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The "Blessing" of Pregnancy? Barriers to accessing adequate maternal care in Poland: A mixed-method study among women, healthcare providers, and decision-makers

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ABSTRACT

Objective: All women should have access to adequate and respectful maternal care to maximise health outcomes. In Poland, there is a mismatch between good maternal health indicators and poor care experiences. This study examined stakeholder views on access to adequate maternal care in Poland in terms of availability, appropriateness, affordability, approachability, and acceptability.
Design: A mixed-methods study.
Setting: Online survey and online semi-structured interviews conducted between March 2021 and May 2021.
Participants: Five-hundred fifty-seven (557) women who recently gave birth in Poland, maternal care providers and decision-makers active in the field of maternal health.
Findings: The main barriers to adequate care were inappropriate communication of maternal care providers, insufficient compliance with standards of care, over-medicalisation of childbirth and suboptimal engagement of women in care provision, and high levels of out-of-pocket spending on maternal care services. Other barriers included limited availability of maternal care providers, particularly midwives, and low reproductive health literacy in women.
Key conclusions: Provision of adequate and women-centred maternal care remains erratic, despite substantial care provision advancements in recent years. Addressing the barriers could substantially improve the experience of and access to adequate maternal care in Poland.
Implications for practice: Barriers identified in the survey with women largely converged with those highlighted in the interviews. In addition, maternal care providers and decision-makers provided context-specific information and explanation of the current state of maternal care system. Consequently, this study provides direction-setting information for policy and practice in Poland and other Central and Eastern European countries, which share similar shortcomings related to adequate maternal care provision.

Introduction

Ensuring that all women have access to adequate and respectful maternal care is fundamental to the health of mothers and their new-borns worldwide (World Health Organisation, 2022). Inadequate maternal care is associated with several adverse health outcomes, including premature birth, stillbirth, low birth weight in new-borns, postpartum depression in women, and decreased likelihood of health-enhancing behaviours such as initiation of

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breastfeeding and infant immunisation (Heaman et al., 2019; Partridge et al., 2012). In Poland, macro-level maternal health indicators suggest improvements in the provision of care over the years, as evidenced by the significant decline in maternal and infant mortality rates in the last 20 years (Sowada et al., 2019). The maternal mortality ratio in Poland is low and well below the EU average, namely 2 versus 6 maternal deaths per 100,000 live births respectively (estimates for 2017) (World Health Organisation, 2019). Yet, this does not guarantee adequate and women-centred maternal care as many women suffer from disrespectful behaviour by maternal care providers, limited availability of public antenatal and postpartum care, and financial barriers when supplementing public care - either by choice or necessity - with private services (Baranowska et al., 2019).

In Poland, all maternal care services are free for women at the point of service if they choose facilities contracted by the National Health Fund (*Narodowy Fundusz Zdrowia*; NFZ) (Narodowy Fundusz Zdrowia, 2022). When opting for private-sector services, which are generally perceived to be of higher quality, women need to cover the costs of care themselves (Węgrzynowska, 2021). Care during pregnancy is almost exclusively provided by gynaecologists/obstetricians, even though midwives are legally allowed to provide care for women in physiological pregnancies (Baranowska et al., 2021; Minister of Health, 2018). Under NFZ, women are entitled to 10 antenatal visits with a maternal care provider of their choice and midwife-led prenatal education classes free-of-charge. Although homebirth is legal in Poland, it is not covered by the NFZ and there is a scarcity of midwives offering these services. As a result, childbirth is highly institutionalised with a vast majority of childbirths taking place in predominantly public hospitals (Węgrzynowska, 2021). Furthermore, in contrast to the WHO recommendations on caesarean births (see World Health Organisation, 2015b), 44.8% out of all hospital births in 2019 were caesarean births (Statistics Poland & Statistical Office in Krakow, 2021). Postpartum care is delivered in the form of home visits, during which midwives are expected to provide medical and psychosocial care for women, check the health of the new-born, and offer lactation counselling (Minister of Health, 2018). Women are entitled to at least four postpartum visits at home by a midwife of their choice, while up to six postpartum visits are reimbursed by the NFZ (Narodowy Fundusz Zdrowia, n.d.).

To safeguard that maternal care services are delivered according to patient needs and rights, providers are required to comply with the *Regulation of the Minister of Health of August 16, 2018 on the standard of perinatal care* (henceforth Perinatal Care Standards; PCS) (Minister of Health, 2018). The PCS emphasise that women receiving maternal care have the right to be actively engaged in decision-making, be sufficiently informed by maternal care providers, have access to (non-)pharmacological ways of softening labour pain, and be provided with respectful, dignified, and evidence-based care (Minister of Health, 2018). Yet, these standards lack crucial provisions on monitoring instruments to assess the extent of compliance with the regulation by provider institutions, which calls their effectiveness into question (Baranowska et al., 2019).

