SUBMITTED 10 SEP 22
REVISION REQ. 26 OCT 22; REVISION RECD. 20 NOV 22
ACCEPTED 22 DEC 22
ONLINE-FIRST: JANUARY 2023
DOI: https://doi.org/10.18295/squmj.1.2023.003

Women's Views on Factors that Influence Utilisation of Postnatal Follow-Up in Oman

A descriptive, qualitative study

***Amal Al Hadi,[1] Jennifer Dawson,[2] Michelle Paliwoda,[1] Karen Walker,[3] Karen New[1]**

[1]School of Nursing, Midwifery and Social Work, University of Queensland, Brisbane, Queensland, Australia; [2]Newborn Research Centre, The Royal Women's Hospital, Victoria, Melbourne, Australia; [3]Faculty of Medicine and Health, The University of Sydney, Sydney, New South Wales, Australia

**Corresponding Author's e-mail: a.alhadi@uq.net.au*

Abstract

Objective: Postnatal follow-up care (PNFC) is important to promote maternal and newborn health and wellbeing. In Oman, women's utilisation of postnatal follow-up services has declined with rates as low as 0.29 (mean visits) in some Governorates; well below the recommended postnatal follow up visits at two- and six-weeks for assessment of mother and newborn. The reasons for low utilisation are not well understood. The aim of this study is to explore women's views and identify factors that influence their utilisation of postnatal follow-up services. ***Methods***: Purposive sampling and semi-structured telephone interviews with 15 women aged 20 to 39 years at six to eight weeks post childbirth between May 2021 to August 2022. Data were analysed using Erlingsson and Brysiewicz content analysis approach. ***Results***: Six categories were identified as influencing PNFC utilisation: 1) need for information; 2) experiences and expectations; 3) family support, expectations and customs; 4) sociocultural beliefs and practice; 5) impact of Covid-19 and 6) the healthcare environment. Influencing factors within each category include the need to: empower women, provide individualised care, address family and community expectations, offer alternatives to face-to-

face clinic visits, provide organised, scheduled appointments. ***Conclusion***: Women in Oman identified the need for consistent information from health care providers (HCPs), a more organised postnatal follow-up service including scheduled appointments and a woman-centred approach to PNFC.
Keywords: Postnatal care; postpartum period; qualitative research.

Advances in Knowledge

- To our knowledge, this is the first study to explore the views of women in Oman on factors influencing their utilisation of PNFC.
- Obtaining the perspectives of the end-user of a service is an important step in considering interventions to improve healthcare service utilisation.

Application to Patient Care

- The findings of this study will be used to inform the development of a survey that will be sent to a large sample of postnatal women in Oman to confirm factors that influence PNFC utilisation.
- The findings of this study intend to allow further clarification of influences that occur at the individual, family, community, and institutional levels.

Introduction

Postnatal care is the latter part of the continuum of maternity care and is provided to women and their newborns immediately following, and generally up to 42 days, after birth.[1] The 42-day period (six weeks) post childbirth is based on universal agreement.[1] However, in a number of countries, this period extends to eight weeks post childbirth.[2] The postnatal period is classified into three stages: immediate (0–24 hours), early (2–7 days), and late (8–42 days).[1] The immediate stage is usually spent at the birthing hospital, although with early discharge becoming more common, the immediate care stage may last over only six hours.[3] Early and late postnatal follow-up occurs in the community[4] or at the hospital outpatient level. Care during the postnatal period is equally important as that provided during the antenatal period, as complications can result in adverse outcomes such as morbidities and mortality for the mother, the newborn or both.[1] In addition to physical complications, mental health complications such as postnatal depression can occur in the mother[5]. These

complications can have a destructive impact on the whole family if not diagnosed and managed early on and effectively.[5]

Newborn mortality is highest within the first week of life, caused by perinatal asphyxia, prematurity and congenital malformations mostly.[6] While approximately half of all infection-related deaths occur in the first week of life, a quarter of them occur between Weeks 2 and 4.[6] Therefore, the World Health Organization (WHO) emphasises that postnatal follow-up contacts with health professionals play an important role in reducing deaths of newborns, through early detection, referral and management of complications.[7]

The number and time of postnatal vary globally. The WHO[8] recommends four postnatal contacts[9], while the American College of Obstetricians and Gynecologists recommend the number and timing of contact be more individualised depending on the need.[10] Whereas, the Sultanate of Oman Ministry of Health guideline recommends postnatal follow-up health centre visits at two and six weeks for both the mother and the newborn.[11]

In Oman, the number of postnatal follow-up visits has decreased from 1.3 in 2000 to 0.73 in 2019.[12] In comparison, attendance is high for antenatal visits, with 74% of women attending four or more appointments.[12] There are clear differences between antenatal and postnatal care. For example, women are given antenatal appointments to attend the clinic on a specific date and time, with appointment reminders sent via the short message service (SMS). In contrast, for PNFC, no formal appointment is arranged, with only HCPs informing women that they should visit the health centre when they reach the 14- and 42-day mark post birth. Low utilisation of postnatal follow-up means there are lost opportunities for health promotion and health monitoring of mothers and their newborns, which may be reflected in the poor exclusive breastfeeding rate at 6 months of only 8.9%[12].

