The preparation of a dental and oral health care model for premature contact patients with partial and complete dentures in hospitals. The design of this study uses Research and Development (R&D) with the Quasi experimental method with a pretest posttest control group design. The number of respondents was 10 dental and oral therapists, and 20 patients who used removable dentures with premature contact. Dental and oral therapist respondents were given a pretest, training, followed by a skill assessment by providing care services to patients, and ended with a posttest. Patients were given a pretest and posttest. The instrument of this research is a questionnaire that has been carried out validity and reliability. Le test de validation expert du modèle de soins dentaires et bucco-dentaires a obtenu des résultats décents avec une valeur $p = 0.003$ et son application a été efficace pour accroître les connaissances des thérapeutes dentaires et buccaux ($p = 0,013$), améliorer l'attitude des thérapeutes dentaires et buccaux ($p = 0.043$), améliorer les compétences des thérapeutes dentaires et buccaux ($p = 0.01$), réduire l'anxiété des patients ($p = 0.001$) et augmenter l'observance des patients ($p = 0.001$) Modèle de soins dentaires et bucco-dentaires pour les patients ayant un contact dentaire prématuré Les prothèses prothétiques amovibles sont efficaces pour améliorer les connaissances, l'attitude et les compétences des thérapeutes dentaires et buccaux, ainsi que pour réduire l'anxiété et améliorer l'observance du patient.

Keywords: Dental Health Care, Prosthodontia, Premature Contact Patients

Introduction

Oral and dental health is a part of body health that cannot be separated from one another because it will affect overall body health. Teeth are one of the body parts that function for

chewing, speaking and maintaining the shape of the face, so it is important to maintain dental health as early as possible so that it can last long in the oral cavity. Oral health means freedom from throat cancer, oral infections and wounds, gum disease, tooth decay, tooth loss, and other diseases, resulting in restrictive disorders in biting, chewing, smiling, speaking, and psychosocial well-being (Mararu et al., 2017). One of oral health is dental health, oral health is very important because damaged and untreated teeth and gums will cause pain, mastication disorders and can interfere with other body health (Marthinu & Bidjuni, 2020).

The most common dental health problem in Indonesia is dental caries. According to the Basic Health Research (Riskesmas) in 2018, the proportion of cavities reached 45.3%. Dental caries is a chronic disease that is common and quite high in children and adults. Dental caries occurs due to multiple factors that influence each other, namely internal factors, which are factors that are directly related to caries. External factors are factors that are not directly related to the process of caries. The high incidence of dental caries requires optimal action, especially in preventing dental caries (Safela et al., 2021). If dental caries is left untreated, it will have several complications such as abscesses in the gum tissue, inflammation of the jawbone, death of the jawbone, cellulitis, swelling in the esophagus which causes difficulty swallowing and can cause tooth loss (Karno et al., 2018).

Tooth loss is a dental health problem that can interfere with masticatory function, speech, aesthetics, and even social relationships. The loss of one or more teeth can cause functional and aesthetic disturbances that can affect a person's quality of life (Siagian, 2016). In addition to dental caries, cavities can also be caused by premature contact, a condition when the jaw contracts (bites) suddenly feels sore, can cause pain or pain. Riskesdas 2018 states that one of the dental and oral problems in Indonesia is cavities with the highest prevalence at the age of 45-65 years. Tooth loss in the 45-54 age group was 23.6%, in the 55-64 age group it was 29% and then increased to 30.6% at the age of 65 years and over. Missing teeth must be replaced immediately, dentures are an option to overcome the problem of cavities.

Dentures are an alternative method of treating tooth loss that replaces one or more missing teeth along with their supporting tissues, restoring impaired function and limiting further damage. A form of denture recommended for people with partial loss of natural teeth is called a removable partial denture (GTSL). To replace the missing teeth and function and preserve the remaining tissue structure, this denture can be retracted and reinserted by the user (Kemenkes, 2016). A full denture (GTP) is defined as a prosthesis that replaces all teeth and surrounding oral tissues. The purpose of this denture is to rehabilitate the stomatognathic system (Chumairo, 2023).

The act of installing a denture, both partial and complete removable, is carried out by a prosthodontist, who in carrying out his duties collaborates with dental and oral therapists as dental assisting. According to Kepmenkes No. 284 of 2006, dental and oral therapists perform oral health care services according to their field of expertise, (Nopiah Epi dkk, 2020). namely with the stages: assessment, diagnosis, planning, implementation and evaluation.

