

RESEARCH

Open Access



Barriers to professional psychological help among pregnant women in China: a qualitative study

Lei Qiu¹, Hongbin Xu², Yingqi Li¹, Xuemei Ma¹, Dongxian Zhang^{3*} and Qin Yang^{4*}

Abstract

Background Pregnant women face significant physiological and psychological stressors, which can lead to mental health issues such as anxiety and depression. Despite the importance of professional psychological assistance, many pregnant women in China do not seek help due to various barriers. This study aims to explore the experiences and challenges of pregnant women in seeking psychological help in China through qualitative methods.

Methods Purposive sampling was employed to select 20 pregnant women from a Class III Type A hospital in Hainan. Semi-structured in-depth interviews were conducted from July to August 2023, focusing on psychological states, help-seeking experiences, encountered challenges, and suggestions for improving psychological support. Colaizzi's 7-step method was used to synthesize the themes.

Results We distilled five themes: (1) Psychological conditions during pregnancy, which includes stress and emotional fluctuations and anticipations of postpartum challenges; (2) Barriers to seeking help, underscored by societal misconceptions, limited professional access, and varied familial support; (3) Sources of psychological stress, highlighting physical changes, familial and work pressures, and societal expectations; (4) Expectations for psychological assistance, emphasizing the need for professional understanding and societal awareness; (5) Impact of psychological issues on daily life, such as decreased work efficiency and affected social activities.

Conclusion Pregnant women in China confront significant psychological stress and face multiple barriers in accessing help. There is an urgent need for personalized and professional psychological services for pregnant women. Addressing barriers such as societal stigma and poor accessibility, along with increasing public awareness and improving mental health services, is crucial. These findings provide a foundation for developing effective psychological support strategies aimed at enhancing the mental health of pregnant women in China.

Keywords Psychological help-seeking, Pregnant women, A qualitative study, China

*Correspondence:

Dongxian Zhang
hy0205042@haibnc.edu.cn
Qin Yang
y1919843659@163.com

¹School of Public Health, Hainan Medical University, Hainan, People's Republic of China

²Department of Social Medicine and Health Management, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, People's Republic of China

³School of Management, Hainan Medical University, Hainan, People's Republic of China

⁴Xiangyang Central Hospital, Affiliated Hospital of Hubei University of Arts and Science, Xiangyang 441100, People's Republic of China



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Background

During pregnancy, women face a series of complex physiological and psychological changes, including dramatic fluctuations in hormone levels, significant changes in body shape, and the transition to the role of motherhood. These collectively constitute multiple stressors at the biological, psychological, and social levels, which can easily lead to mental health problems such as mood swings, anxiety, and depression [1–3]. Professional psychological assistance is crucial for improving mental health. However, influenced by factors such as stigma and financial problems, pregnant women exhibit a deficiency in behaviors seeking professional psychological help [4]. The behavior of seeking professional psychological help refers to the actions taken by individuals to seek assistance from professional mental health counselors when encountering psychological difficulties [5]. Studies show that only 4–31% of pregnant women seek professional psychological assistance [6–10].

The lack of professional psychological help-seeking behavior can not only lead to the deterioration of mental health and increased risk of pregnancy complications but also negatively impacts the development of the infant and undermine the harmony of the family [4, 11–15]. It additionally imposes social pressure and increases the medical and social burden [16–18]. However, current research on the professional psychological help-seeking behavior of pregnant women, both at home and abroad, is primarily quantitative, with a scarcity of studies exploring their genuine feelings and experiences.

Compared to quantitative research, qualitative research can better understand and reveal the genuine feelings and experiences of pregnant women, thus providing a more in-depth understanding [19]. Such profound understanding is crucial for designing effective psychological support intervention strategies. As a result, in-depth qualitative research on the professional psychological help-seeking behavior of pregnant women is still a blank field domestically, and studying their genuine feelings and experiences holds significant theoretical and practical value. Therefore, this research employs in-depth interviews to conduct qualitative studies on pregnant women, exploring their true experiences and internal struggles when seeking psychological help in the face of stress. This comprehensive and deep understanding aims to better understand their help-seeking behaviors in terms of mental health issues and the feelings and thoughts behind them. This profound understanding will serve as a reference for the design and optimization of psychological support strategies for pregnant women, and may consequently help promote the mental health of pregnant women.

Methods

Subjects

This study employed purposive sampling. Research subjects were selected based on the maximum variation principle, considering factors such as the age, education level, occupation, and gestation period of pregnant women. The subjects were women who underwent prenatal examinations at a Class III Type A hospital in Hainan from July to August 2023.

