ORIGINAL ARTICLE

The Prevalence and Factors Associated With Positive Mental Health Help-seeking Behaviour Among Pregnant Women in Klang Valley

Mohd Farid Abd Hamid[1], Salina Mohamed[2], Suraya Abdul-Razak[1,3]

[1] Department of Primary Care Medicine, Faculty of Medicine, Universiti Teknologi MARA, Sg Buloh Campus, 47100 Sg Buloh, Selangor, Malaysia.
[2] Department of Psychiatry, Faculty of Medicine, Universiti Teknologi MARA, Sg Buloh Campus, 47100 Sg Buloh, Selangor, Malaysia.
[3] Cardio Vascular and Lungs Research Institute (CaVaLRI), Hospital Al-Sultan Abdullah (HASA), Universiti Teknologi MARA, 42300 Puncak Alam, Selangor, Malaysia

ABSTRACT

Introduction: Perinatal depression and anxiety are prevalent, but professional mental health help-seeking remains low, resulting in a lack of utilization of mental health services. We aimed to determine the prevalence of positive mental health help-seeking behaviour (MHHSB) among pregnant women and its associated factors. **Materials and methods:** This cross-sectional study was conducted at an urban public maternal and child health clinic (MCHC) in Selangor, Klang Valley between August and November 2022. 296 pregnant women were recruited. The Malay version of Edinburgh Postnatal Depression Scale (EPDS), Self-Stigma of Seeking Psychological Help (SSOSH), Mental Health Literacy Scale (MHLS) and MHHSB questionnaires were used for data collection. Multivariate logistic regression was used to identify factors. **Results:** The mean age was 30.06 (±5.14) years and more than two-third (61%, n=181) were multiparous. More than half (57.4%, n=170) were in their second trimester, while 15.9% (n=47) and 21.3% (n=63) had probable depression and anxiety, respectively. The prevalence of positive MHHSB was 73.6% (95% CI: 0.68, 0.78), yet the prevalence of probable getting professional assistance was 22.6% (95% CI: 0.18, 0.28). Two factors were associated with positive MHHSB. These were probable anxiety [odds ratio (OR)3.86, 95% CI: 1.80, 9.15] and MHLS [OR 1.05, 95% CI: 1.03, 1.08]. **Conclusion:** Positive MHHSB was prevalent among pregnant women, yet the possibility of seeking professional assistance is low. Having anxiety was likely to influence MHHSB, hence efforts to improve mental health literacy and training staff to recognize symptoms and cultivating supportive environment for pregnant women will ensure timely interventions.
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Corresponding Author:
Suraya Abdul-Razak, MFamMed
Email: suraya617@uitm.edu.my
Tel : +603-61265000

INTRODUCTION

Depression and anxiety are common mental health issues in pregnancy. Women are vulnerable to mental health issues due to the physical and physiological changes during pregnancy (1). Globally, between 1% to 37% of pregnant women have common mental illnesses; among them, depression and anxiety, with approximately 30% and 26%, respectively (2). Most countries showed an increased prevalence of antenatal depression and anxiety (3). Mirroring global trends, antenatal depression in Malaysia increased from 13.8% in 2016 to 20.2% by 2021 (4, 5), and antenatal anxiety increased from 18.8% in 2016 to 28.8% by 2018 (6, 7). Maternal mental health issues are known to be linked to poor pregnancy outcomes. Depression during pregnancy is associated with unfavourable mother behaviours such as decreased attention to prenatal care, poor attendance at antenatal clinics, and a greater risk of drug addiction (8). Furthermore, it raises the risk of premature birth and low birth weight (9). Similar impacts have been documented for pregnant women with anxiety in which smaller gestational age, smaller head circumference, preterm delivery and low birth weight are further consequences of prenatal anxiety (10). It is critical to emphasise that if mental health problems are not appropriately addressed during pregnancy, they may remain or worsen postnatally, which substantially impacts the care of their children. As a result, these women tend to abuse and neglect their babies (2).

Despite the prevalence and adverse consequences of

psychological problems during pregnancy, the number of pregnant women receiving routine assessment and management of mental health issues remained suboptimal (11). Several interventions are effective in treating perinatal emotional difficulties, but the intervention's efficacy depends on women's willingness to access and engage in the treatments (12). There is a low proportion of pregnant women who seek help from healthcare professionals for their mental well-being (13). The proportion of pregnant women in developing countries seeking help from healthcare professionals for their emotional symptoms is lower than in developed countries. In a developing country like Ghana, less than a fifth of pregnant women sought help for their emotional symptoms, while in developed countries, it was recorded at about 20–26% (14, 15).

Seeking help for mental health issues refers to an individual's action or response to seek external aid in addressing the issues, where the external aid might be official, such as healthcare providers, or informal, such as family members or friends (16). Nowadays, there are an emerging number of studies done to comprehend the concept of 'help-seeking behaviour'. Help-seeking behaviour for a health problem refers to a purposeful, goal-oriented activity in which individuals engage with a preferred healthcare provider to discuss their health conditions (17). In the context of mental health for antenatal women, help-seeking behaviour is essential as it facilitates early intervention for mental health issues, improves outcomes, provides access to support, reduces stigma, and prevents long-term negative effects of mental health problems. There are few studies have examined the correlates of mental health help-seeking behaviour (MHHSB), particularly during the perinatal period. Factors substantially linked with poor MHHSB among pregnant women are older age, married, high level of education, less support, advanced gestational age, women without a history of psychological problems, greater stress, and greater self-stigma in help-seeking (18, 19, 20, 21). To our knowledge, no studies of this kind have been undertaken in Malaysia or the surrounding regions.

Even though knowledge of MHHSB related to pregnant women is available, it may vary due to cultural and healthcare system differences (14). Cultural factors in Malaysia, such as stigma surrounding mental illness, traditional beliefs, and family dynamics, may impact pregnant women's willingness to seek mental health help, influencing their access and engagement with support services. Malaysia has distinct cultural, geographic, and demographic characteristics that insights into MHHSB among antenatal groups in this region are still lacking. We believe this study will be beneficial as it will contribute to the development of strategic planning for the early identification of target groups among pregnant women who tend not to seek professional help for their mental health illnesses. Proactive measures can be applied for timely diagnosis and subsequently increase the treatment rate for antenatal mental health issues and their complications. Hence, this study focused on pregnant women's positive MHHSB. It aimed to determine the prevalence of pregnant women who engage in various types of MHHSB and its relationships with sociodemographic factors, pregnancy-related characteristics, mental health status, level of self-stigma in seeking psychological help, and level of mental health literacy.

MATERIALS AND METHODS

Study Design and Setting

TThis study was a cross-sectional study conducted at a public maternal and child health clinic (MCHC) located in Gombak, an urban district in Selangor, Malaysia. The clinic was chosen because it possessed a high attendance of pregnant women, and the patient population reflected the ethnic variety in Malaysia. Data was collected between August and November 2022.

Study Population

The target population for this study was pregnant women, and the sampling frame was pregnant women who were registered and received antenatal care from the MCHC. The samples obtained for this study complied with the defined inclusion and exclusion criteria. The inclusion criteria were the ability to understand Malay or English language, Malaysian citizens aged at least 18 years old and being at least 12 weeks pregnant. The exclusion criteria were unwilling to participate or unable to sign the informed consent form, diagnosed with mental health conditions or those receiving psychological treatments.

Sampling and data collection

A convenient sampling technique was applied. Pregnant women who came to the MCHC were approached in turn and given an information sheet outlining the study's objectives, methods, risks and benefits. Eligible women were recruited into the study. Written informed consent was obtained prior to data collection. 335 pregnant women attending the MCHC were approached consecutively and agreed to participate. All were eligible, but 10 participants were excluded as they did not complete their consent forms (n=325). Of the 325 participants, 29 were excluded from the final analysis due to missing data (see Figure 1). The final sample for analysis comprised 296 participants, representing an 88.4% response rate.

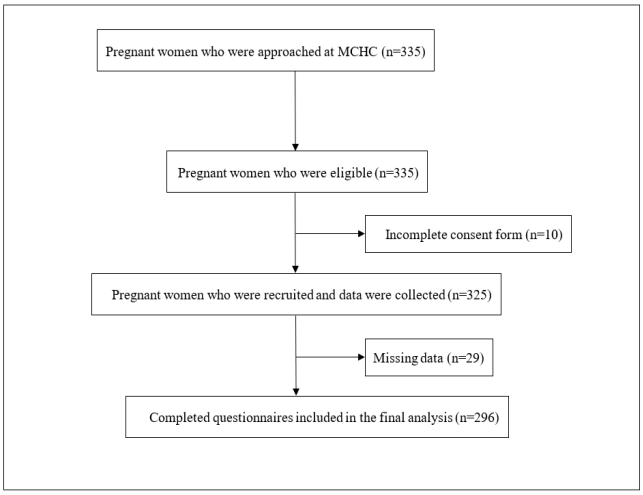

Figure 1: The flow of main study.

Ethical consideration

This study obtained approval from the Malaysian Ministry of Health Medical Research and Ethics Committee (MREC): NMRR ID-21-02146-QLV and the UiTM Research Ethics Committee (REC): REC/11/2021 (MR/852) prior to data collection and adhered to the principles of the Declaration of Helsinki and the Malaysian Good Clinical Practice Guidelines. For participants who demonstrated high score for symptoms related to anxiety or depression, a referral to the attending doctor was made for thorough assessment and management.

Study Instruments

The self-administered questionnaires containing five sections were given to the participants. It gathered information on sociodemographic and pregnancy profiles, MHHSB, mental health status, level of individual stigma in seeking psychological help, and level of mental health literacy.

Edinburgh Postnatal Depression Scale (EPDS)

The EPDS was initially developed in 1987 to detect postnatal depression (22). However, further research validated its use in pregnant women, considering the lack of postpartum-specific items (23). In the present study, the validated Malay version of EPDS was used to assess the participants' psychological status, specifically probable depression and anxiety (24). It has acceptable reliability (Cronbach's alpha of 0.86) (25). Additionally, it has been used in several local studies to identify depression in pregnant women in Malaysia (4, 5, 7). It is a 10-item self-administered questionnaire with ratings for each item on a 4-point Likert scale ranging from 0 (never), 1 (seldom), 2 (sometimes), and 3 (always). The probable depression is assessed by considering all 10 items in the questionnaire. 30 is the highest possible total score, and a score of 11 or higher indicates of probable depression (26).

The EPDS-3A considers items 3, 4, and 5 to assess for potential anxiety. These anxiety subscale items have good individual item loading coefficients that range from 0.75 to 0.78 (23). The three items might be scored up to nine points, and a score of five or higher suggests probable anxiety (27). Pilot testing was conducted on 40 pregnant women of various ethnicities, educational levels, and work statuses, which were not included in the main study. The Cronbach's alpha of 0.74 for the Malay version EPDS was obtained for reliability.

Self-Stigma of Seeking Psychological Help (SSOSH)

The SSOSH is a tool used to measure the level of self-stigma in seeking mental health help (28). The Malay version of SSOSH was used in this study. Its reliability assessment showed a Cronbach's alpha of 0.667 (29). In our pilot study, a Cronbach's alpha of 0.763 was found. The SSOSH comprises 10 items, each of which is assessed on a Likert scale from (1) "strongly disagree", (2) “disagree”, (3) “Unsure”, (4) “agree” and (5) "strongly agree." Items 2, 4, 5, 7, and 9 were scored reversely. A higher score denotes a greater level of self-stigma towards seeking psychological assistance. The total score runs from 10 to 50.

Mental Health Literacy Scale (MHLS)

Mental health literacy in the studied population was evaluated using the Malay version of MHLS (30). It was adapted from O'Connor et al (31). It consists of 35 items that measure the individual ability to recognise disorders and knowledge of risk factors and causes of mental health illnesses (Items 1–10), knowledge of self-treatment (Items 11–12), knowledge of professional help that is available and where to seek information (Items 13–28), and an attitude that encourages recognition or help-seeking behaviour (Items 29–35) (30).

There are two different sorts of point scales: a 4-point scale for items 1 through 15 (Score 1: very unlikely/unhelpful to score 4: very likely/unhelpful) and a 5-point scale for items 16 through 35 (Score 1: strongly disagree/definitely unwilling to score 5: strongly agree/definitely willing). A total of 35 items makes up the scoring for this questionnaire. The score is calculated reversely for items 10, 12, 15, 20, and 28. The highest and lowest possible scores are 160 and 35, respectively. Mental health literacy increases with increasing scores. The Malay version has good reliability (Cronbach's alpha = 0.759)(30), and our pilot study found that Cronbach's alpha was 0.920.

Assessment of MHHSB

This questionnaire was developed by Fonseca et al (19). It was chosen due to its ability to evaluate different types of MHHSB, in contrast to other questionnaires that mostly concentrated on professional assistance engagement. The questionnaire consists of four items that measure awareness of emotional or psychological issues, participation with a social network, willingness to consult a professional for mental health issues, and

obtaining professional help for mental health issues. All the replies were binary (yes against no). It has been used to assess MHHSB among pregnant women with depression and is only available in English. Therefore, each item underwent adaptation and translation to suit the study's target population.

The adaptation, content validation, and translation processes were conducted in phase one of this study and summarized in Figure 2. The four adapted items assess (a) self-awareness of psychological disorders (*Since you knew that you were pregnant, have you been feelings more sad, anxious, or stressed out than usual?*); (b) consideration of social network participation (*Since you knew that you were pregnant, if there is a possibility that you are experiencing psychological issues (e.g., sadness, anxiety), have you considered discussing it with family members or a friend?*); (c) consideration of professional assistance (*Since you knew that you were pregnant, if there is a possibility that you are experiencing psychological issues (e.g., sadness, anxiety), have you considered seeking professional help (e.g., a counsellor, doctor) to address these psychological problems?*); and (d) possiblity of seeking assistance from professionals (*Since you knew that you were pregnant, if there is a possibility that you are experiencing psychological issues (e.g., sadness, anxiety), would you seek professional help (e.g., counsellor, doctor)?*). Participants are considered to have positive MHHSB if they answer "Yes" to at least one of the four questions.

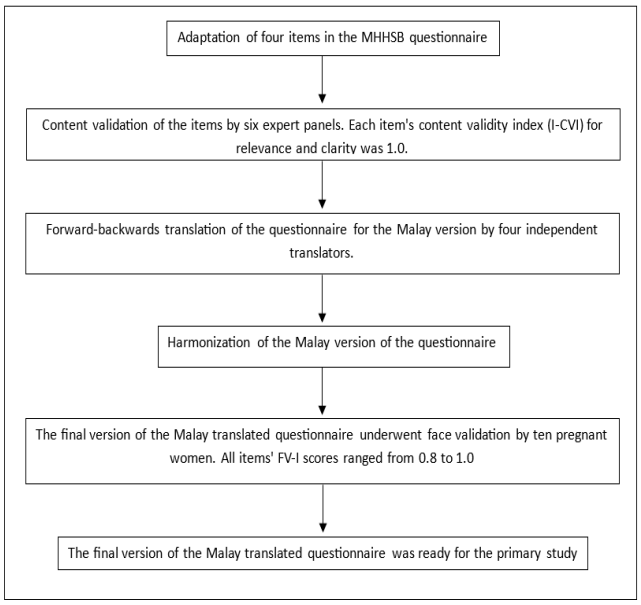

Figure 2: The flow of pilot study.

Following the adaptation stage, the contents were validated by six experts, including two family medicine specialists, two psychiatrists, and two obstetrics and gynaecology specialists. Each item's content validity index (I-CVI) for relevance and clarity was 1.0, suggesting that it was both clear and relevant to the domain (32). A forward and backward translation technique was used to translate the modified questionnaire into Malay, and then harmonisation was applied. Two translators did a forward translation (from English to Malay) with different academic backgrounds, while two more translators did a backward translation (from Malay to English) with different academic backgrounds. All translators contributed to harmonising the Malay versions of the questionnaire to establish equality between the source and target versions in four areas: semantic, idiomatic, experiential, and conceptual equivalence. The items in the final version of the adapted and Malay-translated questionnaire are as follows: (1) *Semenjak anda tahu ada mengandung, adakah anda mengalami perasaan sedih, bimbang atau tertekan lebih dari biasa?*; (2) *Semenjak anda tahu anda mengandung, pernahkah anda bercerita dengan ahli keluarga dan/atau rakan tentang kemungkinan anda mengalami masalah psikologi (contoh kemurungan, kebimbangan) jika ada?;* (3) *Semenjak anda tahu anda mengandung, adakah anda mempertimbangkan untuk mendapatkan bantuan profesional bagi menangani masalah psikologi (contoh, kemurungan, kebimbangan) jika ada?;* (4) *Semenjak anda tahu anda mengandung, jika anda mengalami masalah psikologi, adakah anda akan mendapatkan bantuan professional (Contoh: kaunselor, doktor)?*

10 pregnant women of different ethnic backgrounds, educational levels, and work statuses who matched the inclusion and exclusion criteria participated in the face validation. Based on the participants' evaluations of each item's clarity and comprehension, the Face Validity Index (FV-I) was calculated. All items' FV-I scores ranged from 0.8 to 1.0 and were deemed understandable and clear (33).

Sample Size

In this study, we determined two distinct sample sizes. The first was for reliability analysis in the pilot study, and the second was for the main study. The pilot study's minimum sample size was 30 pregnant women (34). The second sample size for the main study was determined using the single proportion formula. Precision (Δ) and Z were set at 5% and 1.96 at the 95% confidence interval, respectively. The prevalence by Da Costa D. et al. was 20.1% for having consulted with at least one health provider in the past year for emotional symptoms among pregnant women (14), given the sample size of 247. Meanwhile, the prevalence of depressive symptoms was 20.2% among antenatal women in Malaysia by Arrifin et al. (5), given the sample size of 248. The prevalence of anxiety symptoms was 22.5% among antenatal women by Arrifin et al., given the sample size of 268 (5) and was used to estimate the sample size for this study. Considering an additional 20% refusal and ineligibility rate, the final sample size is 335.

Statistical Analysis

All statistical analysis was performed using the SPSS version 25.0 (IBM, Chicago, IL). Descriptive statistics

were used to summarise the sociodemographic profiles, pregnancy characteristics, depressive symptoms, anxiety symptoms, mental health literacy, self-stigma on help-seeking and positive mental health-seeking behaviour. Categorical data were presented as frequency (percentage). The numerical data were presented as mean (SD) or median (IQR) based on their normality distribution. Simple logistic regression modelling was used for univariable analysis, while multiple logistic regression modelling was used for multivariable analysis. Variables with $p < 0.25$ in the univariable analysis were selected into the main effect model, in which variable selection was made by comparing the model in forward LR and backward LR methods. The final model was then evaluated for its assumptions (including independence, multicollinearity, linearity, and outlier) and fitness (including R2, the Hosmer-Lemeshow test, the overall percentage, and the area under the ROC curve). A p-value < 0.05 was considered significant.

RESULTS

Participants characteristics

The mean age of the participants was 30.06 (SD: ±5.14) years. More than half of the participants were Malay (53.4%), while more than two-thirds were Muslims and employed (62.5% and 64.2%, respectively). Slightly less than half (49.7 %) had a higher education level, i.e., encompasses tertiary education, including certificates, diplomas, and other university certifications. (see Table I)

Table I: Sociodemographic and pregnancy characteristics (n = 296)

Characteristics	Mean (±SD) / n (%)
Sociodemographic characteristics	
Age (year)	30.06 (±5.14)
Ethnicity, (n, %)	
Malay	158 (53.4)
Chinese	81 (27.4)
Bumiputera	32 (10.8)
Indian	22 (7.4)
Others	3 (1.0)
Religion, (n, %)	
Muslim	185 (62.5)
Buddha	77 (26.0)
Christian	17 (5.7)
Hindu	17 (5.7)
Marital status, (n, %)	
Single Parent	5 (1.7)
Married	291 (98.3)
Education level, (n, %)	
No formal education & basic education (primary and secondary education	149 (50.3)
Higher education	147 (49.7)
Occupation status, (n, %)	
Unemployed	106 (35.8)
Employed	190 (64.2)

CONTINUE

Table I: Sociodemographic and pregnancy characteristics (n = 296). (CONT.)

Characteristics	Mean (±SD) / n (%)
Pregnancy characteristics	
Parity, (n, %)	
Primiparity	115 (38.9)
Multiparity	181 (61.1)
Trimester, (n, %)	
First trimester	31 (10.5)
Second trimester	170 (57.4)
Third trimester	95 (32.1)
Planned pregnancy, (n, %)	
No	101 (34.1)
Yes	195 (65.9)
Medical complications in current pregnancy, (n, %)	
No	249 (84.1)
Yes	47 (15.9)
Medical complications in previous pregnancy (n* = 181)	
No	149 (82.3)
Yes	32 (17.7)

*only multipara pregnant women

In terms of pregnancy characteristics, more than half of the participants were multipara (61.1%), were in their second trimester (57.4%), and more than two-thirds (65.9%) had their current pregnancy planned. Most participants did not have medical complications in their current pregnancy (84.1%), while among the multiparous, most did not have medical complications in their previous pregnancies (82.3%).

Most of the participants did not have depressive symptoms (84.1%) and had no anxiety symptoms (78.7%). The median score among the participants was 24.0 for SSOSH and 112 for MHLS. The details of their mental health characteristics are shown in Table II.

Table II: Mental health characteristics, self-stigma of seeking help and mental health literacy score (n = 296)

Variables	Median (IQR) / n (%)
Mental health characteristics	
Depressive symptoms, (n, %)	
No depression	249 (84.1)
Probable depression	47 (15.9)
Anxiety symptoms, (n, %)	
No anxiety	233 (78.7)
Probable anxiety	63 (21.3)
Self-stigma of seeking psychological help (SSOSH) score	24.0 (20.0, 27.0)
Mental health literacy scale (MHLS) score	112 (100, 120)

IQR: inter-quartile rang

Prevalence of positive MHHSB

The prevalence of positive MHHSB was 73.6% (95% CI: 0.68, 0.78). While the prevalence of each type of MHHSB was 21.6% (95% CI: 0.17, 0.26) for being aware of having psychological conditions, 53.0% (95% CI: 0.47, 0.59) for involving social networks,

53.7% (95% CI: 0.48, 0.60) for considered seeking professional assistance, and 22.6% (95% CI: 0.18, 0.28) for probability of seeking professional help if they have a psychological condition. The prevalence of positive MHHSB and different types of help-seeking behaviours were summarised in Table III.

Table III: Prevalence of positive mental health help-seeking behaviour and different types of help-seeking behaviour. (n = 296)

Mental health help-seeking behaviour	Prevalence (%)	95% CI
Positive mental health seeking behaviour [a]	73.6	(0.68, 0.78)
Different types of help-seeking behaviour		
Self-awareness of psychological conditions	21.6	(0.17, 0.26)
Consideration of social network participation	53.0	(0.47, 0.59)
Considering professional assistance	53.7	(0.48, 0.60)
Certainty of seeking assistance from professionals	22.6	(0.18, 0.28)

CI: 95% confidence interval. [a]Positive mental health help-seeking behaviour if the respondent responded "Yes" to at least one of the four questions.

Factor associated with positive MHHSB.

Simple logistic regression showed that depression symptoms, anxiety symptoms and mental health literacy scores were significantly associated with positive MHHSB. Those with probable depression had a crude odd ratio (cOR) of 3.48 (95% CI: 1.44, 10.4) of positive MHHSB compared to those with no depressive symptoms. Similarly, those with probable anxiety had a cOR of 2.52 (95% CI: 1.25, 5.73) of positive MHHSB compared to those without anxiety symptoms. Higher mental health literacy also had higher odds of having positive MHHSB. The factors associated with positive MHHSB are summarised in Table IV.

Table IV: Simple logistic regression for factors associated with positive mental health seeking behaviour.

Characteristics	Positive Mental Health Help-Seeking Behaviour		Crude OR	95% CI	p-value
	No, n (%)	Yes[a], n (%)			
Age			1.01	0.96, 1.06	0.681
Ethnicity					
Malay	34 (43.6)	124 (56.9)	1.00	—	
Chinese	26 (33.3)	55 (25.2)	0.58	0.32, 1.06	0.076
Bumiputera	9 (11.5)	23 (10.6)	0.70	0.30, 1.72	0.417
Indian & Other	9 (11.5)	16 (7.3)	0.49	0.20, 1.24	0.118
Religion Religion					
Muslim	42 (53.8)	143 (65.6)	1.00	—	
Buddha	26 (33.3)	51 (23.4)	0.58	0.32, 1.04	0.064
Christian	5 (6.4)	12 (5.5)	0.70	0.25, 2.32	0.533
Religion Religion					
Hindu	5 (6.4)	12 (5.5)	0.70	0.25, 2.32	0.533
Marital status					
Single Parent	2 (2.6)	3 (1.4)	1.00	—	
Married	76 (97.4)	215 (98.6)	1.89	0.24, 11.6	0.492
Education level					
No formal education & basic education (primary and secondary education)	45 (57.7)	104 (47.7)	1.00	—	
Higher education	33 (42.3)	114 (52.3)	1.49	0.89, 2.53	0.131
Occupation status					
Unemployed	27 (34.6)	79 (36.2)	1.00	—	
Employed	51 (65.4)	139 (63.8)	0.93	0.54, 1.59	0.798
Parity Parity					
Primiparity	32 (41.0)	83 (38.1)	1.00	—	
Multiparity	46 (59.0)	135 (61.9)	1.13	0.66, 1.91	0.646
Trimester					
First trimester	8 (10.3)	23 (10.6)	1.00	—	
Second trimester	47 (60.3)	123 (56.4)	0.91	0.36, 2.10	0.833
Third trimester	23 (29.5)	72 (33.0)	1.09	0.41, 2.69	0.858
Planned pregnancy					
No	30 (38.5)	71 (32.6)	1.00	—	
Yes	48 (61.5)	147 (67.4)	1.29	0.75, 2.21	0.347
Medical complications in current pregnancy					
No	64 (82.1)	185 (84.9)	1.00	—	
Yes	14 (17.9)	33 (15.1)	0.82	0.42, 1.66	0.560
Medical complications in previous pregnancy					
No	36 (46.2)	113 (51.8)	1.00	—	
Yes	10 (12.8)	22 (10.1)	0.70	0.31, 1.67	0.405
Depression symptoms Depression symptoms					
No Depression	73 (93.6)	176 (80.7)	1.00	—	
Probable depression	5 (6.4)	42 (19.3)	3.48	1.44, 10.4	**0.011***
Anxiety symptoms					
No anxiety	69 (88.5)	164 (75.2)	1.00	—	

CONTINUE

Table IV: Simple logistic regression for factors associated with positive mental health seeking behaviour. (CONT.)

Characteristics	Positive Mental Health Help-Seeking Behaviour		Crude OR	95% CI	p-value
	No, n (%)	Yes[a], n (%)			
Anxiety symptoms					
Probable anxiety	9 (11.5)	54 (24.8)	2.52	1.23, 5.73	**0.017***
SSOSH score			0.97	0.92, 1.02	0.190
MHLS score			1.04	1.02, 1.06	**<0.001***

CI: 95% Confidence interval, SSOSH Score: Self-stigma of Seeking Psychological Help Score, MHLS Score: Mental Health Literacy Score, aPositive mental health-seeking behaviour if the respondent responds "Yes" to at least one of the four questions. *The p-value <0.05 is statistically significant.

In the univariable analysis, several variables, including ethnicity, religion, education status, depression symptoms, anxiety symptoms, SSOSH score and MHLS score, had $p < 0.25$ and were selected into the main effect model. Variable selection was made with forward LR and backward LR, and the final model was selected. In the final model, multiple logistic regression showed that anxiety symptoms and MHLS score were significantly associated with positive MHHSB. Those with probable anxiety had an adjusted odd ratio (aOR) of 3.83 (95% CI:1.80, 9.15) of positive MHHSB, compared to those with no anxiety when adjusted to the MHLS score. An increase of 1 unit of MHLS score had an aOR of 1.05 (95% CI:1.03, 1.08) of having positive MHHSB when adjusted to anxiety symptoms. While this might seem small on a per-unit basis, even small increases can be meaningful, especially in public health contexts where interventions might raise mental health literacy scores significantly. The final model for factors associated with positive MHHSB is shown in Table V.

Table V: The final model for factors associated with positive mental health seeking behaviour.

Characteristics	Adj. OR	95% CI	p-value
Anxiety symptoms			
No anxiety	1.00	—	
Probable anxiety	3.86	1.80, 9.15	**0.001***
MHLS score	1.05	1.03, 1.08	**<0.001***

Adj. OR: Adjusted odd ratio, CI: 95% confidence interval, MHLS Score: Mental Health Literacy Score, *The p-value <0.05 is statistically significant. Nagelkerke R2 = 0.137, Hosmer Lemeshow test, p = 0.774, Overall percentage = 0.757, Area under ROC curve = 0.694 (95% CI: 0.623, 0.764).

