

Barriers to achieving quality birth care under the Sentinel Care model in Mexico

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Abstract

Objective. To explore the use of birth care in a Sentinel Unit. **Materials and methods.** We interviewed eight health providers and 12 female users of health services to explore the main reasons to use birth care in a Sentinel Unit. **Results.** Findings indicate that the reasons for which health providers do not attend births were fear of legal claims by users, lack of institutional support if complications arise, lack of training, not feeling confident in obstetric care, and the lack of necessary supplies. Female users mentioned the perception of a lack of trained physicians and a lack of necessary materials and medicines. **Conclusions.** Despite the strengthening of the infrastructure and human resources, as well as a 24/365 model attention and the increase of health personnel in the sentinel units, there are still significant barriers in certain units to achieve compliance with coverage of quality obstetric care focused on the needs of women.

Keywords: obstetric labor; primary health care; quality of health care; Mexico

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Resumen

Objetivo. Explorar el uso de la atención obstétrica en una Unidad Centinela. **Material y métodos.** Se entrevistó a ocho proveedores de salud y 12 usuarias de servicios de salud para explorar las principales razones que definen el uso o la falta de atención obstétrica en una Unidad Centinela. **Resultados.** Los principales hallazgos indican que las razones por las cuales los proveedores de salud no atienden los partos fueron el temor a las demandas legales por parte de los usuarios, la falta de apoyo institucional si surgen complicaciones, la falta de capacitación, la falta de confianza en la atención obstétrica y la falta de insumos necesarios. Las usuarias mencionaron la percepción de falta de médicos capacitados y falta de materiales y medicamentos necesarios. **Conclusiones.** A pesar del fortalecimiento de la infraestructura y el recurso humano, así como un modelo de atención 24/365 y el aumento de personal de salud en las unidades centinela, aún existen barreras importantes en ciertas unidades para lograr el cumplimiento de cobertura de una atención obstétrica de calidad centrada en las necesidades de las mujeres.

Palabras clave: atención del parto; atención primaria de salud; calidad de los servicios de salud; México

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Maternal health is one of the priorities considered within the Millennium Development Goals (4th objective) and the United Nations Sustainable Development Goals (3rd objective).¹ The Pan American Health Organization (PAHO) indicates that 95% of maternal deaths are preventable if there is timely, dignified and quality health care, and when women have correct information regarding the timely recognition of signs and symptoms of obstetric emergency.²

Even though the Mexican State has made efforts to reduce maternal mortality ratio (MMR), and almost 98% of childbirths are attended in hospitals (second level of attention), this phenomenon continues to represent a public health problem with a MMR of 39.4: higher than the international recommendations of World Health Organization (WHO) and PAHO.^{2,3}

In Mexico birth care attention in public health services is mainly given by medical staff (medical students and nurses, who usually only help doctors), it is common for obstetricians to attend births only in case of any complications. For most of the Mexican women (around 60%) the option is to attend a public health service during pregnancy, birth and immediate postpartum. Women cannot choose their health service provider but must go to the health center in their area of residence and those doctors are the ones who will refer them to the hospital where they must go to attend their birth. This attention is free if women attend pregnancy consultation since first trimester.

By 2013, the proposed international target was to decrease MMR to 22.2 maternal deaths per 100 000 live births. In Mexico, between 1990 and 2013, there was an important reduction from 88.7 to 38.2, equivalent to 50.5 maternal deaths per 100 000 live births: still a high figure according to the millennium goals.⁴ Additionally, throughout the country this problem shows significant discrepancies by geographical areas. In the areas with greater poverty, illiteracy, speakers of indigenous language, lower human development index and greater degree of social lag, the risk of death for women during pregnancy, birth, or puerperium is four to seven times greater.⁵

Data indicates that there is a need to achieve attention of non-complicated births in first level health services and improve quality of attention. A proposal to confront this situation is that the primary care level (health centres) should attend all non-complicated births when qualified medical personnel are available. In the case of complications birth should be carried out in a secondary care unit (hospitals) or with support from a tertiary unit (specialized services).⁶⁻⁸

The Sentinel Attention Model 24/365 (SAM 24/365)⁹ constitutes a care model with a social ap-

proach which aims to improve access and coverage of health services and strengthening of health promotion, disease prevention, and obstetric care at the primary level.¹⁰ The principal components of the model are the timely detection of obstetric risks and the consequent reference to the second level of attention, and the attention of non-complicated vaginal births in the primary care level, which diminishes the overload in secondary care.

