

# Family planning practices of women working in the Cambodian garment industry: a qualitative study

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## Research

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## Abstract

**Background:** Women working in Cambodian garment factories have unmet needs for family planning (contraception and safe abortion) services, because of their background and living conditions. This study describes their experiences regarding abortion and contraception as part of a larger project to develop an intervention to support comprehensive post-abortion care.

**Methods:** We conducted semi-structured interviews with women seeking abortion services at private health facilities. In addition, we interviewed the private providers of abortion and contraception services surrounding garment factories. Interviews lasted up to 60 minutes and were conducted in Khmer and later translated into English. A thematic analysis was undertaken, with medical abortion experiences coded according to the Cambodia comprehensive abortion care protocol.

**Results:** We interviewed 16 women and 13 providers between August and November 2018. Most women reported being married and had at least one child. Among factory workers the major reported reasons for abortion were birth spacing and financial constraints. Family, friends, or co-workers were the major information resources regarding abortion and contraception, and their positive or negative experiences strongly influenced women's attitude towards both. Medical abortion pills were not always provided with adequate instructions. Half of the participants had a manual vacuum aspiration procedure performed after medical abortion. While women knew the side effects of medical abortion, many did not know the adverse warning signs and the signs of abortion completion. Only three women started post abortion family planning, as most of the women expressed fear and hesitation due to concerns about side effects of modern contraception. Fear of infertility was particularly reported among young women without children.

**Conclusion:** This research shows that in this setting not all women are receiving comprehensive abortion care and contraceptive counselling. Provision of accurate and adequate information about abortion methods and modern contraception was the dominant shortfall in abortion care. Future work to address this gap could involve the development of appropriate interventions and informative tools for women in the Cambodian garment industry such as through existing client contact-centres or social media, including creation of videos or posts on topics that come from clients questions.

## Plain English Summary

Women working in Cambodian garment factories have higher unmet need for contraception than other women in Cambodia. Most garment factory workers are living away from home and are aged under 30. Half have only primary school education. This study describes their experiences of contraception and abortion. We conducted interviews with 16 women seeking abortion services at private health facilities, and 13 private providers surrounding garment factories. Most women were married and had at least one child. Among factory workers the major reported reasons for abortion were birth spacing and financial constraints. Family, friends, or co-workers were the major information resources regarding abortion and contraception, and their positive or negative experiences strongly influenced women's attitude towards both. Medical abortion was not always provided with adequate instructions. While women knew the side effects of medical abortion, many did not know the adverse warning signs and the signs of abortion completion. Only three women started contraception after abortion, as most of the women expressed fear and hesitation of real or perceived side effects associated with modern contraception. Fear of infertility was particularly reported among young women without children. This research shows that in this setting not all women are receiving comprehensive abortion care and contraceptive counselling. Provision of accurate and adequate information about abortion methods and modern contraception was the dominant shortfall in abortion care. Future work needs to address this gap by developing appropriate and effective interventions and informative tools for women in the Cambodian garment industry.

## Background

In 2017, an estimated 214 million women in low- and middle-income countries wanted to prevent pregnancy but were not using modern contraceptive methods. Of these women, 155 million used no method and 59 million used a traditional method. Estimates from global surveys indicate that yearly there could be 67 million fewer unintended pregnancies if all needs were met, thus preventing an estimated 36 million abortions and 76,000 maternal deaths (1). In Cambodia, modern contraception is widely available in, but fear and experience of side effects can deter women (2). The use of modern contraception amongst currently married women in Cambodia rose from 19% in 2000 to 39% in 2014, however 18% of women were relying on traditional methods and 12% had an unmet need for family planning in 2014 (2). More recent projection shows that about half of women using contraception choose short-acting modern methods, less than 25% of women use permanent or long-acting modern methods and slightly more than 25% rely on traditional methods (3). Thus, many women seem to still remain at risk of having an unintended pregnancy. Abortion was legalized in Cambodia in 1997 with the requirement that within the first trimester of pregnancy only qualified healthcare providers in certified health facilities can conduct abortions (4, 5). Medical abortion, a combination of misoprostol and mifepristone, was approved in 2010 (5, 6), together with the dissemination of a national protocol for Comprehensive Abortion Care (CAC) that outlines the procedures to be followed by health providers to ensure safe abortion care (7). Between 2010 and 2014, the proportion of medical abortions increased from 31–47%, while surgical abortion decreased from about 68–60%, and those using a traditional or unspecified method reduced from 3% to almost zero (2, 8). Conversely, the proportion of women receiving help with abortion from a qualified health provider decreased from about 67% in 2010 to 60% in 2014 (2, 8). These data indicate that medical abortion is increasing among Cambodian women and they are using it alone and at home. Home-based abortion is regarded as a safe method when adequate measures and support are in place (9). However, the increasing rate of self-administration of medical abortion in Cambodia raises concerns on whether women are receiving quality comprehensive abortion services by health providers and can manage the process safely.

