

# The experience of obstetric nursing students in an innovative maternal care programme in Chiapas, Mexico: a qualitative study

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**Abstract:** *In Mexico, over the last decade, more non-physician medical professionals have been participating in birth care according to recent federal regulations. So far, very few sites have been able to implement birth care models where midwives and obstetric nurses participate. We describe the experience of a group of intern obstetric nurses participating in a model that provides respectful birth care to rural populations, managed by an international NGO in partnership with the Ministry of Health of Chiapas, Mexico. We conducted a case study including individual interviews and focus group discussions with obstetric nurse interns participating in the Compañeros En Salud programme over four years from 2016 to 2019. We applied targeted content analysis to the qualitative data. There were 28 participants from 4 groups of interns. Informants expressed their opinions in four areas: (a) training as a LEO, (b) training experience at CES, (c) LEO role in health care delivery; and (d) LEOs' perspectives about respectful maternity care. Interns identified gaps in their training including a higher load of theoretical content vs practical experience, as well as little supervision of clinical care in public hospitals. Their adaptation to the health services model has increased over time, and recent classes acknowledge the difficulties that earlier ones had to confront, including the challenging interactions with hospital staff. Interns have incorporated the value of respectful birth care and their role to protect this right in rural populations. Findings could be useful to call for the expansion of the model in public birth centres. DOI: 10.1080/26410397.2022.2095708*

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## Introduction

Reducing maternal mortality, according to the original Millennium Development Goals (2000–2015) and now to the 2015–2030 Sustainable Development Goals,<sup>1</sup> requires not only changes in the structure of services, availability of financial resources, and provision of adequate equipment, but also a model of care during pregnancy, childbirth, and the puerperium based on interpersonal human factors regarding respect and compassion. Since 2003, international guidelines have published evidence-based practices for pregnancy,

childbirth, and postpartum care.<sup>2–5</sup> Some of these practices promote ambulation during labour, changes in position, a companion during childbirth, and use of non-pharmacological techniques for pain management, among others.<sup>6</sup> These elements are integrated into the framework of respectful maternity care, which ensures the fulfilment of women's rights during childbirth and a renewed focus on the respect and dignity of women and their families.<sup>7</sup> The White Ribbon Alliance has advanced a human rights framework to affirm respect and dignity for women and their

newborns, including: freedom from harm and ill treatment; the right to information, informed consent, and respect for choices and preferences; the right to privacy and confidentiality; the right to treatment with dignity and respect from the moment of birth; and the right to equality, freedom from discrimination, and equitable care, among others.<sup>8</sup>

A fundamental step in achieving respectful maternity care is to train childbirth providers (physicians, midwives, nurses) on the values and practices of patient-centred care, which includes active collaboration among patients, families, and clinicians to co-develop customised care plans based on individual preferences and context.<sup>9,10</sup> Therefore, international agencies such as the World Health Organization (WHO) and the United Nations Population Fund (UNFPA) have proposed the participation of professional midwives trained for this purpose. Midwives must fulfil the competencies established in international standards and have the necessary equipment and supplies for emergency obstetric care along with support from an inter-professional team.<sup>9</sup> This cadre can also strengthen the continuity of care by being a link between communities and health care facilities, mainly in rural regions where specialised personnel are not available.<sup>11,12</sup>

### Professional midwifery and obstetric nurse training in Mexico

One of the categories of midwifery professionals in Mexico is that of Obstetric Nurse (Licenciada en Enfermería y Obstetricia) (LEO). The National School of Nursing and Obstetrics (Escuela Nacional de Enfermería y Obstetricia – ENEO) of the Autonomous National University of Mexico (UNAM) was the pioneer of the LEO training programme that started as university training in 1968. The programme has now expanded to 34 schools in 14 states since its formation. LEOs have midwifery skills that cover pregnancy, delivery, the puerperium, and newborn care, as well as the initial management and timely referral of obstetric emergencies.<sup>13</sup> Their training focuses on comprehensive maternal and newborn care, including sexual and reproductive health. The LEO training at ENEO is a 4-year programme that includes 2512 hours (54.5%) of theoretical content and 2096 hours of practical experience (45.5%).