Women's experiences and satisfaction with childbirth care have been rigorously researched by the Childbirth with Dignity Foundation (Adamska-Sala et al., 2017, 2018). Yet, little is known about antenatal and postpartum care, making it impossible to draw conclusions about access to adequate services across the maternal care continuum. Previous research has shown the importance of looking at micro-level indicators, such as communication, attitudes, and knowledge of providers, adherence to clinical guidelines, and health literacy in assessing the accessibility of adequate maternal care in Central and Eastern Europe (Miteniece et al., 2019), especially in countries where relatively good macro-level data might conceal the underlying systemic problems. There is a lack of comprehensive evidence on access to adequate maternal care in Poland, taking simultaneously into account the different stakeholder's views. Therefore, this study aimed to analyse the views of women, healthcare providers, and decision-makers on the barriers to accessibility of adequate maternal care in Poland (operationalised through five dimensions: availability, appropriateness, affordability, approachability, acceptability) and determine the degree of stakeholder consensus using a mixed-methods approach.

Methods

This study employed two distinct research instruments to collect primary data, namely (1) an online survey among women who have experienced childbirth in the period March 2017 – March 2021 and (2) semi-structured, in-depth interviews (IDIs) with healthcare providers and decision-makers relevant for the maternal care field. Both research instruments were validated in comparable studies in Latvia (Miteniece et al., 2019) and Georgia (Miteniece et al., 2018).

Data collection

Data collection and analysis were guided by the conceptual framework on access to adequate maternal care (Fig. 1) (Levesque et al., 2013; Miteniece et al., 2019), which incorporates five access dimensions: availability, appropriateness, affordability, approachability, and acceptability. Both research instruments were originally developed in English and consisted of questions formulated around each access dimension, but specific wording was adjusted to correspond with the characteristics of different stakeholder groups. Translation to Polish was carried out by the main researcher and another independent researcher, who are both bilingual in English and Polish, using the forward-backward translation technique. To establish face-validity, the questionnaire and interview guide were discussed with several representatives from the target groups in Poland and textual adjustments were introduced in the Polish translation to adequately capture the essence of questions. Ethical approval was obtained before data collection from the Maastricht University Ethics Committee (REC application FHML/BEPH/2021.008).

Online survey

Respondents for the online survey were identified through 51 Facebook groups related to motherhood, pregnancy and/or childbirth, covering all voivodeships (regions) of Poland (Statistics Poland, n.d.). Since most of those groups perform member checks before admitting new members, permission to join a group for research purposes was sought where applicable. An invitation message with a link to the online survey was posted in every group, which allowed group members to participate in the study based on self-selection. Adult women who have experienced childbirth in Poland in the four years preceding this study (March 2017 – March 2021) were eligible to participate. Data collection lasted from 21st of March to 15th of April 2021 with a reminder message being sent to potential respondents after two weeks.

The questionnaire consisted of closed-ended questions regarding women's experiences of their most recent childbirth, organised around the five access dimensions to adequate maternal care. In addition, questions on socio-demographic characteristics and women's health during their last pregnancy were included to observe patterns in utilisation of and satisfaction with care among different socio-economic groups. The survey concluded with one open question allowing women to share relevant experiences and