This study focuses on women working in a garment factory in the capital of Cambodia, Phnom Penh. Garment factories are the biggest manufacturing sector in Cambodia (10). Roughly 800,000 people work in garment factories in Cambodia, of whom about 85% are female (11, 12). They are potentially a vulnerable population for reproductive health issues; for example, around 70% are younger than 30 years, half of them have only a primary school education, and most

have migrated from rural areas away from their family and community support (12). According to a survey among female factory workers, they have a higher rate of abortion compared to young women in the national survey, whilst the use of contraception is comparable (2, 13, 14). This implies that women working in garment factories have unmet needs for contraception and safe abortion services compared with women in the general population (14, 29). This paper aims to describe women's experiences of abortion and contraception services as part of a larger project to develop an intervention to support comprehensive post-abortion care, which follows from our previous work in Cambodia (15–17).

## Methods

### Study design

We conducted semi-structured interviews with women working in garment factories to find out about their abortion and contraceptive services seeking behaviour and experience. Additionally, we interviewed private providers of abortion and contraception services to understand the availability of services at the study site and their views on practices and demands for abortion and contraception. The study was a collaboration between academics from different disciplines (medicine, information science and linguistics) and the Non-Governmental Organisation (NGO) Marie Stopes International Cambodia.

### Study setting

This qualitative study was conducted from August to November 2018 in a suburb in Phnom Penh where many garment factories cluster. Box 1 provides an overview of the garment factory industry and Box 2 describes private providers of abortion and contraception in Cambodia.

#### Box 1 The garment factory industry in Cambodia

Cambodia's garment sector employs about 85% of all Cambodian factory workers and provides 40% of the Gross Domestic Product. The minimum monthly wages of garment factory workers increased from 61 USD in 2012 to 170 USD in 2018 (11). Workers typically work six days a week from 7 AM to 4 PM with an hour lunch break, unless there is overwork in the evening. They perform a specific task; for example, cutting fabric, stitching clothing, quality checks, or supervising other workers. Garment factory workers in Phnom Penh often share accommodation with relatives or friends within walking distance of the factory. Around the factory, there is usually a market and numerous small restaurants and shops selling commodities (14).

*Image shows a garment factory work setting (anonymised)*

#### Box 2 Private providers of abortion and contraception in Cambodia

The private healthcare services relevant to abortion and contraception can be roughly divided into the following types (18,29).

1. Medical consulting cabinet managed by a doctor or a physician assistant. This facility provides general medical consultation and examination and maternal and child health services except for delivery. There is no inpatient space, and any type of surgery is not allowed.
2. Prenatal consulting cabinet managed by a secondary midwife with at least three years of professional education. This facility provides antenatal care, health education, and pre- and post-delivery vaccinations. Deliveries are not conducted here.
3. Clinic or polyclinic managed by a doctor with at least 5 years of experience who is either retired, has suspended their state service without pay, or has terminated their state service. Such clinics provide examination and consultation of outpatients and inpatients, conduct paramedical analysis, minor and major surgery, vaccinations, health education, maternal healthcare services including delivery and transfusion.
4. Pharmacy selling various medications, including medical abortion pills.
5. Factory infirmary managed by a doctor and one or two nurses. Factories are obliged to have the infirmary under their human resource department to provide basic medical care for general mild health problems.