The standard of specialized prosthodontic dental care services in hospitals is implemented according to SOAPIE (Subjective, Objective, Assessment, Planning, Intervention and Evaluation)(Ratnasari et al., 2019). Assessment (subjective-objective), includes the collection of

subjective and objective data about what the patient feels. Dental health care diagnosis (assessment), includes determining the diagnosis based on the results of the assessment. Planning, including both independent and collaborative implementation planning. Implementation (intervention), including chair side assistant and independent actions. Evaluation (evaluation), including evaluation actions after implementation (Kaliey et al., 2016).

Based on observations made at the RSGM Universitas Muhammadiyah Semarang, it was found that dental and oral therapists only played a role in the implementation stage (assisting prosthodontists) in making dentures, while the assessment, diagnosis, planning and evaluation stages of care services were carried out by general nurses. This is because there is no dental health care model for premature contact patients with partial and complete removable dentures as a reference, while the SOAPIE stages must be carried out to document patient progress notes and to facilitate monitoring and evaluating patient progress.

Based on the background of the problem, the researcher will examine the dental health care model in patients with premature contact cases with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang.

1. General Purpose

Produce a dental health care model for patients with premature contact cases with partial and complete removable dentures as an effort to reduce patient anxiety and analyze patient compliance to visit a prosthodontist.

2. Specific Objectives

- a. Collecting information and data as a study material for the design of a dental health care model in premature contact patients for partial and complete removable denture installation at RSGM Universitas Muhammadiyah Semarang.
- b. To design a dental health care model for premature contact patients with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang.
- c. Conducting expert validation tests of dental health care models in patients with premature contact cases with partial and complete removable denture installations at RSGM Universitas Muhammadiyah Semarang.
- d. Analysis of the effectiveness of the dental health care model in premature contact case patients with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang on the knowledge of dental and oral therapists compared to the control group.
- e. Analysis of the effectiveness of the dental health care model in premature contact case patients with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang on the attitude of dental and oral therapists compared to the control group.
- f. Analysis of the effectiveness of the dental health care model in premature contact case patients with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang on the skills of dental and oral therapists compared to the control group.
- g. Analysis of the effectiveness of the dental health care model in patients with premature contact cases with partial and complete removable dentures at RSGM Universitas

Muhammadiyah Semarang on patient anxiety compared to the control group.

- h. Analysis of the effectiveness of the dental health care model in patients with premature contact cases with partial and complete removable dentures at RSGM Universitas Muhammadiyah Semarang on patient compliance to visit a prosthodontist compared to the control group.

Research Methods

A. Research Type and Design

This type of research is a mix method, which is a combination of descriptive and analytical research. This research design uses Research and Development (R&D). This study aims to develop dental health care-based educational media (booklet) as a medium in improving dental health maintenance behavior in prosthodontie patients. The R&D research method is one of the research methods used to produce products and test their effectiveness.

The research and development procedure has 5 main steps, as follows: 1) information gathering, 2) product/model design, 3) expert validation and revision, 4) product/model trial, and 5) product/model results.

1. Information gathering

At this stage the researcher conducts a preliminary or exploratory study to review, investigate and collect information through efforts:

- a. Observation and interview methods to the head of the hospital, dental and oral health workers, and prosthodontie patients.
- b. Literature study was conducted to support the data or information obtained.
- c. The results of observation data are used as a reference in making what kind of dental health media is suitable to be developed for prosthodontie patients.

2. Product/model design

After the researcher has studied the literature completely and obtained the necessary information, the next step is for the researcher to make a design design of product development. The stages in product development are as follows:

Results and Discussion

Research results are divided into five stages, namely: information gathering, model product design, expert validation and revision, product/model testing, and model product results which are described as follows.

A. Information Gathering

In the early stages of this research, information collection was carried out to find out the existence of problems, needs and potential for problem solving. information collection that has been carried out is by using the interview method, the interview method is used to collect information related to problems that commonly occur in the target group. This was done to further explore and seek consideration in developing a model of oral health care for prosthodontia specialty targets. Interviews were conducted with the Deputy Director of RSGM UNIMUS, Prosthodontia Specialists, and Dental and Oral Therapists who work at RSGM UNIMUS.