In Mexico, delivery care has been concentrated for many decades among physicians, but this has gradually expanded to include other professional

cadres. Recently, WHO and UNFPA have been actively promoting new professional cadres, such as advanced practice nursing, to strengthen primary health care.<sup>14</sup> The publication of the 007 Mexican Official Guideline (Norma Oficial Mexicana 007) explicitly established that “low-risk births can be cared for by obstetric nurses, technical midwives\* and trained traditional midwives,” which has created opportunities for other health-care professionals to participate in delivery care.<sup>15</sup> Notably, professional midwives and obstetric nurses have been shown to provide a better quality of care and enhanced coverage of pregnancy care in rural clinics compared to physicians in Mexico.<sup>16</sup> Yet, there remains some inter-professional tension in fully integrating midwives and obstetric nurses into childbirth care.<sup>17</sup>

### Compañeros En Salud and the respectful maternity care model

The non-governmental organisation “Compañeros En Salud” (CES) has collaborated with the Chiapas state health ministry to strengthen the primary level hospital in the municipality of Ángel Albino Corzo since 2016 when the respectful maternity care model was implemented with LEO interns during their mandatory social service year. Social service is a one-year requirement that university students must complete in their last year before graduating, and students may choose to serve populations living in rural areas or in poverty. The Mexican government allows these students to practice in institutional clinical settings, given the lack of licensed healthcare workers willing to practice in rural areas. In a high proportion of rural health centres of the Ministry of Health, interns carry out administrative tasks and clinical practice.<sup>18</sup>

In 2017, the local government built a birthing centre attached to the hospital. The birthing centre is one of the few places in the country where LEO interns can participate in pregnancy, childbirth, and postpartum care. During their period of social service, interns provide direct patient care, receive ongoing monthly training, and are supervised by experienced perinatal nurses and professional midwives. They also have tools and resources to carry out evidence-

\*Technical midwives receive formal training for a three-year period in a combination of biomedical and traditional medical curricula.

based practices during perinatal care through ongoing professional development and support through CES. There is an explicit focus on respectful maternity care practices, which include affirming the dignity of people giving birth, providing physical and emotional support during labour, and welcoming the presence of birth companions during childbirth. This is a departure from other LEO training experiences because it is deliberately linked with professional development alongside physician interns through CES's inter-professional curriculum and work model.<sup>19</sup> CES provides clinical supervision, professional development, and organisational support for the LEOs working in the birth centre.

The objective of this paper is to describe and analyse the experience of four generations of LEO interns who have participated in the provision of the respectful maternity care model in the birthing centre of Ángel Albino Corzo, including the perceived changes in their training, their role in the provision of childbirth services, their experiences with a new model of care focused on respectful practices, and their development as nursing professionals working in an interdisciplinary team with doctors, other nurses, and health professionals.

### **Methodology**

A qualitative case series was carried out between 2016 and 2019 in the birthing centre in Ángel Albino Corzo, Chiapas. According to Yin,<sup>20</sup> a qualitative case series is a collection of in-depth studies of an individual or group of individuals. In this case, we conducted in-depth studies of four cohorts of LEOs who worked with CES during their year of government service. Data collection was carried out through two techniques: (a) focus groups, (b) individual semi-structured interviews.

The case series began with the first generation in 2016–2017. Two focus groups were held with this group of five interns: one at the beginning of their social service, to obtain baseline information related to the interns' expectations and their past experiences as students, and another at the end of the programme, focused on their experiences during their year of social service and the changes perceived in their interactions with other healthcare workers and patients. Focus group discussions were carried out to explore barriers that existed at the beginning of

the birthing centre implementation (including physicians' resistance, lack of trust towards the interns, and status quo maintenance, among others). This technique allowed participants to feel relaxed and confident, at ease and express their perceptions confidently, encouraged by the comments of their peers. Each focus group lasted approximately 90 minutes.

With the second, third, and fourth cohorts of LEOs in 2017–2018, 2018–2019, and 2019–2020, respectively, individual interviews were conducted in which their experiences during social service were explored, including the same topics as in the focus groups. By this time, leadership and autonomy of practice were already observed in the group of interns, which allowed us to go into the experiences of each one of the participants and their performance in the birthing centre in depth. Interviews lasted between 40 and 90 minutes. All informants of the second, third and fourth cohorts were interviewed on a single occasion at the end of the internship period. In all focus groups and individual interviews at least one of the researchers was present. All focus groups and interviews were audio-recorded, transcribed and manually processed.