*Images show the area surrounding garment factories (left and middle) and a bed in a cabinet (right)*

### Study population and recruitment process

Private providers were selected as study sites since they are the preferred option of abortion for female garment factory workers in Cambodia (13). We recruited women seeking abortion services from three private facilities: two medical consulting cabinets and one clinic. One provider had previously worked with Marie Stopes International Cambodia on a project for contraception capacity building (not for abortion services) and the others were directly asked, and agreed, to join the research. The chief or staff of the facility asked women aged  $\geq 18$ , purchasing medical abortion pills or asking for a surgical abortion, if they were interested in participation. Interested women were introduced to a local researcher working for Marie Stopes International Cambodia who then explained the reasons for the study and the procedure for an interview. When a woman agreed to participate, she was asked for consent by written signature or thumbprint and her telephone number was requested for a follow-up call. Women could end the interview at any time. To protect the privacy and confidentiality of women, we secured a closed private space for the interviews and anonymized all potentially identifying information. Women were given three to four US dollars for their travel expenses and a small towel as a gift.

Additionally, we recruited 13 providers for interviews from two clinics, five medical consulting cabinets, one pharmacy, and three factory infirmaries. Three providers were working at facilities where we recruited women seeking abortion services. Other providers were purposefully selected to involve a variety of types of facilities and providers.

### Data collection methods

We developed topic guides (Appendix A and B) and modified them throughout data collection. Interviews were conducted by foreign researchers with simultaneous translation of the Khmer language by the local researcher who is native in Khmer and proficient in English. The interviews typically lasted 45 to 60 minutes. All researchers, particularly the local one, spent periods of time around the garment factories to understand the context and made notes of these

observations. Interviews were recorded if women consented, transcribed in Khmer and translated into English by a Cambodian research assistant. The local researcher made follow-up calls two and four weeks later to women who used medical abortion to ask if the abortion was completed, if they made a follow-up visit, and to inquire about their use or plans for post-abortion contraception. Researchers also reviewed the abortion products, procedures and costs in each clinic in discussion with providers.

## Data analysis

Research members individually conducted a thematic analysis of the transcribed interviews using Dedoose software (19). Two researchers (CM, MM) used predetermined codes from the medical abortion checklist in the Cambodian national protocol for CAC (7). Two other researchers used a ground-up coding approach (EO, AS) and applied the developed coding frame with themes and subthemes to all interviews. The predetermined and ground-up codes were combined for comprehensiveness. The findings were then organized following a number of the headings from the national protocol on CAC, in particular the example of observation checklist for medical abortion (7 P148) to show qualitative aspects of abortion care that might not surface in quantitative and survey-style research. We did not ask participants to provide feedback on the findings.

## Results

### Description of participants

Of 24 women seeking abortion who were interested in participation, 16 were interviewed. Eight women initially said to their provider that they wanted to participate but were later busy or had returned to their hometown. Of the 16 interviewees, we were able to make follow-up calls with seven. Nine interviewees were not followed up because three had a surgical abortion after medical abortion, three did not provide a working phone number, two did not respond, and one had no time. Twelve women said that this was their first abortion, three their second, and one her fourth. Fifteen women came to Phnom Penh from rural areas of Cambodia. The ages of the women ranged from 21 to 36. Thirteen said that they were married, two were separated, and one was single. Fourteen women already had children, and the age of their last child ranged from eight months to three years. Twelve women had left children with family in their hometowns. All 13 private providers who we asked to participate in the interview took part: three doctors, four midwives, four nurses, one pharmacist, and one self-employed without a medical background. Nine of the providers were women.

### Theme 1: Factors influencing the abortion-services sought and obtained by women

The National Strategy for Reproductive and Sexual Health in Cambodia 2017–2020 identifies “information” as a key area to address in order to continue making progress in strengthening safe abortion services (20). Theme 1 describes the findings to understand the reasons that lead women to seek healthcare provider services, what was their prior level of abortion-related information, the availability of abortion services and associated costs which can affect abortion seeking behaviour. ‘M’ is used for women and ‘P’ for providers.

#### Sub-theme 1–1. Reasons for abortion

Birth-spacing and financial constraints were the main reasons for abortion reported among study participants

*M11: I wish to have one more but not now... may be at the next two years... I just said I already have a small baby and don't want to keep this foetus now...*

*M12: I think that I don't have much money and I now have to pay for my daughter's milk...*

#### Sub-theme 1–2. Information sources of abortion

Interviewees generally asked their peers, older family members, or relatives for information about abortion; in particular, whether to have medical or surgical abortion, and where. Women also asked friends, close co-workers, or listened to the conversations of others about experiencing an abortion. Hearing about other women's experiences strongly shaped the expectations, positively or negatively, of women seeking abortion, and what kind of services they required. Only two women said that they never sought information but went directly to the clinic. No woman said that they searched the internet for abortion information, though smartphones are widely used among factory workers.