Inclusion criteria were as follows: (1) Women in pregnancy; (2) Age ≥ 18 years old; (3) No severe mental or cognitive impairments; (4) Able to clearly express their thoughts. Exclusion criteria included: (1) Women who developed severe complications during pregnancy; (2) Women with language communication barriers.

Given the vulnerability and sensitivity of pregnant women, our research adheres to stringent ethical principles to ensure their protection and well-being. The interviewer approached pregnant women in a friendly manner, explained the study's purpose, and provided detailed information on the procedures, potential risks, and benefits. Participants were informed that they would need to share some personal and confidential information during the research and that they could choose not to answer questions on uncomfortable topics. They were also informed that participation was entirely voluntary, and that declining to participate or withdrawing would not affect their medical care. Lastly, they were informed that their names would not be included in the data analysis or reported results.

The sample size for this study was determined based on the principle of data saturation, with no new information emerging by the time the 16th interview was conducted. To ensure data saturation, the study further included four additional interviews. These interviews did not yield any new themes, hence the decision to conclude the interviews. Therefore, the study included a total of 20 interviewees, all of whom participated voluntarily and provided a written informed consent form. The general information of the interviewees is shown in Table 1.

Research method

Establishing the interview outline

Based on the research objectives, we initially established an interview outline informed by a comprehensive review of relevant literature and theoretical frameworks. We then conducted preliminary pilot interviews with two pregnant women who met the inclusion criteria to test and refine the outline, ensuring that the questions were clear. Feedback from these preliminary interviews was used to revise the outline. In addition, we sought consultation from two experts in psychology and nursing. Based on expert feedback, we added pregnant women's suggestions for mental health services during pregnancy

Table 1 Demographics of study participants (N=20)

Variable	n (%)
Age, years	
Mean (range)	27.8 (23–35)
Educational Level	
Less than high school	1 (5)
High school	3 (15)
College degree	13 (65)
Master's degree	3 (15)
Employment Status	
Employed	14 (70)
Unemployed	6 (30)
Perinatal Period#	
First Trimester	3 (15)
Second Trimester	11 (55)
Third Trimester	6 (30)
Pregnancy Status	
First Pregnancy	12 (60)
Second Pregnancy	8 (40)

Note: #Perinatal Period is divided into different stages, including the three trimesters of pregnancy and the postpartum period. First Trimester refers to the first three months of pregnancy. Second Trimester refers to the fourth to sixth months of pregnancy. Third Trimester refers to the seventh to ninth months of pregnancy

in the outline. The formal interview outline included the following: (1) What is your psychological state during the pregnant period? (2) Have you sought psychological help? If so, please describe your experiences of seeking psychological assistance. (3) What difficulties and challenges have you encountered in the process of seeking psychological help? How did you deal with them? Could you please provide specific scenarios or events? (4) What suggestions or ideas do you have for improving services for psychological support during the pregnant period?

Data collection method

The interviews were conducted by researchers who had been rigorously trained in qualitative research methods to ensure the standardization of the interview process. The location of the interviews was chosen based on the interviewee's preference, either in the hospital or a nearby quiet environment. We used one-on-one semi-structured in-depth interviews. Before the interview, the purpose, significance, and main content of the interview were explained to the interviewee, and upon obtaining their agreement, the interview was audio recorded. During the interview, the tone of voice, body language, and other non-verbal behaviors of the interviewee were noted. The use of leading or suggestive language was strictly prohibited, and any questions that arose during the interview should be promptly clarified. If a pregnant woman feels distressed during the interview, she will receive support from a professional psychologist. The interview time averaged about 60 min. Interviews were concluded when

data saturation was achieved, i.e., no new themes were emerging.

Data analysis method

Within 48 h after the interview, one researcher transcribed the recorded interview verbatim, while another member checked and verified the transcription to ensure the accuracy of the content, which was then confirmed by the interviewees. Subsequently, Nvivo 11 software was utilized, and Colaizzi's 7-step method was employed for data organization and analysis [20]. By repeatedly reading the interview materials, extract statements related to pregnant women's psychological help seeking behavior, and then encode, categorize, and refine them to form theme structure on "Barriers to Professional Psychological Help Among Pregnant Women". The specific steps are as follows: (1) Familiarize with the Data: Two researchers repeatedly and thoroughly read the transcribed texts of all participants to gain a full understanding of their experiences and feelings; (2) Extract Meaningful Statements: Analyzing the data word by word, sentence by sentence, identifying meaningful statements pertaining to pregnant women's psychological help-seeking behavior; (3) Formulate Meanings: Coding the recurring viewpoints to establish a foundation for categorization; (4) Cluster Themes: Collecting coded views to find common meaningful concepts and form preliminary themes; (5) Describe in Detail: Providing detailed descriptions of each theme generated in the previous step, and extracting the original statements from the interviewees; (6) Generate theme structure: Grouping similar themes and their descriptions for repeated comparison, discerning and extracting similar viewpoints, then constructing a concise and meaningful phrase, namely, the theme; (7) Validate theme structure: Returning the generated theme structure to the interviewees for validation, asking if it captures their real experience to ensure the accuracy of the results.

