

RESEARCH

Open Access



# The impact of reproductive health needs on women's employment: a qualitative insight into managing endometriosis and work

Tom Hvala<sup>1\*</sup> and Karin Hammarberg<sup>2</sup>

## Abstract

**Background** Reproductive health conditions present various challenges for women in all aspects of their lives, including in the workplace. This study explores the workplace experiences of employed women with reproductive healthcare needs arising predominantly from endometriosis, as well as adenomyosis and infertility.

**Methods** Semi-structured interviews were conducted with 12 women with one or more of these conditions who were employed while experiencing symptoms of their condition or seeking treatment (such as in-vitro fertilization or laparoscopic surgery).

**Results** Interviewees reported significant physical and psychological hardship because of their reproductive health conditions, namely pain associated with endometriosis. The impact of reproductive health needs and treatment on women's ability to work included: difficulty managing symptoms, additional pressure to perform, exhaustion of 'sick leave', and working less and negative impact on career progression. In terms of how workplaces can improve the wellbeing of women with endometriosis and other reproductive health needs, women would benefit from: flexibility and working from home, access to paid reproductive health leave, and improved workplace education, trust and understanding.

**Conclusions** Women's own accounts of how endometriosis and their reproductive health impacts their working lives, and what employers can do to support them, provides a platform to better understand women's needs. These findings can inform public-policy solutions and workplace policies to better meet the needs of women with endometriosis and improve their workforce participation.

**Keywords** Endometriosis, Fertility, IVF, Workplace, Employment

\*Correspondence:

Tom Hvala

Tom.Hvala@monash.edu

<sup>1</sup>Research Affiliate, Global and Women's Health Unit, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia

<sup>2</sup>Global and Women's Health Unit, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

## Background

Endometriosis and adenomyosis are reproductive health conditions that affect about 10 per cent of reproductive-age people presumed female at birth [1, 2]. The conditions are associated with infertility, painful periods, debilitating pain, and reduced quality of life [3, 4]. To manage symptoms, women living with endometriosis and adenomyosis have frequent encounters with health-care providers who may dismiss their symptoms, lack essential knowledge and provide inconsistent advice [5]. In addition, treatments for endometriosis and adenomyosis, such as a laparoscopy or taking a contraceptive pill, are seldom successful in the long-term or without adverse side-effects.

Endometriosis is closely associated with infertility. Infertility, defined as 12 months of regular unprotected sexual intercourse without conception [6], affects one in six people globally [7] and is associated with significant psychological distress [8]. For those who seek treatment for infertility, such as in-vitro fertilization (IVF), the treatment journey is physically, psychologically and financially challenging and may not result in a birth. The demands of IVF include frequent visits to a fertility clinic for hormone stimulation and monitoring, egg retrieval, and embryo transfer, all of which necessitate time off work for employed women. Laparoscopic surgery, which is required to diagnose and help treat endometriosis, also requires women to take time off work.

Taken together, the reproductive health conditions of endometriosis, adenomyosis, and infertility, and their respective treatment, have significant adverse effects on women's lives, including their employment. This study adds to the growing body of evidence aimed at better understanding the adverse effects of endometriosis. This article explores the impact of these conditions on women's employment and what employers can do to support them.

## Materials and methods

### Study design

A qualitative method was chosen as the most appropriate for this project as it sought to answer questions about experience, meaning and perspective, from the standpoint of the participant [9]. Individual semi-structured interviews were conducted, an established qualitative approach when exploring topics about which little is known [10]. The research was approved by the Monash University Human Research Ethics Committee (Project Number 27288).

### Participants and recruitment

Participants were recruited through a research statement and letter of invitation advertised via social media and circulated via relevant academic and fertility interest

group networks in Australia. The authors acknowledge this strategy may introduce recruitment bias. Employed women over the age of 18 who identified as cis-gendered and had endometriosis or a related reproductive health condition were invited to participate. From the pool of 63 women who responded, a purposive sampling approach was used to select 12 interviewees. Participants were selectively chosen to ensure their perspectives— in terms of employment status (part- or full-time, contractor, casual) and health conditions (endometriosis, adenomyosis, infertility)— reflected a broad range of women's reproductive health experiences. The authors also acknowledge the recruitment of participants based on their profile may impact the content of their experiences.

### Data source

An interview guide was developed by the authors who have employment law, clinical, and research expertise. It was informed by the research literature and included questions about (i) participants' reproductive health conditions and their symptoms, (ii) impact of endometriosis and reproductive health conditions and treatment on women's work, and (iii) how workplaces can improve the wellbeing of women with reproductive health needs. All questions were open-ended where participants were asked to describe their experiences in their own words, with follow-up prompts inviting elaboration as needed.

### Procedure

Women who expressed interest in the study were contacted and an interview was arranged. Participants' consent was sought prior to interview and confirmed during the interview. Semi-structured interviews lasting between 10 and 39 min were conducted with 12 women between 25 February and 16 November 2021 via Webex. Data collection (i.e., interviews) stopped once data in later interviews began to repeat themes expressed in previous data, as a means of avoiding data saturation [11]. Each interview commenced with a request for the interviewee to confirm their age, occupation, and reproductive health condition, followed by the questions in the interview guide. With participants' permission, interviews were audio-recorded and transcribed, with potentially identifying data removed. Transcripts were sent to participants for their approval.