Both techniques used a semi-structured list of questions that served to guide the researchers through the research topics, allowing at the same time flexibility in the execution of the interview to ensure that requested information was obtained.<sup>21</sup> The collection of data was carried out in the premises of CES, in an environment of trust and comfort. CES managerial personnel were not included among the group of interviewers, to avoid limiting or biasing the responses of informants. The triangulation of data obtained by both techniques offered the possibility of contrasting results upon the information collected.<sup>22</sup>

Over the period of data collection, the permanent anonymity of informants was respected and their consent was obtained after reading and accepting the contents of a consent letter; they received courteous treatment from researchers and information obtained was coded to protect the identity of participants. Data collection was approved by the Partners in Health Human Research Committee in Boston, Massachusetts (2016P000970/BWH) and the Ministry of Health Bioethics Commission in Chiapas, Mexico (5003/09354). Ethics approval was obtained from the Ethics and Research Commissions of the National

Table 1. Participants' profiles				
Class – years	Respondent no.	Sex	Age	School of affiliation
1. 2016–2017	1	Female	25	ENEO
	2	Female	23	ENEO
	3	Female	25	ENEO
	4	Female	25	ENEO
	5	Male	27	ENEO
2. 2017–2018	6	Female	25	ENEO
	7	Female	25	ENEO
	8	Female	23	ENEO
	9	Female	27	ENEO
	10	Female	23	CEDVA*
3. 2018–2019	11	Male	24	GUM*
	12	Female	24	ENEO
	13	Female	23	ENEO
	14	Female	28	ENEO
	15	Female	31	ENEO
	16	Female	24	ENEO
	17	Female	28	CEDVA*
4. 2019–2020	18	Male	26	CEDVA*
	19	Female	23	CEDVA*
	20	Male	26	CEDVA*
	21	Female	23	ENEO
	22	Female	24	ENEO
	23	Female	28	ENEO
	24	Female	25	ENEO
	25	Female	23	ENEO
	26	Female	24	ENEO
	27	Female	25	ENEO
	28	Female	24	ENEO

\*Private schools incorporated to the ENEO.

Institute of Public Health of Mexico: CI1416-2016 on 6 September 2016.

A targeted content analysis was carried out as follows.<sup>23</sup> The information was coded and categorised independently by four of the authors. Two researchers worked separately with the same codes for focus groups and the other two with the same codes for individual interviews (see Appendix). The initial categorisation was triangulated across the four authors in order to agree on the established categories and identify the location of texts that were selected to be included in the present paper. Finally, the information was condensed into three categories and presented in a narrative fashion.

## Results

The results present the perspectives of the LEO interns organised into four themes: (1) training as a LEO; (2) training experience at CES; (3) LEO role in health care delivery; and (4) LEOs' perspectives about respectful maternity care. All topics describe the testimonies of the 5 LEO interns (1 male and 4 female) who made up the first generation (2016) obtained from 2 focus group discussions, and 23 interviews with individuals belonging to the 2017, 2018, and 2019 classes. Participants' profiles are shown in detail in Table 1.

### Training as LEOs

At ENEO, LEO students learn the traditional model of childbirth care, which is characterised by standardised practices for the care of all pregnant women without taking into account risk factors and individual women's choices. LEO students also learn about the foundations and the physiological process of childbirth care, as well as the importance of having a holistic approach to the individual for obstetric care:

*"The training we have received always guides us to see the person in all their dimensions. This leads us to identify how they live, where they live, in what environment they develop, how they are, the physical, mental, and all of the aspects that surrounds her, so that we can provide care for her needs."* (Respondent 1)

Although the theoretical component of the training is adequately structured, the practical component is not as robust for various reasons. The number of practical hours in the programme is lower than the assigned theoretical hours, and oversight in clinical spaces by ENEO teachers is

limited, which hinders the continuity of the learning experience.