DISCUSSION

In our study, the prevalence of antenatal anxiety (21.3%) and depression (15.9%) are slightly lower than the recent national rates, suggesting some variability in mental health issues among pregnant women across different regions or settings in Malaysia. The urban setting of our clinic may contribute to this finding, as it likely provides better access to mental health resources, support services, and a higher level of health literacy, which could lead to lower reported rates of anxiety and depression compared to less accessible or resource-limited areas.

The prevalence of positive MHHSB was 73.6% (95% CI: 0.68, 0.78). This outcome is reassuring because it implies that pregnant women in this setting were prone to seek help and assistance for their mental health conditions. This finding is noteworthy, especially considering that no previous research has investigated MHHSB in pregnant women. This finding suggests that it contributes an additional insight into MHHSB among pregnant women, particularly in urban areas. However, it also highlights the need for further studies to investigate and validate our results across different populations and settings.

In terms of self-awareness of psychological conditions, we found that 21.6% (95% CI: 0.17, 0.26) of pregnant women reported suffering from psychological conditions. This figure might be regarded as low when compared to a systemic review by Daria Daehn et al. that reported 32% to 47.1% of pregnant women could identify mental health problems (35). Meanwhile, Fonseca et al. discovered that 40.1% of pregnant women with suspected depressive disorders recognize their condition in Portugal (19). Many factors can make it difficult for women to recognize mental health conditions during pregnancy. These factors include attributing symptoms to pregnancy changes, lacking awareness of mental health issues, battling stigma and shame, adhering to cultural norms, being afraid of the implications of disclosure, and denying mental health struggles (36, 37).

Although more than two-third of our participants exhibited positive MHHSB, yet only 22.6% (95% CI: 0.18, 0.28) were possible of getting professional assistance if they were to have psychological conditions. Traditional beliefs and dependence on family support are cultural factors that may drive self-help or informal aid, making it less likely for women to seek professional help.

Most previous research on MHHSB among pregnant women focused on the involvement of formal help, i.e., professional assistance to cope with mental health conditions. Our findings regarding the prevalence of possible getting professional assistance are consistent with some earlier research from Canada and Ghana, which found that only 20.1% and 18.9% of pregnant women sought medical attention for their mental health conditions, respectively (14, 15). Stigma, lack of awareness, misunderstanding of normalcy, practical barriers, limited access to services, self-reliance, and reliance on coping mechanisms contribute to the low proportion of pregnant women seeking professional assistance for mental health conditions. To address this, antenatal clinics should integrate mental health education, conduct routine screenings, and offer counselling services. Additionally, training staff to recognize symptoms and cultivating a supportive

environment will ensure timely interventions and comprehensive mental health support during regular clinic visits.

Notably, there was a high prevalence of participants engaged in positive MHHSB. Even though they undertook different approaches to seeking help, these favourable actions may increase the probability of obtaining professional assistance. It is consistent with the theory proposed by Rickwood et al., which suggests that seeking mental health help involves shifting from personal issues to interpersonal involvement to resolve personal problems (38). Consistent with this theory, a recent study demonstrated that depressed pregnant women who seek professional help also engaged in other help-seeking behaviours, such as self-awareness of psychological problems, involvement in social networks, and consideration of seeking professional help (19). Future studies might look into the pathways of different MHHSB among local pregnant women, such as from the personal domain (self-awareness of psychological problems) to the interpersonal domain (seeking professional help for mental health problems), as the information obtained can demonstrate the importance of encouraging pregnant women to engage in different types of MHHSB.

In our study, pregnant women with better mental health literacy were more likely to display positive MHHSB if they were experiencing psychological issues. Previous research demonstrated that mental health literacy positively correlated with help-seeking behaviour and that a lack of mental literacy contributes to a lack of healthcare service utilisation (39, 40). Mental health literacy refers to understanding mental health issues, including identification, treatment, and prevention (41). Individuals with good mental health literacy can recognise symptoms of mental illnesses. This awareness would influence them to seek help to address the symptoms. Moreover, individuals with a good understanding of the symptoms can articulate them effectively, facilitating better communication between themselves and the sources of assistance, whether formal or informal (41). Furthermore, mental health literacy is associated with positive MHHSB as it would reduce stigma towards mental health illnesses. A previous study has highlighted that a good understanding of mental health illnesses can reduce stigma towards mental health illnesses (42). Therefore, this factor creates a supportive environment and encourages individuals to seek help without fear of judgment or discrimination. Knowledge of available treatment options for mental health conditions is a component of mental health literacy. Thus, individuals are more likely to seek help to address their mental health difficulties if they know the availability of successful therapies such as therapy, counselling, or medication. In addition, mental health literacy may increase a person's confidence and belief in their ability to care for their mental health. Understanding mental health concepts and coping mechanisms can give individuals the confidence to seek help and actively participate in their mental health treatment.