SAM 24/365 involves obstetric care for low-risk pregnancies attended at the primary care level, with attention to patients 24 hours a day and 365 days a year in spaces called Sentinel Units (SU). This model has been in place since 2014 in Morelos, Mexico, and as a result, the MMR has decreased significantly (MMR 74.1 in 2002 to MMR 9.1 in 2014).¹¹ The SU were implemented in existing medical units of the first level of care that serve a population that does not have social security and does not have the ability to pay to use the private sector.

This paper focuses on the results of a study that explored the perceptions of health providers and female users regarding the coverage of obstetric care in a SU. We also explored whether the obstetric care given matched the proposals of the model, and which factors limited the use of the service.

Materials and methods

During 2016-2017, we carried out a qualitative study to identify, explore and understand the aspects that prevented women from seeking obstetric care at the SU. In addition, we explored the reasons why health providers decide against attending non-complicated births at the SU, referring women instead to the secondary level. This paper only reports the information corresponding to the qualitative component of the study.

We worked with two groups of social actors: 12 female users of health services and eight providers of childbirth care. The first group included six pregnant women who came to receive prenatal care at SU, within a period from June 1st, 2015, to the end of July 2016; it also included six women (postpartum care users) who come for paediatric consultation for their babies. The second group was made of health providers from the SU (physicians and a manager).

The inclusion criteria of the female users were having a clinical record in the unit, belonging to the user registry corresponding to the unit, providing written informed consent for the semi-structured interview and with non-complicated pregnancies, neither birth. In the case of medical staff, the criteria were working at the SU at least six months prior to the study and provision of written informed consent for the semi-structured interview.

To collect the data, we designed semi-structured interview guides for both women users and health providers. The interviews included specific questions aimed to understand the perception of the users regarding barriers involved in the use of obstetric service in the unit, as well as the perception of health providers about why female users decide not to use the service, and their opinion about factors that could prevent seeking obstetric care in the SU. The average time per interview was 30 minutes. A trained researcher carried out the interviews in the women's homes and in the unit's office for health service providers. With prior written informed consent assuring data confidentiality. We recorded and transcribed all interviews for later analysis.

Information collected in the interviews was analysed from a phenomenological approach using content analysis based on comparative data matrices looking for recurrences (patterns) and differences (variations) on the perception of barriers to seeking attention in the SU.

The ethics and research committees of the *Instituto Nacional de Salud Pública* (INSP) and by the Morelos State Health Services Research Council approved this study [Cuernavaca, Mor., January 18, 2017 Protocol number: 273]. In accordance with the Nuremberg Code, we explained and respected participants' rights. We requested informed consent from all the participants in the study. Participation was voluntary, participants did not receive any benefit or encouragement, and they had the option to withdraw at any time if they wished to do so.

Results

The average age of the female participants was 24 years old, most completed secondary education, and the majority were dedicated to housework and had no income, thereby depending on their partners or parents for support, especially after birth (67%). Most interviewed health providers were female physicians (75%) and 60% had worked less than a year at the UC. Additionally, we interviewed one shift manager.

Interviews with female users of health services during and after pregnancy

Pregnant users

When inquiring about where they planned to attend their birth, most women said it would not be at the SU, highlighting the fact that physicians themselves suggest delivering elsewhere during prenatal consultations.

In fact, they told me that I had to go to the Hospital, but I am not interested in going there [because of the distance]. As I said, the physicians automatically send us to the hospital: it is not our decision (User 4)

Women's perception of obstetric care coverage in the Sentinel Unit

Most female users believed that despite the schedule of attention (24 hours the 365 days a year) and the physical remodelling of the unit the implementation of the Sentinel Care Model has failed to increase obstetric care coverage.

Indeed, it has remained pretty much the same. When we go to the emergency room there is no doctor, there is no nurse, or there is no material... so there is no one to care for patients... (User 3)

Care of medical staff

In relation to the care given by the SU medical staff, most women agreed that sometimes the staff addresses them without the necessary kindness. However, when exploring whether they would like to attend their birth at the SU, the vast majority agreed, especially due to the proximity to their communities.

Postpartum care users

Even though all participants reported having their birth control consultation at the SU, when inquiring about the place where they finally attended their birth, we found that none of them had attended their birth in the SU. Half of the participants mentioned that the reason they do not receive attention at the SU was due to the medical staff referring them to the secondary level of care. Others claimed not knowing the sentinel unit can give birth care.