*M08: My friend who experienced abortion told me about abortion...I asked her what and where she did, and she took me to here...*

*M23: My sister-in-law experienced abortion before, and she accompanied me to come here.*

#### Sub-theme 1–3. Available abortion methods

Providers reported medical abortion was available at all study sites; except for infirmaries, which by law do not provide this service. Based on provider reports and researcher observations pharmacies, clinics, and cabinets had available one or more of three pills: Medabon, Mifeso, and a ‘Chinese pill’ (Zizhu Pharmaceutical company). Medabon and Mifeso follow the World Health Organization approved regimen which is 200 mg mifepristone and 800 µg misoprostol (4 tablets of 200 µg) (21). The regimen of the ‘Chinese pill’ is two tablets of mifepristone (25 mg per tablet) for three days and three tablets of misoprostol (0.2 mg per tablet) on the third day. As a surgical method, Manual Vacuum Aspiration (MVA), was available at clinics and cabinets.

#### Sub-theme 1–4. Cost for abortion

According to women Medabon or Mifeso cost between 12 and 20 US dollars (USD

), with an additional cost of 5 to 30 USD for vitamin injections. MVA was provided for 60 to 200 USD. One woman reported paying 200 USD, including both medical and surgical abortion, but was satisfied with the quality of services.

*M21: I feel ok... not so painful... strong enough after got service here... I thought 200 USD is not important (costly) if I am better like this...*

To put these amounts in context, the minimum monthly wage of a factory worker in Cambodia is USD170 (22).

Sub-theme 1–5. Selection of abortion methods

In this study half of the women received MVA, for the following reasons: over nine weeks pregnant, incomplete abortion, health care providers' advice or it was automatically included in the abortion service. Some women preferred MVA because they thought that it was cleaner and safer than medical abortion, or they did not want to come back for a follow-up or in the case of complications.

*M07: The provider said it is better to use vacuum aspiration...For medical abortion, I might have some difficulties when I face some problem after using it ... it will be difficult to come back again if it doesn't work well... such as bleeding and not well done*

## **Theme 2: Women's experiences of abortion mapped against the CAC observation checklist for medical abortion**

The national protocol for CAC is the latest and most important protocol that providers must adhere to provide safe abortion services. Theme 2 describes women's experiences alongside the standards set by CAC.

Sub-theme 2 – 1. CAC task 1 – “Greets woman with respect and kindness, helps her feel comfortable and ensures privacy”

Interviewees felt privacy was an important factor in selecting providers for abortion; for instance, they preferred larger providers because they felt smaller ones may not be able to maintain confidentiality and would be less safe. Some younger and unmarried women sought a provider away from their living or working area, so that they would not encounter anyone they knew. Providers said that women never openly asked for an abortion, rather, the subject was broached indirectly.

*P05: They just ask for a pregnancy test... and they added that “after I did the pregnancy test, may I see you again...I always inform them that “if you are pregnant and don't want to keep that baby, please come back and then I will find a solution for you...”*

They also occasionally refused to take any written instruction for abortion, again for fear that other people would find out that they had an abortion. Conversely, providers occasionally did not offer the written instructions to clients, to make sure they came back to them for further instruction.

Sub-theme 2–2. CAC task 2 – “Assesses the woman's health: medical and reproductive history, estimates gestation based on date of last menstruation period, assess vital signs.”

In this study, all women who used medical abortion were less than nine weeks pregnant and thus allowed to use it. Most of the women were aware of their menstruation period and confirmed the pregnancy immediately after they missed their period or felt morning sickness. The most common way to estimate a women's gestational age was ultrasound, but some declined it due to the cost. Four women were asked about their last menstruation. No woman had a pelvic examination.

*M13: I didn't do ultrasound...because I missed period about 10 days...I think it was fine not to do ultrasound...he (provider) asked me to do ultrasound... but I rejected as I didn't want to spend lots of money (\$5 USD)*

One provider said that some clients who were over two months pregnant came to get a medical abortion whilst pretending to be less than two months pregnant, or they asked someone else to buy the medical abortion drugs.