Topic	Conclusion
What are the most common problems or complaints of premature contact patients with partial or complete removable dentures?	Denture users often experience discomfort, tartar problems, bad breath, and swollen gums. Patients with premature contact generally complain of pain, anxiety, and discomfort when using a denture. In general, patients often feel anxious when they first use a denture and do not understand how to clean it.
What are the patient's needs during the fitting of partial and full dentures	The main goal of treatment is to restore the patient's ability to chew, speak and smile comfortably. During treatment, patient comfort is prioritized so that the artificial device can function properly.
"What is the government policy regarding oral health care service guidelines for premature contact patients?"	Currently, there are no specific guidelines for the management of denture patients with premature contact problems. Dentists and dental and oral therapists who treat these cases generally refer to the applicable oral health service guidelines. More specific guidelines are needed to handle this case, so that treatment is more optimal and according to patient needs.
Do oral therapists need an oral health care model in prosthodontia dentistry specialty services?	Oral health care is a strong foundation for providing optimal dental health services. With good care, patients can receive

appropriate and quality treatment.

Based on the results of information collection through interviews, it can be concluded that complete denture care must be carried out in a comfortable and safe atmosphere by helping dental and oral therapists carry out treatment in accordance with SOPs and collaborate well with prosthodontia specialists, especially in the treatment of patients with premature contact.

Discussion

Dental and Oral Health Care Model for Premature Contact Patients with Partial and Full Dentures

Based on the results of observations through interviews, information was obtained that dental services specializing in prosthodontics are dental and oral health services that specifically serve the rehabilitative needs of patients with the aim of restoring oral cavity functions such as teeth and mucosa by paying attention to patient comfort and anxiety during treatment. The complaints that often occur in premature contact patients in the installation of partial and complete removable dentures at UNIMUS RSGM are discomfort, pain, anxiety, and bad breath. there is no government policy in providing oral health care guidelines for special prosthodontics patients. While oral health care needs to be in service because it helps dental and oral therapists carry out treatment in accordance with SOPs and collaborate well with prosthodontia specialist doctors, especially in the treatment of patients with premature contact. the existence of this need led researchers to develop a model of care services for premature contact patients with partial and complete removable dentures.

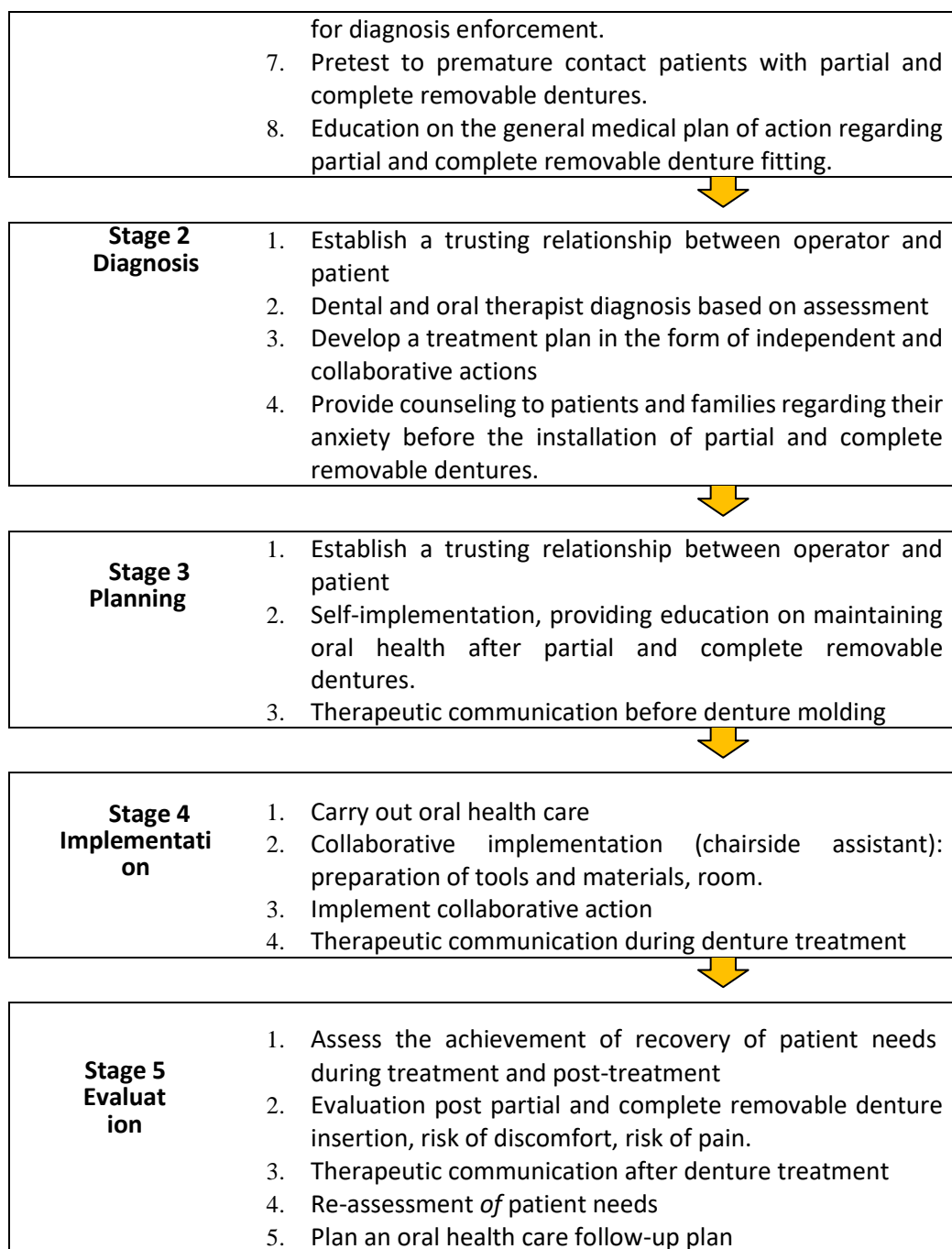
The results of expert validation showed a p-value = 0.003, which means that the oral health care model for premature contact patients at the prosthodontia dentistry specialty clinic is relevant as a model of oral health care for premature contact patients. The expert validation process is important in product/model development which is useful in improving the quality of a developed product.

