

INCREASING THE PERCENTAGE OF REFERRED ORTHODONTIC PATIENTS THAT ACHIEVED GOOD ORAL HYGIENE (OH) WITHIN 16 WEEKS FROM KLINIK PERGIGIAN BAHAU

Kirubane R,¹ Sagaya Alysha D,¹ Nurul Farhana S,¹ Prasath S,¹ Nor Ismalina I,¹ Eshleen Nisha SK,¹ Tan SY,¹ Rosni Suhaida R,² Fazilah H¹

¹Klinik Pergigian Bahau, Jempol, Negeri Sembilan, ²Klinik Pergigian Bandar Seri Jempol, Jempol, Negeri Sembilan



INTRODUCTION

Oral hygiene (OH) review is a mandatory procedure conducted biweekly at primary care for patients interested in orthodontic treatment prior to orthodontic specialist referral. Poor OH increases the risks of tooth decay and gum diseases during orthodontic treatment.

1. SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

PROBLEM IDENTIFICATION

NO	PROBLEM	2022	2023
1	Percentage of referral to Orthodontic Department	45%	Target ≥80%

Source : Plan of Action KP Bahau, 2023

PROBLEM STATEMENT

Only 45% of patients in Klinik Pergigian Bahau (KPB) attained good OH within 16 weeks in 2022. Lack in brushing techniques, poor dental awareness, lack of brushing aids, disinterest for orthodontics treatment, defaulted regular check ups and different practice among officers were the contributing factors.

SERIOUSNESS

In 2022, only 45% of eligible KP Bahau patients achieved good oral health within 16 weeks, delaying the necessary early intervention. A malocclusion (especially if severe) can significantly impair an individual's quality of life by affecting aesthetics, masticatory function, self-esteem and psychological well-being, and so an effective orthodontic screening and treatment system is important (Masood et al., 2013; Bernabe et al., 2008; O'Brien et al., 2007).

M

MEASURABILITY

Percentage of patients referred within 16 weeks.

A

APPROPRIATENESS

Problem existed until 2022.

R

REMEDIAL

Improvement measures can be implemented.

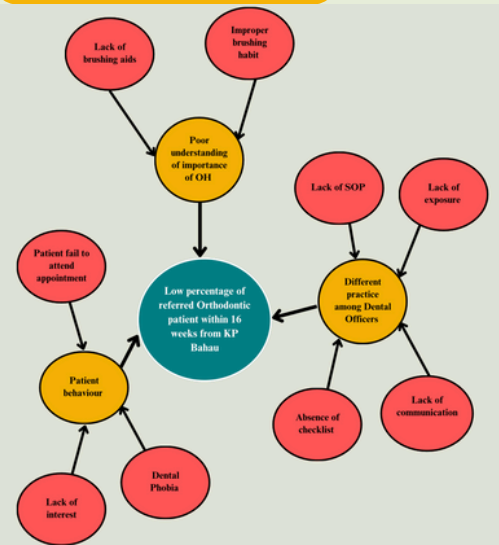
T

TIMELINESS

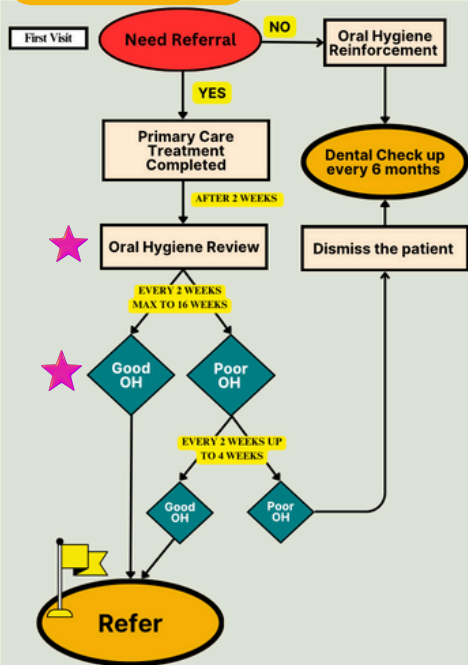
Study done in January - December 2023.

2. KEY MEASURES FOR IMPROVEMENT

PROBLEM ANALYSIS CHART



PROCESS OF CARE



GENERAL OBJECTIVE

To increase the percentage of referred patients needing orthodontic treatment from KP Bahau.

SPECIFIC OBJECTIVE

- Increasing the percentage of referred Orthodontic Patients that achieved good oral hygiene (OH) within 16 weeks from Klinik Pergigian Bahau.
- To identify the possible factors contributing to low percentage referring patient within 16 weeks among patient and officers.
- To formulate and implement remedial measure to increase the percentage of referral with 16 weeks.
- To evaluate the effectiveness of OHI remedial measures.

KEY INDICATOR

INDICATOR	STANDARD
Percentage of patient referred within 16 weeks with good oral hygiene	≥ 80%
$\frac{\text{Percentage of patient referred within 16 weeks with good oral hygiene}}{\text{Total patient interested in orthodontic treatment}} \times 100\%$	