A literature review was undertaken with factors identified that impeded utilisation of postnatal follow-up, including women's lack of knowledge of postnatal services, beliefs that there is no need for postnatal follow-up and the impact of long queues (waiting time) at health centres.[13] Of the 17 studies eligible for inclusion in the review, one was conducted in the Middle East (Jordan), which has cultural similarities to Oman but a different healthcare system and delivery of postnatal care. This study reported concerns regarding the unmet learning needs of women in terms of postnatal care, including danger signs post caesarean

section, breastfeeding and newborn care at the two postnatal contacts, that is, at Day 1 and 6–8 weeks following birth.[14] However, it did not explore the factors contributing to the low utilisation of postnatal service. As no published studies have explored women's experiences and utilisation of PNFC in Oman, this study was undertaken as the first step toward ascertaining why PNFC is poorly utilised in Oman. The objective of the study was to explore the factors that influence utilisation of PNFC in Oman from the perspective of postnatal women.

Methods

Design

This descriptive qualitative study is a part of a larger exploratory mixed methods project designed to gain more insight into PNFC from women, hospitals and health centre HCPs through qualitative interviews. The results from the HCPs will be reported elsewhere. The results of Study One will inform the development of quantitative measures (survey) of the mixed method study. This will enable an investigation of the PNFC with a larger sample size, thereby facilitating policy change to improve the quality of care.[15] Purposive sampling was used and semi-structured telephone interviews were conducted in Arabic between May and August 2021 by the primary investigator, an Omani registered nurse-midwife experienced in conducting interviews. The interview guide (Table 3) developed by the researchers was guided by the findings from the literature review.[13] Ethical approval was granted by the Research and Ethical Review and Approval Committee, Oman Ministry of Health [MoH/CSR/20/23647], and the University of Queensland [2020002085/MoH/CSR/20/23647].

Setting and participants

Postnatal women were recruited at Khoula and Ibra Hospitals. The sites were selected because of their differences in terms of population density and social, educational and healthcare services.[12] Women who gave birth at the study site and were fluent in Arabic or English were eligible to participate, regardless of nationality. Women with any pregnancy complications or history of newborn admission to a neonatal nursery were ineligible. Women were recruited by the primary investigator in collaboration with the clinical hospital HCPs to identify eligible women. Informed consent was obtained from the women following a detailed explanation of the study and participation requirements. The date and time for the telephone interview were scheduled between 6–8 weeks based on mutual agreement.

Data collection

Interviews were conducted between 6–8 weeks postnatally via telephone due to the Covid-19 pandemic. Further, this allowed women to be interviewed in their home environment. Interviewing participants in their own environment in which they are comfortable and familiar can result in more openly expressed opinions.[16] The interviews were digitally recorded and lasted on average for 25 min. Data collection ended with concept saturation.[17]

Data analysis

Interviews were de-identified and transcribed verbatim in Arabic and then translated into English by an external experienced bilingual translator. This enabled the native English-speaking research team to review the transcripts, thus increasing reliability and minimising inaccuracies when translating between the source language to the target language.[18] The primary investigator compared the English transcripts with the Arabic transcripts, checking for accuracy, including transliteration where necessary in cases where English counterparts for certain Arabic terms and names did not exist. Conventional content analysis was performed manually and was guided by the process described by Erlingsson and Brysiewicz[19]: familiarisation with the data; dividing the text into meaning units; condensing meaning units; formulating codes; developing categories. Conventional content analysis was performed, as no study has been conducted in Oman about PNFC. This approach enabled the flow of categories without the restriction of preconceived ideas/categories.[20] All condensed meaning units, codes, sub-categories and categories were manually added to Microsoft Excel version 16.54 to enhance data management.

The development of meaning units, codes and categories was undertaken by the primary investigator and agreed upon by two co-authors. The categories reflected factors that influenced women's views, decisions or experiences of utilisation of PNFC.

Results

No new information was identified from the 14th interview, and this was empirically confirmed following the completion of the 15th interview. The demographic data of the participants is presented in Table 1.

During the content analysis, initially 246 meaning units were extracted. After reviewing, the units were condensed into 166 units. Then the meaning units were coded into 46 codes. The

codes were further clustered into 18 sub-categories. Finally, six clear categories emerged from the data: 1) need for information; 2) experiences and expectations; 3) family support, expectations and customs; 4) sociocultural beliefs and practice; 5) impact of Covid-19; 6) the healthcare environment.

Need for information

The utilisation of early PNFC at health centres appears to be dependent on HCPs providing information to women about the need for PNFC for both themselves and their newborns. The participants reported that appointments were not given or explained well to them: *"No one told me about appointments about me, they just gave me an appointment for my child vaccination after two months and it is written in my baby card"* (P7) (Table 2, Quote 1), or that they were told they would be seen by a doctor but not specifically informed why (Table 2, Quote 2). The women felt strongly that they should be informed and empowered by being given information with an explanation of why they should attend (Table 2, Quote 3).