1. Model Design

Information collection conducted to 3 respondents and data from existing scientific articles to create a model design obtained the results of information collection data collecting that there is no oral health care model for premature contact patients in the installation of partial and complete removable dentures at the prosthodontia dentistry specialty clinic RSGM Muhammadiyah University Semarang, so that the entire stages of oral health care are not implemented. existing. So the researcher made a model of oral health care that was adjusted to a method suitable for premature contact patients.

Table 1 Model Design

Stage 1 Assessment	<ol style="list-style-type: none">1. Initial <i>assessment</i> of patient needs2. The operator gets acquainted with the patient and builds rapport with the patient3. Operator reconfirms patient identity4. Subjective examination5. Objective assessment6. The dental therapist begins to prepare the related needs
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2. Expert Validation

The validators amounted to 3 (three) people namely Manzilina Hani Baity Jannaty, S.Psi., M.Psi., Psychologist, drg. Rahmat Hidayat Sp. Pros., and Deru Marah Laut., S.SiT., M.Kes. the following are the results of the expert assessment: Validation is the process of assessing the model to validators who are experts in their fields. This is done to be the basis for the feasibility of the oral health care model in patients with complete denture care. There were 3 validators, namely 1 dentist specializing in prosthodontics, 1 care service expert, and 1 psychology practitioner/Anxiety Expert. Validation was carried out using a model assessment questionnaire containing 15 question indicators.

Results of Expert Validity Test of Dental and Oral Health Care Model Development in Patients with Complete Denture Care (Assessment Indicators)

Indicator	V	Indicator	V	Indicator	V
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1a	0,83	2b	0,83	4a	0,69
1b	0,75	2c	0,92	5a	0,88
1c	0,83	2d	0,92	5b	0,94
1d	0,83	3a	0,69	5c	0,94
2a	0,83	3b	0,69	5	0,94
6a	0,83	6b	0,92	7	0,92

Average value V0 .86

Based on the table above, it shows that the results of content validity using the Aiken V index obtained an average of 0.86 which has a value range of 0.69-0.94 with the categories of quite valid ($0.4 < V \leq 0.8$) and very valid ($V > 0.8$).

Reliability Test Results of Expert Development of Dental and Oral Health Care Model for Patients with Complete Denture Care

Validator	n	Value	Average	ICC	Sig
Validator 1	18	79%			
Validator 2	18	87%	88,6 %	0,778	0,003
Validator 3	18	100%			

Based on the table above, it shows that the results of the interrater reliability test using the ICC (Intraclass Correlation Coefficients) analysis obtained an average measure value of 0.778 with a model reliability level of good reliability category.

So it can be concluded that the development of a model of oral health care in patients with complete denture care is considered valid and reliable so that it is suitable for use by dental and oral therapists.

3. Model Test

The implementation of the "Oral Health Care Model for patients in the Prosthodontia Dentistry specialty clinic of RSGM UNIMUS" test will be carried out data analysis which is divided into univariate, bivariate and multivariate data analysis.