They send us to the hospital from the beginning of the pregnancy consultations. We went [husband and woman] to the follow-up consultation and I was going through labour pain, and they gave me a form for hospital admittance and told me that I had to go to the Hospital (User 4)

Reasons for not seeking for obstetric care in the Sentinel Unit

Both prenatal and postpartum control respondents commented on the lack of supplies for obstetric care in the unit as a reason for not seeking for care.

Women feel insecure of the attention in this Unit due many times there is not enough material or personnel, and this might be a problem in case labor gets complicated (User 1)

When questioned about their opinion of the attention from the health personnel (physicians and nurses) a common answer was that they do not fully trust in their capacities, because frequently the personnel who attend birth are students still in training and not experienced physicians.

Medical care

Regarding medical attention during birth, some interviewees mentioned being unable to respond because they were unaware of obstetric care in the unit, and some said that they were not sure if the SU has the necessary equipment to offer obstetric care.

The truth is that I do not know if they can give birth attention here, I do not know if they have what is necessary or not (User 2)

When asked about whether the medical staff gave them confidence in giving birth in the SU most expressed distrust due to the constant rotation of the medical staff.

The fact that they are constantly changing them makes one not confident (User 1)

Interviews with health service providers

When exploring familiarity with aspects of the program (knowledge, strategies, etc.), everyone agreed that it consists of 24-hour medical care, 365 days a year. However, only one of the doctors (female) mentioned that this model has a perinatal component.

It is a zero-rejection health centre, attending all types of consultations, all types of reasons and, above all, this labour care, attention to women and babies (General Physician)

About whether they considered that obstetric care provision has increased with the implementation of the sentinel care model, most of the interviewees said that they did perceive an increase, and that they have not achieved the expected goal of births attention.

Yes, we do attend more births; even so, we have not fulfilled the requested number of births... (General Physician)

Training

Most of the doctors mentioned having just one training course related to obstetric care, and that they have received it from the public health services of Morelos. Within the course contents, they mentioned "Obstetric haemorrhage", "Obstetric emergency", "Humanized birth, and "Neonatal resuscitation".

There was a course of humanized birth here in the unit and the state health services were the responsible party: that is the only training I have (General Physician)

Obstetric attention provided by medical personnel

Most of the physicians reported not having attended any birth in the last year and some mentioned having assisted in providing the care.

Well, really, none. I have helped, because right now, there is a midwife, but anyway we enter two or three doctors and between the three of us, we organize ourselves to attend births (Physician consultation)

Reasons for not providing birth care

Among the reasons considered by health service providers that prevent them from giving obstetric care at UC, the lack of personnel training stands out.

The staff working here are poorly trained, we lack additional information, and above all, in general, improvement of the doctor-patient bond (General Physician)

Other reason is feeling insecure because providers believed that in case of a problem during birth (or even a lawsuit) they would not have support from the Health Services of Morelos.

We do not feel security or support from... I think we are alone in any of those cases (Assigned Physician)

They also mentioned the lack of material resources as another important factor for the lack of birth care provided in the SU.

Mainly the lack of medication ... the lack of resources makes us not attend births, a while ago I had a woman in labour, but we had no oxygen, no medication and it was just me and the nurse, so I sent her immediately [to the Hospital] (General Physician)

Physicians consider that some pregnant women do not seek obstetric care in the SU because:

They decide to go with midwives, or they arrive here and ask for a pass to give birth at the Hospital, saying they like the care they receive there (General Physician)

Likewise, they mention that the users perceive the lack of resources, which is another reason why they choose not to give birth at the SU.

Well, I think people finally realize it, don't they? In addition, they know that sometimes we do not even have medication (General Practitioner)

When exploring if they believe that interviewees might have fears which prevent them from seeking attention for non-complicated births at the SU, the vast majority mention that the greatest fear is that complications could arise. Additionally, they emphasize their own lack of knowledge about following the protocols established in the program.

That the pregnancy is complicated, or that there are complications with the baby, and that there is a lack of medication or material; just yesterday, we had neither vitamin K nor some medication for patients (General Physician)

Nearly half of the physicians mentioned that if they had the option of attending a birth, they would choose not to do it, mainly due they fear complications might arise.

I prefer not to attend a birth, and I will tell the women that here we do not have the necessary supplies to care for a birth in case of an emergency (General Physician)

Discussion

The main finding of this study is that, although the proposal of SU for the care of non-complicated births is a strategy to ensure that primary care level take charge of obstetric care, thereby contributing to the reduction of overload and demand in the secondary level, there are important barriers to its execution.