Quality assurance

To establish credibility, two researchers independently conducted text transcription analysis and coding. The codes were then compared and cross-analyzed. Disagreements were resolved through group discussions to reach a consensus. To establish dependability, the analysis process underwent review by a broader study team, which included qualitative experts. Additionally, qualitative experts reviewed both the accuracy of the coded transcripts and the codebook. Furthermore, all interviewees were asked to confirm the findings, and all of them agreed.

Results

Using the Colaizzi method, 102 initial concepts were extracted through systematic analysis. These concepts were repeatedly compared and refined, resulting in 12 sub-themes. Ultimately, through thorough and iterative analysis, these sub-themes were synthesized into 5 main themes.

Theme 1: pregnant psychological conditions

Pregnancy stress and emotional fluctuations

Some respondents mentioned that during pregnancy, they were under tremendous pressure, psychologically anxious and fearful. Interviewee P14 said: “I felt a lot of pressure during pregnancy because I was worried about the health of my child, and I was afraid that anything I did wrong would affect him.” Interviewee P18 shared: “I had significant emotional fluctuations during pregnancy, sometimes I would feel extremely happy, and then suddenly very anxious.”

Anticipation of postpartum psychological challenges

While the focus of the research was not on postpartum conditions, it is noteworthy that some respondents expressed concerns about potential psychological challenges after childbirth. For instance, P2 shared a concerning projection: “I often fear that the time following childbirth could be overwhelming, potentially making me feel lost and uncertain about the future of both myself and my child.” Similarly, P6 conveyed her anxieties about motherhood: “The thought of the post-birth phase makes me anxious. I constantly worry about my child’s well-being and question if I will be competent enough as a mother.”

Theme 2: barriers to seeking psychological help

Outdated social conceptions

The Chinese societal norm of viewing emotional fluctuations during pregnancy as a transient and normal part of the process sometimes leads pregnant women to hesitate in seeking professional help when faced with psychological problems. For example, P7 mentioned: “I feel like I might have postpartum depression, but my family thinks it’s normal.” P5 also had a similar experience: “I told my husband I was very anxious, and he said I was overthinking.”

Poor accessibility to professional help

The process of seeking professional psychological help was fraught with difficulties for many participants, with challenges manifesting as a lack of relevant information, high time and financial costs, insufficient mental health resources, and overwhelming and unclear online information. For instance, P12 stated: “I don’t know where to find a psychotherapist.” P20 shared: “I sought professional

help, but I was discouraged by the long waiting times and high costs. Plus, it was hard to find a therapist who specialized in pregnant mental health.” P15 also brought up an essential point, saying, “I tried to find professional help online, but I was overwhelmed by too much information and unclear sources. It’s challenging to identify trustworthy resources.”

Lack of support from family and friends

Some respondents reported that when they confided their psychological distress to family and friends, they were not encouraged to seek psychological help. In fact, when they expressed a desire to pursue professional help, their family and friends often reacted with dismissiveness. For instance, P16 shared, “I tried to seek psychological counseling, but my family did not understand. They thought I was just too nervous.” Her family’s dismissal of her concerns made it difficult for her to seek professional help. Similarly, P14 recounted, “When I expressed to my friends that I felt depressed, they responded by saying that it’s normal for new mothers to feel down and it would pass soon. This response made me feel as if my feelings were being invalidated.”

Theme 3: sources of psychological stress

Troubles from physical changes

Many respondents mentioned that physical changes during pregnancy became sources of psychological stress. For instance, P4 indicated: “I am afraid that the changes in my body will affect my child.” P16 also expressed similar concerns: “I am worried that my body won’t return to its previous state.”

Family and work pressure

Many respondents stated that pressure from family and work was also a crucial factor causing pregnant psychological problems. For example, P8 noted: “I need to work, take care of my family, and also take care of myself, which makes me feel very depressed.”