1. Univariate Analysis

The model trial in this study was conducted on 20 patients with premature contact at RSGM UNIMUS consisting of 10 patients with premature contact as a control group and 10 patients with premature contact from RSGM UNIMUS as an Intervention Group. before the intervention of the care model developed for patients, the behavior of dental and oral therapists was first measured. as for this stage, a sampling technique in the form of total sampling was used to determine the number of dental and oral therapists who would be involved in the implementation of the care model so that a total of 10 dental and oral therapists were involved. The sampling technique for implementing the model on patients used purposive sampling technique, namely the criteria for patients using dentures with premature contact.

Data Normality Test on Dental Therapists in Intervention and Control Groups

Variables	p-value*	
	Intervention	Control
Dental and Oral		

Therapist		
Knowledge Pre Test	0,025	0,026
Post test Knowledge	0,003	0,001
Attitude Pre Test	0,001	0,001
Post Test Attitude	0,027	0,011
Skill Pre Test	0,001	0,002
Skills Post Test	0,003	0,036
Premature Contact Patient		
Anxiety Pre Test	0,008	0,016
Anxiety Post Test	0,035	0,012
Compliance Pre Test	0,012	0,012
Compliance Post Test	0,023	0,041

*Shapiro-Wilk

Based on the results of the normality test, it shows that for pre-post knowledge, pre-post attitudes, pre-post skills, pre-post anxiety, and pre-post compliance are not normally distributed $p > 0.05$. The existence of non-normally distributed data, the test to be carried out is a non-parametric test, namely the Wilcoxon test for paired tests and Mann-Whitney for unpaired tests.

2. Bivariate Analysis

Bivariate analysis is used to test the difference between two variables, at the initial stage of the model trial, the normality test is carried out first, then the effectiveness test of paired and unpaired variables is carried out.

Model Effectiveness Test

The hypothesis test in this study is explained in the following table:

Differences in knowledge before and after intervention in intervention and control groups

Variable	Group	Statistics			
		Mean±SD Pre test	Mean±SD Post test	Delta±SD (Δ)	p
Knowledge	Intervention	5,20±0,83	8,00±1,22	2,80±0,03ξ	0,042*
	Control	3,50±0,5	3,80±0,82	0,30±0,6	0,102
			3	7	*
				$p = 0,013^*$	
				*	

* Wilcoxon ** Mann-Whitney

The results of the effectiveness test of paired data on the knowledge variable of Dental and Oral Therapists showed that the p-value was 0.039 ($p < 0.05$), meaning that the care model developed was effective in increasing the knowledge of Dental and Oral Therapists. The p-value of the control group's knowledge was 0.102 ($p > 0.05$), meaning that the care model used in the control group did not increase knowledge. The results of the unpaired data effectiveness test of the pre-post test change value (Δ) with a p-value of 0.013 ($p < 0.05$) which means that there is a significant difference in increasing knowledge in the control and intervention groups with a difference (Δ) in the intervention group of 2.80 and in the control group of 0.30.

Differences in attitudes before and after intervention in intervention and control groups

Variable	Group	Statistics			
		Mean±SD Pre test	Mean±SD Post test	Delta±SD D (Δ)	p

Attitude	Intervent on Contr ol	8,20±0,44	9,00±0,89	0,80±0,18	0,046*
		7,000±1,00	7,60±1,14	0,60±0,14	0,083*
				$p=0,040$	**

*Wilcoxon **Mann-Whitney

The results of the effectiveness test of paired data on the attitude variables of Dental and Oral Therapists showed that the p-value of the intervention group was 0.046 ($p < 0.05$), meaning that the developed care model effectively improved the attitude of Dental and Oral Therapists. The p-value of the attitude of the control group was 0.083 ($p > 0.05$), meaning that the care model used in the control group did not provide changes in attitude. The results of the unpaired data test of the change value (Δ) pre-post test with a pvalue of 0.040 ($p < 0.05$) which means a significant change in attitude improvement in the control and intervention groups with a difference value (Δ) in the intervention group of 0.80 and in the control group 0.60.

Differences in skills before and after intervention in intervention and control groups

Statistics					
Variable s	Group	Mean±SD Pre test	Mean±SD Post test	Delta±SD (Δ)	p
Skills	Intervention	5,00±0,70	8,40±0,89	3,4±0,18	0,039*
	Control	4,6±0,89	4,82±1,3	0,2±0,40	0,317*
				0	$p=0,01^{**}$

* Wilcoxon ** Mann-Whitney

The results of the effectiveness test of paired data on the Dental and Oral Therapist Skills variable showed that the p-value of the intervention group was 0.039 ($p < 0.05$), meaning that the developed care model was effective in improving the skills of Dental and Oral Therapists. The p-value of the control group skills was 0.317 ($p > 0.05$), meaning that the care model used in the control group did not provide changes in dental therapist skills. The results of the unpaired data effectiveness test of the pre-post test change value (Δ) showed a significant change in the skills of Dental and Oral Therapists in the control and intervention groups with a difference value (Δ) in the intervention group of 3.40 and in the control group of 0.20.