*“Frequently (...) we don’t have the opportunity to work alongside our [ENEO] teachers or to see how they develop in [the] workplace. They can work in another place and mentor us in [the] hospital or clinic [where we do our internships]. They come to check-in on us, we are under their oversight, but they do not see how we perform.”* (Respondent 3)

Concerning what can be improved in the training of LEOs, the participants mentioned that they would like to have more autonomy in clinical care, as well as have the opportunity to put the theory they learn into practice.

*“[What I would like to change is] to take independent decisions, not to follow the patterns of where we are doing our clinical practice and above all to always remember that the patient comes first and that she decides about her care.”* (Respondent 4)

### Training experience at CES

During their year of social service at CES, the interns were the primary childbirth care providers and acquired clinical experience, thus reinforcing the theoretical knowledge received in their university training.

*“The opportunity we had to [care for] pregnant women was very great, that is, we saw many patients during this year and that allowed us to directly put into practice the theory that we brought. ... here at CES, they reinforced it.”* (Respondent 9)

Also, the experience in CES allowed them to acquire a high level of autonomy in being directly in charge of childbirth care. The autonomy of clinical practice is a rare experience among LEO students:

*“The training [at CES] allowed me to acquire autonomy and confidence because we had a lot of that in our internship, the training is what allowed us to have a different perspective, unlike [the] interns from other schools.”* (Respondent 25)

At the end of the year of social service, their plans for the future changed; all participants mentioned having an interest in pursuing additional training in obstetrics and work in rural areas. One of them expressed it in the following way:

*“Well, mine changed completely because if I want to dedicate myself to teaching, (...), I already like*

*clinical practice, now I want to do the perinatal specialty because I want to continue treating pregnant women.”* (Respondent 18)

Most informants from focus groups and individual interviews contrasted the experience at CES with experiences of practical periods they had at ENEO, particularly in hospital settings. They acknowledge that hospital practices limit the execution of such an approach during patient care.

*“We have been trained [to understand that] a health problem is not only going to manifest itself biologically but also, in the psychological, emotional, social and spiritual [...] I have a precedent from my practices that nursing is rarely involved in a hospital, we are not allowed to treat the person comprehensively.”* (Respondent 23)

The existing gaps between theory and practice reflect the limitations of the health care system to link the roles of obstetric nurses with the objectives of maternal care.

On the other hand, the low level of clinical complexity in university training compared to the reality they face at the birthing centre is striking. Real-world clinical care requires more knowledge and decision-making capacity than was expected during training.

*“They prepare you for very easy things and let’s say they give you a small sample of the emergencies that you could experience. They are based on labour work, but not in the emergency room [...] Here you already have the patients and you are already treating them.”* (Respondent 19)

*“I have a background in my practice that nursing is very little involved in a hospital, we are not allowed to treat the person in a holistic way, here in the maternity home we do have the freedom to see the social and economic situation, their personal background and also the physiological aspects of the patients.”* (Respondent 7)

### LEO role in health care delivery

For the ENEO school, obstetric nurses

*“possess a comprehensive training with the knowledge, skills, attitudes and disciplinary values necessary for: the promotion, prevention and health care with a humanistic sense, in the different areas of nursing work, with emphasis on sexual and reproductive health and in the care of low-risk childbirth and the newborn.”<sup>24</sup>*



At the beginning of the project, a presentation was made where the professional role of the LEO was explained and the supervision team that would be accompanying the students was introduced. This implementation was supported by institutional and health authorities at the local, state and federal levels. Unlike other sites, this hospital does not receive medical residents or interns, and there are few staff in training.

The LEOs emphasised the experiences they had as students during their clinical rotations. Barriers limit the professional development of LEOs, including the hierarchical hospital environment, the lack of teamwork, the normalisation of mistreatment of obstetric patients, and the lack of awareness of the LEOs' role as obstetric nurses by other health care providers. One of the interns describes it like this:

*"It is difficult for the staff to understand how far we can go and what we can accomplish. They still believe in the idea that we only follow instructions and when you want to give them an idea they are surprised, some get upset, others do not believe you, others say yes, and others do take you into account, but it varies."* (Respondent 2)

The traditional expectation of nurses in hospital settings is that they assist physicians in their practical activities. In other words, the duties of nurses are institutionally understood as complementary and subordinate to those of physicians.