The participants reported not visiting for PNFC because they were told by the HCPs at the hospitals and health centres that they only needed to attend if they experienced complications (Table 2, Quote 4). Thus, women who did not have any complications did not visit any health centres.

Many women expressed a desire for more information around newborn care (e.g. bathing, feeding, cord care), signs of danger to themselves or their newborns, managing complications for themselves women and their newborns and, in particular, their own mental health (Table 2, Quote 5). Additionally, women who had a caesarian section birth or had perineal wounds expressed the need for more information on wound care (Table 2, Quote 6), and this was highlighted by a postnatal woman who was also a nurse. She stated that she knew how to take care of her wound because of her experience, not because she was given any information by the HCPs (Table 2, Quote 7). Women who delivered by caesearean felt they needed an appointment 1 week postnatally for reassurance about their health and well-being (Table 2, Quote 8).

The need for increased and more comprehensive breastfeeding information and support was raised by most women, as many reported breastfeeding challenges that they had to try and solve by themselves: *"I faced a huge problem with breastfeeding I did not know how to*

breastfeed, maybe the technique was wrong, or I did not have enough milk" (P3) (Table 2, quotes 9). Otherwise, they opted to artificially feed, as it was easier (Table 2, Quotes 10 and 11). Additionally, women reported that the information given to them was not helpful or did not solve their problems (Table 2, Quotes 12 and 13).

Experiences and expectations

Previous experience with PNFC influenced the participants' decisions to attend or not with their newborn. Many women reported that the care was not woman-focused or beneficial, nor did it meet their individual needs: "*I feel every time I go to the doctor, I only get a verbal advice, which does not benefit me much, it is not practical, they give us their opinion, but the reality is different*" (P6) (Table 2, Quote 14). They also reported that PNFC was focused on the newborn, with little attention to the mothers' health (Table 2, Quotes 15 and 16).

The participants strongly felt that it was very important to have PNFC appointments, as attending with a newborn in a crowded clinic and waiting for long periods without dedicated breastfeeding areas was not ideal (Table 2, Quotes 17, 18 and 19). Not having scheduled appointments led the women to perceive that PNFC is optional and not important. If appointments had been scheduled, they would have attended (Table 2, Quotes 20 and 21). The women further stressed that the COVID-19 pandemic highlighted the need and importance of scheduled appointments: *"Set scheduled appointments with specific date in an organised manner, so women do not have to wait for long time with their babies especially now corona is here"* (P10). Also important to women was the need for alternative follow-up options, which they suggested should be more accessible and practical, such as text messaging, telephone calls and home visits.

Family support, expectations and customs

Some of the participants followed strict customs pertaining to the postnatal period, such as staying in their family home for a few days: *"They can ask about the woman by calling and this is very useful way to ensure about her health and the health of the child, and they see what she needs*" (P9). Another custom is to receive support from their family, which is viewed as an expectation and responsibility of the family (Table 2, Quotes 22 and 23). However, several others received little support (Table 2, Quotes 24 and 25). The level of support had an influence on attendance at PNFC, as when the mothers had no one to take them to the health centre or to take care of their other children at home, then they did not visit

(Table 2, Quote 26). The influence of family and customs affecting women's decisions and choices were also revealed: "*I gave all my children artificial milk immediately after hospital discharge because of my in-laws' influence. They told me that I have to give my baby artificial milk or he will lose weight*" (P4).

Sociocultural beliefs and practice

Various social and cultural practices are expected of women during the postnatal period, such as 'seclusion', which appear to influence attendance at PNFC. The participants reported that they are expected to stay indoors for 40 days, as seclusion is important to prevent maternal and newborn sickness, to ensure normal growth for the newborn and to avoid embarrassment among family and community members: "*I did not leave the house in the 40 days because it is a scandal and people will talk about me…this is our custom, even if we had a normal vaginal birth, we do not go out, we must sit at home except for necessity"* (P14) (Table 2, Quote 27).

Several traditional practices related to food and medicine used after birth also appear to influence women's decision to visit a health centre. The participants indicated that they believed traditional foods were effective in overcoming postnatal complications, such as insufficient milk production and bleeding and to 'cleanse the uterus': "*My family cooked for me special food such as fresh meat, Omani chicken, fenugreek, and bread made of wheat flour, which very helpful in increasing the milk production, prevent gases formation and make my bones stronger as it was weakened due to pregnancy and delivery"* (P15) (Table 2, Quote 28). Similarly, women used and trusted traditional medicines to treat postnatal complications such as wound pain, infection and the newborn's abdominal cramps (Table 2, Quotes 29 and 30).

Impact of Covid-19

The participants stated that they did not utilise PNFC because they were worried about both themselves and their newborn being infected with Covid-19 when visiting health centres: "*I was afraid to go out during after birth because of Corona*" (P6) (Table 2, Quote 31). Moreover, these women's decision to visit health centres was impacted by being discouraged or turned away by HCPs due to Covid-19 (Table 2, Quote 32).