Sub-theme 2–3. CAC task 3 – “Discuss reproductive goals, including pregnant options and family planning options”

Most women had already decided, together with their husband or family, to have an abortion when they came to providers. One provider recommended one woman to keep the baby because the woman was young (21 years) and did not have a child.

*M24: The provider said I should have a baby now because I am young and have more energy now... If I have a baby when I am older ... it might be more difficult...she wants me to keep the baby rather than to have abortion...*

Sub-theme 2–4. CAC task 4 – “Provide detailed information about medication-abortion side effects, warning signs, required visits and action in the event of failure of procedure”

Some women knew the side effects of medical abortion such as fever, exhaustion, diarrhoea, vomiting, and pain; and they received that information from providers, friends, or relatives. Most women knew that they would bleed for a few days after inserting misoprostol and needed to contact providers in case of severe bleeding. Two women experienced serious haemorrhaging and both visited a provider.

*M19(Note): she returned to doctor on next day of inserting pills because a lot of black bleeding and much pain, used sanitary pad every hour, was very exhausted and could not eat well.*

Infirmary workers encountered factory workers who came to the infirmary with serious abdominal pain, probably caused by an incomplete abortion. Those women tried to be discreet and asked for painkillers for menstruation, although the bleeding was far heavier than a normal menstruation.

*P02: Some women came with pain, but we could notice that the abdominal pain and bleeding was because of incomplete abortion not menstruation...we asked them "if you took medical abortion" ... but they said they had menstruation period...*

Sub-theme 2–5. CAC task 5 – “Explains all aspects of the medication administration regimen, including pain management”

A pharmacy provider said that women typically took mifepristone on Friday or Saturday, and inserted misoprostol over the weekend, in anticipation of returning to work on Monday to avoid losing income. A booklet with instructions, side effects, and warning signs was available at some facilities, but it was not accepted by women since if seen by others it could reveal that they had an abortion. Only four women were provided with pain medication.

Sub-theme 2–6. CAC task 6 – “Provides emergency contact information in case the woman has questions or needs care”

Most providers gave their phone number to women and told them to call if they had a problem or needed more information. Some women went back or called providers when they were afraid of bleeding or pain.

Sub-theme 2–7. CAC task 9 – “Schedules follow-up visit to confirm completion of the medication abortion”

Most interviewed women did not come back for a follow-up visit if they did not encounter a problem after a medical or surgical abortion. Some women who used medical abortion asked providers to have a surgical abortion to ensure the completion of abortion.

*P04: Clients came here seeking for cleaning (surgical abortion) to make sure if it is completed since they just saw bleeding without anything*

Only a few women knew the signs of completion of medical abortion, and their knowledge was based on their previous abortion or miscarriage.

*M13: I noticed it had serious bleeding and it came out along with tissue...as remembered, when there is a miscarriage there are also coagulated blood come out and the size is about the size of a toe...*

Sub-theme 2–8. CAC task 8 – “Ensures contraceptive counselling and a method are provided if requested”

Not all women received contraceptive counselling after abortion. Some said they were informed about pills, injection, and IUD, and a few women reported being advised to use traditional methods such as abstinence and timing. Instead of gaining this information from providers, women sought it from family members, friends, or elders in their community. Some women received contraceptive counselling at the health centre in their province when they gave birth.

Of the seven women who could be followed up after abortion, three women started to use modern contraception; one started using the pill, one injection, and one an intrauterine device (IUD). Two reasons given for not using modern contraception after abortion were still feeling weak or rarely having sex with a partner due to separation.

*M07: No, I have not used any contraception yet...I thought my health is still weak...we are not too often having sex...*

Some women said that they continued using traditional methods since they were afraid of infertility caused by using modern contraception, particularly by pills. This rumour and fear discouraged women from starting or continuing using pills.

*M24: I have learnt that one of my neighbours who used pills had uterus problem...when she wanted to have a baby, she could not have a baby for about ten years...*

Women's partners sometimes objected to using modern contraception because they thought that it may negatively affect the women's health or cause uterus problems.