*"But when we talk about the interventions they need, or that we can give an opinion about their treatment, they limit you a lot and you have no other option but to only accompany them. And we can do that and more, not only accompanying people but also contribute to what happens to them."* (Respondent 10)

On the other hand, the focus of care between the traditional model and the respectful maternity care model that is offered in the birthing centre raises a set of dilemmas about the relationship with staff, and with traditional midwives, in particular. One of the interns commented on the importance and role they have as LEOs in collaborating with traditional midwives and communities:

*"People often approach midwives, for the most part, they do not trust healthcare workers. So I believe that we have a great responsibility in this regard, and from the midwives learn that part of the attention, to see everything that they integrate,*

*social, emotional well-being, towards the family, [...] we have to integrate the [family members] and the community."* (Respondent 3)

During social service, the LEOs also experienced the division of roles between physicians and nurses, which limits their professional practice. LEOs are trained in caring for pregnant women from a holistic perspective, which may differ from the traditional medical training for physicians. This difference creates risks, given that their training does not allow physicians to understand the specific needs of pregnant women. For example, one participant mentioned:

*"... Unfortunately to them [the physicians], this is the way they teach them ... and they teach them to desensitize, why? because they not only have to see pregnant women, they have to (also) care for the general population, (and) that leads to an overburden (...) it is difficult for them to provide quality care and show respect towards patients in this area. ... we in general, as obstetric nurses, are specifically focused on pregnant women."* (Respondent 20)

The LEOs had the opportunity to provide more personalised care and play a companionship role with the patients. From their perspective, their care was characterised by giving respectful treatment and counteracting the mistreatment or institutional abandonment that patients might experience, which allowed them to gain their trust.

*"Yes, in general, we had the convenience of staying with the patient who was in labor, and basically, we could respectfully offer our care ... because if there came a time when the physician on-call or even the nursing staff was needed, it was like indirect aggression in terms of treatment or the way to address the patient, but we were the mediators."* (Respondent 26)

Regarding the interns' role in health care delivery, medical professionals gradually accepted their role. In the first classes, doctors reflected attitudes that were interpreted as protectionist, imposing clear practice barriers for obstetric interns.

*"It is something that the previous [LEOs] faced, they experienced a lot of violence from physicians, they said: how is a LEO going to come here to attend childbirths and deliveries? They, who are not from the [health] ministry, how are they going to tell me how to do my job?"* (Respondent 10)

*“Right now there are some physicians who say: okay, try to do it as you know. Some say: well, it’s not so bad.”* (Respondent 8)

According to interns, the patient-centred approach that was foundational during their social service year will be difficult to find in their future work environments. One of the participants was not optimistic about her future workplaces because obstetric nurses are often assigned the role of physician’s assistants.

*“It will take me a lot of work to get there [to the capital], because in no other institution do they recognize us as obstetric nurses.”* (Respondent 16)

### LEOs’ perspectives about respectful maternity care

Respectful maternity care was introduced in the social service programme, which is how all participants became familiar with the model of care. The interns agreed that respectful maternity care centres on the needs of each patient.

*“[It should] take pregnant women into consideration because [...] many times we already have everything institutionalized and ‘this is going to get done like this,’ but a woman, for example, does not want to deliver her baby in that position. We (must) always explain to her what procedures are going to be done or how she wants them to be done, (...), also with whom she wants to be accompanied.”* (Respondent 4)

During the initial years, the interns implemented many of the evidence-based practices that make up the respectful maternity care model and shared specific examples of what such obstetric care represents. They established trusted relationships with patients and their family members, made women’s rights known, provided clear explanations, and promoted informed consent. One of the interns explained it as follows:

*“Anyway, the part of introducing myself, to them, I always ask them what they like and what they don’t like. That I feel is important, so they have a good experience during their labor and delivery.”* (Respondent 3)

### Perspectives of the LEO interns from other cohorts during the social service training

The CES model highlights patient participation in decision-making, an area that is of vital

importance and a source of empowerment for the women undergoing childbirth.

