

Reducing the Percentage of Orang Asli (OA) Students with Betel Nut (BN) Chewing Habits in Sekolah Menengah Kebangsaan Paloh Hinai (SMKPH)

PP-15



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1. SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

1.1 INTRODUCTION

Betel nut (BN) chewing habit is commonly practiced among Orang Asli (OA) in Pahang, and most of them began chewing in primary school. A screening conducted in SMK Paloh Hinai (SMKPH) in 2022 showed that 31% of OA students chew the BN.

1.2 PRIORITISATION OF PROBLEM

PROBLEMS	S	M	A	R	T	SCORE
Low percentage of pre-school children with Mulut Bebas Karies at KP Nenasi	24	24	16	18	9	91
Low percentage of dental case completion among pregnant mothers at KP Nenasi	16	24	19	16	16	91
High failure rates of intraoral radiograph film taking at KP Peramu Jaya	24	24	16	21	21	106
High number of decayed permanent teeth per hundred Year 1 school children at KP Chini	24	24	24	20	16	108
High percentage of OA students with BN chewing habit in SMKPH	24	24	24	24	24	120

Group members: 8; Rating: 1: Low, 2: Medium, 3: High

1.3 REASON FOR SELECTION

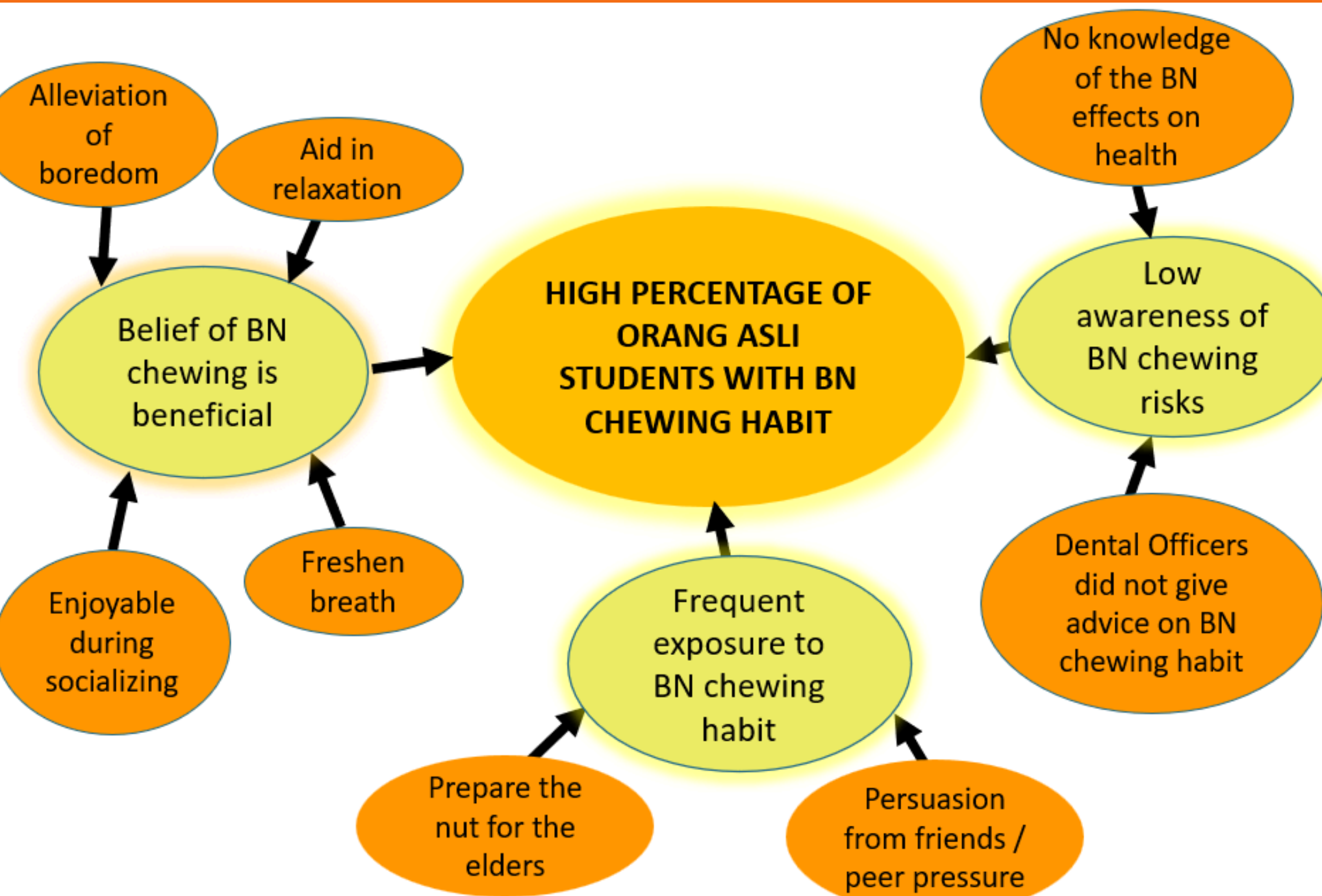
CRITERIA	REASONS
Seriousness	BN chewing is one of the major risk factors for oral cancer, and it has been evaluated as a Group 1 carcinogen by the International Agency for Research on Cancer (IARC). The use of BN has been associated with several other adverse health outcomes, including diabetes, hypertension, cardiovascular disease, and low birth weight.
Measurable	Data can be obtained from patient's record (LP8 card) and questionnaire.
Appropriateness	Prevention is one of the core business in dentistry, and it is appropriate to include cessation of BN chewing habit as part of the oral health education to the students.
Remediable	Remedial actions are available and can be implemented.
Timeliness	This study can be carried out within 1 year time.