### Data analysis

Transcripts were analysed using the established technique of inductive thematic analysis [12]. After repeated reading, transcripts were first manually coded according to themes inherent in the question guide and then examined for original themes introduced by the participants. Quotations were selected to reflect thematic interpretation and diversity of experience.

**Table 1** Participant characteristics

| Participant    | Age | Industry              | Occupation             | Reproductive Health Condition/s   |
|----------------|-----|-----------------------|------------------------|---|
| Participant 1  | 34  | Armed forces          | Air force member       | Endometriosis, infertility, low anti-mullerian hormone, low ovarian reserve, poor egg quality |
| Participant 2  | 41  | Government            | Senior program officer | Infertility   |
| Participant 3  | 44  | Retail                | Head of marketing      | Adenomyosis, endometriosis, infertility   |
| Participant 4  | 20  | Retail                | Retail assistant       | Adenomyosis endometriosis, irritable bowel syndrome, dyspareunia                              |
| Participant 5  | 28  | Government            | Public servant         | Endometriosis   |
| Participant 6  | 32  | Government            | Public servant         | Infertility   |
| Participant 7  | 29  | Retail                | Retail assistant       | Endometriosis   |
| Participant 8  | 25  | Professional services | Accountant             | Adenomyosis, endometriosis, polycystic ovarian syndrome                                       |
| Participant 9  | 24  | Health sector         | Consultant             | Adenomyosis, endometriosis  |
| Participant 10 | 25  | Academia              | PhD candidate          | Endometriosis   |
| Participant 11 | 23  | Advertising           | Account manager        | Adenomyosis, endometriosis  |
| Participant 12 | 32  | Education             | Assistant principal    | Endometriosis, infertility  |

## Results

The characteristics of participants are shown in Table 1.

The overarching themes for (i) 'reproductive health conditions and their symptoms' were 'physical symptoms' and 'psychological symptoms'. The themes relating to the (ii) 'impact of reproductive health conditions and treatment on women's work' included 'difficulty managing symptoms', 'additional pressure to perform', 'exhaustion of personal leave (i.e., 'sick leave')' and 'working less and negative impact on career progression'. The themes regarding (iii) 'how workplaces can improve the well-being of women with reproductive health needs' included 'flexibility and working from home', 'paid reproductive health leave', and 'workplace trust, education and understanding'.

### Reproductive health conditions and their symptoms

Participants reported suffering one or more of endometriosis, adenomyosis and infertility requiring IVF treatment and/or laparoscopic surgery. These conditions caused significant physical and mental health challenges that impacted every aspect of their lives, including their work lives.

**Physical symptoms**— Participants described a broad range of physical symptoms resulting from their reproductive health condition, including spotting and bleeding, severe migraines, nerve, joint and muscle pain, chronic pain, bowel problems, headaches, brain fog, poor sleep, fatigue and cramps.

All participants with endometriosis and adenomyosis described experiencing physical pain. Many women described this aspect of their condition as severely debilitating.

*Usually on the days of my period, that was when I really couldn't work and was quite bedridden, because... I would be up all night the night before and be in so much pain the next day, that I would*

*take drugs to make myself go to sleep because I couldn't deal with the pain (Participant 5).*

*I put up with pain for a long time, undiagnosed, went to work all the time and felt like... I wanted to saw my body off from the top of my torso down I'd be in that much pain. I thought that's what women went through (Participant 3).*

Debilitating pain varied in length, sometimes from days to weeks, to being constant.

*For the first two days of my period, I'm basically bed ridden. I use Tramadol for pain management. I'm just in bed for the first two days and then the next two to three days I'm really... I have trouble walking, obviously from the pelvic pain, but I also get really light-headed and dizzy. If I'm standing up it's like extreme pressure on my pelvis as well (Participant 7).*

*My symptoms were very debilitating, and they actually affected my work a lot, to the point where... I had really bad period pain. Also pain the week before my period, so I would be having pain for about two weeks out of every month (Participant 5). I was just in pain throughout the month rather than just those two or three days. I was just struggling to manage everyday activities... (Participant 10).*

**Psychological symptoms**— Participants also explained how endometriosis and their reproductive health conditions adversely impacted their mental health.

*Psychologically, [it has] been a massive journey. It normally would be coupled with depressive symptoms as well when I had the pain. That's something that I'm getting better with. It's been an acceptance thing; it's not my fault that I have the disease and I know that I'm doing everything I can. It's not like I'm*

*neglecting my health and... it's a result of things that I'm doing (Participant 7).*

### **Impact of reproductive health conditions and treatment on women's work**

**Difficulty managing symptoms**– Participants described various ways endometriosis and their reproductive health conditions affected their professional lives. They highlighted the difficulty of managing symptoms in the work environment.

*... sometimes it's just distracting. Sitting at a desk and I have cramps or sometimes my knees really hurt as well. So, trying to sit there and focus on what I'm doing, but then also at the same time, some days I feel like I should be getting up every half an hour, but it feels a lot more frequent than that sometimes. So, just being that person walking around the office when everyone else is at their desks (Participant 8). But if you have flare-ups, your uniform doesn't sit properly. If I was experiencing bloating, I would struggle to get into my uniform. The same with the IVF process... when you take stimulation drugs, you get puffy and fluid retention and all those types of things... I wouldn't do heavy lifting (Participant 1).*

The difficulty of managing endometriosis symptoms was particularly challenging for women working in retail.