*M24: Actually, my husband uses the natural method (withdrawal)... and he doesn't want me to use any other methods because we've just newly married...he is worried that it affects my health...*

## Discussion

### Main findings and implications

Most women seeking abortion in this study were married and had children; and the main reasons for abortion were birth spacing and financial constraints. This relates to their typical living contexts; for example, busy work schedules, being away from their families, and a lack of money for raising a child. These findings indicate that there are unmet needs for family planning among female garment factory workers who already have children. Similarly, the national demographic survey reported that most women who have had abortions are married and have children (2). Nationwide promotion of family planning methods to married women with children are required.

We found that the available medical abortion products and prices at private sectors were similar to those reported in Cambodia (6), but it should be highlighted that a variety of products are still sold.

One of the most important clinical steps for abortion is an accurate determination of the gestational age. Ultrasound was the most common method to estimate the gestational age in our study, but it is noted that some women declined this procedure due to the additional cost. For these women, providers estimated the gestational age by another method, such as pelvic examination, but that was often not carried out.

Half of the interviewed women underwent MVA, as women viewed it as a safer and quicker option, as found by other researchers (6, 23). However, our findings could not clarify whether providers gave accurate and adequate information to women to decide on an abortion method; “how they work and what are the benefits and risks”, while the CAC protocol rightly emphasizes the importance of clear, comprehensive, and sensitive communication with women seeking abortion services (7). Few women considered the risk of MVA as an invasive procedure and most women were afraid that medical abortion would result in an incomplete abortion. Reluctance to attend follow-up appointments was one of the reasons mentioned for choosing MVA. Similarly, detailed instruction and the process of medical abortion were not well explained. Many women did not know the signs of abortion completion and did not have enough confidence in dealing with bleeding and pain. Some women came back to the provider to get a surgical abortion and the amount of bleeding was sometimes over-estimated at home.

Only three women started post abortion family planning. Many women expressed fear and hesitation to use modern contraception based on rumours without scientific evidence, such as the reported notion that pills make women infertile (24–26). Most of the interviewed women knew about the existence of modern contraceptive methods, similar to the result of a national survey among the general population and a survey among factory workers (2, 13). However, contraception knowledge was mostly gained from family or friends, and the mechanisms of modern contraception are not well known. In addition to fear and misconceptions, we found that the lifestyle of factory workers affected the decision not to use contraception, particularly the infrequent opportunity to have sex due to separation from the husband. This indicates that family planning counselling should focus on women's lifestyle and needs to select the most suitable contraceptive methods.

## Recommendations for future work

Ensuring the provision of accurate and adequate information about abortion methods and modern contraception was the dominant missing aspect of comprehensive abortion care that we found through the women's experience of abortion services. For abortion, counselling for decision making and detailed information about medical abortion procedure can be improved. A previous study demonstrated that effective counselling can offer women a sense of confidence of being prepared, by informing them how to prepare for possible side effects and complications (27). Written information was provided but alternative means should be considered to maintain women's privacy, since the acceptance of a booklet with instructions was low in our study, which is consistent with previous research (27). Future work needs to explore effective ways to deliver appropriate information privately and refer women to safe providers, such as a via call-centre or social media videos.

Reliable information resources are required regarding modern contraception, which can be delivered by qualified healthcare providers. We found that most women with unmet needs for family planning in Cambodia already had a child. This means that they had several opportunities to visit health facilities during their pregnancy and delivery, at postnatal care, and at visits for immunizations for babies. A study in the Philippines found that most women who wish to delay pregnancy missed the opportunity to receive family planning counselling during their public facility visits (28). Improving the availability and quality of family planning counselling at health facilities could increase the use of contraception and reduce unintended pregnancies among women with children. Rumours surrounding modern contraception can be acknowledged and clarified during counselling.

## Strengths and limitations of this study

The strength of this study derives from our thorough knowledge of the Cambodian garment factory setting and the multi-disciplinary approach. The trained interviewers spent periods of time around the garment factories, which helped us to understand the living condition of factory workers and be sensitive to the local culture.