2. KEY MEASURES FOR IMPROVEMENT

2.1 LITERATURE REVIEW

BN is an addictive substance, and an established cause for oral cancer and oral cancer-related deaths. Among the causes of BN chewing are frequent exposure to the BN, peer pressure, and commonly served during social gathering. Besides, alleviation of boredom, aid in relaxation, and low awareness on the carcinogenicity of the BN also contribute to the factors of BN chewing habit. Educational intervention is beneficial in assisting the cessation of betel nut chewing habit.

2.2 CAUSE-EFFECT ANALYSIS



2.3 PROBLEM STATEMENT

In SMKPH, there is a high percentage of OA students with BN chewing habit. BN chewing is one of the major risk factors of oral cancer, and imposed multiple other health risks. Among possible causes are low awareness on BN chewing risks, the belief of BN chewing is beneficial and constantly exposed to BN chewing habit. This study aims to reduce the percentage of OA student with BN chewing habit in SMKPH.

2.4 OBJECTIVES OF STUDY

GENERAL

- To reduce the percentage of OA students with BN chewing habit in SMKPH
- ### SPECIFIC
- To identify the percentage of OA students in SMKPH with the BN chewing habit.
 - To identify the contributing factors to high percentage of OA students with BN chewing habit in SMKPH.
 - To Formulate and implement appropriate remedial actions.
 - To evaluate the effectiveness of the remedial actions taken.

2.5 INDICATOR AND STANDARD

INDICATOR

- Percentage of OA students with BN chewing habit in SMKPH

FORMULA

$$\frac{\text{No. of Orang Asli students with BN chewing habit}}{\text{No. of Orang Asli students in SMKPH}} \times 100\%$$

STANDARD: $\leq 15\%$ OA students with BN chewing habit in SMKPH

*Based on consensus with Senior Dental Officer

2.6 DEFINITIONS AND TERMS

BETEL NUT

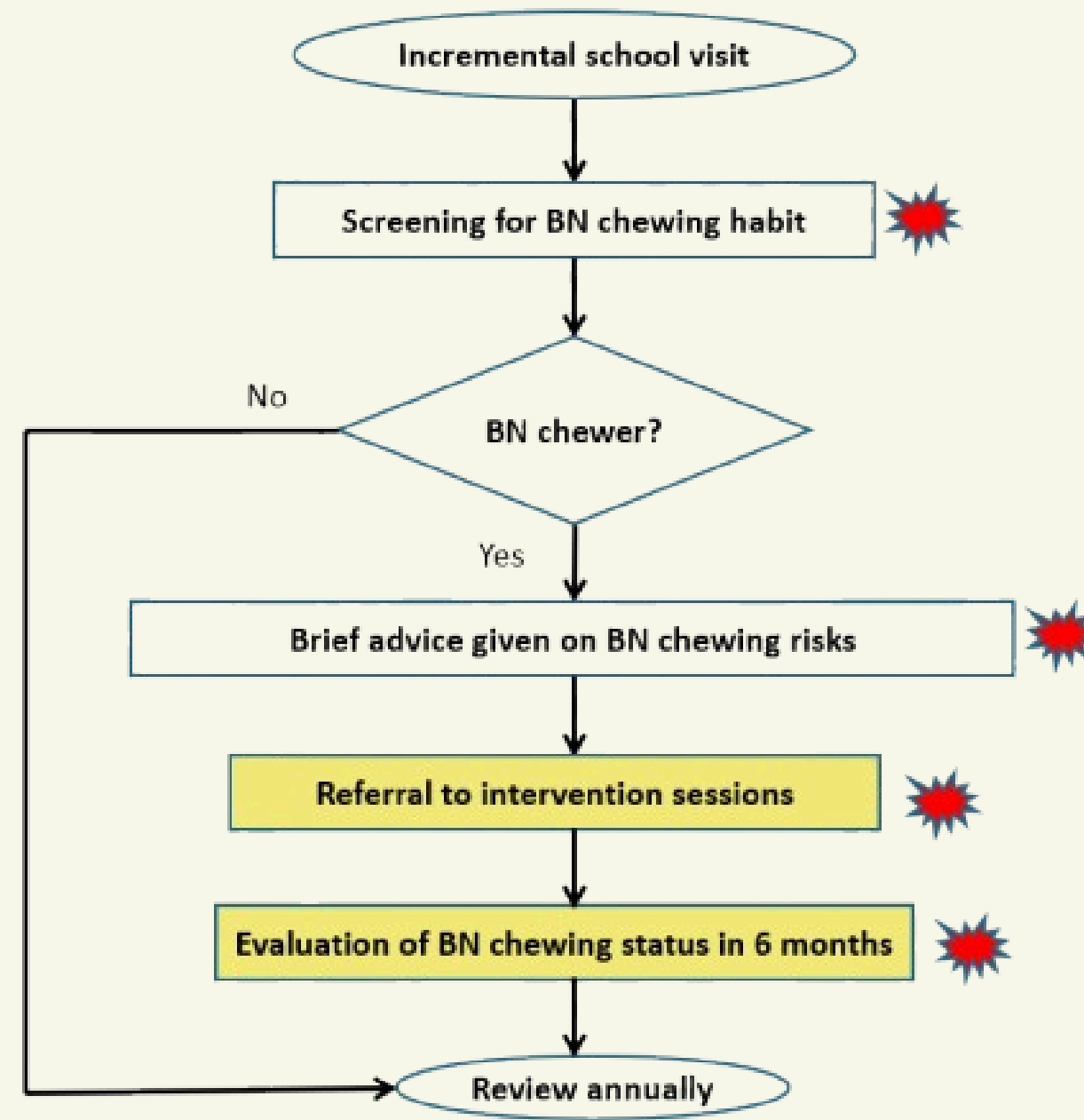
- BN, also called areca nut, is the endosperm/ seed of the areca fruit from the tropical palm tree *Areca Catechu*

BETEL NUT CHEWER VS NON BETEL NUT CHEWER

- BN chewer : Currently chewing, or has stopped chewing for less than 6 months.
- Non BN chewer : No BN chewing, or has stopped chewing for at least 6 months. (Ghani et al. 2011)



2.7 PROCESS OF CARE



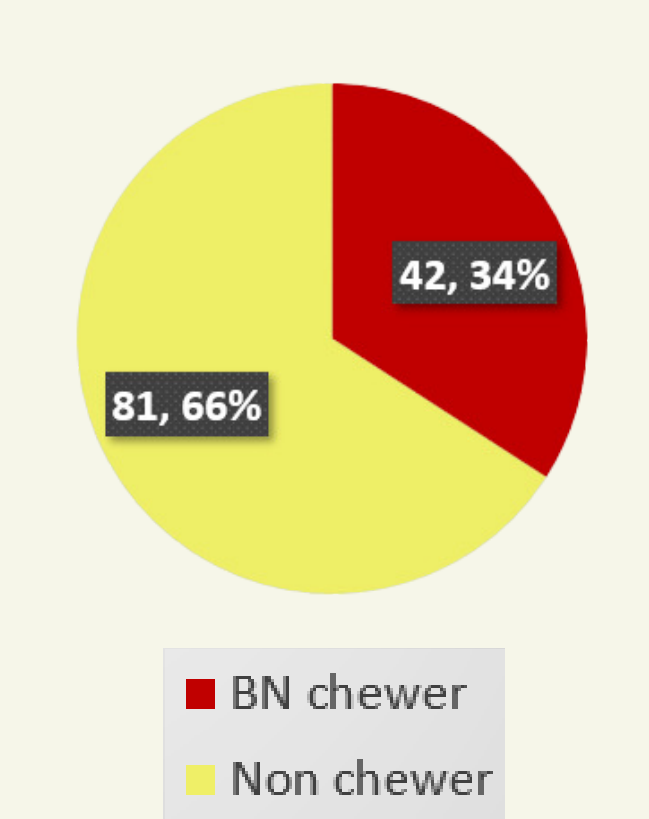
3. PROCESS OF GATHERING INFORMATION

Study design	Interventional study	
Sampling method	Purposive sampling	
Study population	OA students in SMKPH	Dental officers in KP Chini
Sample size	42	7
Study tools	Structured questionnaire	Structured questionnaire
Study period	March 2023 - May 2023	
Implementation of intervention	June 2023 - December 2023	
Post-intervention	January 2024	
Inclusion criteria	<ul style="list-style-type: none"> All OA students in SMKPH Attend the intervention session at least once 	
Exclusion criteria	<ul style="list-style-type: none"> Absent and unreachable for evaluation session (6 months post quit date) 	

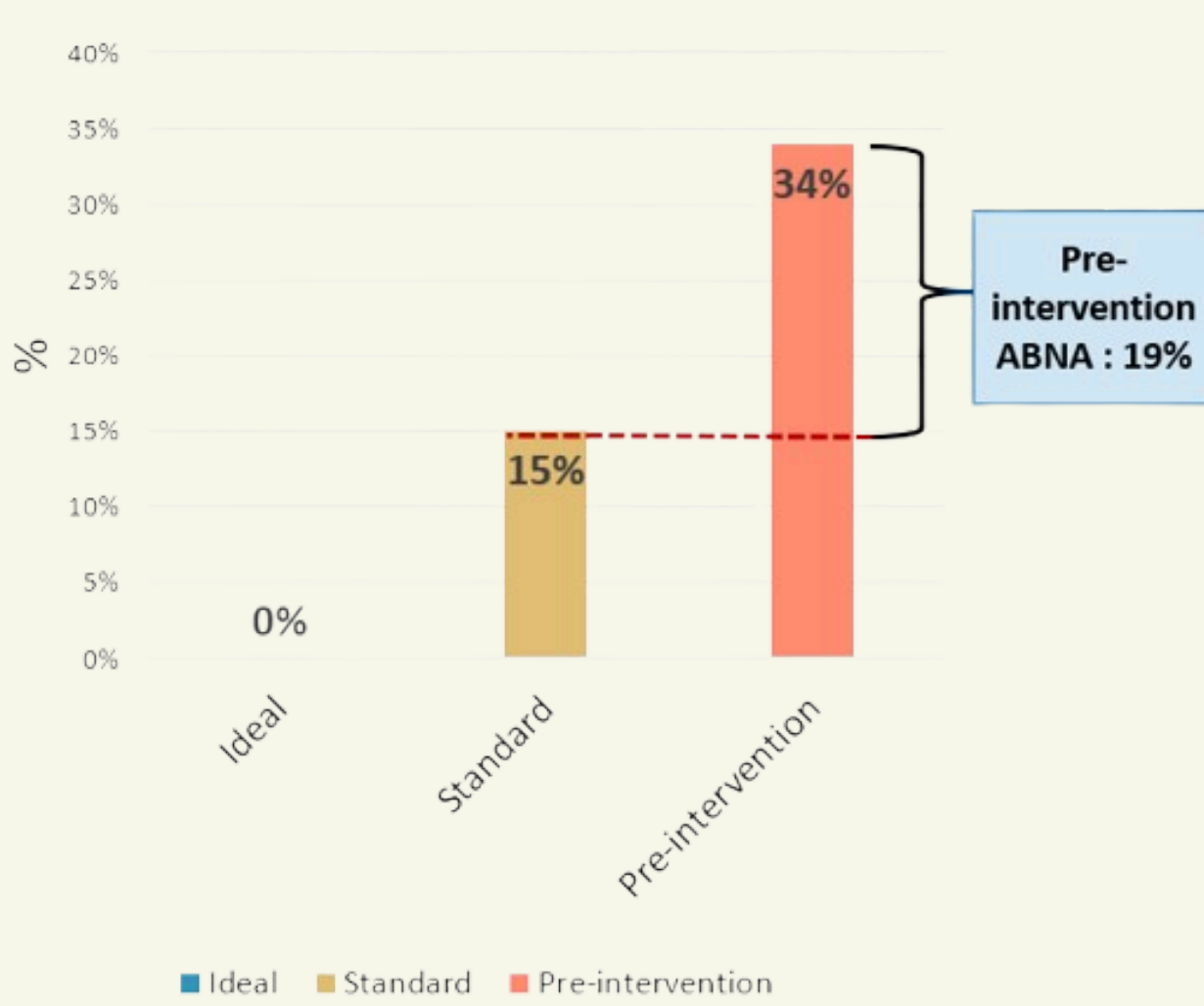
4. ANALYSIS AND INTERPRETATION

4.1 PRE-INTERVENTION ANALYSIS

OA STUDENTS WITH BN CHEWING HABIT IN SMKPH (n=123)

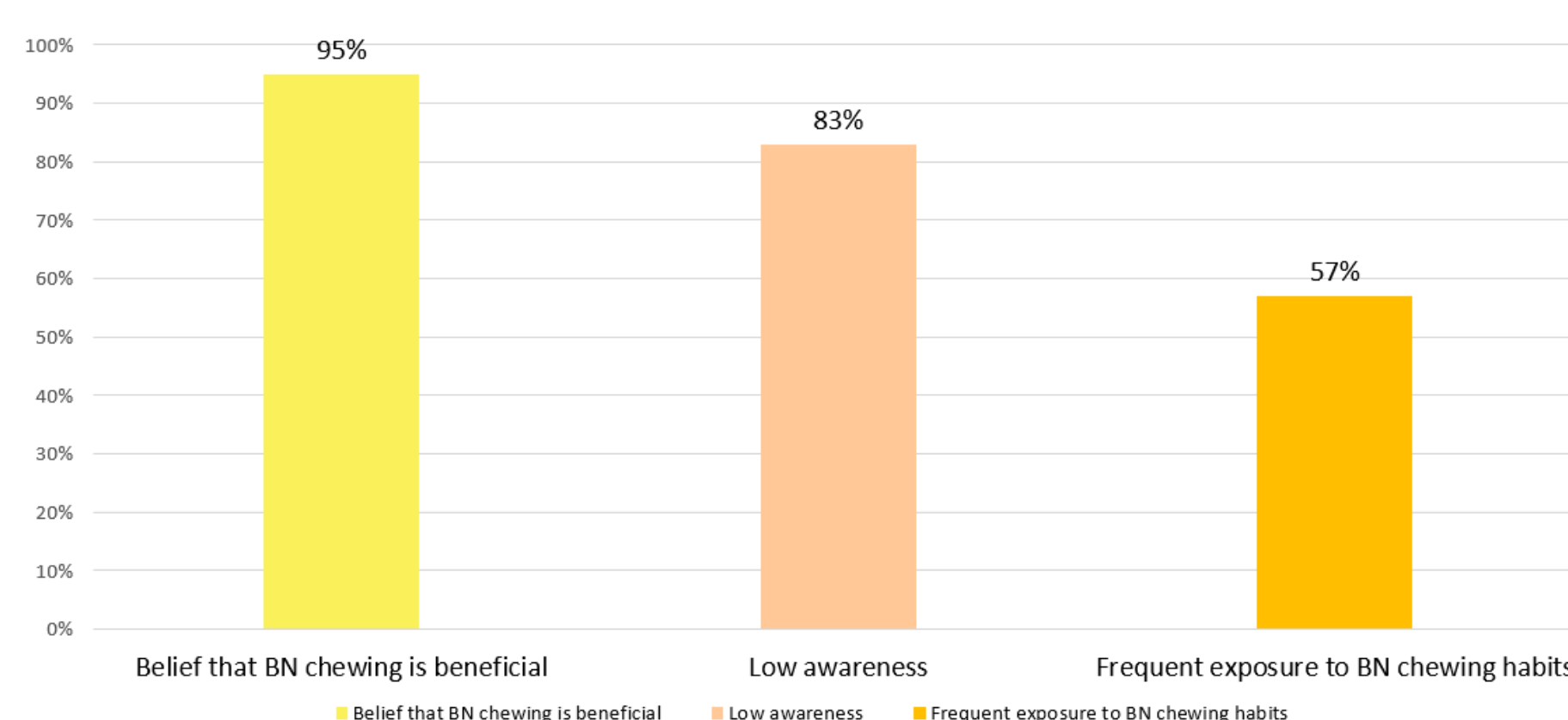


PRE-INTERVENTION ABNA



4.2 FACTORS CONTRIBUTING TO THE HIGH PERCENTAGE OF OA STUDENTS WITH BN CHEWING HABIT

FACTORS CONTRIBUTING TO HIGH PERCENTAGE OF OA STUDENTS WITH BN CHEWING HABIT (n=42)



ACKNOWLEDGMENT

- Facilitators of OA Workshops: Dr. Bunyamin & Puan Noor Mariati
- Secretariat of OA Dental Pahang: Dr. Siti Rudziah & Dr. Farrah Iffadzillah
- Principal of SMKPH: Teacher Nor Azian Binti Ab Aziz
- Teacher Norfarizah Adira Binti Abd Hadi
- All teachers in SMKPH
- All students & parents of SMKPH who are involved in this QA project

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MODEL OF GOOD CARE

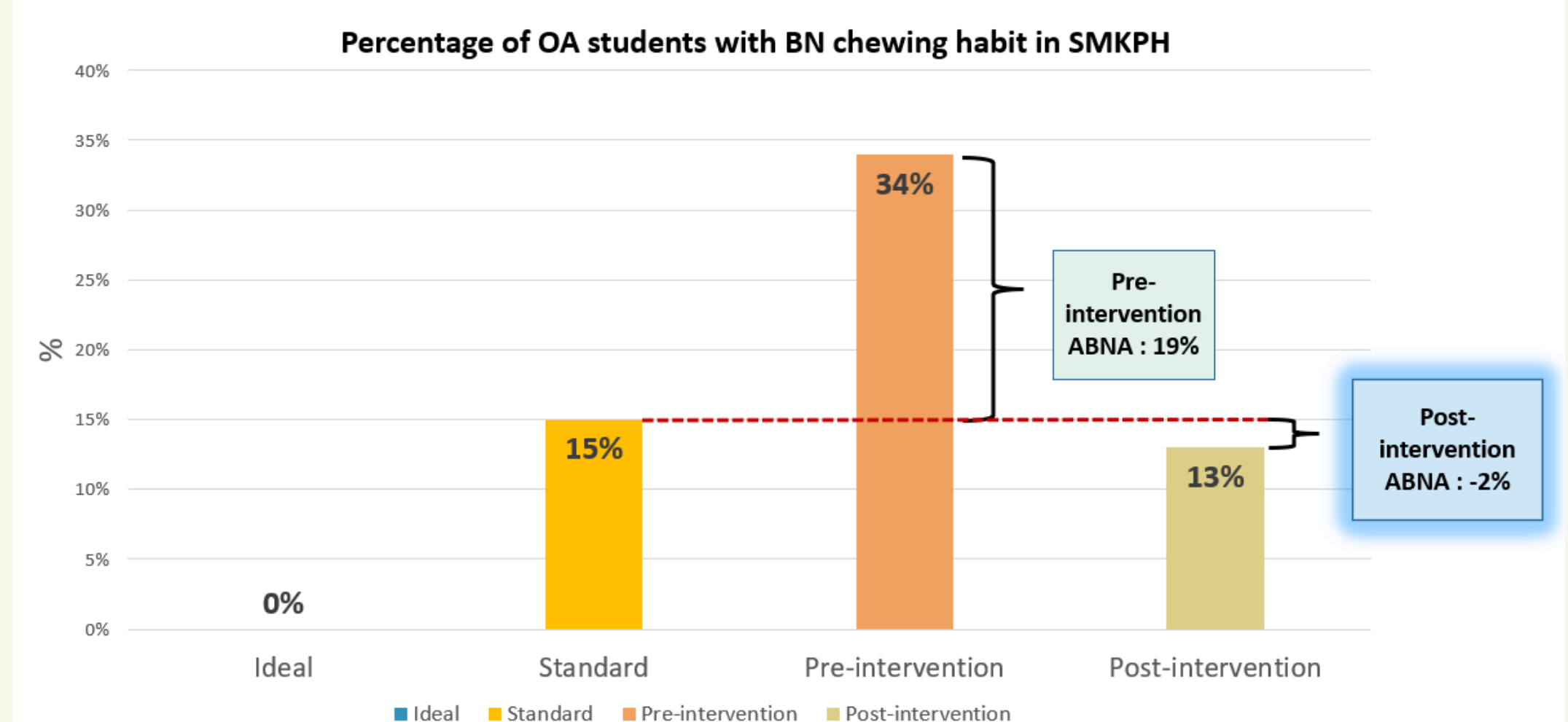
NO.	CRITICAL STEP	CRITERIA	STANDARD	PRE-REMEDIAL	POST-REMEDIAL
1	Screening for BN chewing habit	All OA students are screened for BN chewing habit and the data recorded in LP8 card	100%	100%	100%
2	Brief advice	All OA students with BN chewing habit given brief advice on BN chewing risks	100%	20%	100%
3	Referral to intervention sessions	All OA students with BN chewing habit referred to intervention sessions	100%	0%	100%
4	Evaluation of BN chewing status in 6 months	Number of students who quit the habit of BN chewing recorded after 6 months	100%	0%	100%

5. STRATEGIES FOR CHANGE

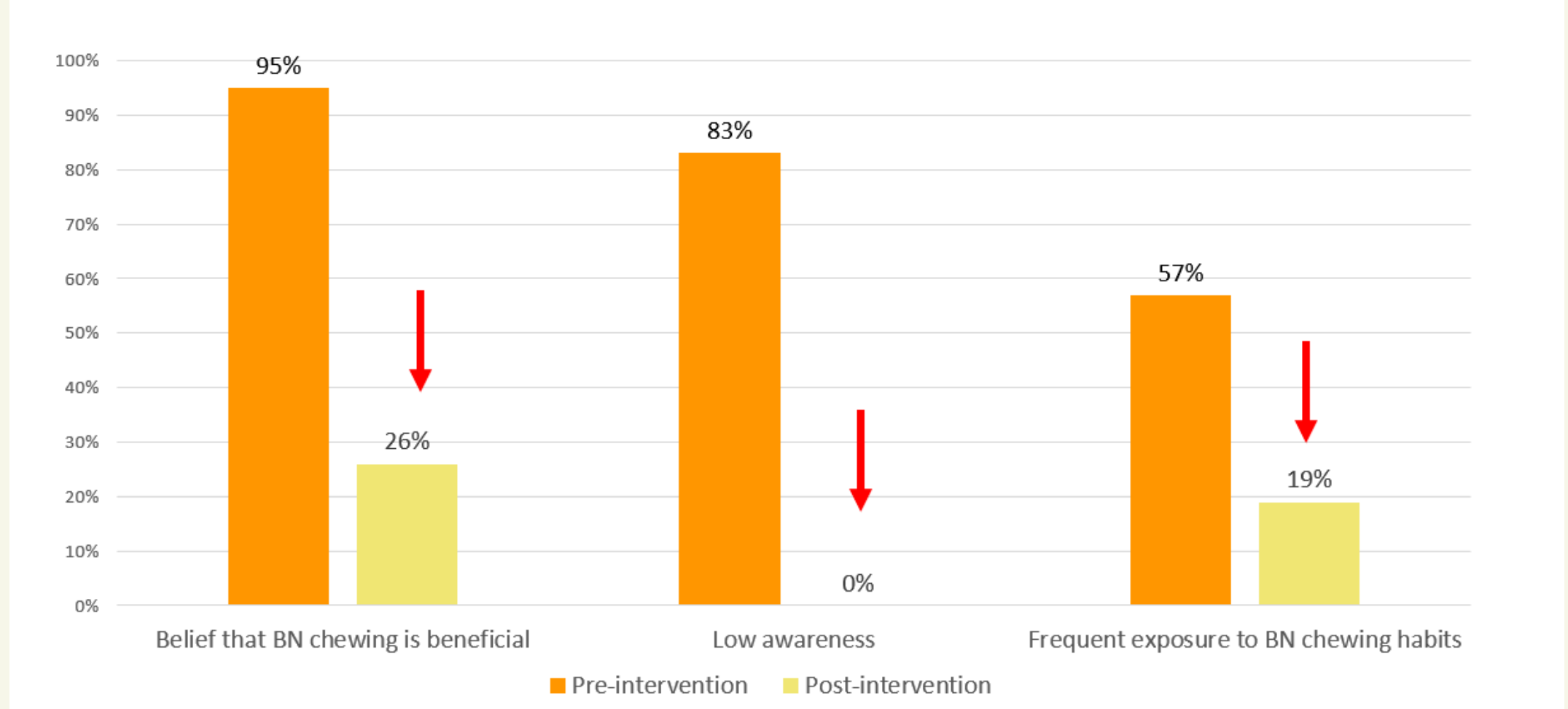
Primary contributing factor	Secondary contributing factor	Strategies
1. Belief of BN chewing is beneficial	1. Enjoyable during socializing	<ul style="list-style-type: none"> Health education given on the effects of BN to the brain
	2. Aid in relaxation	
	3. Alleviation of boredom	<ul style="list-style-type: none"> Sharing ideas on various activities that can be done at home, including interactive games, hobbies and sports
	4. Freshen breath	
2. Frequent exposure to BN chewing habit	1. Prepare the nuts for the elders	<ul style="list-style-type: none"> Gaining support from parents by organizing "Majlis Temu Mesra" where the parents were invited to intervention session Increasing awareness among parents regarding BN chewing habit risks to health Advise the parents not to ask their children to prepare the BN for them Oath taking ceremony in front of the parents
	2. Persuasion from friends/peer pressure	
3. Low awareness on BN chewing risks	1. No knowledge of BN effects to health among students	<ul style="list-style-type: none"> Oral Health Education given on BN risks to increase awareness among the students Interactive activity: every group of students need to share the BN chewing risks on the given paper
	2. Dental officers did not give brief advice on BN chewing habit	

6. EFFECT OF CHANGE

POST-INTERVENTION ANALYSIS



POST INTERVENTION ANALYSIS : CONTRIBUTING FACTORS (n=42)



7. CONCLUSION AND LESSON LEARNT

- The implementation of remedial actions reduced the percentage of OA students with BN chewing habits from 34% to 13%.
- Collaboration with SMKPH gained continuous support from the school and it was very important to carry out the study.

8. THE NEXT STEP

A BN cessation program, namely KETAP (Kesihatan Oral Tanpa Pinang) has been formulated by combining all of the remedial actions done in this study. KETAP will be implemented in all schools in Pekan district with the collaboration of Jabatan Kemajuan Orang Asli (JAKOA).

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