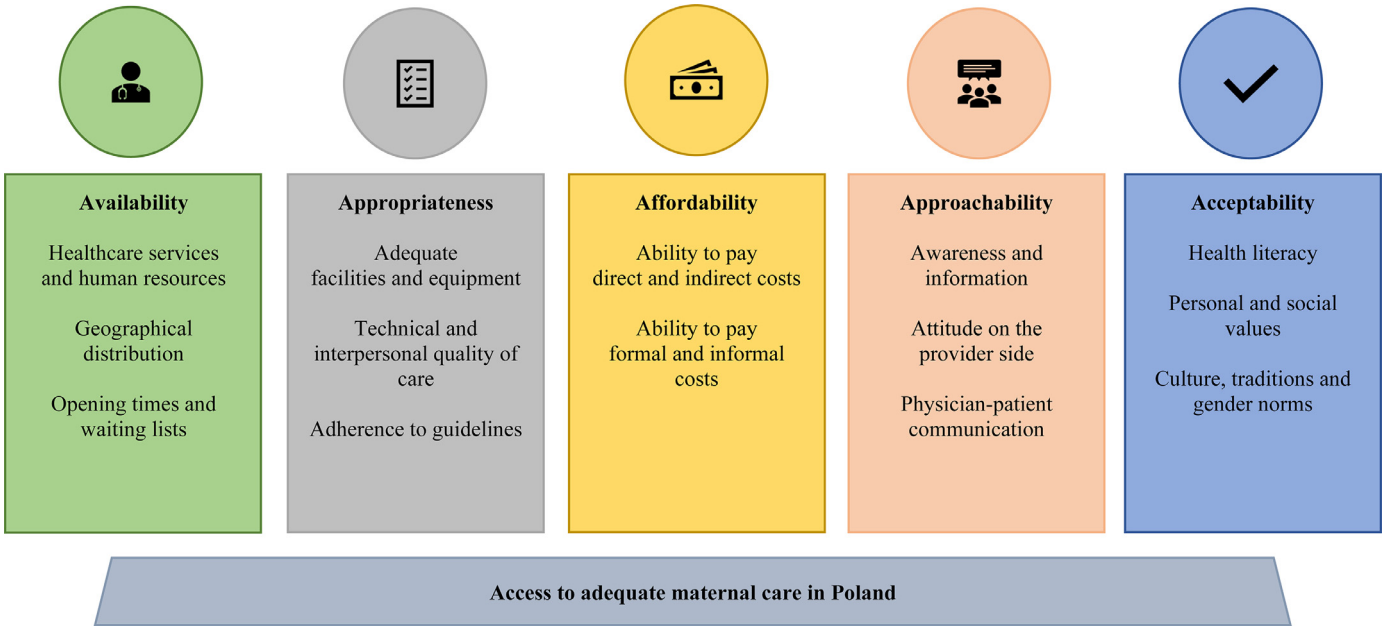

Fig. 1. Conceptual framework on access to adequate maternal care in Poland. Authors' compilation based on Levesque and colleagues (Levesque et al., 2013) and Author and colleagues (Miteniece et al., 2017).

voice their opinions in their own words. No personal data were collected as part of the survey (see Supplementary File 1). Before filling in the survey, women were asked for informed consent. The questionnaire was designed and disseminated using Qualtrics®.

In-depth interviews

The IDIs were conducted with healthcare professionals and decision-makers. Participants were selected through purposive and convenience sampling, based on their relevance in the field of maternal care and position in their respective organisations. Interview questions covered all five aspects of access identified in the conceptual framework and were designed to elicit the opinions of the stakeholders on accessibility of adequate maternal care in Poland. To explore the adequacy of maternal care more comprehensively, two additional questions were included referring to the registry of maternal deaths and use of maternal health guidelines for service provision (see Supplementary File 2). Interviews were conducted in Polish for ease of communication and to gain the most detailed information possible. They were held through online video calls, recorded (after obtaining the respondent's permission) and later transcribed by the lead author. During transcription, any personal data were anonymised and any details that may reveal the identity of the interviewed respondents were disguised. Before participating in the interviews, all respondents provided verbal and written informed consent (see Supplementary File 3).

Data analysis

Survey data were entered and cleaned in the software package IBM SPSS® Statistics version 27. Descriptive statistics were computed and analysed per access dimension specified in the conceptual framework (Fig. 1). The IDIs were read and analysed in their original language using a thematic analysis (Javadi & Zarea, 2016). Framework dimensions were used as coding categories and information was clustered accordingly. The combined findings from all three stakeholder groups allowed for identification of patterns in respondents' perspectives and exploring the extent of stakeholder consensus on barriers to accessing adequate maternal care. Detailed survey findings and a collection of respondent quotes can be found in Supplementary Files 4 and 5.

Results

Through the online survey, 770 responses were collected. Responses were removed when consent was not given and/or when answers to more than 10 out of 50 survey questions were missing. As a result, responses from 557 women were included in the study. Eight IDIs were conducted: three with healthcare professionals and five with decision-makers. Among healthcare professionals, two midwives and one gynaecologist/obstetrician were interviewed. Midwives represented both the public and the private sector, while the gynaecologist worked at a maternity ward of a public hospital. All three respondents came from different voivodships so that regional differences in maternal care provision could be addressed. In the decision-maker group, three voivodship consultants for midwifery and gynaecological nursing from different regions were interviewed. In Poland, voivodeship (health) consultants have control and supervision authority over the provision of health services and provide the Minister of Health and other administrative organs with expert opinions (Sowada et al., 2019). Two decision-makers had a managerial perspective, one respondent was a manager of a private maternity clinic and another of a public primary healthcare facility providing, among other services, ambulatory gynaecological and obstetric care. The main characteristics of the respondents are presented in Table 1.

Availability

Antenatal and childbirth care of good quality was available for 69.5% and 70.9% of women in the study, respectively. Women who received antenatal care only in the public sector more often regarded the available services to be of poor quality (19.6% in comparison to 10.7% for private and 13.2% for public/private mix) (see Supplementary File 6). In contrast, postpartum care was not always

Table 1
Main characteristics of respondent groups.

