

PROJECT PROPOSAL

INCREASING THE PERCENTAGE OF ANTENATAL MOTHERS' ATTENDANCE TO DENTAL CLINICS IN HULU SELANGOR DISTRICT

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**PEJABAT KESIHATAN PERGIGIAN DAERAH
HULU SELANGOR
BAHAGIAN KESIHATAN PERGIGIAN
JABATAN KESIHATAN NEGERI SELANGOR**

1. SELECTION OF OPPORTUNITY FOR IMPROVEMENT

Women are more prone to various oral health issues during pregnancy. Studies among many populations have demonstrated that pregnant women are more likely than non-pregnant women to have dental caries and periodontal disease. (Kashetty et al., 2018; Rakchanok et al., 2010). Pregnancy-related oral symptoms such cavitation, toothache, bleeding gums, and sensitivity were substantially correlated with the high prevalence and severity of dental caries and periodontal disease. (George et al., 2013; Hashim, 2012; Yunita Sari et al., 2020). Compared to non-pregnant women, pregnant women are more prone to experience dental caries (Rakchanok et al., 2010) This can be the result of changes in lifestyle brought on by pregnancy, specifically the increased consumption of sweet foods and beverages to quell cravings and prevent motion sickness as well as the neglect of mouth hygiene. Elevated oestrogen and progesterone levels during pregnancy cause the gingival tissue's reaction to dental plaque to be amplified, raising the risk of gingivitis (Güncü GN et al., 2005). Pregnancy gingivitis is extremely common, and affects about 30% to 86% of all pregnant women (Barak S et al., 2003; Rakchanok et al., 2010).

Good plaque control can reverse gingivitis, but if left untreated, it can develop to periodontitis, which causes irreversible progressive loss of the tooth-supporting structures and is associated with adverse pregnancy outcomes like pre term birth and low birth weight infants. (Pitiphat W et al., 2008; Saddki et al., 2008). Poor maternal oral health can have negative impacts on both the mothers' and their children's health. The correlation between maternal periodontal disease and adverse pregnancy outcomes, particularly pre term birth and low birth weight, has been adequately established by results from numerous empirical studies, systematic reviews, and meta-analyses. (Daalderop et al.; 2018).

Research has indicated that pregnant women had poorer oral health than non-pregnant women, which might have a negatively affect of quality of life (de Oliveira BH et al., 2006; Acharya S et al., 2009). Thus, oral health care should be an important component of antenatal health care. Nevertheless, it has been observed that there has been very poor uptake of oral healthcare services among the antenatal mothers. Research from the majority of nations, including Malaysia, revealed that utilisation of oral health care services among pregnant women is often low. (Ibrahim et al., 2017; George et al., 2013; Hashim, 2012; Saddki et al., 2010). These reported rates are 27.3% in Thessaloniki, Greece, (Dinas K et al., 2007) and 32% in Wellington, New Zealand, (Claas BM et al., 2011).

A previous study in Malaysia indicated that only 34.4% of pregnant women used oral health care services in 2012 (Ministry of Health Malaysia. Annual Report 2012). Data obtained from Bahagian Kesihatan Pergigian, Jabatan Kesihatan Negeri Selangor showed that only 32.8% antenatal mothers came for dental check up in 2021. Similarly with data for Hulu Selangor in 2020, just 33.9% antenatal mothers came for dental check-up. The primary reason for this project's implementation is due to the low number of antenatal mothers' attendance to dental clinics in Hulu Selangor. At the end of this project, we hope that the percentage of antenatal mothers' attendance to dental clinics in Hulu Selangor districts increased by $\geq 40\%$. Remedial actions hopefully will aid in increase of attendance of antenatal mothers to dental clinic thus standard DSA (District Specific Approach) achieved.