*... it's difficult having endometriosis because I'm on my feet... I average about fifteen thousand steps a shift, so I'm on my feet running around constantly, so it's not something I could even attempt to do when I have... my flares (Participant 7).*

Some participants mentioned the impact of taking pain medication, which affected their ability to drive.

**Additional pressure to perform**– Participants described feeling pressure to perform because of having a reproductive health condition that impacted their ability to work, which manifested as guilt [13] or an undue need to prove oneself.

*If I was having bad endometriosis pain, I would push myself to go into the office almost because I wanted them to see that I was really sick, that I was really in pain before going home and then feeling like I could take that time off (Participant 12). I lived with this constant anxiety that 'Oh, I might get sick and I might have to take that day off work and what if no one can cover my shift and what if my boss hates me after this' (Participant 10). I have had thoughts of 'would the company be better off with someone that didn't have an illness like*

*that' because I have had to miss quite a lot of work because of it... I do feel very guilty when, even like when I had my surgery, I took a week off. I was very motivated to make sure I got back to work after that week because I didn't want to take any more time off (Participant 11).*

Participants also described feeling pressure not to take time off despite experiencing severe symptoms.

*I didn't feel comfortable taking time off from work every month. That's the hard thing, it's awkward. I'd sit there with my phone trying to message my boss and be writing. What do I say? What do I tell him? Then I'd be like– get out of bed and go to work. Because it's private and it's uncomfortable. That was challenging and I used to go to work feeling like crap. Constantly it's so embarrassing, to be looking over your shoulder to make sure you haven't bled through. It's really heavy, really awkward, but that's just what happens (Participant 3).*

**Exhaustion of personal leave (i.e., 'sick leave')**– In Australia, under Sects. 96 and 97 of the *Fair Work Act 2009* (Cth), women can take paid personal leave– colloquially referred to as 'sick leave'– if they are not 'fit for work' due to personal 'illness' or 'injury'. An employee is entitled to 10 days of paid personal leave for each year of service. Participants described the hardship of taking time off work, whether due to their reproductive health condition or for medical or fertility treatment, often exhausting their sick leave.

*From a workplace point of view, it has always been a really difficult thing, especially when I went into full-time work because I would lose all of my sick leave within the first two months of starting a job... And then to have surgery. I lose pay every month because I can't really use my annual leave. I take a massive pay cut and have in all my jobs basically (Participant 7).*

Some women described an increased vulnerability when changing jobs, particularly when requiring a laparoscopy shortly after commencing a new job. Participants made clear that sick leave entitlements were inadequate.

*I had a lot of difficulty because I started running out of sick leave before I had surgery (Participant 5). I've had a few really bad flare-ups in the past few weeks, I don't have any [sick leave] left... I have to take leave without pay (Participant 4). Sometimes I'm taking my annual leave instead of my sick leave because I've run out, because I used it for*

*surgeries when I first started with the company (Participant 9).*

Women also reported that the financial cost of taking unpaid leave or exhausting their sick leave (and thus having no paid leave available) created additional hardship, especially for those who needed money to pay for laparoscopic surgery or IVF treatment.

The difficulties of meeting medical costs were exacerbated for women engaged in 'precarious work', i.e., work, such as fixed or short-term contracts or casual employment, that affords workers little social and economic security or control [14]. This hardship was highlighted by several women who forfeited their pay because of their reproductive healthcare needs.

*It was flexible as a contractor. I didn't have to apply to have time off but I didn't get paid. I lost a lot of money because I just didn't get paid for any time I took off (Participant 2).*

*I physically couldn't go to work on the first day of my period so I always had to take that day off, but then, it forced me to push through that pain on the other days, and also develop this anxiety about calling in sick and missing that day because I wouldn't get paid for it if I wasn't there (Participant 10).*

*So it's definitely been challenging and being casual as well, being punished if you take the day off, by your shifts getting cancelled in the future and having your workplaces think you're lazy (Participant 10).*

**Working less and negative impact on career progression**– Some participants described moving from full- to part-time work to help manage their endometriosis and reproductive health condition symptoms. In some instances, participants described leaving work altogether because of their reproductive health condition or to manage the demands of IVF treatment. Some participants indicated that taking time off work, because of their reproductive condition, negatively impacted their career progression.

*As far as career progression goes, I do feel like my promotion has been delayed because I have had to take time out. Same with maternity leave. The military try not to punish women for going on maternity leave or taking personal leave, but if you're not in the office and not being reported on, it's difficult for them to assume that you would have done a good job if you were there (Participant 1).*

The difficulty of managing physical aspects of their reproductive condition for some women had detrimental

effects on their careers and was 'all-consuming' in some instances.

*One of the things that I'll say is that it's all-consuming and it's actually very difficult. I'm talking more about infertility in general, but obviously when you add endometriosis pain and issues with that, that was my entire life for five years and it's actually very hard to hold down a career while you're dealing with something that's so emotional...*

*I actually gave up my career for a family that didn't exist. Because I couldn't handle that anymore and wanted to put all of my focus into the IVF and everything like that... But at the time it was a massive thing to be like, infertility, endometriosis has completely taken over my life that I cannot have the capacity to do a career that I've been doing for a decade. It is life changing and all-consuming (Participant 12).*

For some women, their condition elicited a sense of having to choose between their career and aspirations to have a family or maintain their physical health.