LITERATURE REVIEW

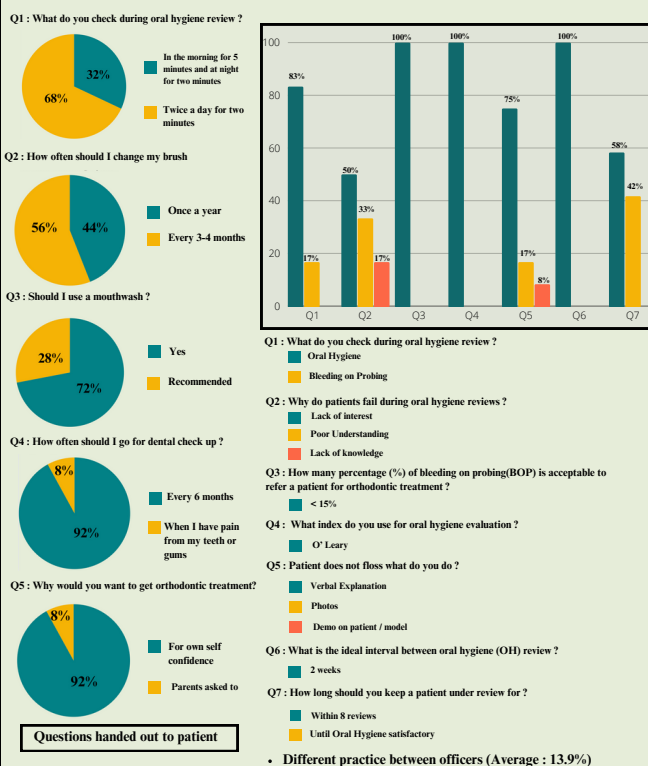
A malocclusion (especially if severe) can significantly impair an individual's quality of life by affecting aesthetics, masticatory function, self-esteem and psychological well-being, and so an effective orthodontic screening and treatment system is important.

(Masood et al., 2013; Bernabe et al., 2008; O'Brien et al., 2007)

3. PROCESS OF GATHERING INFORMATION

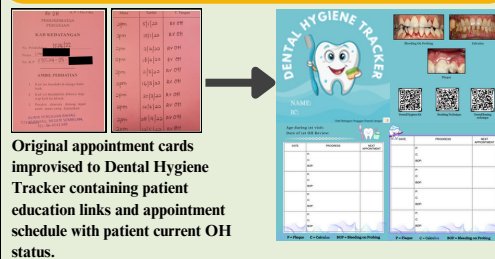
Type of study	Quality Improvement Study
Location	Klinik Pergigian Bahau
Study Period	<ul style="list-style-type: none"> Pre intervention: January 2022 to December 2022 Post intervention: January to December 2023
Tools	<ul style="list-style-type: none"> Self developed questionnaire (Officer and patients) Dental Records Oral Hygiene Tracker Card Dentist Checklist
Study Sample	Patients who need referral for orthodontic treatment.
Inclusion Criteria	Patients who needs Orthodontic treatment
Exclusion Criteria	Patients who failed to attend oral hygiene review session within the study period.

4. ANALYSIS AND INTERPRETATION



5. STRATEGIES FOR CHANGE

5.1 DENTAL OPERATORS : STRENGTHEN RECALL SYSTEM



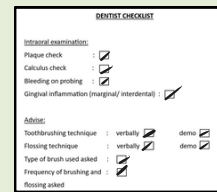
Original appointment cards improved to Dental Hygiene Tracker containing patient education links and appointment schedule with patient current OH status.

5.2 DENTAL OPERATORS : IMPROVED CDE SESSION



CDE given to Dental Officer

5.3 DENTAL OPERATORS : CHECKUP CHECKLIST



Dental checklist done to standardize practice among officers



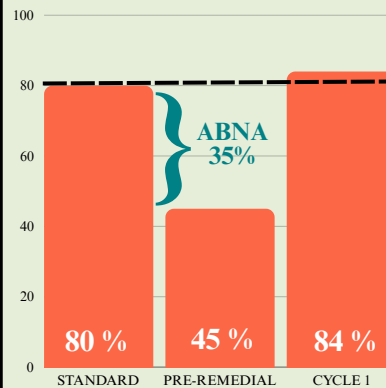
Chairside OH instructions by officer to patient given hands on and demo with video.

6. EFFECT OF CHANGE

MODEL OF GOOD CARE

CRITICAL STEP	CRITERIA	STANDARD	PREREMEDIAL PHASE	CYCLE 1
EXAMINATION AND DIAGNOSIS	<ul style="list-style-type: none"> Examining patients who request for orthodontic treatment. Diagnosing if the patient needs orthodontic treatment 	100%	100%	100%
ORAL HYGIENE INSTRUCTIONS AND BRUSHING HABITS	<ul style="list-style-type: none"> Recording in OH-CIS Using dentist checklist for check up Chairside oral hygiene instructions with pictures and model. Providing 'Oral Hygiene Tracker' card for following appointments & explaining its function 	100% 100%	87% 0%	96% 92%
RV OH	<ul style="list-style-type: none"> Using dentist checklist for check up Providing verbal reminder on review appointments 	100% 100%	0% 68%	96% 96%

ABNA



7. NEXT STEP

Strategies to replicate the 'Dental Hygiene Tracker' card at district level are in progress. We plan to collaborate with Orthodontic Specialist Unit and dental suppliers.

REFERENCES

- Milton H T, Nes N (2020) ORTHODONTIC SCREENING AND REFERRAL PRACTICES OF DENTAL THERAPISTS IN KUCHING, SARAWAK. International Journal of Public Health and Clinical Sciences, Vol. 7, No.2 : Retrieved from <https://publichealthmy.org/ejournal/ojs2/index.php/ijphcs/article/download/1183/707>
- Mah E C (2020) Periodontal Assessment Before Orthodontic Treatment. MyHealth Ministry of Health Malaysia : Retrieved from: myhealth.moh.gov.my

ACKNOWLEDGEMENTS:

- Dr. Afiza Binti Hassan, SDO Jempol
- Dr. Yim Kah Mun, Orthodontic Specialist Kuala Pilah
- Dental Officers, KP Bahau