A prior observational study has shown that the proportion of individuals with anxiety who seek help is low (43). In contrast to our findings, pregnant women with possible anxiety were significantly associated with positive MHHSB as opposed to depression. This can be postulated by those experiencing anxiety often seek to manage their symptoms actively, such as through therapy or counselling. In contrast, individuals with depression may struggle to find motivation to seek help due to the nature of the disorder. The degree of functional impairment brought on by anxiety would influence a person's decision to seek assistance; hence, the likelihood of seeking assistance increases as functional impairment deteriorates (16). Additionally, examining the type of anxiety is vital, given that it has a different effect on MHHSB. For instance, those with generalised anxiety disorder are more likely to seek help than those with specific phobias (44). Therefore, it is essential further to explore the severity and types of anxiety to evaluate the potential associations with MHHSB.

Previous research demonstrated that stigma influenced pregnant women's likelihood of seeking mental health assistance (12). “Stigma" describes how a trait marks someone as unique and undervalued in a particular social setting. Pregnant women's decision-making, help-seeking, and use of healthcare services can be adversely affected by self- and public stigma concerning mental health illness (45). It is because stigma breeds prejudice and unfavourable assumptions about mental health conditions, which makes pregnant women feel humiliated and uncomfortable when they seek treatment for their mental health concerns (16). In the cultural setting of Malaysia, public stigma appears as an image challenge that might impede the disclosure of mental health issues and help-seeking. A local qualitative cross-sectional study reveals that Malaysian society struggles to accept the practice of disclosing mental health issues, as they perceive them to be a vulnerability (46).

This study examined the relationship between self-stigma in seeking psychological treatment and MHHSB. Self-stigma occurs when a person applies a stigmatising image to themselves, specifically in our study; it relates to a prejudiced view on obtaining psychiatric treatment for themselves, which causes them to feel worthless and powerless (45). Although the current study suggests an inverse connection between the level of self-stigma in seeking psychological treatment and pregnant women's positive MHHSB, this association might have occurred by chance as the association did not reach statistical significance. The limited variation in the level of self-stigma in seeking psychological help among our sample may have hindered the identification of any interaction effect. Most of our sample population was educated and

employed, which could have affected their level of self-stigma.

Concerning the detrimental impact of mental health conditions on pregnant women, the findings of this study may have several implications for medical practice aimed at promoting professional mental health service engagement among pregnant women. Improving mental health literacy would be among the most important aims. In Malaysia, antenatal care is available nationwide and is renowned for its outstanding service delivery (47). In addition to managing the clinical aspects of antenatal care, this opportunity should be taken advantage of by educating the mother and her companion about mental health symptoms and treatment options through educational series conducted at clinic setting for pregnant mothers. Moreover, health personnel should be well-equipped with mental health knowledge and skills to provide expectant women with quality mental health information and support. Continuous mental health training may facilitate the development of mental health competencies among primary care personnel (48).

In the present day, social media exerts a tremendous impact on society. Therefore, it can serve as an effective channel for providing information and support about mental health to pregnant women (49). It provides a secure and non-judgmental environment and can help reduce the stigma associated with mental health (50). It promotes a productive sharing of information and, to some extent, increases pregnant women's awareness of mental health issues.

As the first study assessing MHHSB among pregnant women in Malaysia, our research provides valuable insights into this population, filling a critical gap in the literature and informing targeted interventions. This study poses several limitations. Convenience sampling and the study's focus on an urban public MCHC may limit the generalizability of the findings. This approach may introduce selection bias, as the sample may not represent broader populations, potentially affecting the applicability of results to different settings or demographics. The result may not accurately represent a collective population which also includes a large proportion of rural pregnant women. The results also need to be interpreted with caution, as the population in the urban setting with a high proportion of employed and educated participants has easier access to mental health information and services, likely contributing to higher rates of positive MHHSB compared to women in the rural areas. The urban setting may reflect greater awareness, availability of resources, and reduced stigma, influencing the study's outcomes. This study also did not investigate the various paths pregnant women take when seeking help if they have a mental illness. Due to time constraints and the nature of this study, we did not assess a few factors, including perceived barriers to MHHSB among pregnant women, knowledge regarding service availability, social support (i.e., family and community networks), and individual coping style. We propose further studying the factors mentioned above in future research. Nonetheless, the results of this research will serve as baseline data on MHHSB for future reference of corresponding studies in the studied population.

CONCLUSION

Pregnant women with positive MHHSB are common, yet the likelihood of seeking professional assistance remains low. This study contributes to the broader understanding of mental health help-seeking behaviour during pregnancy by identifying key factors that encourage positive MHHSB. Mental health literacy and anxiety were found to be significantly associated with positive MHHSB. The significant association between mental health literacy and positive MHHSB emphasizes the vital role of healthcare providers in improving mental health awareness among pregnant women in their clinical practice. Having anxiety was more likely to influence MHHSB positively. This unique association highlights the subtle impact of anxiety on MHHSB among pregnant women. Future research should focus on anxiety-related factors, such as type and severity, to further explore their influence on MHHSB.

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