Pressure from the role of being a “Good Mother”

Many pregnant participants have reported that in China, the societal expectations associated with being a “Good Mother” extend far beyond the pregnancy period and continue for decades into the future. This role demands that mothers selflessly dedicate their time and energy, sacrificing everything for their children, which imposes a deep-seated pressure on pregnant women. For instance, P14 expressed, “I feel pressured by society’s expectations of being a ‘Good Mother,’ and this pressure isn’t limited to just the pregnancy period; it extends into the future. It makes me feel anxious and isolated.” Similarly, P18 shared similar sentiments, “Cultural norms dictate how one should behave during pregnancy and as a ‘Good Mother’

in the future, creating stress for me. I worry about meeting these expectations and how it might affect my baby." P19 emphasized the pressure from cultural norms, saying, "People around me have high expectations for my behavior during and after pregnancy, demanding unwavering dedication to the ideal of a 'Good Mother.' This cultural pressure is incredibly heavy and causes me a lot of stress."

Theme 4: expectations for psychological help

Seeking understanding and support

Most respondents indicated that they hoped to receive understanding and support from professionals, instead of just being told to relax. For example, P10 said: "I need someone to understand me, not just tell me to relax." P13 also expressed a similar hope: "I hope there is someone who can help me understand my feelings and help me find solutions to my problems."

Increasing societal awareness of pregnant psychological issues

Many respondents expressed the wish for society to pay more attention to pregnant psychological problems and increase understanding of these issues. For instance, P6 shared: "I hope more people can understand the importance of pregnant psychological problems, instead of considering them as trivial matters." P9 hoped for more understanding and concern from family and society: "I wish society could pay more attention to women like us who are about to become mothers."

Theme 5: impact of psychological issues on Daily Life

Impact on work efficiency

Many respondents reported challenges with concentration and efficiency during their pregnancy. P2 mentioned: "I find it harder to focus on my work during this period, and I feel like I'm not as efficient as I used to be." Similarly, P8 shared: "Due to how I've been feeling recently, I struggle to complete my tasks as effectively."

Influence on social activities

Some participants conveyed a change in their inclination towards social activities during pregnancy. P11 expressed: "Lately, I've been less interested in participating in certain social activities that I previously enjoyed." Meanwhile, P15 commented: "I've been more reserved lately and tend to keep some distance from friends and family; I'm just not comfortable with them seeing me this way."

Discussion

Emphasizing the assessment and understanding of pregnant women's mental states

Our study found that most pregnant women face significant psychological stress and troubles during pregnancy and childbirth, with multiple sources of distress, including physical changes, child-rearing pressures, and societal role changes, which is consistent with the previous studies [6, 21, 22]. In recent years, although China has increasingly emphasized perinatal mental health and introduced various policies and measures, including incorporating perinatal depression screening into routine prenatal examinations, the implementation effects are still insufficient. Specifically, in 2019, the Shenzhen Municipal Health Commission launched a perinatal mental health screening project. However, due to the lack of knowledge and skills in this field among medical staff, they lacked confidence in the application of screening scales and the identification of mental health disorders in pregnant women. This led to concerns that misjudgments (false positives or false negatives) might mislead pregnant women and their families, thereby affecting the effective advancement of the screening work [23].

In terms of the barriers pregnant women face in seeking psychological help, our research results align with those of Park et al. [24]. Societal stigma and misunderstandings about mental illness may be the primary factors hindering women from seeking psychological help [4, 25–27]. In China, we need to eliminate public prejudices and misunderstandings about psychological problems through education and popular science promotion, enabling more pregnant women to seek psychological help without obstacles. In addition, the accessibility of psychological help services in China needs to be improved [28]. This includes increasing the number of providers of psychological counseling services, improving service quality, and lowering the threshold for using services [29]. These efforts can provide necessary psychological support to pregnant women more effectively, helping them better cope with the stresses and challenges of pregnancy and childbirth [30].

Understanding and meeting pregnant women's expectations for psychological assistance

Our research shows that pregnant women's expectations for psychological help are diverse, mainly including being understood and accepted, obtaining effective psychological coping strategies, and resolving practical issues in life. This reminds us that, in the process of providing psychological help, it is necessary to fully understand and respect each woman's individual differences and needs. For example, psychotherapists can use effective listening and feedback skills to make each woman feel understood and accepted [31]. Moreover, psychotherapists need to

offer practical and targeted psychological coping strategies to help women deal with psychological stress and troubles [32, 33]. In the context of traditional Chinese culture, the mother-in-law, as a key figure in the care of pregnant women, often focuses on physical health while neglecting the importance of mental health. When pregnant women express psychological distress, they may encounter perfunctory responses from their mothers-in-law based on their own past experiences or traditional beliefs. This lack of empathy reflects the differences in contemporary values, which not only deepens the sense of isolation and helplessness in pregnant women but also harms the mother-in-law and daughter-in-law relationship, thereby threatening the mental health of pregnant women [34]. Therefore, improving the awareness and importance of mental health among the mother-in-law group is of great significance for promoting the mental health of pregnant women.