*In terms of like even applying for certain jobs, I have to weigh up, 'Is this worth me applying for?' because am I going to be able to keep up with the demands? Am I going to be comfortable in that setting explaining to them that I have this disease? (Participant 7)*

**How workplaces can improve the wellbeing of women with reproductive health needs**

**Flexibility and working from home**– Participants described how having the option to work flexibly, including working from home, allowed them to continue to be productive while managing their symptoms.

*Knowing that I had the flexibility there was the biggest thing– that I could structure my day if I needed to come in a little bit later or jump out to an appointment. That was the biggest thing (Participant 6).*

*I tend to work from home when I know I am getting my period. I have an arrangement with my manager about that I am very open all my managers; upfront I always tell them I have endometriosis and I will need to work from home when I have my period. It's just a lot easier to manage– to be close to heat-packs, be in comfortable clothes, be near my medication, [and have] easier access to the bathroom. I find that works really well for me (Participant 5).*

*There are still some days where I could still do my job if not better in the comfort of my own home with a heat pack and no waistband type of thing when*

*there's really bad days or the days where say I wake up in the morning and I've got really bad joint pain or I've got a migraine but it subsides by lunch time and then I have the afternoon where I could probably sit there and do a couple of hours of work type of thing (Participant 8).*

**Paid reproductive health leave**– All participants supported the introduction of a paid reproductive health leave provision. For IVF, it was also noted that this would help women with the emotionally demanding aspects of treatment, such as egg collection.

*Also leave because when you go to hospital, you might get signed off for a day – it's potluck for how long you get a sick note or leave from work. That's difficult because it's such an emotional process to be back at work the day after, even if it's the egg collection – need more than one day. Need a day off when you get your result. Need a day for the blood test, because that's an emotional day. So much time off– you're carrying around a big belly full of eggs making you uncomfortable and trying to commute (Participant 2).*

Noting that many women resort to using (and exhausting) their sick, annual, and other workplace leave entitlements, participants suggested that introducing a specific reproductive health leave provision was a solution.

*I don't know if it's asking for too much, but in a sense, not having to use your annual leave for medical appointments or sick days would be really nice. Because most of the time, my annual leave days are purely for surgeries or medical appointments or preparing for the future flare-ups that are going to happen (Participant 9).*

The importance of ensuring paid leave provisions were extended to casual employees was highlighted.

*I think it would be really good to see that sort of policy available to casual workers, even though they're not entitled to sick leave. With the casualised workforce, so many people would be battling through this and so, it would be amazing if that would be available to everyone (Participant 10).*

**Workplace education, trust and understanding**– Most participants highlighted that workplace education, understanding and trust– in terms of employers trusting their employees to fulfil their duties– would ultimately dictate the success of any attempts to better incorporate women's reproductive healthcare needs in the workplace.

*I think just an understanding workplace would be the best, like educating a workplace that sometimes you do need to go home because of your period or because of the pain (Participant 9).*

*The culture is changing, and workplaces are realizing that people can be trusted and that you can work from home. People can be trusted that they want to keep their jobs; things do happen (Participant 1).*

*I feel like it would be a really great thing for your employer to actually understand what the condition is, and understand that it's not just... A lot of people think it's just like a painful period and there's so much more stuff that comes with it (Participant 11). If workplaces can be honest about the fact that their employees have lives outside of work and start from that principle, even with people in customer service roles or shiftwork. Having some kind of recognition that you may need to do things outside of work and slowing building that into the way you structure your agreements or pull together your workplace culture would be helpful (Participant 6).*

A need to better understand women's endometriosis and reproductive health issues and experiences more broadly, including pregnancy loss, was discussed.

*Workplace education about issues, not just IVF, but miscarriage and IVF, because they're so interlinked. Workplace education for everyone... I have not seen anything on miscarriage. There must be other women at the workplace who have gone through miscarriage and IVF. There is nothing on it (Participant 2).*

## Discussion

Women with reproductive health conditions, such as endometriosis and adenomyosis, commonly report experiencing physical pain [15–18]. Various studies have also explored the negative impact of fertility treatment on women's physical and mental health [19–21]. Moradi et al.'s study of 35 women with endometriosis, for example, noted that most women reported feeling upset, depressed, uncertain, weak, powerless, helpless, hopeless, defeated, angry, frustrated, exhausted and like a burden [17]. In Steyn et al.'s study, over half of participants felt their fertility journey made them feel depressed and/or anxious, and 79 per cent of respondents who experienced miscarriage felt their fertility journey was traumatic [22]. Participants in this study affirmed the physical and psychological impact of reproductive health conditions on women's health as emphasized in the literature.

Conversely, research specifically exploring the impact of endometriosis and reproductive health conditions on women's employment is growing, but is otherwise limited

[4, 23–26]. Most research to date has predominantly quantified the impact of women's reproductive health conditions in terms of loss of productivity or 'workability' [25, 27–29]. While useful, this approach reduces women's experiences of reproductive health conditions to a 'cost,' without consideration of how these complex conditions impact women's lives. Furthermore, there is little research directed at understanding women's own experiences of managing reproductive health in the workplace and how conditions, such as endometriosis, impact their professional lives [26]. This study provides unique insights by reporting women's own accounts of how their reproductive conditions and treatments affect their ability to work. The findings can inform policy solutions to advance women's participation in the workplace, and offer guidance for women, employers and allied health professionals about the needs of women with reproductive health conditions, as well as assist with the development of resources to better assist women and workplaces.