The limitations are that the topic of research are sensitive, and their discussion might have influenced the woman's decision to participate in the interview and the responses that they gave. In addition, most of our interviewees were married. This is because single or unmarried women might have hesitated to participate since pregnancy outside of marriage is not socially acceptable in Cambodia (2). In addition, the characteristics of researchers such as their gender and nationality influence the interaction with research participants. We mitigated this by alternating the foreign researchers carrying out the interviews, while always having the local researcher present as translator and facilitator, and by triangulating with secondary sources and other material from our NGO partner. Some women who knew the local Marie Stopes clinic might have trusted the interviewers and may have been more inclined to participate or talk about their concerns to interviewers. Finally, we did not interview women attending public healthcare services, because garment factory workers typically seek abortions at private healthcare services (13). Previous work found that women do not trust public providers whereas private providers are perceived as “friendly, confidential and clean” (24).

## Conclusion

This paper described the information seeking practices and experiences regarding abortion among women working in garment factories in relation to the national protocol of abortion care. It shows that while abortion services are widespread and affordable, private providers do not always provide sufficient information to allow women to decide the most appropriate type of abortion. Women lacked the information needed to manage the medical abortion process at home, and initiate contraception use after abortion. Future initiatives in this field need to address this gap by ensuring that providers have counselling skills regarding abortion and contraception, leaflets were perceived to be indiscreet and alternative effective and appropriate informative material that helps women make informed decisions should be developed.

In response to the findings of this study, our project developed short videos to inform women about modern contraceptive methods and how to take medical abortion. Due to the high use of social media among factory workers these are available on YouTube or Facebook of Marie Stopes International Cambodia. An evaluation of their impact will reported in a separate paper.

## Abbreviations

CAC  
Comprehensive abortion care  
MVA  
Manual vacuum aspiration  
IUD  
Intrauterine device

## Declarations

### Ethical approval and consent to participate

We obtained approval from the national ethics committee for health research of Cambodia (Ref: 094NECHR), and ethics committees at Marie Stopes International (Ref: 003-19A) and the London School of Tropical Medicine and Hygiene (ref: 14646).

### Consent for publication

Not applicable

### Availability of data and materials

The data that support the findings of this study are available on request from the corresponding author [CS]. The data are not publicly available because they contain information that could compromise research participants' privacy and consent.

### Competing interests

The authors declare that they have no competing interests

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### Author's contributions

CM, EO, MM, LS, CF, CT, OA and CS contributed the conception and design of the research

CM, MM, LS, CS contributed the acquisition of data

CM, EO, MM and CS analysed and interpreted the data

CM have drafted the manuscript.

EO, MV, CS substantively revised the manuscript

All authors read and approved the final manuscript.

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### Author's information

The local researcher who conducted interview is a local midwife working in Marie Stopes International Cambodia.

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## Appendix

### Appendix A: Interview guide for women seeking MA

#### Background information

|  |
|--|
| What is your age?  |
| Where are you from?  |
| How long have you been in Phnom Penh?                                      |
| Where do you work and what is your role? (Don't need specifics of factory) |
| How is your work?  |

#### Relationships and living situation

|  |
|--|
| Are you married?                           |
| If no: do you have a relationship?         |
| Do you have children?                      |
| How many?                                  |
| How old are they?                          |
| Where do they live?                        |
| What sort of accommodation do you live in? |
| Who do you live with?                      |

#### MA decision-making, expectations and information seeking

|   |
|---|
| Have you had an abortion before?                                      |
| When did you realise you were pregnant this time?                     |
| How did you realise you were pregnant?                                |
| What happened after that?   |
| Feelings  |
| Further confirmation sought   |
| Who discussed it with   |
| Why decided to have an abortion this time                             |
| Do you think this is a common reason for women to have abortion here? |
| How did you decide what to do?  |
| Did you talk to your family or friends?                               |
| How did you make the decision?  |
| Why did you choose this provider?                                     |
| How did you learn about MA?   |
| Do you have any friends or family who have had MA?                    |
| What was their experience?  |
| Why did you choose MA instead of another way?                         |

*If have not taken MA yet:*

|  |
|--|
| Did you come with anyone today?                    |
| When do you think you will take the MA?            |
| What do you expect to happen when you take the MA? |
| Have you been told will happen?                    |
| Who has told you this?                             |
| What has the provider said?                        |
| How will you manage it?                            |
| What will you do if you need more advice?          |
| Will you need to take any time off work?           |
| What are your feelings about taking it?            |