In terms of the impact of psychological issues on daily life, our study found that pregnant women's psychological troubles often have a profound impact on their family relationships, job performance, and personal quality of life. In the reality of China, despite the gradually increasing emphasis on mental health, the actual provision of mental health services is still insufficient [35, 36]. Therefore, as health care providers, we need to incorporate mental health into a vital component of pregnant women's health care and conduct regular mental health assessments to timely identify and address psychological issues.

Promoting the popularization of psychological counseling during the pregnant period

Our study reveals the strong demand for psychological counseling among pregnant women and the urgency of popularizing psychological services in China. The respondents hope that psychological counseling can provide practical strategies to help them manage stress during the pregnant period and improve their quality of life [25]. Therefore, to meet the mental health needs of pregnant women, it is necessary to promote the popularization of psychological counseling during the pregnant period. This means that large-scale public education activities need to be carried out to raise the society's awareness of the psychological stress of pregnant women, and the training and education of mental health professionals need to be strengthened to improve their professional competence and service quality [37].

In China, although the government has made some progress in promoting the popularization of mental health services, there are still some challenges in the provision of psychological counseling services during the pregnant period [38, 39]. These challenges include a lack of service providers, limitations in service acceptability

and accessibility, and social stigmatization of psychological problems [40]. In recent years, the Chinese government has actively promoted the establishment of prenatal psychological counseling outpatient services within medical institutions to provide professional psychological support for pregnant women. Although some high-level hospitals have responded to this initiative by setting up such outpatient services, the overall coverage remains insufficient and requires significant improvement, along with further promotion and development efforts. Additionally, the findings of our study highlight our important responsibility: by carrying out more science popularization and educational work, allowing more people to recognize the importance of mental health and encourage them to seek help when needed.

Targeted intervention strategies to alleviate psychological stress in pregnant women

This study reveals the multifaceted sources of psychological stress faced by pregnant women, which is consistent with many previous studies [18, 41, 42]. To address these stresses, we need to take targeted intervention measures that consider the specific circumstances in China. For stress due to physical changes, we can address it by promoting pre-pregnancy education. This education should not only include scientific knowledge about physical changes during pregnancy and childbirth but also cover psychological adaptation to these changes. In China, despite widespread recognition of the importance of pre-pregnancy education, there are still some issues in practice, such as limited educational content and lack of coverage [40]. Therefore, we need to promote innovation and popularization of pre-pregnancy education to help women better understand and accept the physical changes during pregnancy and childbirth.

For parenting stress, we can provide more training on parenting knowledge and skills. This training can include understanding and dealing with infant behavior, establishing effective parent-child relationships, and balancing work and childcare. In China, due to the long-standing "one-child policy," many young parents may lack experience in parenting, so this support is particularly important [38]. For stress due to changes in social roles, we need to alleviate it by promoting societal understanding and acceptance of the role of mothers. Moreover, although Chinese women's social status has improved, the change in their roles within the family remains a significant challenge [35]. Traditional concepts still influence the perception of women's roles to a certain extent. As reflected in the Chinese proverb "Women are weak, but mothers are strong," society often expects women to show extraordinary strength and courage after becoming mothers. In this cultural context, the psychological problems encountered by pregnant women are often

easily questioned. Therefore, we need to promote societal understanding and acceptance of the mother's role through public education and media advocacy.

Limitations

A limitation of this study is that our interviews were mainly conducted in a hospital environment, which may not fully capture the experiences of pregnant women in other settings. Future research should broaden the perspective to community and home settings to gain a more comprehensive and in-depth understanding. Considering the significant role of family members, especially partners, in the mental health of pregnant women, future research should further explore their issues and needs, providing more comprehensive and effective support for pregnant women and their families. Also, with the development of society, the psychological needs of pregnant women may change, and therefore future research should continue to focus on and study this field, providing timely and targeted services and support.

Conclusions

This study, through in-depth interviews with 20 pregnant women, reveals their multifaceted psychological stresses during the pregnancy period and their urgent needs for personalized and professional psychological services. While the specific stresses and needs of the interviewees vary due to individual backgrounds and circumstances, common sources of stress include parenting concerns, physiological changes, and social role transitions. The interviewees generally expect more psychological assistance, but societal stigmatization of mental health issues and limitations in the accessibility of psychological services prevent them from seeking help. These findings emphasize the necessity of addressing the mental health needs of pregnant women and improving psychological support services. Healthcare professionals and society should actively respond to these needs by providing personalized and professional psychological services and increasing public awareness of mental health during pregnancy through scientific education, thereby improving the experiences of pregnant women and enhancing their quality of life.

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12888-024-06053-y>.

Supplementary Material 1

Supplementary Material 2

Acknowledgements

The authors would like to express their gratitude to the students from Hainan Medical University who contributed to the data collection for this study. We extend our sincere appreciation to the study participants for their valuable

contributions. Their contributions were instrumental in the successful completion of this research.

Author contributions

LQ, QY, DZ and HX designed the study, YL, XM, DZ and QY participated in the acquisition of data, which were analyzed by LQ and QY; LQ, HX, YL and XM drafted the manuscript; LQ and DZ revised the manuscript. All authors read and approved the final manuscript.

Funding

This project was funded by Hainan Provincial Natural Science Foundation of China (823RC500) and the China Medical Board, USA (CMB-OC 22–474) under the Open Competition Program. The funder had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Data availability

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

Declarations

Ethics approval and consent to participate

This study was conducted in accordance with the principles outlined in the Declaration of Helsinki and was approved by the Human Research Ethics Committee, Hainan Medical University, Haikou, China (HYLL-2022-210). After the study procedures were explained to the participants, written informed consent was obtained from them in accordance with the Declaration of Helsinki.

Consent for publication

Not applicable.

Competing financial interests

The authors declare no competing financial interests.

Competing interests

The authors declare no competing interests.

Received: 19 December 2023 / Accepted: 29 August 2024

Published online: 11 September 2024

References

- Caffieri A, Gómez-Gómez I, Barquero-Jimenez C, De-Juan-Iglesias P, Margherita G, Motrico E. Global prevalence of perinatal depression and anxiety during the COVID-19 pandemic: an umbrella review and meta-analytic synthesis. *Acta Obstet Gynecol Scand*. 2024;103(2):210–24. <https://doi.org/10.1111/aogs.14740>.
- Buhagiar R, Bettenzana K, Grant KA. The prevalence of perinatal mental health disorders and psychosocial characteristics of women in Malta: a cross-sectional study. *Birth*. 2024. <https://doi.org/10.1111/birt.12804>.
- Griffiths A, Shannon OM, Brown T, Davison M, Swann C, Jones A, et al. Associations between anxiety, depression, and weight status during and after pregnancy: a systematic review and meta-analysis. *Obes Rev*. 2024;25(3):e13668. <https://doi.org/10.1111/obr.13668>.
- Goyal S, Gupta B, Sharma E, Dalal PK, Pradeep Y. Psychiatric Morbidity, Cultural factors, and Health-seeking Behaviour in Perinatal women: a cross-sectional study from a Tertiary Care Centre of North India. *Indian J Psychol Med*. 2020;42(1):52–60. https://doi.org/10.4103/ijpsym.ijpsym_96_19.
- Callister LC, Beckstrand RL, Corbett C. Postpartum depression and help-seeking behaviors in immigrant hispanic women. *J Obstet Gynecol Neonatal Nurs*. 2011;40(4):440–9. <https://doi.org/10.1111/j.1552-6909.2011.01254.x>.
- Huang S, Xiao M, Hu Y, Tang G, Chen Z, Zhang L, et al. Attitudes toward seeking professional psychological help among Chinese pregnant women: a cross-sectional study. *J Affect Disord*. 2023;322:163–72. <https://doi.org/10.1016/j.jad.2022.11.034>.
- Adjorlolo S. Seeking and receiving help for mental health services among pregnant women in Ghana. *PLoS ONE*. 2023;18(3):e0280496. <https://doi.org/10.1371/journal.pone.0280496>.

8. Reilly N, Austin MP. Attitudes and Engagement of pregnant and post-natal women with a web-based Emotional Health Tool (Mummatters): cross-sectional study. *J Med Internet Res*. 2021;23(3):e18517. <https://doi.org/10.2196/18517>.
9. Ayres A, Chen R, Mackle T, Ballard E, Patterson S, Bruxner G, Kothari A. Engagement with perinatal mental health services: a cross-sectional questionnaire survey. *BMC Pregnancy Childbirth*. 2019;19(1):170. <https://doi.org/10.1186/s12884-019-2320-9>.
10. Conneely M, Packer KC, Bicknell S, Janković J, Sihre HK, McCabe R, et al. Exploring Black and south Asian women's experiences of help-seeking and engagement in perinatal mental health services in the UK. *Front Psychiatry*. 2023;14:1119998. <https://doi.org/10.3389/fpsy.2023.1119998>.
11. Combellick JL, Esmaili A, Johnson AM, Haskell SG, Phibbs CS, Manzo L, Miller LJ. Perinatal mental health and pregnancy-associated mortality: opportunities for change. *Arch Womens Ment Health*. 2024;27(3):417–24. <https://doi.org/10.1007/s00737-023-01404-2>.
12. Tung I, Keenan K, Hipwell AE. Adolescent mothers' psychological wellbeing during pregnancy and infant Emotional Health. *J Clin Child Adolesc Psychol*. 2023;52(5):616–32. <https://doi.org/10.1080/15374416.2021.1981339>.
13. Foley HB, Howe CG, Eckel SP, Chavez T, Gevorkian L, Reyes EG, et al. Depression, perceived stress, and distress during pregnancy and EV-associated miRNA profiles in MADRES. *J Affect Disord*. 2023;323:799–808. <https://doi.org/10.1016/j.jad.2022.12.039>.
14. Yang J, Qu Y, Zhan Y, Ma H, Li X, Man D, et al. Trajectories of depressive symptoms during pregnancy and risk of premature birth: a multicenter and prospective cohort study. *Psychiatry Res*. 2023;326:115284. <https://doi.org/10.1016/j.psychres.2023.115284>.
15. Thornicroft G, Chatterji S, Evans-Lacko S, Gruber M, Sampson N, Aguilar-Gaxiola S, et al. Undertreatment of people with major depressive disorder in 21 countries. *Br J Psychiatry*. 2017;210(2):119–24. <https://doi.org/10.1192/bjp.bp.116.188078>.
16. Ghahremani T, Magann EF, Phillips A, Ray-Griffith SL, Coker JL, Stowe ZN. Women's Mental Health services and pregnancy: a review. *Obstet Gynecol Surv*. 2022;77(2):122–9. <https://doi.org/10.1097/ogx.0000000000000994>.
17. Cattane N, Räikkönen K, Anniverno R, Mencacci C, Riva MA, Pariante CM, Cattaneo A. Depression, obesity and their comorbidity during pregnancy: effects on the offspring's mental and physical health. *Mol Psychiatry*. 2021;26(2):462–81. <https://doi.org/10.1038/s41380-020-0813-6>.
18. Howard LM, Khalifeh H. Perinatal mental health: a review of progress and challenges. *World Psychiatry*. 2020;19(3):313–27. <https://doi.org/10.1002/wps.20769>.
19. Thompson S, Schick-Makaroff K. Qualitative Research in clinical epidemiology. *Methods Mol Biol*. 2021;2249:369–88. https://doi.org/10.1007/978-1-0716-1138-8_20.
20. Collaizzi PF. *Psychological research as the phenomenologist views it*. Extensial Phenomenological Alternatives for psychology. Oxford University Press; 1978. pp. 48–71.
21. Banasova R, Noskova E, Vodickova R, Hasto J, Sebela A. Emotional difficulties, coping strategies, and help-seeking patterns among Czech perinatal women. *Midwifery*. 2023;116:103526. <https://doi.org/10.1016/j.midw.2022.103526>.
22. Rice C, Ingram E, O'Mahen H. A qualitative study of the impact of peer support on women's mental health treatment experiences during the perinatal period. *BMC Pregnancy Childbirth*. 2022;22(1):689. <https://doi.org/10.1186/s12884-022-04959-7>.
23. Xiao X, Ma H, Zhu S, Li Q, Chen Y. The perceptions and attitudes of obstetric staff and midwives towards perinatal mental health disorders screening: a qualitative exploratory study in Shenzhen, China. *BMC Nurs*. 2023;22(1):313. <https://doi.org/10.1186/s12912-023-01475-7>.
24. Ta Park VM, Goyal D, Suen J, Win N, Tsoh JY. Chinese American women's experiences with Postpartum depressive symptoms and Mental Health help-seeking behaviors. *MCN Am J Matern Child Nurs*. 2019;44(3):144–9. <https://doi.org/10.1097/nmc.0000000000000518>.