IDIs respondents' characteristics		(N)
Healthcare professionals	Midwife (public & private sector)	1
	Midwife (private sector)	1
	Gynaecologist/Obstetrician (public sector)	1
Decision-makers	Voivodeship consultants for midwifery and gynaecological nursing	3
	Management of primary healthcare facility	1
	Management of Maternity Clinic	1
Survey-respondents' characteristics		N (%)
Age during last pregnancy	Less than 20	5 (0.9)
	20-29	281 (50.4)
	30-39	264 (47.4)
	More than 40	7 (1.3)
Education level	High school or lower	107 (19.3)
	Vocational degree	13 (2.3)
	Bachelor's degree	107 (19.2)
	Master's degree or higher	330 (59.3)
Place of living	Voivodship capital city	167 (30.0)
	City other than voivodship capital city	242 (43.4)
	Village	148 (26.6)
Civil status	Single/divorced, living alone	10 (1.8)
	In a relationship, living with a partner	107 (19.2)
	Married, living with a spouse	440 (79.0)
Number of children	1-2	504 (90.4)
	3 and more	53 (9.6)
NET household income	0-3000	70 (12.7)
(in PLN; 1 PLN = 0.22EUR)	3001-4000	95 (17.1)
	4001-6000	178 (32.0)
	More than 6000	210 (37.7)
Last childbirth – when	1 year ago, or less	344 (61.8)
	2-3 years ago	181 (32.5)
	4 years ago	32 (5.7)
Last childbirth – where	Homebirth	5 (0.9)
	Public hospital	522 (93.7)
	Private hospital/clinic	28 (5.0)
	Birth centre/Other	2 (0.4)
Last childbirth – how	Vaginal birth	325 (58.3)
	Caesarean birth	231 (41.5)
Health complications during last	No	339 (60.9)
maternal period	Yes	218 (39.1)
Number of antenatal visits	No visits	7 (1.3)
	1-6	26 (4.6)
	7-8	88 (15.8)
	9-10	166 (29.8)
	11 and more	269 (48.3)
Number of postpartum visits	No visits	44 (7.9)
	1-2	175 (31.4)
	3-4	211 (37.9)
	More than 4	127 (22.8)
Maternal care sector utilised		
Antenatal care	Public	107 (19.2)
	Private	252 (45.2)
	Mix	197 (35.4)
Childbirth care	Public	507 (91.0)
	Private	28 (5.0)
	Mix	21 (3.8)
Postpartum care	Public	409 (73.4)
	Private	47 (8.4)
	Mix	99 (17.8)

available for nearly 25% of women and in the open question section, one woman stated:

> *"...the 'help' of a lactation consultant in the hospital was insufficient" (Woman)*

According to the interviews with healthcare professionals and decision-makers, almost all pregnant women are cared for by a gynaecologist/obstetrician in the antenatal period. They indicated the "grossly inadequate financing" from the NFZ as the reason why midwives rarely provide care for women in physiological pregnancies and why there is limited availability of midwifery services in the postpartum period. They also added that lactation counselling is increasingly commercialised and often provided by insufficiently trained personnel, highlighting the need for trained lactation counsellors to be accessible within the public maternal care sector.

> *"We work 8 hours a day and are able to do four professional postpartum visits in the patient's home…together that is 120 PLN [~26EUR] before tax, this doesn't even cover the fuel costs to travel" (Midwife, public & private sector)*

Furthermore, 24.4% of women in the survey experienced barriers related to waiting lists, referrals, and opening hours of facilities and 13% faced barriers due to geographical distance, transportation, or travel time. Another 23% of women experienced certain maternal care services in their area of residence as unavailable, indicating a lack of specialist care and prenatal education as most inaccessible.

"It is very difficult to find a facility which offers an epidural for vaginal birth, in my region it is practically impossible." (Woman)

In the interviews, it was confirmed that shortages of healthcare providers constitute a major barrier to accessibility. Emigration of trained personnel, providers switching from public to private sector, and overworked staff showing signs of burnout were indicated as reasons behind insufficient availability of human resources, especially anaesthesiologists. However, most decision-makers considered the availability of prenatal classes run by midwives as sufficient.

"My colleagues work 36 to 72 hours on consecutive shifts … people are overworked and would qualify for burnout but are still working." (Gynaecologist/Obstetrician, public sector)

Almost one in three women reported having experienced shortages of healthcare professionals, most often of midwives (15%) and gynaecologists (10%).

"Lack of specialists in the public sector. Critical shortage, despite severe complications during pregnancy. Access to a diabetologist was vital for me." (Woman)

Healthcare professionals and decision-makers agreed that waiting times for specialist services outside of obstetrics (e.g., endocrinologist, diabetologist) in the public sector are too long and act as barriers to receiving adequate care.

Appropriateness

Women were most satisfied with the quality of antenatal care (77.9% satisfied or very satisfied), slightly less satisfied with care during childbirth (73%), and least satisfied with postpartum care (61.4%).

"Postpartum care in hospitals is, in my opinion, of very poor quality and the older healthcare staff is not up-to-date with current medical knowledge." (Woman)

"Post-childbirth care in the hospital was the worst. The older midwives had a bad attitude, like back in the communist time." (Woman)

Similarly, 88.3%, 83.7%, and 69.7% of women were satisfied with providers' skills in the antenatal, childbirth, and postpartum periods, respectively. Healthcare professionals and decision-makers regarded quality of care to be largely dependent on the qualifications of providers and financial capabilities of care facilities. Providers were generally perceived as qualified, but limited access to follow-up training was reported by two respondents. Consequently, some providers might not be up-to-date with current medical knowledge and practice, inhibiting their range and quality of services. Of all women in the study, 6.3% reported provider's lack of knowledge and 9.5% a lack of medical attendance as reasons for dissatisfaction with provider's skills. Regarding financial capabilities of care facilities, a few decision-makers and one healthcare professional acknowledged that some facilities, such as county hospitals or public outpatient facilities, may not have enough funds to purchase equipment with quality equivalent to the one present in voivodeship and university hospitals.

"Those smaller hospitals are quite disadvantaged, have fewer financial capabilities, worse equipment, less qualified staff who have a lower range of skills." (Voivodeship consultant)

From a policy perspective, professionals and decision-makers claimed that the PCS have the potential to ensure the provision of excellent quality care – if adhered to properly. However, most respondents identified shortcomings in compliance, partially due to insufficient monitoring.

"…this law exists but it largely depends on the good will of providers if they want to comply with it." (Midwife, private sector)

Disrespectful verbal and physical behaviour from the healthcare staff was reported by 25.5% and 15.1% of women in the study, respectively.

"I was treated badly because of my tattoos. I found out from the healthcare staff that I would be a hopeless mother and that I looked terrible. I experienced all of the unpleasant situations in the public hospital. To punish me for my tattoos, healthcare staff punctured me in my hands numerous times, mocking me and saying that I like needles either way." (Woman)

Another 25.3% regarded the medical staff to be inattentive and inaccurate. One healthcare professional mentioned that long working hours, and the resulting fatigue of staff, increase the likelihood of medical errors and inappropriate behaviour. All healthcare professionals and some decision-makers admitted that providers could sometimes be disrespectful, especially during childbirth care. Most healthcare professionals and decision-makers regarded the appropriateness aspect of care to be largely dependent on the human factor.

"Women should be treated with dignity, instead they are often insulted and ridiculed – I was an eyewitness of such situations…" (Woman)

Women were largely satisfied with conditions in facilities (74.5%), while professionals and decision-makers identified significant improvements in recent years. For those women who were dissatisfied, substandard quality of bathrooms was the main reason (73.9%). At the same time, decision-makers confirmed that some women find the corridor location of bathrooms in the post-labour units inconvenient. Another 53.5% of dissatisfied women perceived the post-labour units as substandard. Professionals and decision-makers remarked that while individual childbirth rooms allow for an intimate experience of childbirth; shared post-labour units often impede the provision of personalised and intimate care.

"There are four women in the post-labour room, at night I need to attend to one of them, the second one has problems with breastfeeding and the baby is crying, and the third one is trying to fall asleep as she has just managed to put her baby to sleep, so it is rather problematic." (Gynaecologist/Obstetrician, public sector)

In our sample, 41.5% of women gave birth through a caesarean section. Professionals and decision-makers agreed that the proportion of childbirths through caesarean sections is too high and some of them perceived childbirth care to be highly medicalised, despite the requirements outlined in the PCS to limit medical interventions to only essential ones. Healthcare professionals and decision-makers claimed that procedures of reporting maternal deaths are accurate, explaining that each case is investigated by prosecutors to explain the causes of death and check for medical errors. Both stakeholder groups regarded maternal deaths as incredibly rare, isolated incidents, which they have sparsely experienced in their professional career.

Affordability

According to professionals and decision-makers, maternal care in the public sector is free of charge for all women. Public maternal care providers cannot charge patients for services as, according to the Polish law, co-payments would result in the differential treatment of patients.

"In the public sector, maternal care services are free ... if a woman decides to receive care in the private sector it is her own choice and then she needs to pay." (Voivodeship consultant)

In our sample, 63.9% of women made out-of-pocket payments for maternal care. Of those, 37.6% paid 500-2000PLN (~110-440EUR), 32.1% paid 2000-5000PLN (~440-1100EUR), and for 6.8% total payment was higher than 5000PLN (~1100EUR). Payments were mostly made in the antenatal period for check-ups (70.4%), medications (63.2%), ultrasounds (62.8%), blood tests (62.8%), and visits to other specialists (43.4%). Given the high amount of out-of-pocket spending, women found maternal care to not always be affordable. Payment obligations resulted in a financial burden and underutilisation of maternal care for 8.6% and 5.4% of women, respectively.

"I don't understand why we pay social health insurance if when you need to get care urgently you need to go to the private sector ... my budget was not big, and yet I always had to find the money for check-ups." (Woman)

Yet, professionals and decision-makers did not perceive the current payment levels to result in underutilisation of maternal care. They explained that if women could not afford private visits, they could always seek care in the public sector where maternal care services are guaranteed. However, according to some respondents, the time when care is provided might differ between the sectors due to limited availability of services and longer waiting times in the public sector.

Using personal connections to receive adequate maternal care was reported by 42.5% of women in the study. Such informal practices were largely used to secure friendly provider's attitude (54.8%) and better quality of services (50.6%), as well as to have timely access to care (40.9%). Several professionals and decision-makers linked them to women's lack of trust towards providers and identified an additional way in which women seek quality and better attitude, claiming that women choose private antenatal care from an obstetrician who also works in a public hospital (as providers are allowed to work in both sectors simultaneously). Those women hope that the presence of the obstetrician during childbirth will ensure higher (interpersonal) quality of care. According to those respondents, this is sometimes the case.

"Allowing women to 'buy quality' for example when the first patient to be admitted is the one who received private antenatal care from a physician who is a department head in our hospital … this is the definition of social inequality." (Gynaecologist/Obstetrician, public sector)

The majority of women in the study (90.5%) did not make informal payments for maternal care. Those who did, mostly reported giving gifts after childbirth as a sign of gratitude. Professionals and decision-makers also observed a substantial decrease in informal cash payments for maternal care, yet admitted that gifts or flowers are still given with varying frequency. A few decision-makers attributed this decrease to the out-of-pocket spending for private antenatal care as a new approach to ensure quality in public hospitals. However, a few healthcare professionals and one decision-maker noted that informal payments for performing caesarean sections without clear medical justification still take place and, in some regions, are normalised.

Approachability

Women were most satisfied with the attitudes and communication from antenatal care providers (78.7% [very] satisfied), slightly less satisfied with childbirth care (71.9%), and least satisfied with postpartum care (60.9%). As reasons for dissatisfaction, women mostly reported being provided with no or little information and explanation (20.6% of all women in the study). Another 13.8% of women indicated that maternal care providers were unable or unwilling to provide answers to their questions. Provision of sufficient information was rated best for antenatal care (83.8%), worse for childbirth care (74.5%) and worst for postpartum care (64.3%).

"I had to guess or look many things up on my own in order to be more aware - it was my first pregnancy." (Woman)

"I was particularly displeased with the insufficient information provided by gynaecologist during antenatal visits and the lack of respect for the birth plan." (Woman)

All professionals and decision-makers identified insufficient information provision as a problem and indicated lack of time resulting from staff shortages and high levels of bureaucracy as the main contributing factors. They agreed that – while the medically necessary information is always communicated – there is little-to-no time for further explanation or provision of satisfactory answers to women's questions. Despite the substantial improvements to the attitudes of maternal care providers in recent years, observed by all professionals and decision-makers we interviewed, some claimed that the attitudes are still an issue in Poland. Other decision-makers either did not comment on or did not observe any shortcomings to the current patient-provider relationships.

"I know providers who have a wonderful attitude towards women … but there are also providers who do not say anything and then such a patient leaves the hospital feeling uninformed, displeased, and with knowledge gaps." (Voivodeship consultant)

Disrespectful verbal behaviour and negative attitude from healthcare professionals were experienced by 18.1% and 12.6% of women, respectively.

"I had to choose private healthcare after my experiences with public care. Being a medical doctor myself, I was terrified of how women are treated at public maternity wards…" (Woman)

Some professionals and decision-makers admitted that instances of disrespectful verbal and (to a lesser extent) physical behaviour still take place and significantly influence women's experience of care. Engaging in such behaviours or presenting a negative attitude towards women was seen as a person-specific trait and not as a practice of all maternal care providers.

"...verbal abuse … still persists. Recently, my patient told me how during contractions the doctor told her to "shut up a bit because he needs to focus" and then turned the radio on at full volume." (Midwife, public & private sector)

Acceptability

The majority of women in the study perceived receiving maternal care services in the antenatal, childbirth, and postpartum period as important: 91.7%, 91.9%, and 91.2% respectively. Professionals and decision-makers claimed that, in general, the need for maternal care among women in Poland is high and is visible already in the early stages of pregnancy, when women carefully choose their maternal care providers.

"I think Polish women want to be under medical care very much, this is the culture in Poland and the philosophy of maternal care: we do a lot of visits, tests and examinations, and women also expect this." (Midwife, private sector)

"Being aware that my pregnancy is high-risk, I looked for a facility that would provide adequate services." (Woman)

To retrieve information about maternal care, women turned to (online) reading materials (70.9%), healthcare professionals (62.7%), social media platforms (47.4%), and social networks of family and friends (47.4%), while 39.5% reported attending organised prenatal education courses. Professionals and decision-makers emphasised that information retrieved from the Internet, social media, and social networks is not always adequate and needs to be filtered and consulted with maternal care providers. While 69.1% of women perceived themselves to be (very) well informed about the necessary maternal care and available services, the remaining 30.9% experienced knowledge and information gaps during their last maternal period. Professionals and decision-makers claimed that women are often aware of and engage in health-promoting behaviours during pregnancy and in the postpartum period. However, awareness about available maternal care services, in particular midwifery services and prenatal education, was perceived as low due to insufficient communication with maternal care providers and an inadequate preparation for motherhood in schools. In addition, sizable gaps in women's sexual and reproductive health literacy were identified and were also linked to a lack of proper (sexual health) education in schools.

> *"I think there are big knowledge gaps in relation to reproductive health … women's knowledge is insufficient; it often does not even correspond to high school level of knowledge." (Voivodeship consultant)*

Very few women indicated cultural or religious factors, gender norms or family traditions as barriers to seeking and receiving adequate maternal care. However, personal beliefs prevented 16.3% from obtaining the relevant services. While professionals and decision-makers did not mention significant acceptability barriers related to gender norms or family traditions, some indicated politics, dominant religion, and culture as factors shaping the provision of maternal care, in particular restrictive abortion laws and the philosophy of protecting life from the moment of conception. A few respondents noted that women sometimes refuse prenatal genetic testing because the decision about potential pregnancy termination is not theirs to make.

> *"...in case of doubt, we can perform more detailed examinations, but then women ask: What happens next? I will have the test result and what will I do with the knowledge that there is an abnormality?" (Voivodeship consultant)*

Moreover, one decision-maker claimed that, in case of foetal abnormalities, providers are increasingly hesitant to perform intrauterine surgeries as they fear being accused of abortion if the surgery fails. Consequently, legal availability of one service was seen as impacting the acceptability of another service.

Discussion

This study aimed to investigate the barriers to accessing adequate maternal care in Poland and identify the degree of stakeholder consensus on what are the main shortcomings of the Polish maternal care system. Results indicate that – despite substantial improvements in recent years – not all women have equal access to good quality care. Even though public maternal care services are guaranteed by state insurance, affordability might be problematic given that the majority of women sought care in the private sector (63.9%), causing catastrophic payments (i.e., out-of-pocket payments that are disproportionate to a family's total income or consumption) for 8.6% of women in the study. Furthermore, the combination of a shortage of maternal care providers, the common sub-standard compliance with the PCS, and the high prevalence of poor communication skills create an environment in which adequacy of care – according to the conceptual framework on access to adequate care – can be characterised more as an outlier than a norm.

For approachability, results point towards considerable inadequacies in the interpersonal aspect of care, supporting previous findings (Adamska-Sala et al., 2018; Baranowska et al., 2019). Substandard quality of patient-provider communication, a derogatory attitude of providers, insufficient information provision, and failure to provide women-centred maternal care were highlighted by women, healthcare professionals and decision-makers. According to the WHO, such behaviours can be characterised as a violation of women's rights to respectful care and of their fundamental human rights (World Health Organisation, 2015a). These problems appear to be universal across Central and Eastern European countries, yet are most often inadequately addressed by their respective governments (Miteniece et al., 2017). In addition, a recent study in Poland found that communication and support from healthcare providers are the most important factors influencing women's satisfaction with childbirth care (Kiersnowska et al., 2021). Therefore, it is vital to establish a set of measurable and binding quality indicators that incorporate patient satisfaction as well as provide communication training to medical professionals in order to ensure equal access to respectful and dignified maternal care (Miteniece et al., 2017).

For affordability, results show high demand for maternal care services, a high prevalence of out-of-pocket payments, and informal ways of assuring access to and quality of care. Reportedly, this high demand partially stems from a lack of trust of providers and translates into women seeking care in the private sector. According to previous research, private care is not only used by women for the services explicitly, but more to establish a social relationship with healthcare providers (Węgrzynowska, 2021). Consequently, women avoid the feeling of anonymity because "being anonymous to hospital staff put[s] them in a vulnerable position, prone to mistreatment and disrespect" (p.329) (Węgrzynowska, 2021). In this study, more than 40% of women used their personal connections to have faster access to care or ensure higher quality of services and a few professionals, decision-makers and women admitted that such "private patients" are treated differently by providers both in the private and the public sector. Furthermore, this study substantiates the previous findings of how payments in the private sector have replaced the informal payments to receive more attentive care, and how financially disadvantaged women are disproportionately affected (Węgrzynowska, 2021). Regrettably, socio-economic inequalities in access to maternal care are said to have further worsened in the course of the COVID-19 pandemic (Węgrzynowska et al., 2020), and one example of systemic discrimination against women with limited financial resources was requesting a negative COVID test result from women's partners should they want to support women during childbirth, with such tests being available only on a fee-for-service basis.

Regarding availability of care, all respondents identified overall shortages of maternal care providers, especially midwives, and long waiting times for specialist care outside of obstetrics. Among women in the study, 30.2% experienced provider shortages and 42.5% resorted to private healthcare for other specialists. OECD data confirm that Poland is facing an alarming shortage of health professionals, with the physician-patient ratio being the lowest out of all EU countries (OECD and European Observatory on Health Systems and Policies, n.d.). Unfavourable working conditions, low salaries, and high workload contribute to the emigration of trained personnel and discourage new professionals from entering the medical field. Only 17% of public out-patient gynaecology and obstetrics clinics are located in rural municipalities, while these municipalities account for around 40% of all women and new-borns (Supreme Audit Office, 2018). Moreover, although the NFZ established baseline requirements surrounding medical personnel that needs to be present in hospitals, these requirements are insuffi-

cient relative to the demand for healthcare (Radgowski, 2017). Professionals and decision-makers further stressed how this situation negatively affects the quality of patient-provider communication because – as a result of time restrictions – the flow of information is disrupted. Consequently, women often remain passive care recipients instead of being actively engaged in decision-making.

For appropriateness, all professionals and decision-makers agreed that the proportion of caesarean births is too high, which is illustrated by the fact that 41.5% of women in the study gave birth through a caesarean section, in line with the national prevalence of 44.8% (Statistics Poland & Statistical Office in Krakow, 2021). To counteract the progressing medicalisation of childbirth and ensure the provision of evidence-based care, professionals and decision-makers in this study consistently expressed the need for better compliance with the PCS and introducing quality monitoring instruments. For several years, maternal care researchers and NGOs and the Polish Ombudsman for Citizen Rights have stressed the need for public institutions to conduct quality controls based on standardised indicators (Adamska-Sala et al., 2018; Baranowska et al., 2019; Rzecznik Praw Obywatelskich, 2017). Additionally, the medicalization of maternal care may lead to the objectification of women, inadvertently reducing their ability to make independent decisions concerning pregnancy and childbirth and effectively making them lose control over their own bodies (Doroszewska, 2016). In this study, this is reflected in the ways maternal care providers communicated with women, failing to provide comprehensive information. On top, care providers were found to repeatedly perform medical interventions without women's consent (Adamska-Sala et al., 2018). Women's loss of autonomy over reproductive health in Poland is further evidenced by recent changes to the already restrictive abortion legislation (Sobczak, 2020). In January 2021, pregnancy termination in case of foetal abnormality was delegalized, even though evidence is conclusive on the fact that restrictive abortion laws do not prevent terminations, only decrease their safety, thus jeopardising women's health (Bearak et al., 2020; Ganatra et al., 2017). Some professionals and decision-makers in this study explained how this recent legislative change already caused further underutilisation of prenatal testing since the decision about potential pregnancy termination has already been made by the government. Moreover, given the limited access to and use of modern contraception (Hussein et al., 2018), women in Poland are left with little-to-no ability to make autonomous decisions regarding their reproductive and maternal health.

Finally, in terms of acceptability, less than half of women reported attending organised prenatal education classes despite their sufficient availability – a phenomenon also documented in other studies (Adamska-Sala et al., 2018; Radgowski, 2017). Consequently, professionals and decision-makers argued that girls should be educated about motherhood and the role of a midwife in women's life already in school, while some further advocated for sexual health education, identifying sizeable gaps in women's reproductive health literacy. As it stands, Polish youth does not have access to evidence-based sexual education but is encouraged to attend "Education for Family Life" classes in which one specific model of family – determined by tradition and Catholicism – is promoted and harmful stereotypes about sexuality are propagated (Dec, 2014; Jewtuch, 2020). Furthermore, professionals and decision-makers noted that care during pregnancy is almost exclusively provided by gynaecologists/obstetricians. While women in this study were not asked who their antenatal care provider was, another study found that only 1.6% of women declared a midwife as their antenatal care provider (Adamska-Sala et al., 2018). Professionals and decision-makers attributed this largely to underfunding of midwifery services, low awareness about midwifery care, and lack of confidence in midwives' qualifications, problems which are consistently stressed in previous studies (Fryc et al., 2018; Leja-Szpak et al., 2018; Supreme Audit Office, 2018). Consequently, there is a well-documented need for introducing comprehensive sexual and reproductive health education in schools, as well as remuneration of midwifery services adequate to the costs of care provision.

Strengths and limitations

The mixed-methods research approach facilitated a detailed and informative description of barriers to accessing adequate maternal care. However, the sampling methods hampered generalisation of findings to the entire population. Only women active on Facebook groups concerning pregnancy were able to participate in the study through self-selection and professionals and decision-makers were largely selected through convenience sampling, which might give rise to selection bias. As such, potential improvements for further studies include the use of household surveys among women and purposive sampling for the interview participants. To minimise recall bias, only women who gave birth in the last four years were invited to self-select in the study and professionals and decision-makers were actively involved in the maternal care field. Additionally, we need to consider the possibility that some women might not have participated in or finished the survey due to disproportionate distress from recalling past childbirth experiences. Even though data collection and analysis were performed by a single researcher, researcher bias was minimised and correct interpretation of findings was warranted through triangulation with a team of researchers experienced in the field. Finally, a substantial strength came from involvement of three stakeholder groups which made it possible to triangulate findings and allowed for their validation.

Conclusion

The most prominent barriers to accessing adequate maternal care in Poland, according to this study, consisted of inadequate provider communication and attitudes, presence of out-of-pocket payments and informalities in assuring quality of care, substandard compliance with maternal care standards, and shortages of maternal care providers. These barriers together create an environment in which adequacy of care – according to the conceptual framework on access to adequate care – can be characterised more as an outlier than a norm. Addressing the abovementioned barriers by, for instance, effectively (re-)allocating funds to specific maternal care services could facilitate access to adequate care. Other relevant strategies to improve maternal care in Poland include introducing mandatory training for maternal care providers on the provisions of the PCS, or conducting binding quality controls by public institutions.

Ethical approval

Ethical approval was obtained from the Maastricht University Ethics Committee (REC application FHML/BEPH/2021.008).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRediT authorship contribution statement

Alicja Mastylak: Conceptualization, Methodology, Data curation, Formal analysis, Investigation, Validation, Writing – original draft, Writing – review & editing. **Elina Miteniece:** Conceptualization, Methodology, Validation, Writing – original draft, Writing – review

& editing, Supervision. **Katarzyna Czabanowska:** Writing – review & editing. **Milena Pavlova:** Writing – review & editing. **Wim Groot:** Writing – review & editing.

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Supplementary materials

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