1.1 PROJECT OBJECTIVES

General Objective

Improving attendance of antenatal mothers to dental clinics

Specific Objective

1. To verify the percentage of antenatal mothers' attendance to dental clinics
2. To identify the contributing factors to low attendance percentage of antenatal mothers to dental clinics
3. To formulate strategies and implement proper remedial action in order to increase the percentage of antenatal mothers' attendance to dental clinics
4. To evaluate the effectiveness of remedial actions implemented

2. KEY MEASURES FOR IMPROVEMENT

Indicator : Percentage of new antenatal mothers' attendance to dental clinics

Numerator : Number of new antenatal mothers' receiving dental check up

Denominator : Number of new antenatal mothers' registered with MCH clinics

Formula : $\frac{\text{Number of new antenatal mothers receiving dental check-up}}{\text{Number of new antenatal mothers' registered with MCH clinics}} \times 100\%$

Standard : $\geq 40\%$ (District Specific Approach) DSA

Women who do not visit dentists during pregnancy may rationalise this behaviour by saying they do not have any oral health problems, they have insufficient time, they believe that dental treatment could harm the foetus, or they fear or are dissatisfied with dental services (Gaffield ML et al., 2001; Al Habashneh R et al., 2005; Saddki et al., 2010).

Only slightly more than half of pregnant women had adequate oral health literacy. Women with greater education levels and positive self-perceptions of their oral health status were more likely to have adequate oral health literacy. Oral health education messages should therefore be simple and clear for the benefit of pregnant women with low educational attainment who were more likely to have poor oral health literacy. (Niazi S et al., 2022)

Mothers who reported dental visit were more likely to be those who had received oral health education before to the current pregnancy and were aware of the link between poor maternal oral health and unfavourable pregnancy outcomes. This is consistent with a study by Al-Habashneh et al 2005, that mothers who have heard about the possible connection between oral health and pregnancy were significantly more likely to report dental visit during pregnancy. These findings further established the important roles of oral health education to impart knowledge and increase awareness that would in turn improve the mothers' dental care-seeking behaviour. Hence, the provision of oral health education to all antenatal mothers should be made mandatory in effort to improve uptake of services. Besides, oral health education could be used as a behavioural technique to alleviate dental fear among the mothers by making them more at ease and familiar with the dentist and the forthcoming treatment procedures. All misperceptions and erroneous conception about the safety of dental treatment that may contribute to the low rate of service utilisation can be corrected. (Saddki et al., 2010).

Medical health care providers, particularly doctors and nurses, are considered the first line in the provision of antenatal health care. Besides monitoring the health of the women and their developing fetuses, they are also responsible for educating women on other relevant health matters. Doctors and nurses have close and regular contact with pregnant women, so are well positioned to educate the women on oral health care, and to advise and refer those in need of oral care to dentists. (Dasanayake AP et al., 2008). They also agreed they should nonetheless refer a pregnant woman to a dental clinic even if they do not complain of oral health problems. This complies with the MOH guidelines on oral health care for pregnant women, which recommend medical doctors and nurses refer all newly pregnant women to dental clinics for oral health examinations and education (Ministry of Health Malaysia. (2004).

3.0 PROCESS OF GATHERING INFORMATION

3.1 Study design

This is a cross-sectional study using a structured, self-administered questionnaire.

3.2 Study Sample

All new antenatal mothers attending MCH Clinics in Hulu Selangor District (MCH Kuala Kubu Bharu, MCH Serendah, MCH Hulu Yam Bharu), using Simple Random Sampling method

3.3 Study Period

1. Problem Identification & Proposal May – Jun 2022
2. Data Collection (Verification study) July – August 2022
3. Data Analysis August - Sept 2022
4. Remedial Action Implementation Oct – Nov 2022
5. Re-evaluation data collection Dec 2022 – Jan 2023
6. Data Analysis Feb - March 2023
7. Report Writing March – April 2023

3.4 Inclusion Criteria

All new antenatal mothers who can read and write in Malay and does not exhibit clear cognitive disturbances and attends MCH Clinics in the Hulu Selangor district.

3.5 Exclusion Criteria

No exclusion criteria

3.6 Tools for data collection

The self-administered questionnaire, adapted and validated by Saddki et al., 2010 used to assist in gathering information. The questionnaire is included as **Appendix A**. Each respondent will be given the questionnaire in a Google Form format. The Google Form link will be distributed to the respondents.

3.7 Ethical Consideration

A written consent will be included in the Google Form before the respondents' involvement in the study.

3.8 Data Management

Data will be processed and entered for data analysis using Statistical Package for the Social Science (SPSS).