25. Tol WA, Ebrecht B, Aiyo R, Murray SM, Nguyen AJ, Kohrt BA, et al. Maternal mental health priorities, help-seeking behaviors, and resources in post-conflict settings: a qualitative study in eastern Uganda. *BMC Psychiatry*. 2018;18(1):39. <https://doi.org/10.1186/s12888-018-1626-x>.
26. Abrams LS, Dornig K, Curran L. Barriers to service use for postpartum depression symptoms among low-income ethnic minority mothers in the United States. *Qual Health Res*. 2009;19(4):535–51. <https://doi.org/10.1177/1049732309332794>.
27. Jones A. Postpartum Help-Seeking: the role of Stigma and Mental Health Literacy. *Matern Child Health J*. 2022;26(5):1030–7. <https://doi.org/10.1007/s10995-022-03399-1>.
28. Que J, Lu L, Shi L. Development and challenges of mental health in China. *Gen Psychiatr*. 2019;32(1):e100053. <https://doi.org/10.1136/gpsych-2019-100053>.
29. The Lancet P. Monitoring mental health care. *Lancet Psychiatry*. 2022;9(2):97. [https://doi.org/10.1016/s2215-0366\(22\)00006-2](https://doi.org/10.1016/s2215-0366(22)00006-2).
30. Druss BG, Goldman HH. Integrating Health and Mental Health Services: a past and future history. *Am J Psychiatry*. 2018;175(12):1199–204. <https://doi.org/10.1176/appi.ajp.2018.18020169>.
31. O'Hara MW, McCabe JE. Postpartum depression: current status and future directions. *Annu Rev Clin Psychol*. 2013;9:379–407. <https://doi.org/10.1146/annurev-clinpsy-050212-185612>.
32. Tang L, Zhang X, Zhu R. What causes Postpartum Depression and how to cope with it: a phenomenological study of mothers in China. *Health Commun*. 2021;36(12):1495–504. <https://doi.org/10.1080/10410236.2020.1771063>.
33. Qian J. Mental health care in China: providing services for under-treated patients. *J Ment Health Policy Econ*. 2012;15(4):179–86.
34. Yang JP, Qu J, Sun K, Gao LL. Anxiety symptoms and health-related quality of life in mainland Chinese pregnant women: a cross-sectional study. *J Reprod Infant Psychol*. 2023;41(1):3–14. <https://doi.org/10.1080/02646838.2021.1952553>.
35. Xu Z, Gahr M, Xiang Y, Kingdon D, Rüschn N, Wang G. The state of mental health care in China. *Asian J Psychiatr*. 2022;69:102975. <https://doi.org/10.1016/j.ajp.2021.102975>.
36. Zhao X, Liu L, Hu C, Chen F, Sun X. Necessity and feasibility of improving mental health services in China: a systematic qualitative review. *Int J Health Plann Manage*. 2017;32(3):363–71. <https://doi.org/10.1002/hpm.2437>.
37. Wang PS, Aguilar-Gaxiola S, Alonso J, Angermeyer MC, Borges G, Bromet EJ, et al. Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet*. 2007;370(9590):841–50. [https://doi.org/10.1016/s0140-6736\(07\)61414-7](https://doi.org/10.1016/s0140-6736(07)61414-7).
38. Lu J, Xu X, Huang Y, Li T, Ma C, Xu G, et al. Prevalence of depressive disorders and treatment in China: a cross-sectional epidemiological study. *Lancet Psychiatry*. 2021;8(11):981–90. [https://doi.org/10.1016/s2215-0366\(21\)00251-0](https://doi.org/10.1016/s2215-0366(21)00251-0).
39. Patel V, Xiao S, Chen H, Hanna F, Jotheeswaran AT, Luo D, et al. The magnitude of and health system responses to the mental health treatment gap in adults in India and China. *Lancet*. 2016;388(10063):3074–84. [https://doi.org/10.1016/s0140-6736\(16\)00160-4](https://doi.org/10.1016/s0140-6736(16)00160-4).
40. Liang D, Mays VM, Hwang WC. Integrated mental health services in China: challenges and planning for the future. *Health Policy Plan*. 2018;33(1):107–22. <https://doi.org/10.1093/heapol/czx137>.
41. Gelaye B, Rondon MB, Araya R, Williams MA. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. *Lancet Psychiatry*. 2016;3(10):973–82. [https://doi.org/10.1016/s2215-0366\(16\)30284-x](https://doi.org/10.1016/s2215-0366(16)30284-x).
42. Larsen A, Pintye J, Marwa MM, Watoyi S, Kinuthia J, Abuna F, et al. Trajectories and predictors of perinatal depressive symptoms among Kenyan women: a prospective cohort study. *Lancet Psychiatry*. 2022;9(7):555–64. [https://doi.org/10.1016/s2215-0366\(22\)00110-9](https://doi.org/10.1016/s2215-0366(22)00110-9).

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.