*If have taken MA already:*

|   |
|---|
| Did you come with anyone to get the MA?                               |
| When did you take the MA?   |
| What happened next?   |
| If any decisions made or further care sought: ask about these and why |
| How did you manage the bleeding?                                      |
| Did you use any products?   |
| How much did these cost?  |
| Did you take any time off work?                                       |
| Was the MA process what you expected?                                 |
| What did the provider tell you?                                       |
| Did anyone else tell you what to expect?                              |
| What were your feelings about taking MA?                              |
| Did anyone help you at home?  |

## Attitudes and barriers around MA

|  |
|--|
| Was it easy or hard to come to buy MA?<br>Why was it easy/hard?<br>What would have made it better for you? |
| Who would you tell and who would you not tell?<br>Would you tell your friends?                             |
| Do people here think abortion is a bad thing?<br>Who says this?  |

*If have not taken MA yet:*

|   |
|---|
| Do you know how much the cost is?<br>Will anyone help you pay?<br>Did you have to pay for transport here? |
|---|

*If have taken MA already:*

|   |
|---|
| What were the biggest challenges to taking MA?<br>How much did the MA (/MVA) cost?<br>Did anyone help you pay?<br>Did you have to pay for anything else? Transport? |
|---|

## Contraception

|  |
|--|
| Have you used contraception before?  |
| If yes: which methods?<br>How long for?<br>What was your experience of it?<br>Why did you stop using it?   |
| If no: why do you not use contraception?   |
| Do you plan to use any contraception after the abortion?   |
| <i>If yes:</i> do you know which method you will have?<br>Do you know when you will get it?<br>Do you know where?<br><i>If reported side effects:</i> do you know what you will do if you get the side effects?  |
| <i>If no:</i> why not?<br>How will you prevent pregnancy?<br>Do you know which methods are available?  |
| How do you make decisions about FP?<br>Where would you get information about FP?<br>Have you ever seen any videos or information online about FP?<br>Do you and your friends ever talk about contraception?<br>What contraception do your friends use?<br>What do they say about it? |

## General life questions

|  |
|--|
| What are your plans for the future with your family and your work? |
| Do you have a mobile phone?  |
| What type is it?   |
| What do you use it for?  |
| How do you enjoy yourself on your day off?                         |

Is there anything you want to ask us?

**Appendix B: Interview guide for private providers**

**MA provision**

|  |
|--|
| How long they have been providing MA   |
| Available types of drug for MA         |
| Approximate number of clients per week |
| Information given to clients           |

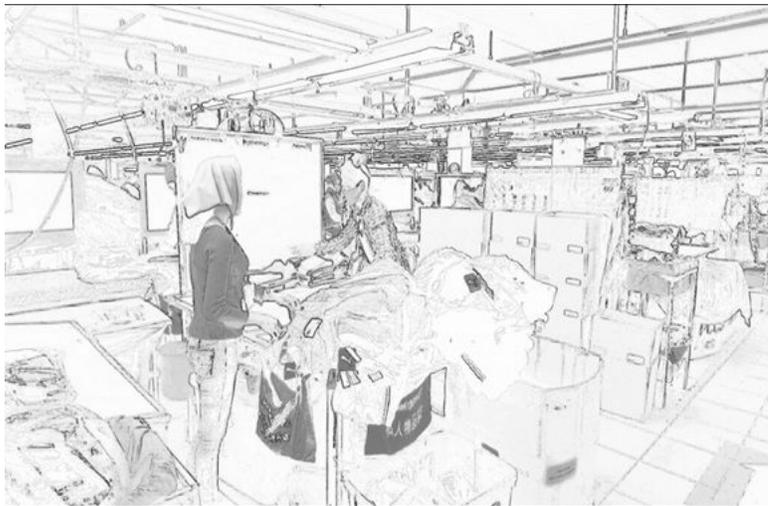
**Training**

|   |
|---|
| What formal training they have been given |
| How they keep up to date                  |
| What support they would like              |

**Post-abortion care and support**

|                                  |
|----------------------------------|
| Post-abortion issues encountered |
| Post-abortion care provided      |
| Suggestions for interventions    |

**Figures**



**Figure 1**

Image shows a garment factory work setting (anonymised)



**Figure 2**

Images show the area surrounding garment factories (left and middle) and a bed in a cabinet (right)