Differences in patient anxiety before and after intervention in intervention and control groups

Statistics					
Variables	Group	Mean±SD Pre test	Mean±SD Post test	Delta±SD (Δ)	p - value
Anxiety	Intervention	31,6±1,42	17,5±2,54	14,1±3,10	0,005*
	Control	31,3±1,05	2,56±1,34	5,70±1,33	0,005*
				$p=0,001^{**}$	

*Wilcoxon ** Mann-Whitney

The results of the effectiveness test of paired data on anxiety variables in prosthodontia patients showed that the p-value of the intervention group was 0.005 ($p < 0.05$), meaning that the developed care model was effective in reducing the anxiety of prosthodontia patients. The p-value of the control group is 0.005 ($p < 0.05$), meaning that the care model used in the control group is also effective in reducing the anxiety of prosthodontia patients. The results of the unpaired data effectiveness test of the pre-post test change value (Δ) showed a significant

change in patient anxiety in the control and intervention groups with a selective value (Δ) in the intervention group of 14.1 and in the control group of 5.7.

Differences in patient compliance before and after intervention in intervention and control groups

Statistics					
Variable s	Group	Mean±SD Pre test	Mean±SD Post test	Delta±SD (Δ)	p-value
Compliance	Intervention	17,9±0,999	22,2±1,98	4,3±1,83	0,005*
	Control	17,7±1,888	19,7±2,11	2,0±1,69	0,016*
				p=0,001*	
				*	

* Wilcoxon **Mann-Whitney

The results of the effectiveness test of paired data for compliance variables in pre-postodontia patients showed that the p-value of the intervention group was 0.005 ($p < 0.05$), meaning that the developed care model was effective in improving patient compliance. The p-value in the control group was 0.016 ($p < 0.05$), meaning that the care model used in the control group was also effective in improving patient compliance.

The results of the unpaired data effectiveness test of the pre-post change value (Δ) showed a significant change of 0.001 ($p < 0.05$) in increasing compliance of prosthodontia patients in the control and intervention groups with a difference value (Δ) in the intervention group of 4.3 and in the control group of 2.0. The results of the analysis also showed a value of $p = 0.001$, meaning that there was an effect of knowledge, attitudes and skills of Dental and Oral Therapists on reducing the anxiety level of prosthodontia patients.

Variables	B	P value	R	R Square	Adjusted R Square	C
Knowledge	0,572	0,320				
Attitude	0,701	0,001		0,9250	,8343.	8450
Skills	0,736	0,337				116

It can be seen that the constant value is 3.116 with a knowledge coefficient of 0.572, meaning that an increase in the knowledge value of Dental and Oral Therapists 1 point will reduce the anxiety level of prosthodontia patients by 0.572. The attitude coefficient value of 0.701 means that an increase in the attitude value of Dental and Oral Therapists by 1 point will reduce the anxiety level of prosthodontia patients by 0.746. The coefficient value of Skills is 0.746, meaning that an increase in the value of Dental and Oral Therapist Skills by 1 point will reduce the anxiety level of prosthodontia patients by 0.746.

The results of the analysis show $R = 0.925$, meaning that there is a very strong correlation and a very significant effect between the knowledge, attitudes and skills of Dental and Oral Therapists with the anxiety level of prosthodontia patients while the results of R^2 (R Square) are 0.845 or (84.5%), meaning that the knowledge, attitudes, skills of Dental and Oral Therapists have an 84.5% influence on reducing the anxiety level of prosthodontia patients.

Variables	B	P value	R	R	Adjusted R	C
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			Square	Square
Knowledge	1,012	0,265		
Attitude	1,022	0,001	0,9310	, 8670 ,8424, 726
Skills	1,509	0,136		

It can be seen that the constant value is 4.762 with a knowledge coefficient of 1.012, meaning that an increase in the knowledge value of Dental and Oral Therapists by 1 point will increase the compliance of prosthodontia patients by 1.012. The attitude coefficient value of 1.022 means that an increase in the attitude value of Dental and Oral Therapists by 1 point will increase the compliance of prosthodontia patients by 1.022. The skill coefficient value of 1.509 means that an increase in the Oral and Dental Therapist skill value of 1 point will increase prosthodontia patient compliance by 1.509.