*“The part that we are always told to do is to empower women. How? Well, let her decide her birth position, with whom to share her birth, (be it) her partner or a relative. Always explain all the procedures to be performed and the risks they may have. It is something very important of the model that we offer.”* (Respondent 21)

*“They [the pregnant women] say that we are different from the hospital [staff], we kind of make a more complete assessment, we respect them.”* (Respondent 15)

### Discussion

The Birthing Centre in Ángel Albino Corzo, Chiapas is one of the few places in Mexico where obstetric nurses (LEOs) provide direct childbirth care with autonomy and practise respectful maternity care. LEO interns’ autonomy is possible because the birthing centre is run exclusively by nurses without the influence of physicians, except for high-risk cases referred by LEOs to the hospital where physicians take control of clinical decisions. Besides, as expressed in the results, over time, interns have gained prestige and trust from physicians and managers. This project is of great importance because it can generate the necessary evidence for the government and non-governmental organisations to evaluate the consequences of making perinatal and childbirth care a positive experience for women in Mexico.

However, transforming this experience represents a true institutional and cultural change, which has associated challenges. The Birthing Centre’s approach is to promote awareness of women’s rights during pregnancy and childbirth and to apply this perspective to individual and family decision-making regarding childbirth preferences.<sup>25</sup> The Birthing Centre was built with local funds on the same premises as the Chiapas Secretariat of Health General Hospital to enable hospital authorities to supervise care at the Birthing Centre. The success of the implementation of the new model depended, therefore, on being able to demonstrate that care is provided with evidence-based standards, following established guidelines from the WHO, the International Confederation of Midwives and the Ministry of Health of Mexico. In addition, it is important to demonstrate improvements in quality indicators.

The interns perceived changes in the training received in school, their role in health care delivery, the experience of participating in a new model of obstetric care, and the value of this experience in their future professional development. The changes were observed both in the first cohort (2016) and in subsequent cohorts (2017, 2018, 2019).

Concerning their school education, students observed gaps between what they learned theoretically and what they have done in their social service practice. A key area was the contrast between the educational material learned in university and what they were asked to execute in practice in the birthing centre. Until 2013, ENEO training was focused on care during traditional childbirth<sup>26</sup> but by 2014 the respectful maternity care approach was included, incorporating a greater emphasis on the emotional and psychological aspects of care, which are often overlooked in physicians' training. Being able to execute tasks with a high level of autonomy was highlighted by the interns since the hierarchical structure of the medical profession and health institutions often places LEOs in subordinate positions.<sup>27</sup> Within a few months at the birthing centre, LEO interns learned to make decisions based on their training and confident in the knowledge that they were being supervised. The interns perceived that most of the technical knowledge learned in school was practised during social service, including monitoring the physiological conditions of pregnant women and newborns, which suggests that the educational programme is adequate but requires more hours of practice.

The role of LEO interns in health care delivery raises various challenges, including the relationship with the hospital staff (doctors, nurses, and other personnel), which led to moments of confrontation. In recent years, interns have built confidence and recognition from hospital staff by demonstrating they can perform assigned tasks appropriately.<sup>28, 29</sup> The original hierarchy of public hospital workers is grounded in historical ways of caring for women in childbirth even if they contradict the recommendations of the WHO.<sup>30</sup> Additionally, the demand for care in public hospitals has increased in recent years since the federal government mandated that all deliveries should be attended in these hospitals, which has saturated bed occupancy. However, the increase in delivery care at the Birthing Centre has freed up available beds in the hospital, reduced the demand for private practice care, and limited practices not recommended by the WHO.<sup>30</sup> Although the interns had to confront verbal abuse

in the early years, in recent years, there appears to be a positive change in their relationships with other professionals.<sup>29</sup>

Three elements were fundamental for this modification to occur: (a) the intervention of the hospital director (a physician) to convince the medical staff of the value of respectful childbirth; (b) the sensitisation that CES did with the medical staff regarding the role of LEOs; and (c) the empowerment gained by the LEOs in their practice, adhering to WHO and ICM guidelines regarding the use of scientific evidence.

The interns' experience with the respectful maternity model had a strong impact on them.<sup>28</sup> All participants defended the idea that women's rights during childbirth should be respected by the health care team. Importantly, the interns' individual and group experiences have positively influenced hospital doctors and nurses. Although the respectful maternity model has not been fully implemented in the hospital, some professionals are beginning to practice it.