#### **Using sick leave**

The length of time women need to take off work due to reproductive health-related difficulties and treatment varies, depending on the condition and how work productivity is measured. Almost 14 per cent of women report absenteeism during their menstrual cycle [30]. Women with endometriosis lose approximately one day of work a week due to their condition [31]. Women experiencing menorrhagia (heavy or prolonged menstrual bleeding) and dysmenorrhea (painful menstruation or cramping) report absenteeism and decreased work productivity, as well as loss of income and unemployment [32]. For women undergoing IVF treatment, studies suggest the average time taken off work during a treatment cycle is 8.74 days [33]; alternatively, women are absent on average 33 h per IVF cycle [34].

Consistent with Bell et al.'s study, participants associated endometriosis with a greater absence from work [29]. Furthermore, as with previous studies [35, 36], this study demonstrates that personal leave entitlements are inadequate and quickly exhausted by women with reproductive health needs. The hardship of insufficient leave entitlements and the resulting loss of income was, according to participants, also exacerbated because of the cost of receiving medical treatment.

#### **Working less and negative impact on career progression**

The effects of balancing women's reproductive health needs with employment are complex. Work performance is impaired for women with endometriosis, particularly in respect of work scheduling and physical demands [24]. Research indicates around half of women with endometriosis are concerned it will affect their career prospects, and 35 per cent felt it actually did [33]. Almost one third

of women report missing out on promotions due to their endometriosis symptoms, while 16 per cent report being overlooked [35]. It was evident in this study that many women either experience some degree of disadvantage to their career, or are concerned they will, due to their reproductive health condition.

The few studies evaluating the impact of reproductive healthcare needs on women indicate that women are commonly unable to work to their full potential as they reduce their working hours because of their reproductive health condition and treatment [13, 22, 37]. Women with endometriosis are less likely to be employed than women without endometriosis, possibly because the disabling nature of the condition minimises their ability to undertake income generating work [33, 38, 39]. Women may also feel guilty because of their reproductive health needs and not being able to work [23]. Participants in this study confirmed these findings, electing to decrease from full to part-time work, and in one instance forfeit work altogether, and feeling like the demands of their reproductive healthcare needs were not compatible with work.

#### **How workplaces can improve the wellbeing of women with endometriosis and reproductive health needs**

In addition to better understanding the demands endometriosis and reproductive health conditions place on women, it is as important to consider how workplaces can better accommodate women's reproductive health needs. Research in this space has called for 'strengthen[ing] the basis for developing adequate measures and solutions for working women in practice' [40]. Evaluating the physical and psychological rehabilitation effectiveness in work performance for women with endometriosis may also assist [24]. Promisingly, the Australian Government's recent inquiry into menopause and perimenopause, which identified various issues also raised by the participants in this research, suggests that women's reproductive health needs are now actively being considered by the Australian Government [41]. Recent research has also highlighted that advancements in non-invasive diagnostic tools and improved awareness of painful symptoms for young women with adenomyosis have enabled earlier diagnosis [42]. Increasing our understanding of how women with reproductive health needs can be better supported in the workplace is vital.

#### **Flexibility and working from home**

Workplace flexibility and working from home, particularly after the COVID-19 pandemic, is increasingly commonplace in Australian workplaces. Under the *Fair Work Act 2009* (Cth), employees can request to change their working arrangements— to work flexibly, which includes from home— if they have been employed for at least 12 months and meet the requisite eligibility requirements.

Notably, Sect. 65(1) and (2) of the *Fair Work Act 2009* (Cth) prescribe the circumstances for requesting a flexible working arrangement, such as pregnancy or disability, however these circumstances are non-exhaustive and, in the authors' opinion, should include fertility or reproductive healthcare needs.

Two thirds of women with menstrual-related symptoms have expressed a preference for greater flexibility in work tasks and hours [30]. For women with endometriosis, workplace flexibility and the option of working from home has been identified as one of the most significant factors that can improve the management of symptoms while working [35]. Evans's research indicates that by taking rest breaks, not needing to hide any pain and using pain relieving strategies, working from home enables women with reproductive healthcare needs to continue working as opposed to taking time off work [43]. This finding was supported by women in this study, who highlighted the positive impact of being able to work flexibly and from home, particularly during flare-ups and to help cope with their symptoms.

Notably, the Australian Fair Work Ombudsman's guidance to employers on flexible work arrangements states that 'best practice' approaches to providing flexible work arrangements in the workplace should waive eligibility requirements [44]. In other words, all employees, especially those with reproductive health and care needs, should have access to workplace flexibility supports.

#### ***Paid reproductive health leave***

The argument for paid reproductive health leave entitlements has been made regarding IVF and menstruation [45, 46]. There is scope to broaden these provisions to include a paid reproductive leave provision for all reproductive health needs, whether in relation to endometriosis, IVF and infertility, or any menstrual-related health condition, including those that may affect men. In addition, partners could be provided access to the leave provision, to support women during treatment or at other times when they need support.