Health providers highlight the following barriers: lack of staff, training, supplies and institutional protection in the case of medical complications. The female users also affirmed most of these aspects; they mentioned additionally that from the first prenatal consultation they are often told that they will be referred to a hospital to get birth attention. They also identified inappropriate

treatment by some healthcare providers, and insufficient experience in others (medical students practicing), as well as the lack of follow-up in consultations with the same doctor.

Contrary to other experiences,¹² in this study, we observed that medical staff provides little information regarding the availability of obstetric care within the SU, and the vast majority were not offered this service in the unit; the referral decision is made by the physician and female users have no opinion.

Since the 1990s, it has been reported that the main reason why women do not like obstetric attention in public health institutions in Mexico was the perception of poor care, mistreatment and lack of trust in staff.¹³ Recently another study¹⁴ documented that health personnel reported a lack of constant training and the fear of possible legal claims by users or adverse legal situations due to complications during obstetrics as the main reason for not attending births.

Similarly, in our study, informants also reported a lack of continuing education regarding childbirth care and its possible complications, leading to a low coverage of obstetric care. These results coincide with information from Alarcón research,¹⁵ who reported that the lack of training in health issues led to the failure of intercultural health policies.

A fundamental factor found in the study is the cultural gap that hinder the access to institutionalized childbirth care. Women trust traditional midwives because they are at short distance and belong to the same cultural group. This together with low quality hospital services are additional factors that explain female preferences for midwives in rural settings. However, midwives are rarely included in public health services due to the prevalence of a medicalized culture in childbirth care. Indeed, traditional midwives (empiric, with no professional studies) are reducing in number and mainly attend births in faraway small rural or ethnic communities, the cost for their services is low.

Meanwhile, professional midwives (who have studies and certification) are increasing, but they mainly attend births in urban areas, big and medium cities, they charge for their services, and their fares are only accessible to certain women who can pay for that kind of attention.¹⁶ It is then necessary to analyze and propose better ways of filling the gaps between the health care sector and the traditional childbirth care for the benefit of the maternal and perinatal health.¹⁷

Therefore, structural expansion of obstetric care centres and the schedule extension, without the sufficient equipment or specialist support (obstetrician) at the primary care level is not sufficient to meet the needs of the female users and to attend births adequately. In

addition, it is striking that many of the women sent to the secondary care level had the diagnosis "Pregnancy at term with labour in active phase", and that about half of those diagnoses do not coincide with the diagnosis of the gynaecologist in the note of admission to the secondary level. This indicates that accurate diagnosis should be emphasized, through an updated and continuous training of medical personnel.

The results of this study suggests that providing adequate obstetric care in the SUs is the key to increasing care coverage and achieving the objective and goals proposed by the Sentinel Attention Model. Nevertheless, there is a lack of confidence surrounding the quality of obstetric care provided in the SU, not only due to a user-reported perception of poor treatment by healthcare staff, but also because of a perception of insufficient technical capacity and necessary supplies for the resolution of obstetric events or emergencies. Therefore, work should continue in increasing awareness of health personnel about improving the quality of care.

It is urgent that the medical staff receive continual training to have the skills and abilities to provide obstetric care, given that poor training of the medical personnel within the SU was found to be one of the main reasons for referral of users to the secondary care level to give birth. Training has been demonstrated to be one of the most common strategies to deal with the development problems of health services.¹⁸ It is also urgent to guarantee institutional support and protection for health providers in case of legal demands when complications arise in childbirth attention and providers follow official procedures according to current obstetric Mexican norm of attention.

On relevance to clinical practice, we consider that to increase the acceptability of obstetric care at SU, it is necessary to have a continuous training program in obstetric care for health personnel under the framework of evidence-based practices. This involves manual skill training and obstetric care focused on user needs. Likewise, there must be continuous supervision and evaluation of personnel assigned to the SU to ensure that the staff and supplies necessary for care are always available. In addition, it is necessary to use an obstetric risk scale that allows the unification of criteria for the establishing health risk levels of pregnant women, and thus securing more appropriate referrals to the secondary care level as necessary.¹⁸ Finally, it is necessary to provide training on the current Official Standard for obstetric care and on legal procedures in case of complications so that staff feel secure and supported by the current regulations and by the health institution itself.

Regarding the limitations and scope of the study, it is important to mention that this is a detailed study of a single sentinel unit, for which it would be advisable to

carry out similar studies in units of other regions of the country to compare results. However, the results found are valuable and indicative of a situation that public health service personnel in this country constantly face. For this reason, some of the barriers found in our study are similar to the results of other studies on the experiences of personnel providing obstetric care in public health services in the country, for example, fear of legal claims by users, lack of training and supplies.^{8,19,20}

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

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