Finally, the professional development of the LEO students includes applying a humanistic approach to clinical practice<sup>24</sup> and respect for the rights of childbearing women.<sup>31</sup> Despite receiving instruction on respectful maternity care, LEOs report that many of these concepts remain at the theoretical level for the majority of interns since they are usually assigned to health units where the work norms commonly contradict the theory taught in school.<sup>32</sup> The CES experience not only reinforces the respectful maternity care model but expands on it by equipping LEOs with the skills and resources needed to apply it to the direct care of women.

It is important to point out that the studies carried out a decade ago by Walker et al<sup>16</sup> and De María et al<sup>17</sup> showed that technical midwives and obstetric nurses had the capacity to provide services with the same quality as doctors if they were able to follow international guidelines proposed by the WHO.<sup>16,17</sup> Previously, Cragin et al<sup>33</sup> had shown the relationship between the training of skilled birth attendants and the standards of the International Confederation of Midwives.<sup>33</sup> All these studies are previous to the publication of the Mexican official regulatory standards (007 guideline of 2016) that allows non-medical personnel to provide antenatal and birthing services. These studies show that the curriculum for "technical midwives" matched ICM standards for pregnancy and delivery care better than those of LEOs and physicians. Also, the studies recommended an expansion in the



participation of “technical midwives” and LEOs in pregnancy and delivery care. However, this expansion has not taken place across the health care system and experiences have been confined to a reduced group of public and private birthing centres in specific states. Furthermore, the main school that was training technical midwives (CASA, a private school) shut down in 2020, implying that the only category viable to be incorporated at a systems level is that of LEO. LEOs are trained mainly at public schools and around 700 graduate each year. This output could allow LEOs to occupy enough positions at public institutions to change obstetric practice in the country in a few years’ time. However, as pointed out by Walker, Di Maria and Craig, the training of LEOs could be strengthened by matching the content closer to the ICM standards.<sup>34</sup>

The study has the limitations of all qualitative studies. First, the sample was not obtained randomly from a larger group so it is not representative and the extent to which these findings can be transferable to different contexts or populations is not known. Second, it was not possible to carry out focus groups in every cohort so the research team decided to collect information from later cohorts by means of individual interviews, which may have provided different types of information. Third, findings rely on a single type of informant (obstetric nurse interns) and they refer to interactions with other professional groups and patients who were not themselves interviewed.

This case series is among the first to describe the experience of LEOs during their social year of service in a rural birth centre. More studies are needed to better understand the experience of

LEOs in other health care facilities and to propose models for future iterations of the respectful maternity care model in other settings in Mexico.

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### Author contributions

*MM and GN produced the original idea. MM and GN drafted the introduction section. PA, MM and RM drafted the methods section. RM, PA and GN drafted the results section. GN drafted the discussion section. All authors made major revisions of the whole paper and agree on its contents.*

### Disclosure statement

*No potential conflict of interest was reported by the author(s).*

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*Appendix*

Researchers who worked with individual interviews		
Category	Subcategory 1	Subcategory 2
Implementation of the respected childbirth model	Perceived barriers	Ignorance of the role of obstetric nurses
		Resistance from medical staff
		Breakdown of paradigms
	Adjustment process for the implementation of the model	Creation of strategic alliances CES-health system
		Peer-to-peer trust
		Complementary training
Perception of their role in their mother's household	Autonomous practice	Institutional support
		Teamwork
		Actions backed by knowledge and leadership
	Future of midwifery in Mexico	Rural context
		Urban context
		Challenges to implementation
Patient behaviours	Demand for attention	Request for assistance
		Financial support
		Respectful childbirth
	Changes in the behaviour of patients	Knowledge of their rights
		Confidence in staff
		Identification of risks
	Patient satisfaction	Supportive comments
		Respect for the nurse-midwifery team
		Community outreach