This approach is receiving growing support from Australian unions, such as the Community and Public Sector Union and Health and Community Services Union. A handful of Australian workplaces—such as Future Super and ModiBodi—also introduced their own reproductive health leave entitlements. The Australian Senate's recent inquiry into menopause and perimenopause also discussed this idea [41]. Women in this study supported the introduction of this kind of entitlement and made clear that it would positively impact their lives by helping them manage their reproductive health needs and treatment.

#### ***Workplace policies***

Workplaces amenable to better supporting women with endometriosis and reproductive healthcare needs can implement workplace policies [26, 47]. Policies such as these may help decrease the psychosocial burden of undergoing IVF, such as depressive symptoms, anxiety, absenteeism and job instability [48]. Such workplace policies can provide guidance for managers and employees seeking reproductive health leave, or to work from home or flexibly. These measures 'should help support employees during treatment and reduce psychological distress, thereby potentially influencing physical health and treatment outcomes' [33].

While some organisations, such as the Victorian Women's Trust, have published resources to help proactive employers prepare workplace policies, there is need for authoritative guidelines to help accommodate women with endometriosis and reproductive healthcare needs [35]. Women we spoke to highlighted the importance of increasing employees' awareness of workplace policies—only some participants were aware of how a workplace policy may assist their reproductive healthcare needs.

A particular challenge includes ensuring any workplace policy is fit for purpose and enables open discussion about reproductive health-related conditions, symptoms and treatment. However, the success of such policies, and potential disclosure of highly personal health issues like infertility or endometriosis, will depend on workplace culture [27, 49–51].

#### ***Workplace trust, education and understanding***

The available research indicates that some employers are unaware of the unique needs of employees undergoing fertility treatment [33]. Most participants in this study shared this view or had similar experiences. The need for workplaces to encourage a culture of understanding and trust is particularly important given recent workplace inquiries highlighting the prevalence of gender-based discrimination in the workplace [33, 52].

#### ***Strengths and limitations***

This study has limitations. In terms of recruitment of participants, by limiting the eligibility of participants to women who were employed, the perspectives of unemployed women, including those who may have left their employment because of their reproductive health needs, were not included. Further, women whose experiences of managing their reproductive health with work that were positive, or perceive their physical suffering in a positive manner, may not have opted into the research. While analysing the results, there is also potential that participants' experiences were impacted by factors other than their reproductive health condition or needs, such as

work conditions specific to the retail industry or women in Australia more broadly [53, 54].

Some of the strategies to support workforce participation for women with reproductive health conditions identified in this study, including flexibility, cannot be implemented in all workplace settings, including in customer facing or service occupations (e.g., retail or hospitality). Further research regarding the experiences of women who undertake 'precarious' work is also needed. In addition, an intersectional feminist approach to participant selection was not possible. Further research is needed to determine how race, age, economic background, sexual identity and orientation and physical ability impact employment for women with reproductive health conditions [55–57]. Last, this research did not seek the perspectives of employers, which needs to be explored in future research.

## Conclusion

Strengths of this study include that it gives a voice to women with lived experience of the impact of endometriosis and reproductive health conditions on employment. It also adds to the growing body of research addressing how women manage reproductive health conditions while employed, and provides a platform for further inquiry.

This study demonstrates the adverse effects of endometriosis and related reproductive health conditions on women's professional lives. It also offers insights on how these can be mitigated through workplace mechanisms and policies. The findings can inform public policy solutions and workplace supports to better accommodate the needs of women with endometriosis and improve their workforce participation.

## Abbreviations

IVF In vitro fertilization

## Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12905-025-03726-y>.

Supplementary Material 1

## Acknowledgements

The authors thank the women who participated and shared their experiences.

## Author contributions

The authors, Tom Hvala and Dr Karin Hammarberg, jointly participated in research design; data acquisition, analysis and interpretation; research; and article preparation, writing and submission.

## Funding

No funding was provided for this work.

## Data availability

The participants of this study did not give consent for their data (i.e. interview transcripts) to be shared publicly. Due to the sensitive nature of the participants' health and employment history, access to supporting data is not available.

## Declarations

### Ethics approval and consent to participate

Ethics approval was provided by the Monash University Human Research Ethics Committee (Project Number 27288). All experiments were performed in accordance with relevant guidelines and regulations, including the Declaration of Helsinki. Informed consent to participate was obtained from all participants in this study.

### Consent for publication

Not applicable.

### Competing interests

The authors declare no competing interests.