Healthcare environment

The women in this study were reluctant to attend PNFC, as they felt that the physical environment for postnatal care in health centres was not comfortable or suitable for them or for their newborn: *"The environment in the health centre is not comfortable it is very cold and the chairs are hard so it causes pain especially with perineal wound…there is no special area for mothers to breastfeed their babies"* (P5). With no appointment system, women are expected to sit and wait for their turn. Depending on the number of women, some may not be seen and have to return another day. Thus, a number of women stated that they chose to be seen in private health facilities (Table 2, Quote 33). Furthermore, women cited the low quality of PNFC provided as a reason for not visiting (Table 2, Quotes 34 and 35).

Discussion

This qualitative study highlights factors influencing postnatal women's utilisation of PNFC in Oman. These occur at four levels: individual, family, community and institutional levels. Gaining the perspectives of postnatal women is essential since they are consumers of healthcare services, and they should feel cared for, safe and confident in receiving quality care.[21] Many countries have developed Standards for Safe and Quality Health Care in which the importance of involving consumers in their own care and providing clear communication is advocated[22] across the continuum of 'planning, design, delivery, measurement and evaluation of care'.[21] Involvement of the consumer at the primary care level has the potential to prevent illness before it begins. Thus, engaging postnatal women to improve utilisation of PNFC service has the potential to shape and influence policy change for better outcomes.[23]

Need for information

Our findings reveal that postnatal women need more information regarding postnatal care. Increasing health literacy, including knowledge and awareness, and thereby empowering women in their own healthcare is not unique to Oman, having been reported in studies from many countries.[14, 24,25] Two studies found that postnatal women in Indonesia and Ethiopia were not provided with adequate information and thus had poor knowledge and awareness of the importance of postnatal care.[24,25] Engaging and empowering consumers in health care and health promotion appears to remain a challenge despite discussion and policy development over the last few decades. Interestingly, the need for more information was not only reported by first-time mothers but also multiparous women, who highlighted their need for more educational support, especially regarding breastfeeding. The women in our study reported

using artificial formula very early in the postnatal period as a way of overcoming breastfeeding challenges such as attachment or low milk supply, and few women maintained exclusive breastfeeding to 6 months postnatally. Data from Oman shows that only around a third (31.3%) of women breastfed exclusively at 6 months in 2005, and by 2019, the rate of exclusive breastfeeding declined to just 8.9%.[12] In contrast, over the same time period, the use of artificial formula and other foods rather than breastmilk has increased considerably at 6 months, from 60.7% in 2005 to 90.7 % in 2019.[12] This is a concern, as breastmilk is important for the health and wellbeing of newborns, as it protects from malnutrition, common childhood infections, allergies, metabolic disorders and obesity.[1, 26] Thus, at the institutional level, it is clear that there is potential for improvement of PNFC by addressing health literacy through policies that support individualised care and making information resources accessible to consumers.

Experiences and expectations

The women in this study believed that not having specific appointments for postnatal follow-up meant that PNFC was not important. In 2019, the rate of utilisation of postnatal care in Oman was shown to be as low as 0.73 postnatal visits per woman.[12] This is in contrast to antenatal appointments which are scheduled and, therefore, considered important, with 73.9% of women attending four or more visits in 2019.[12] The American College of Obstetricians and Gynecologists[10] recommends scheduling postnatal visits during the prenatal period or prior to hospital discharge as an imperative strategy to promote and ensure women's utilisation of postnatal follow-up.

In this study, women expressed that they would like options for postnatal follow-up, including home visits and telephone calls, indicating that a more individualised postnatal follow-up approach was of importance. De Sousa et al.[27] reported that, to ensure the best health outcomes, there is a need to promote attentive listening to women's concerns, encourage continuity of care and increase home-based services. Furthermore, a Cochrane systematic review found that early discharge accompanied by a home visit resulted in reduced newborn readmissions in the weeks following birth, encouraged women to continue exclusive breastfeeding and increased maternal satisfaction with postnatal care. [28] The importance and need for individualised care have been reported by several international organisations and agencies.[9, 29] Our study has demonstrated that alternative modes of postnatal follow-up are

wanted by women; thus, future studies should explore alternative options at community and institutional levels.

Family support, expectations and customs

In Oman, the influence of the family, their expectations, customs and level of support to women in the postnatal period plays a key role in utilisation of health services. This is consistent with a study reporting the influence of families on women's knowledge, attitudes and practices during the postnatal period.[24] Therefore, it is important that this is considered at the individual level when designing interventions to improve utilisation of services. Educational interventions need to be targeted towards the family and community and not just the women concerned.[24] This is particularly important in our study setting, where there is an expectation that the family provides information and physical support and influences decision-making. The impact of family-related factors has been reported to negatively influence postnatal women's compliance to health advice provided by HCPs.[24] However, having family support can also impact utilisation positively. For example, family members can assist women to attend postnatal follow-up appointments by caring for other children to allow women time to visit the health centre for appointments. Without this type of support, it is often too difficult for women to focus on their health. The women in our study indicated that lack of family assistance with their other children prevented them from utilising postnatal follow-up, which is consistent with the findings from studies conducted in Ethiopia.[25, 30]