Researchers who worked with focus groups		
Category	Subcategory 1	Subcategory 2
Training	Tension between theoretical training and what they do in practical training	Few practical hours
		Theoretical model different from the practical one
		LEOs cannot apply what they have learned in theory
	Teachers are not present in clinical practices	Teachers as role models
	Aspects that would modify the training	Independence in decision-making
		Put theoretical training into practice
	Experience during social service	Expectations for the social service year
		Autonomous and different practice experience
		Change in your future plans
		Inter-professional work
Supervision model		
Role as nurse midwives	Barriers to midwifery practice	Obstetric training and practice of medical staff different from the LEO model
	Hospital environment	Patient mistreatment
		Hospital hierarchy and traditional role of doctors vs. nurses
		Interaction between nursing staff
	Lack of knowledge of the role of the nurse-midwife	Definition of nurse-midwife profiles
		Relationship with traditional midwifery
Perspective on respectful care	Respectful attention	Care centred on patients and their needs
		Care free of obstetric violence
		Care with technical competencies
		Effective communication
		Making clients aware of their rights
	Disrespectful attention	Impact of poor care
		Consequences of not following standardised care

## Résumé

Au Mexique, ces dix dernières années, davantage de professionnels de santé non médecins ont participé aux soins obstétricaux conformément aux récentes réglementations fédérales. Jusqu'à présent, rares sont les sites qui ont pu mettre en place des modèles de soins de naissance auxquels participent les sages-femmes et les infirmières obstétricales. Nous décrivons l'expérience d'un groupe de stagiaires en soins infirmiers obstétricaux participant à un modèle qui dispense des soins respectueux pendant l'accouchement à des populations rurales, géré par une ONG internationale en partenariat avec le Ministère de la santé de Chiapas, Mexique. Nous avons réalisé une étude de cas comprenant des entretiens individuels et des discussions par groupe d'intérêt avec des stagiaires en soins infirmiers obstétricaux ayant participé sur quatre ans (2016–2019) au programme *Compañeros En Salud*. Nous avons appliqué une analyse ciblée des contenus des données qualitatives. L'étude a compté 28 participants venant de quatre groupes de stagiaires. Les informateurs ont exprimé leurs opinions dans trois domaines: (a) le contenu de leur formation en soins infirmiers; (b) leur rôle dans la prestation des services; et (c) leurs perspectives sur des soins obstétricaux respectueux. Les stagiaires ont identifié des lacunes dans leur formation, notamment une charge plus élevée de contenu théorique par opposition à l'expérience pratique, ainsi que peu de supervision des soins cliniques dans les hôpitaux publics. Leur adaptation au modèle de services de santé s'est accrue au fil du temps et les cours récents tiennent compte des difficultés auxquelles les précédents stagiaires ont dû faire face, notamment la difficulté des interactions avec le personnel hospitalier. Les stagiaires ont assimilé l'utilité de soins obstétricaux respectueux et leur rôle dans la protection de ce droit pour les populations rurales. Ces conclusions pourraient être utiles pour demander l'expansion du modèle dans les maternités publiques.

## Resumen

En México, durante la última década, más profesionales de salud no médicos han estado participando en la atención al parto, según regulaciones federales recientes. Hasta la fecha, muy pocos sitios han podido aplicar modelos de atención al parto en lugares donde participan parteras y enfermeras obstétricas. Describimos la experiencia de un grupo de enfermeras obstétricas pasantes que participaron en un modelo que brinda atención respetuosa al parto a poblaciones rurales, administrado por una ONG internacional en alianza con el Ministerio de Salud de Chiapas, México. Realizamos un estudio de casos que incluyó entrevistas individuales y discusiones en grupos focales con enfermeras obstétricas pasantes que participaron en el programa *Compañeros En Salud* durante cuatro años (2016–2019). Aplicamos análisis de contenido focalizado a los datos cualitativos. Hubo 28 participantes de cuatro grupos de pasantes. Las informantes expresaron sus opiniones en tres áreas: (a) el contenido de su formación en enfermería, (b) su función en la prestación de servicios y (c) su perspectiva sobre la atención respetuosa al parto. Las pasantes identificaron brechas en su formación, por ejemplo, más contenido teórico vs experiencia práctica, así como poca supervisión de la atención clínica en hospitales públicos. Su adaptación al modelo de servicios de salud ha aumentado con el paso del tiempo, y clases recientes reconocen que clases anteriores tuvieron que confrontar varias dificultades, entre ellas interacciones difíciles con el personal del hospital. Las pasantes han incorporado el valor de la atención respetuosa al parto y su función de proteger este derecho en poblaciones rurales. Los hallazgos podrían ser útiles para hacer un llamado a extender el modelo a centros de maternidad públicos.