Received: 17 December 2024 / Accepted: 8 April 2025

Published online: 07 May 2025

## References

1. Maruyama S, Imanaka S, Nagayasu M, Kimura M, Kobayashi H. Relationship between adenomyosis and endometriosis; different phenotypes of a single disease? *Eur J Obstet Gynecol Reproductive Biology*. 2020;253:191–7.
2. Zondervan KT, Becker CM, Missmer SA. Endometriosis. *N Engl J Med*. 2020;382(13):1244–56.
3. Marinho MCP, Magalhaes TF, Fernandes LFC, Augusto KL, Brilhante AV, Bezerra L. Quality of life in women with endometriosis: an integrative review. *J Womens Health (Larchmt)*. 2018;27(3):399–408.
4. Maulenkul T, Kuandyk A, Makhadiyeva D, Dautova A, Terzic M, Oshibayeva A, Moldaliyev I, Ayazbekov A, Maimakov T, Saruarov Y, et al. Understanding the impact of endometriosis on women's life: an integrative review of systematic reviews. *BMC Womens Health*. 2024;24(1):524–517.
5. Rowe HJ, Hammarberg K, Dwyer S, Camilleri R, Fisher JRW. Improving clinical care for women with endometriosis: qualitative analysis of women's and health professionals' views. *J Psychosom Obstet Gynecol*. 2021;42(3):174–80.
6. Zegers-Hochschild F, Adamson GD, Dyer S, Racowsky C, de Mouzon J, Sokol R, Rienzi L, Sunde A, Schmidt L, Cooke ID, et al. The international glossary on infertility and fertility care, 2017†±§. *Hum Reprod*. 2017;32(9):1786–801.
7. Organization WH. Infertility prevalence estimates. In.; 2023.
8. Swanson A, Braverman AM. Psychological components of infertility. *Family Court Rev*. 2021;59(1):67–82.
9. Hammarberg K, Kirkman M, de Lacey S. Qualitative research methods: when to use them and how to judge them. *Hum Reprod*. 2016;31(3):498–501.
10. Cohen DJ, Crabtree BF. Evaluative criteria for qualitative research in health care: controversies and recommendations. *Ann Fam Med*. 2008;6(4):331–9.
11. Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, Burroughs H, Jinks C. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant*. 2018;52(4):1893–907.
12. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Res Psychol*. 2006;3(2):77–101.
13. Young K, Fisher J, Kirkman M. Women's experiences of endometriosis: a systematic review and synthesis of qualitative research. *BMJ Sex Reproductive Health*. 2015;41(3):225.
14. Unions ACT. Lives on hold: unlocking the potential of Australia's workforce. In.; 2012.
15. Chiantera V, Abesadze E, Mechsner S. How to understand the complexity of Endometriosis-Related pain. *J Endometr Pelvic Pain Disorders*. 2017;9(1):30–8.
16. Denny E. Women's experience of endometriosis. *J Adv Nurs*. 2004;46(6):641–8.
17. Moradi M, Parker M, Sneddon A, Lopez V, Ellwood D. Impact of endometriosis on women's lives: a qualitative study. *BMC Womens Health*. 2014;14(1):123–123.
18. Tosti C, Troia L, Vannuccini S, Lazzeri L, Luisi S, Petraglia F. Current and future medical treatment of adenomyosis. *J Endometr Pelvic Pain Disorders*. 2016;8(4):127–35.