The results of the analysis show $R = 0.931$, meaning that there is a very strong correlation and a very significant effect between the knowledge, attitudes and skills of Dental and Oral Therapists with the level of compliance of prosthodontia patients while the results of R^2 (R Square) are 0.867 or (86%), meaning that the knowledge, attitudes, skills of Dental and Oral Therapists have an 86% influence on reducing the anxiety level of patients with premature contact of removable dentures.

Discussion

Dental and Oral Health Care Model for Premature Contact Patients with Partial and Full Dentures

Based on the results of observations through interviews, information was obtained that dental services specializing in prosthodontics are dental and oral health services that specifically serve the rehabilitative needs of patients with the aim of restoring oral cavity functions such as teeth and mucosa by paying attention to patient comfort and anxiety during treatment. The complaints that often occur in premature contact patients in the installation of partial and complete removable dentures at UNIMUS RSGM are discomfort, pain, anxiety, and bad breath. there is no government policy in providing oral health care guidelines for special prosthodontics patients. While oral health care needs to be in service because it helps dental and oral therapists carry out treatment in accordance with SOPs and collaborate well with prosthodontia specialist doctors, especially in the treatment of patients with premature contact. the existence of this need led researchers to develop a model of care services for premature contact patients with partial and complete removable dentures.

The results of expert validation showed a p -value = 0.003, which means that the oral health care model for premature contact patients at the prosthodontia dentistry specialty clinic is relevant as a model of oral health care for premature contact patients. The expert validation process is important in product/model development which is useful in improving the quality of a developed product.

The oral health care model for premature contact patients at the prosthodontics dentistry specialty clinic, is a development model with the aim that Dental and Oral Therapists can carry out all stages which ultimately affect the patient's anxiety level and patient compliance during treatment, compared to the oral health care model of Kepmenkes No. 284 of 2006 Dental and

Oral Therapists only carry out simple assessment and implementation (Chair Side Assistant) in the Dentistry specialty dental clinic because nurses have previously carried it out, while the stages of diagnosis, planning, and evaluation are not carried out. The SOAPIE stages are standard care services so all stages must be implemented.

This model was developed from the oral health care model according to Kepmenkes No. 284 of 2006 and is also supported by dental and oral health journals that describe the need for care to reduce anxiety and compliance in denture-using patients with premature contact. In the implementation of oral health care so far, referring to Kepmenkes No. 284 of 2006 is used for the entire specialty service poly and not specifically for denture-using patients with premature contact. Problems that are often found in premature contact patients are pain and discomfort.

The role of Dental and Oral Therapists is needed in the implementation of this development model so that the intervention to reduce anxiety and increase compliance of premature contact patients with dentures in service / treatment runs well. Dental and Oral Therapists will be given training in advance with the aim of increasing knowledge, attitudes and skills about the oral health care model for premature contact patients with dentures at the prosthodontia dentistry specialty clinic in order to provide a complete treatment process in accordance with SOAPIE, thus providing patient comfort and compliance with services/treatment at the clinic.

Model Testing

Dental Health Worker Pilot Test

The trial on health workers in the implementation of the dental health care model in premature contact patients with partial and complete removable dentures at the prosthodontia dentistry specialty clinic, was carried out to improve knowledge, attitudes and skills for dental health workers so that they are able to maximally reduce anxiety levels and increase compliance with patients with premature contact dentures in service / treatment. Implementing oral health care and development results, with the hope of providing comfort for premature contact patients with partial and complete removable dentures during service / treatment.

The results of the effectiveness test of data on paired variables of knowledge, attitudes, and skills show that the p-value is $0.001 < 0.05$, meaning that the training module for oral health care in premature contact patients with partial and complete removable dentures at the prosthodontia dentistry specialty clinic effectively improves the knowledge, attitudes, and skills of dental health workers in carrying out dental health care in premature contact patients with partial and complete removable dentures.

The increase in knowledge is due to the training given an understanding of the material for implementing the oral health care model in patients with premature contact of removable dentures. According to Fitri et al., (2019), knowledge is the result of human sensing, or the result of someone knowing objects through their senses (eyes, nose, ears, etc.) proven by research by Rostini et al., (2022), training can increase knowledge. The results of the effectiveness test of paired data on the knowledge variable of Dental and Oral Therapists showed that the p-value of the intervention group was $0.042 (p < 0.05)$, which means that the developed care model is effective in increasing the knowledge of Dental and Oral Therapists.

An increase in attitude occurs when given information and then considering taking action in accordance with the information provided. According to previous research, attitude is defined

as a reaction or response that arises from an individual to an object which then leads to individual behavior towards the object in certain ways (Putri & Sirait, 2014). The results of the effectiveness test of paired data on the attitude variables of Dental and Oral Therapists showed that the p-value of the intervention group was 0.046 ($p < 0.05$), which means that the developed care model effectively improves the attitude of Dental and Oral Therapists.

The improvement of dental and oral therapist skills is accompanied by an increase in knowledge and attitudes obtained through the training provided (Janssens et al., 2018). The results of the paired data effectiveness test of the Dental and Oral Therapist skills variable showed that the p-value of the intervention group was 0.039 ($p < 0.05$), which means that the developed care model is effective in improving the skills of Dental and Oral Therapists.

The implementation of the training program can be said to be successful if participants experience a process of increasing understanding of the material, which is reflected in their attitudes and actions. Training on the model of oral health care in removable denture premature contact patients is said to be successful because health workers are given an understanding of the implementation of oral health care in removable denture premature contact patients, perform simulations and take action according to the information provided (Gaber et al., 2018).

Trial in Premature Contact Patients

The implementation of the oral health care model for patients with premature contact with removable dentures at the prosthodontia dentistry specialty clinic is said to be effective in reducing anxiety levels and increasing patient compliance during treatment/service. The results of the paired variable data validity test on the anxiety level of patients with premature denture contact showed that the p-value of the intervention group was 0.005 ($p\text{-value} < 0.05$), meaning that the oral health care model for premature contact patients is effective.

The role of dental and oral therapists needs to establish a good relationship with patients during services at the prosthodontia dentistry specialty clinic followed by an assessment including the patient's identity and general health, continuing to the assessment stage of determining the diagnosis of patient needs by adjusting health problems with existing diagnoses. The diagnosis that has been determined also comes out the intervention planning, then after the intervention planning stage is complete, the dental and oral therapist will carry out the chair side assistant (CSA) process and collaborate with specialty doctors during patient care. Evaluation is carried out after implementation and is adjusted to the patient's needs.

The results of the validity test of paired variable data on the level of compliance of patients with premature contact of lepas dentures show that the p-value of the intervention group is 0.005 ($p < 0.05$), meaning that the oral health care model for patients is effective. In research conducted by Diskha Mazrzaweny, et al (2012) the quality of health services has a direct influence on patient compliance. Therefore, to improve patient compliance, it can be started by improving the quality of health services (Marzaweny & Hadiwidjojo, 2012).

Conclusion

Based on the results of the study, it can be concluded that the oral health care model is feasible and its application is effective for services at the prosthodontia dentistry specialty clinic for premature contact patients with partial and complete removable dentures. This is proven:

1. The oral health care model for prenatal contact patients with partial and complete removable dentures is feasible as oral health care for prenatal contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang. This is proven statistically and significantly getting a p-value of 0.001 ($p < 0.05$).
2. The oral health care model for premature contact patients with partial and complete removable dentures is feasible as oral health care for premature contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang effectively increases the knowledge of Dental and Oral Therapists compared to the control group, this is evidenced statistically and significantly getting a p-value of 0.039 ($p < 0.05$), as evidenced by the mean value of the intervention group difference of 2.80.
3. The oral health care model for prenatal contact patients with partial and complete removable dentures is feasible as oral health care for prenatal contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang effectively improves the attitude of Dental and Oral Therapists compared to the control group, this is proven statistically and significantly getting a p-value of 0.046 ($p < 0.05$). Evidenced by the mean value of the intervention group difference of 0.80.
4. The oral health care model for prenatal contact patients with partial and complete removable dentures is feasible as oral health care for prenatal contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang effectively improves the skills of Dental and Oral Therapists compared to the control group, this is evidenced statistically and significantly getting a p-value of 0.039 ($p < 0.05$). Evidenced by the mean value of the intervention group difference of 3.40.
5. The oral health care model for premature contact patients with partial and complete removable dentures is feasible as oral health care for premature contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang effectively reduces the anxiety level of premature contact denture patients compared to the control group, this is evidenced statistically and significantly getting a p-value of 0.005 ($p < 0.05$) as evidenced by the mean value of the intervention group difference of 14.1.
6. The oral health care model for premature contact patients with partial and complete removable dentures is feasible as oral health care for premature contact patients in the prosthodontia dentistry specialty clinic of RSGM Universitas Muhammadiyah Semarang effectively improves compliance of premature denture contact patients compared to the control group, this is evidenced statistically and significantly getting a p-value of 0.005 ($p < 0.05$) as evidenced by the mean value of the intervention group difference of 2.0.

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