Sociocultural beliefs and practice

In Oman, similar to many Arab countries, the postnatal period is culturally perceived as a unique time during which mothers are expected to practice seclusion, eat a special diet and receive congratulatory visits and gifts from family members and friends.[31] The practice of seclusion for 40 days is common in Middle Eastern countries, where the women and their newborns are viewed as being weak and at increased risk of morbidities, mortality and the 'evil eye'.[31] Although seclusion did not appear to directly impede the study participants' utilisation of postnatal follow-up, they still reported that they favoured staying indoors for 40 days, with many mentioning that they would only attend the health centre at 40 days for information about birth spacing. Thus, offering alternative methods of follow-up could be useful to provide support on breastfeeding and mental health well-being in the early postnatal period. In our study, the women trusted the cultural practices of traditional food and medicine consumption to overcome postnatal complications and were more likely to try these than go

to a health centre, as reported in previous studies.[25, 32] Therefore, it is crucial for policymakers, community leaders and HCPs to work collaboratively toward increasing community awareness regarding the importance of postnatal follow-up.

Impact of Covid-19

Not surprisingly, concerns were raised regarding the inability to utilise postnatal follow-up due to the Covid-19 pandemic. This occurred at the individual level, with many women indicating that they were reluctant to leave the house and go to a health centre where they would be required to sit and wait for an extended period of time because appointments were not scheduled. At the institutional level, women spoke about being discouraged from visiting clinics in person. Non-face-to-face methods for providing postnatal follow-up were not initiated by institutions in response to the pandemic. An unintended result of not attending postnatal clinics has been the isolation of new mothers, impacting further their ability to obtain information and support. Women raised concerns regarding their mental, physical and emotional well-being, including the risk of postnatal depression. This is concerning, as the findings from a cross-sectional survey indicated that the risk of postpartum depression at one month was higher in women with low support compared to those with higher support.[33] Recommendations have been made regarding the importance of continued care for postnatal women and newborns during the pandemic and the use of different accessible modalities to provide breastfeeding, mental health and parenting support.[34] Unlike in other countries, institutions in Oman have not reviewed or adapted services or policies in response to the pandemic, as women were not offered alternative postnatal follow-up approaches.

The healthcare environment

Several environmental factors that played a key role in impeding women's utilisation of postnatal follow-up have been highlighted in this study. These factors included crowded health centres and long waiting times. The impact of the environment and long waiting queues at health facilities on postnatal follow-up utilisation has previously been reported in the literature.[35] Thus, for Oman, a solution to address these factors may be as simple as scheduling appointments, as it can help to reduce both overcrowding and long waiting times. Providing women with alternatives to face-to-face visits, such as phone calls and home visits, might also be successful in improving utilisation.

Strengths and limitations of the study

To our knowledge, this is the first study exploring the utilisation of PNFC in Oman from the perspective of postnatal women. This is important to inform quality care improvements, make PNFC women-centred and amend the National Guideline to increase the uptake of PNFC. A limitation of this study is that it was conducted during the COVID-19 pandemic, which may have influenced the women's decision to attend the PNFC visit, although it did not inhibit policymakers from providing alternative ways of contact, such as via telephone calls, text messages and videoconferencing via platforms such as Zoom.

Conclusion

The women in this study identified key factors that both facilitated and impeded utilisation of PNFC. These are important in the development and implementation of effective strategies to increase utilisation of PNFC, which can provide opportunities for health promotion, support and optimal care of women and newborns. Policymakers, community leaders and HCPs must work collaboratively to promote the utilisation of PNFC by scheduling appointments, increasing awareness among women, families and the community on the importance of PNFC and providing alternative modes of contact.

Acknowledgements

Our sincere thanks and appreciation to women for their participation in this study. We also extend our gratitude to the Directorates General of Khoula Hospital and the Directorate General of Health Services at North Ash Sharqiyah Governorate for facilitating the recruitment process.

Authors' Contribution

AAH contributed to the conceptualization, methodology, formal analysis, project administration, visualisation and writing (original draft). JD contributed to the conceptualization, methodology, visualisation, supervision and writing (review and editing). MP contributed to the conceptualization, methodology, formal analysis, visualisation, supervision and writing (review and editing). KW contributed to the conceptualization, methodology, visualisation, supervision and writing (review and editing). KN contributed to the conceptualization, methodology, formal analysis, visualisation, supervision and writing (review and editing).

Conflicts of Interest

The authors declare no conflict of interests.

Funding

Funding for AAH via a scholarship was provided by the Omani government through the Omani Ministry of Higher Education, Research and Innovation (Grant number: D.P.S/699/201).