19. Della Corte L, Di Filippo C, Gabrielli O, Reppuccia S, La Rosa VL, Ragusa R, Fichera M, Commodari E, Bifulco G, Giampaolino P. The burden of endometriosis on women's lifespan: A narrative overview on quality of life and psychosocial wellbeing. *Int J Environ Res Public Health*. 2020;17(13):4683.
20. Gambadauro P, Carli V, Hadlaczky G. Depressive symptoms among women with endometriosis: a systematic review and meta-analysis. *Am J Obstet Gynecol*. 2019;220(3):230–41.
21. Gozuyesil E, Karacay Yikar S, Nazik E. An analysis of the anxiety and hopelessness levels of women during IVF-ET treatment. *Perspect Psychiatr Care*. 2020;56(2):338–46.
22. Steyn F, Sizer A, Pericleous-Smith A. Fertility in the workplace: the emotional, physical and psychological impact of infertility in the workplace. *Hum Reprod (Oxford)*. 2022; 37(Supplement\_1).
23. Andysz A, Jacukowicz A, Merez-Kot D, Najder A. Endometriosis - The challenge for occupational life of diagnosed women: A review of quantitative studies. *Med Pracy*. 2018;69(6):663–71.
24. Mundo-López A, Ocón-Hernández O, Lozano-Lozano M, San-Sebastián A, Fernández-Lao C, Galiano-Castillo N, Cantarero-Villanueva I, Arroyo-Morales M, Artacho-Cordón F. Impact of symptom burden on work performance status in Spanish women diagnosed with endometriosis. *Eur J Obstet Gynecol Reproductive Biology*. 2021;261:92–7.
25. Ferreira ALL, Bessa MMM, Drezett J, de Abreu LC. Quality of life of the woman carrier of endometriosis: systematized review. *Reprodução Climatério*. 2016;31(1):48–54.
26. Howe D, Duffy S, O'Shea M, Hawkey A, Wardle J, Gerontakos S, Steele L, Gilbert E, Owen L, Ciccía D, et al. Policies, guidelines, and practices supporting women's menstruation, menstrual disorders and menopause at work: A critical global scoping review. *Healthc (Basel)*. 2023;11(22):2945.
27. Armour M, Lawson K, Wood A, Smith CA, Abbott J. The cost of illness and economic burden of endometriosis and chronic pelvic pain in Australia: A National online survey. *PLoS ONE*. 2019;14(10):e0223316–0223316.
28. Darbà J, Marsà A. Economic implications of endometriosis: A review. *PharmacoEconomics*. 2022;40(12):1143–58.
29. Bell RJ, Robinson PJ, Skiba MA, Islam RM, Hemachandra C, Davis SR. The impact of endometriosis on work ability in young Australian women. *Aust N Z J Obstet Gynaecol*. 2023;63(4):556–63.
30. Schoep ME, Adang EMM, Maas JWM, De Bie B, Aarts JWM, Nieboer TE. Productivity loss due to menstruation-related symptoms: a nationwide cross-sectional survey among 32 748 women. *BMJ Open*. 2019;9(6):e026186–026186.
31. Fourquet JMPH, Báez LMPH, Figueroa MMPH, Iriarte RIMSMD, Flores IPD. Quantification of the impact of endometriosis symptoms on health-related quality of life and work productivity. *Fertil Steril*. 2011;96(1):107–12.
32. Sims H, Singh B. The impact of menorrhagia/dysmenorrhea on work performance. *Women's Reproductive Health*. 2024;11(1):166–81.
33. Payne N, Seenan S, van den Akker O. Experiences and psychological distress of fertility treatment and employment. *J Psychosom Obstet Gynaecol*. 2019;40(2):156–65.
34. Bouwmans CAM, Lintsen BAME, Al M, Verhaak CM, Eijkemans RJC, Habbema JDF, Braat DDM, Hakkaart-Van Roijen L. Absence from work and emotional stress in women undergoing IVF or ICSI: an analysis of IVF-related absence from work in women and the contribution of general and emotional factors. *Acta Obstet Gynecol Scand*. 2008;87(11):1169–75.
35. Armour M, Ciccía D, Stoikos C, Wardle J. Endometriosis and the workplace: lessons from Australia's response to COVID-19. *Australian New Z J Obstet Gynecol*. 2022;62(1):164–7.
36. Mastrangelo M, Turnbull D. The impact of surgically diagnosed symptomatic endometriosis on women's social lives, work and education: an inductive classical content analysis. *Australian New Z J Obstet Gynecol*. 2022;62(2):274–9.
37. Gilmour JA, Huntington A, Wilson HV. The impact of endometriosis on work and social participation. *Int J Nurs Pract*. 2008;14(6):443–8.
38. Facchin F, Buggio L, Ottolini F, Barbara G, Saita E, Vercellini P. Preliminary insights on the relation between endometriosis, pelvic pain, and employment. *Gynecol Obstet Invest*. 2019;84(2):190–5.
39. Imai Y, Endo M, Kuroda K, Tomooka K, Ikemoto Y, Sato S, Mitsui K, Ueda Y, Deshpande GA, Tanaka A, et al. Risk factors for resignation from work after starting infertility treatment among Japanese women: Japan-Female employment and mental health in assisted reproductive technology (J-FEMA) study. *Occup Environ Med (London England)*. 2021;78(6):426–32.
40. Gjellestad M, Haraldstad K, Enehaug H, Helmersen M. Women's health and working life: A scoping review. *Int J Environ Res Public Health*. 2023;20(2):1080.
41. Senate A. Issues related to menopause and perimenopause. In.; 2024.
42. Evans S, Dowding C, Druitt M, Mikocka-Walus A. I'm in iso all the time anyway: A mixed methods study on the impact of COVID-19 on women with endometriosis. *J Psychosom Res*. 2021;146:110508–110508.
43. Ombudsman FW. Flexible working arrangements - Best Practice Guide. In.; 2023.
44. Golding G, Hvala T. Paid period leave for Australian women: A prerogative not a pain. *Syd Law Rev*. 2021;43(3):349–77.
45. Hvala T. In vital need of reform: providing certainty for working women undergoing IVF treatment. *Univ New South Wales Law J*. 2018;41(3):901–38.
46. Baird M, Colussi S, Hill E. Reproductive policies: An expanding approach to work and care. In., edn. Australia: Sydney University Press; 2024.
47. Courbiere B, Lacan A, Grynberg M, Grelat A, Rio V, Arbo E, Solignac C. Psychosocial and professional burden of medically assisted reproduction (MAR): results from a French survey. *PLoS ONE*. 2020;15(9):e0238945–0238945.
48. Barnack-Tavlaris JL, Hansen K, Levitt RB, Reno M. Taking leave to bleed: perceptions and attitudes toward menstrual leave policy. *Health Care Women Int*. 2019;40(12):1355–73.
49. Finamore PSMAMD, Seifer DBMD, Ananth CVPDMPH, Leiblum SRPD. Social concerns of women undergoing infertility treatment. *Fertil Steril*. 2007;88(4):817–21.
50. Krsmanovic A, Dean M. How women suffering from endometriosis disclose about their disorder at work. *Health Commun*. 2022;37(8):992–1003.
51. Commission AHR. Respect@Work: Sexual Harassment National Inquiry Report. In.; 2020.
52. Roan AM, Diamond C. Starting out: the quality of working life of young workers in the retail and hospitality industries in Australia. *Int J Employ Stud*. 2003;11(2):91–119.
53. Fetherston C, Fetherston A, Batt S, Sully M, Wei R. Wellbeing and work-life merge in Australian and UK academics. *Stud High Educ*. 2021;46(12):2774–88.
54. Johnson ME. Asking the menstruation question to achieve menstrual justice. *Columbia J Gend Law*. 2021;41(1):158–68.
55. Ussher JM. Embracing a feminist approach to women's reproductive health. *Women's Reproductive Health*. 2023;10(1):1–5.
56. Jeffrey S, Ashton L, Ferfolja T, Armour M. Transgender and gender diverse people with endometriosis: A perspective on affirming gynaecological care. *Women's Health*. 2024;20:17455057241251974.
57. Martire FG, d'Abate C, Schettini G, