

IMPROVING THE PERCENTAGE OF PATIENTS' COMPLETED FOUR-TIME FLUORIDE VARNISH APPLICATION IN HULU LANGAT DISTRICT

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INTRODUCTION

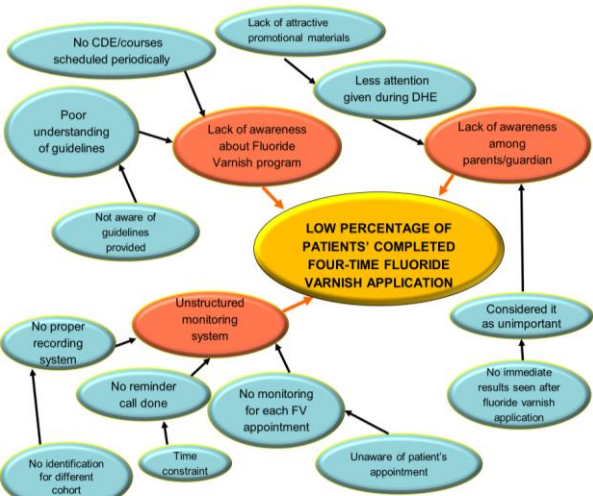
- Fluoride varnish (FV) is a topical fluoride that fast, easy, painless and safe to control dental caries applied by dentist/dental nurse.
- FV programme targeted Toddlers with Moderate and High risk caries assessment.
- FV patients need to complete 4 times FV application within 2 years with 6 month interval for each visit.

SELECTION OF OPPORTUNISTICS FOR IMPROVEMENT

SMART CRITERIA

Seriousness	High caries prevalence (71.3%) among 5-year-olds. (NOHSP, 2015).
Measurable	Reten FV3: Pemantauan Bagi Sapuan Varnis Berfluorida Untuk Toddler.
Appropriateness	Reduce caries by ensuring four-time Fluoride Varnish applications.
Remediable	Restructure workflows, Dental staff interventions, educate parents.
Timeliness	Remedial measures can be done 6 monthly.

CAUSE EFFECT ANALYSIS



PROBLEM STATEMENT

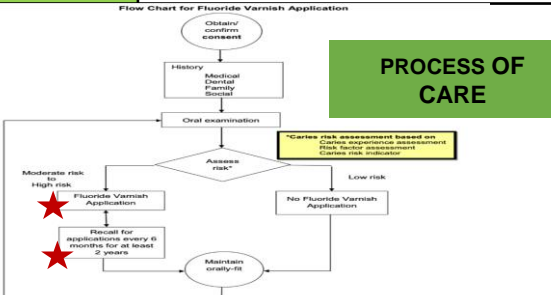
PROBLEM	Low percentage of patients' completed four-time FV application
EFFECT	Reduce effectiveness of the FV treatment in preventing dental caries in children.
POSSIBLE CAUSE	Patient not returning for FV appointment due to multiple reasons & lack of monitoring from operator.
AIM OF STUDY	This study aims to increase the percentage of patients' completing four time FV application.

KEY MEASUREMENTS FOR IMPROVEMENT

INDICATOR	Percentage of patients' completed four-time fluoride varnish application
FORMULA	$\frac{\text{Total no. of patient completed four-time FV application}}{\text{Total no. of patient rendered FV application}} \times 100\%$
STANDARD	40% of patient completed four-time FV application. (Standard in Plan Of Action (POA), Selangor)

OBJECTIVES

GENERAL OBJECTIVE	To improve percentage of patients completed four-time FV application in Hulu Langat District
SPECIFIC OBJECTIVE	<ul style="list-style-type: none"> To verify the percentage of patients' completed 4 times FV application. To identify the contributing factors for low percentage of patients' completed 4 times FV application. To formulate and implement proper remedial action. To evaluate the effectiveness of remedial action.



PROCESS OF CARE

PROCESS OF GATHERING INFORMATION

Study Design	QA/ QI study - Cross sectional study
Study Sampling	Toddlers rendered Fluoride Varnish application attending in MCH, Taska, Klinik (n=1167)
Study Tools	1. Reten FV3: Pemantauan Bagi Sapuan Varnis Berfluorida Untuk Toddler 2. Questionnaire
Study Analysis	Microsoft Excel MS 2019
Inclusion Criteria	All toddler patients rendered fluoride varnish application.
Exclusion Criteria	Patient indicated for fluoride varnish application who encountered allergic after first application.
Study Period	Pre-remedial data collection: Oct- Dec 2020 Cycle 1 (Cohort Jul-Dec 2020): Jan-June 2022 Cycle 2 (Cohort Jan-Jun 2021): Jul-Dec2022