References

1. World Health Organization. WHO Technical Consultation on Postpartum and Postnatal Care. Geneva, Switzerland: World Health Organization. WHO/MPS/10.03. Pp. 12.
2. National Institute for Health and Care Excellence. Postnatal Care up to 8 Weeks After Birth. London: National Institute for Health and Care Excellence. From: https://www.nice.org.uk/guidance/ng194/resources/postnatal-care-pdf-66142082148037 Accessed: August 2022.
3. Campbell OM, Cegolon L, Macleod D, Benova L. Length of stay after childbirth in 92 countries and associated factors in 30 low-and middle-income countries: Compilation of reported data and a cross-sectional analysis from nationally representative surveys. PLoS Med 2016; 13:e1001972-e1001972. doi: https://doi.org/10.1371/journal.pmed.1001972.
4. Royal Australian College of General Practitioners. Guidelines for Preventive Activities in General Practice.Victoria: Royal Australian College of General Practitioners; 2018. Pp. 127-138.
5. Rai S, Pathak A, Sharma I. Postpartum psychiatric disorders: Early diagnosis and management. Indian J Psychiatry 2015; 57:S216-221. doi: 10.4103/0019-5545.161481.
6. Sankar M, Natarajan C, Das R, Agarwal R, Chandrasekaran A, Paul V. When do newborns die? A systematic review of timing of overall and cause-specific neonatal deaths in developing countries. J Perinatol 2016; 36:S1-S11. doi: 10.1038/jp.2016.27.
7. Warren C, Daly P, Toure L, Mongi P. Postnatal care. In Lawn J, Kerber K, editors. Opportunities for Africa's newborns: Practical Data, Policy and Programmatic Support for Newborn Care in Africa. Geneva, Switzerland: World Health Organization on behalf of the partnership for maternal, newborn and child health; 2006. Pp. 79-90.

8. World Health Organization, United Nations Population Fund, World Bank Group and the United Nations Population Division. Trends in Maternal Mortality 2000 to 2017. Geneva, Switzerland: World Health Organization; 2019. Pp. 59.
9. World Health Organization. WHO Recommendations on Postnatal Care of the Mother and Newborn. Geneva, Switzerland: World Health Organization; 2013. Pp. 3.
10. McKinney J, Keyser L, Clinton S, Pagliano C. ACOG committee opinion no. 736: Optimizing postpartum care. Obstet Gynecol 2018; 132:784-785. doi: 10.1097/AOG.0000000000002849.
11. Sultanate of Oman Ministry of Health. Pregnancy and Childbirth Management Guidelines. Muscat: Sultanate of Oman Ministry of Health; 2016. Pp. 105-108.
12. Sultanate of Oman Ministry of Health. Annual Health Report 2019: Health Status Indicators. Muscat: Sultanate of Oman Ministry of Health; 2019. Pp. 1-5.
13. Al Hadi A, Paliwoda M, Dawson J, Walker K, New K. Women's utilisation, experiences and satisfaction with postnatal follow-up care: A systematic literature review. Sultan Qaboos Univ Med J 2022; 22:455-471. doi: 10.18295/squmj.10.2022.059 .
14. Almalik MM. Understanding maternal postpartum needs: A descriptive survey of current maternal health services. J Clin Nurs 2017; 26:4654–63. https://doi.org/10.1111/jocn.13812.
15. Holloway I, Galvin K. Qualitative research in nursing and healthcare. John Wiley & Sons 2016:273-283.
16. Bolderston A. Conducting a research interview. J Med Imaging Radiat Sci 2012; 43:66-76. doi: 10.1016/j.imir.2011.12.002.
17. Cresweel, J. w., & V. L. (2018). Designing and conducting mixed methods research. 3rd ed. California: SAGE Publications, 2018.
18. Al-Amer R, Ramjan L, Glew P, Darwish M, Salamonson Y. Language translation challenges with Arabic speakers participating in qualitative research studies. Int J Nurs Stud 2016; 54:150-157. doi: 10.1016/j.ijnurstu.2015.04.010.
19. Erlingsson C, Brysiewicz P. A hands-on guide to doing content analysis. Afr J Emerg Med 2017; 7:93-99. doi: 10.1016/j.afjem.2017.08.001.
20. Hsieh HF, Shannon SE. Three Approaches to Qualitative Content Analysis. Qualitative health research. 2005;15(9):1277–88

21. Australian Commission on Saftey and Quality in Health Care. National Safety and Quality Health Service (NSQHS) Standards. Sydney: Australian Commission on Saftey and Quality in Health Care; 2021. Pp. 36-54.
22. Nilsen E, Myrhaug H, Johansen M, Oliver S, Oxman A. Methods of consumer involvement in developing healthcare policy and research, clinical practice guidelines and patient information material. Cochrane Database Syst Rev 2006; 2006:CD004563. doi: 10.1002/14651858.
23. Bustreo F. She decides on her health, her future. Geneva, Switzerland: World Health Organization; 2017.
24. Probandari A, Arcita A, Kothijah K, Pamungkasari E. Barriers to utilization of postnatal care at village level in Klaten district, central Java Province, Indonesia. BMC Health Serv Res 2017; 17:541. doi: 10.1186/s12913-017-2490-y.
25. Tesfahun F, Worku W, Mazengiya F, Kifle M. Knowledge, perception and utilization of postnatal care of mothers in Gondar Zuria District, Ethiopia: A cross-sectional study. Matern Child Health J 2014; 18:2341-51. doi: 10.1007/s10995-014-1474-3.
26. Eidelman A. Breastfeeding and the use of human milk: An analysis of the American Academy of Pediatrics 2012: Breastfeeding policy statement. Breastfeed Med 2012; 7:323-324. doi: 10.1089/bfm.2012.0067.
27. De Sousa Machado T, Chur-Hansen A, Due C. First-time mothers' perceptions of social support: Recommendations for best practice. Health Psychol Open 2020; 7:2055102919898611. doi: 10.1177/2055102919898611.
28. Yonemoto N, Dowswell T, Nagai S, Mori R. Schedules for home visits in the early postpartum period. Cochrane Database Syst Rev 2017; 8:CD009326. doi: 10.1002/14651858.CD009326.pub3.
29. Public Health Agency of Canada. Family-Centred Maternity and Newborn Care: National Guidelines. Ottawa: Public Health Agency of Canada; 2021. Pp. 46-53.
30. Gebrehiwot G, Medhanyie AA, Gidey G, Abrha K. Postnatal care utilization among urban women in Northern Ethiopia: Cross- sectional survey. BMC Womens Health 2018; 18:78. doi: 10.1186/s12905-018-0557-5.
31. Hundt GL, Beckerleg S, Kassem F, Jafar AMA, Belmaker I, Abu Saad K, et al. Women's health custom made: Building on the 40 days postpartum for Arab women. Health Care Women Int 2000; 21:529-42. doi: 10.1080/07399330050130313.
32. Belihu TM, Deressa AT. Postnatal care within one week and associated factors among women who gave birth in Ameya District, Oromia Regional State, Ethiopia, 2018:

Cross sectional study. Ethiop J Health Sci 2020; 30:329-336. doi: 10.4314/ejhs.v30i3.3.

33. Terada S, Kinjo K, Fukuda Y. The relationship between postpartum depression and social support during the COVID-19 pandemic: A cross-sectional study. J Obstet Gynaecol Res 2021; 47:3524-3531. doi: 10.1111/jog.14929.

34. Ross-Davie M, Lambert J, Brigante L, et al. Guidance for Antenatal and Postnatal Services in the Evolving Coronavirus (COVID-19) Pandemic. London: The Royal College of Obstetricians and Gynaecologists; 2020. Pp. 8-9.

35. Woodward BM, Zadoroznyj M, Benoit C. Beyond birth: Women's concerns about post-birth care in an Australian urban community. Women Birth 2016; 29:153-9. doi: 10.1016/j.wombi.2015.09.006.

Table 1: Participants' demographic data

Participant and Hospital	**Age group (years)**	**Educational level**	**Births (number)**	**Living arrangements**
P1-KH	25-29	Advanced*	2	Living with extended family**
P2-KH	30–34	Advanced*	1	Living with extended family**
P3-KH	30-34	Advanced*	1	Living with husband and children
P4-KH	35-39	Secondary***	4	Living with husband and children
P5-KH	30-34	Secondary***	3	Living with husband and children
P6-KH	35-39	Advanced*	2	Living with husband and children
P7-IH	25-29	Secondary***	5	Living with husband and children
P8-IH	25-29	Advanced*	2	Living with husband and children
P9-IH	20-24	Advanced*	1	Living with husband, child/children, and one set of parents
P10-KH	25-29	Advanced*	1	Living with husband and children
P11-KH	25-29	Advanced*	3	Living with husband and children
P12-KH	20-24	Primary****	5	Living with extended family**
P13-IH	30-34	Preparatory*****	3	Living with husband and children
P14-IH	25-29	Advanced*	2	Living with extended family**
P15-IH	25-29	Secondary***	5	Living with husband, child/children, and one set of parents

**Advanced: completed diploma bachelor, master's, or PhD. **Extended family includes others in addition to parents, such as grandparents, brothers, sisters, uncles, aunts and cousins. ***Secondary: completed Grade 12; ****Primary: Grade 1–6. *****Preparatory: Grade 7–9.*

556 **Table 2:** Quotes from participants

Categories	Verbatim quotation from participants
Need for information	1. *"Appointments need to be clearly explained to us, whether they are for mother only or we have to bring our baby with us.*" (P1) 2. "*They told me that after two weeks, my baby is having appointment and it is written in the pink card, and I should go with baby because the doctor will see me as well.*" (P6) 3. *"Before we [are] discharged from the hospital, they must explain to us in detail about the appointments and give us the numbers of the people we can contact if we need information about postpartum care in general, not only about breastfeeding." (P6)* 4. "*I was informed from health centre that no need to follow-up after birth unless you or newborn have complication."* (P1) 5. *"I need someone to teach me about mental health, as sometimes I was feeling bad, depressed and tired, especially when the baby was crying despite that I have fed him and changed his diaper."* (P1) 6. *"I wish to know more about how to take care of the wound because I still suffer from pain and infection.*" (P5) 7. *"From my experience as a nurse, I know how to take care of the wound and know if the wound bleeds or smells or the wound opens, I go to the health center, but no one explained this to me after the birth."* (P14) 8. *"Women should return to health centre after a week, especially if delivered by is operation, because we want to be reassured our health and wellbeing and to have chance to discuss with them about our concerns on this appointment."* (P8) 9. *"I learned everything by myself and through searching the Internet.* (P6) 10. *"I started with artificial milk with all my three children because it was the easiest solution to solve breastfeeding problems."* (P4) 11. *"My first and second child, I did not breastfeed them naturally because I did not know how to breastfeed them.*