4.0 PROJECT MANAGEMENT

Work Plan (Gantt chart). Please refer **Appendix B**.

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Appendix A

Questionnaires

Penggunaan Perkhidmatan Pergigian Dalam Kalangan Ibu Hamil

Kesihatan Antenatal

1. Tempoh kehamilan sekarang:..... minggu
2. Sejarah kehamilan:
 - a) Jumlah kelahiran (parity):
 - b) Jumlah kehamilan (gravida):(termasuk kehamilan sekarang)

Kesihatan Pergigian Semasa Hamil

3. Secara amnya, bagaimanakah anda menilai kesihatan pergigian anda sekarang?

- | | |
|-------------------|--------------------------|
| Sangat baik | <input type="checkbox"/> |
| Baik | <input type="checkbox"/> |
| Sederhana | <input type="checkbox"/> |
| Tidak baik | <input type="checkbox"/> |
| Sangat tidak baik | <input type="checkbox"/> |

4. Adakah anda mempunyai masalah kesihatan pergigian seperti berikut?

- | | | |
|----------------|--|--------------------------------|
| Sakit gigi | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Gigi berlubang | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Sakit gusi | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Gusi bengkak | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Gusi berdarah | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Gusi bernanah | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Gigi longgar | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Nafas berbau | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Lain-lain | <input type="checkbox"/> Ya. Sila nyatakan | |

5. Berapa jauhkah jarak daripada rumah anda ke klinik pergigian terdekat?
..... km (Sila berikan anggaran kasar jika jarak sebenar tidak diketahui)

6. Bagaimanakah anda menilai keupayaan anda untuk pergi ke klinik pergigian sekiranya perlu?

- | | |
|--------------|--------------------------|
| Sangat mudah | <input type="checkbox"/> |
| Mudah | <input type="checkbox"/> |
| Sukar | <input type="checkbox"/> |
| Sangat sukar | <input type="checkbox"/> |

Pengetahuan Mengenai Kesihatan Pergigian

7. Pernahkah anda mendapat ceramah kesihatan pergigian sebelum kehamilan ini?

☐ Ya ☐ Tidak

Jika anda menjawab 'Ya' bagi soalan di atas;

Sila nyatakan sumber ceramah tersebut:

- | | | |
|---------------------|--|--------------------------------|
| Doktor perubatan | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Doktor pergigian | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Jururawat | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Jururawat pergigian | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Rakan/Saudara-mara | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Radio | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Televisyen | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Majalah | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Surat khabar | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Risalah | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Internet | <input type="checkbox"/> Ya | <input type="checkbox"/> Tidak |
| Lain-lain | <input type="checkbox"/> Ya. Sila nyatakan | |

8. Adakah anda tahu bahawa rawatan pergigian di semua klinik kerajaan, diberi percuma semasa hamil?

☐ Ya

☐ Tidak

9. Adakah anda tahu bahawa penyakit-penyakit pergigian yang berikut sering dialami semasa hamil?

Kerosakan gigi

☐ Ya

☐ Tidak

Penyakit gusi

☐ Ya

☐ Tidak

10. Adakah anda mengetahui tentang hubungkait di antara penyakit gusi ibu dan risiko melahirkan bayi pra-matang atau kurang berat semasa lahir?

☐ Ya

☐ Tidak

11. Pernahkah anda berjumpa doktor gigi semasa kehamilan ini?

☐ Ya

☐ Tidak

Jika 'Ya', sila jawab Bahagian A (muka surat 4, soalan 12 - 14) dan Latarbelakang (muka surat 7)

Jika 'Tidak', sila jawab Bahagian B (muka surat 5 & 6, soalan 15 – 19) dan Latarbelakang (muka surat 7)

BAHAGIAN A: Penggunaan Perkhidmatan Pergigian Semasa Hamil

12. Sila nyatakan sebab-sebab anda berjumpa dengan doktor gigi.

Pemeriksaan rutin / biasa	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Kerana masalah pergigian		
Sakit gigi	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Gigi berlubang	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Sakit gusi	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Gusi bengkak	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Gusi berdarah	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Gusi bernanah	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Gigi longgar	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Nafas berbau	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Lain-lain	<input type="checkbox"/> Ya. Sila nyatakan	
Untuk penskaleran (cuci gigi)	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Dirujuk oleh doktor/jururawat	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Lain-lain	<input type="checkbox"/> Ya. Sila nyatakan	

13. Apakah jenis klinik pergigian yang dilawati ?

Klinik pergigian kerajaan	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Klinik pergigian swasta	<input type="checkbox"/> Ya	<input type="checkbox"/> Tidak
Lain-lain	<input type="checkbox"/> Ya. Sila nyatakan	

14. Sila nyatakan tempoh kehamilan anda semasa kali pertama anda berjumpa dengan doktor gigi.

..... minggu

BAHAGIAN B: Halangan Terhadap Penggunaan Perkhidmatan Pergigian

Apakah yang menghalang anda mendapatkan perkhidmatan pergigian semasa hamil?

15. Tanggapan terhadap kesihatan pergigian:

<i>Halangan</i>	<i>Ya</i>	<i>Tidak</i>
Tidak mempunyai sebarang masalah pergigian		
Kesihatan pergigian tidak/kurang penting		
Rawatan pergigian boleh memudaratkan kandungan		
Lain-lain. Sila nyatakan		

16. Perasaan takut:

<i>Halangan</i>	<i>Ya</i>	<i>Tidak</i>
Takut terhadap doktor gigi		
Takut terhadap peralatan pergigian		
Takut terhadap rawatan pergigian		
Takut terhadap kesakitan yang mungkin dialami		
Mempunyai pengalaman lalu yang buruk		
Lain-lain. Sila nyatakan		

17. Keupayaan untuk hadir ke klinik pergigian:

<i>Halangan</i>	<i>Ya</i>	<i>Tidak</i>
Jarak dari rumah ke klinik yang jauh		
Tempoh perjalanan yang lama		
Tiada kenderaan sendiri		
Sukar mendapatkan kemudahan pengangkutan awam		
Tambang pengangkutan awam yang mahal		
Lain-lain. Sila nyatakan		

18. Kesuntukan masa untuk hadir ke klinik

<i>Halangan</i>	<i>Ya</i>	<i>Tidak</i>
Kesibukan di tempat kerja		
Sukar mendapat pelepasan daripada majikan		
Kesibukan dengan tugas dan tanggungjawab di rumah		
Lain-lain. Sila nyatakan		

19. Kualiti perkhidmatan:

<i>Halangan</i>	<i>Ya</i>	<i>Tidak</i>
Tarikh temujanji terlalu lambat		
Masa menunggu yang lama		
Rawatan tidak diberi serta merta		
Layanan di kaunter pendaftaran tidak memuaskan		
Sikap kakitangan bertugas tidak memuaskan		
Sikap doktor pergigian tidak memuaskan		
Suasana tidak memuaskan		
Kurang yakin dengan kualiti perkhidmatan		
Lain-lain. Sila nyatakan		

Latarbelakang

20. Tarikh lahir:.....

21. Kalum:

Melayu	<input type="checkbox"/>	
Cina	<input type="checkbox"/>	
India	<input type="checkbox"/>	
Lain-lain	<input type="checkbox"/>	Sila nyatakan

22. Tahap pendidikan tertinggi:

Tiada pendidikan rasmi	<input type="checkbox"/>
Sekolah Rendah	<input type="checkbox"/>
SRP/PMR atau kelayakan setaraf	<input type="checkbox"/>
SPM atau kelayakan setaraf	<input type="checkbox"/>
Latihan vokasional/Sijil	<input type="checkbox"/>
STPM / Diploma atau kelayakan setaraf	<input type="checkbox"/>
Institut Pengajian Tinggi (IPT)	<input type="checkbox"/>

23. Adakah anda bekerja? ['Bekerja' merangkumi semua jenis pekerjaan/aktiviti yang menghasilkan sumber kewangan] ☐ Ya ☐ Tidak

Jika 'ya', sila nyatakan pekerjaan anda:

24. Berapakah jumlah pendapatan bulanan isi rumah anda ?

RM.....

(Sila beri anggaran kasar jika jumlah sebenar pendapatan tidak diketahui)

TERIMA KASIH

Appendix B

Gantt chart

[illegible]