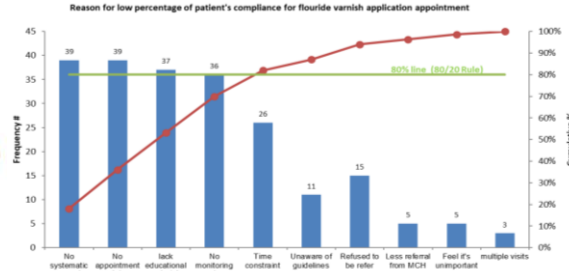
ANALYSIS AND INTERPRETATION

VERIFICATION STUDY RESULTS

Only 9% of patients completed four time FV application in 2019

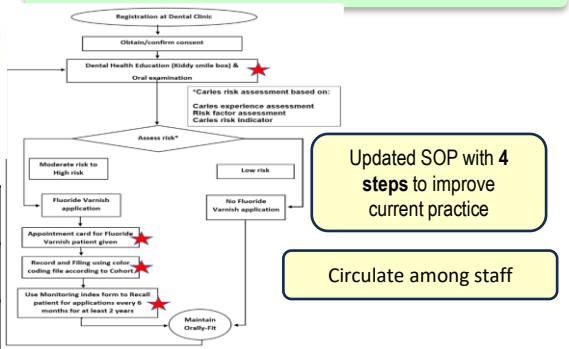
QUESTIONNAIRE

Involved 39/42 (92.8%) Dental Therapist & Dental Officers



STRATEGIES FOR CHANGE

STRATEGY 1: Updated SOP



Updated SOP with 4 steps to improve current practice

Circulate among staff

STRATEGY 2: Provide Education Tools (Kiddy smile box)



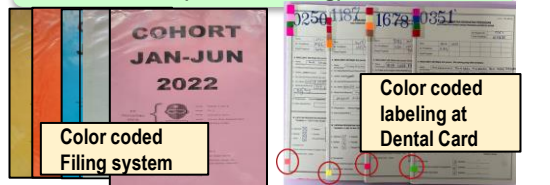
More practical, easy storage for FV programme and lightweight with handle

STRATEGY 3: Attractive Appointment Card



Attractive Take home message about FV, Dental chart and Date of appointment

STRATEGY 4: Visual Control Record System (Colour Coding)



Color coded Filing system

Color coded labeling at Dental Card

STRATEGIES FOR CHANGE

STRATEGY 5: Develop Monitoring Systems

3. Monitor compliance of FV patients for each application & set district standard.

STRATEGY 6: Practitioner Educational training given MCH staff and Dental personnel



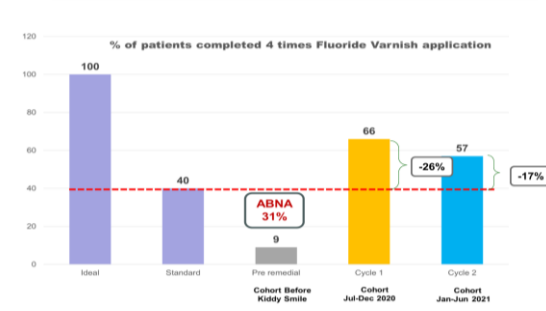
Mother-Child Health Clinic (MCH) Staff
Dental Therapist & Dental officer

EFFECTS OF CHANGE

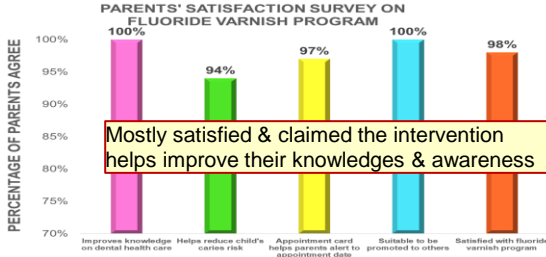
MODEL OF GOOD CARE

Process	Criteria	Standard	Pre-remedial	Cycle 1	Cycle 2
Flouride varnish application	FV treatment recorded & filing	100%	100%	100%	100%
	Record in color coding file according to cohort	100%	0%	100%	100%
Recall for applications every 6 months for at least 2 years	Separate each file according to location of screening	100%	0%	100%	100%
	Appointment date record in monitoring index form	100%	0%	100%	100%
	Reminder call to remind patient's appointment	100%	0%	100%	100%
	Monitoring patients compliance to complete four-time FV application	60%	9%	66%	57%

ACHIEVABLE BENEFIT NOT ACHIEVED



STUDY IMPACT



Mostly satisfied & claimed the intervention helps improve their knowledges & awareness

NEXT STEP

- Replicated in Sepang in 2023 and in Gombak in 2024.
- Sharing session with all district in Selangor for replication.
- Continuous collaboration with Pejabat Kesihatan Daerah (PKD) for sustainability.

ACKNOWLEDGEMENT