	My family tried with me, but it did not work, and I gave them artificial milk." (P7) 12. *"The nurse gave me a paper and it was written on it how to store the milk, but my milk flow was not enough for the baby."* (P10) 13. *"I was trying to breastfeed her but was having difficulty to attach to the nipple and [she] refused to breastfeed as she did not want me, so I contacted the lactation specialist through Instagram, she advised me to stop giving my baby's pacifier. Her advice helped me a little, but the problem did not stop."* (P6)
Experiences and expectations	14. "*For all my five births, I never went to the health centre, neither for the two-week nor for the forty-day appointment because they don't do anything for me, only they measure the baby weight*." (P12) 15. *"I feel frankly that there is no care for me, they only ask about the child if he passed urine, there was nothing else, unless the person asks by himself in order to get reassured."* (P7) 16. "*The two-week appointment they do not give us much, they only ask us how are you doing, and if you have any problem, I feel they are more interested in the child than the mother, at least they could do a comprehensive examination for the mother like a child*." (P6) 17. *"It is very important to have scheduled appointments with date and time."* (P4) 18. "*Health centres are crowded and we have a newborn with us."* (P5) 19. *"Especially women who have undergone surgeries or have stitches, they should pay more attention to them because they suffer from more pain and open wounds."* (P13) 20. *"If we have scheduled appointment with date and time, we will care more about it." (P2)* 21. "*They must be on time, they are not optional … We don't feel that postnatal care is important."* (P8) 22. *"I went to my family's house for forty days and got psychological support from my mother and sisters who raised my spirits to prevent me from getting postpartum depression, they were also helping me with my first child,*

	since I had operational delivery and I could not move much." (P8) 23. *"My aunt (mother-in-law) and my sisters helped me clean the house and cook for us to eat while I stay in my house because my parents passed away."* (P12) 24. "*I was in my sisters' house and I was sleeping alone with my baby and I was holding her all the night no body helped me."* (P3) 25. *"My parents passed away and I have my sisters and brothers, but they have other responsibilities."*(P4) 26. *"I could not attend as my husband at work and I didn't have car and I have 3 more children at home."* (P4)
Sociocultural beliefs and practices	27. "*In our customs, women must stay for forty days in the same place, and we are convinced that this custom is beneficial for the mother and the child.*" (P11) 28. "*My mother and sisters helped me and they cooked me rice and porridge with fenugreek. This food is useful especially the fenugreek as it increases milk production and cleans the uterus from traces of blood.*" (P13) 29. "*The operation wound was very painful and I got tired from the pain so my mother advised me to apply Luqman oil to it to heal fast.*" (P13) 30. *"My mother helped me to deal with my baby's abdominal cramps and gave the baby traditional medicine and did some massage to remove gasses from the baby's tummy."* (P1)
Impact of Covid-19	31. "*I will not go out because of corona; I am worried about my child.*" (P2) 32. "*They [HCPs] told me, don't come, we don't receive the two-week appointment, come only for vaccination date after two months because of Corona, even they didn't check the child, so, I had to go to another private hospital recommended from my workplace to check my baby and to be reassured that everything is fine with her."* (P6)
Health care environment	33. *"We follow-up in private because health centres are overcrowded and only see postnatal women in specific timings."* (P1)

	34. *"The quality of postnatal services provided for mothers and babies need to be improved not only checking baby weight and looking at our faces otherwise I will not waste my time to attend."* (P3) 35. *"There is no postnatal care, they only give the child an injection and that's all."* (P13)

Table 3: Interview guide

1. When you were getting ready to be discharged from hospital, can you tell me what information the nurse/midwife/doctor gave you about visiting a health centre for postnatal care?
2. When you got home from the hospital, can you tell me about the support your family gave you?
3. Thinking about when you first arrived home from the hospital, what were the most challenging things?
4. Have you had the opportunity to leave the house since your baby was born?
5. Since you were discharged from the hospital, have you visited any health centres for you or your baby?
a. **If attended** – How many times did you visit? Who did you see when you visited the health centre - a nurse/midwife/doctor? Can you tell me about your experience of visiting the health centre? In your opinion are their things that could be done better to improve the visit?
b. **If did not attend** – Can you tell me a little about why you did not visit? Did anyone else give you information about looking after yourself/your baby? What could be done differently to encourage you to visit? From your point of view, can you think of any other reasons why women may/may not attend postnatal follow-up care at a health centre?
6. In your opinion, what would you like to discuss or be told about at postnatal follow-up visit?
7. Do you have any suggestions or changes that would improve the probability of visiting the health centre for postnatal follow-up care?
8. Do you have any other comments to make regarding postnatal follow-up care?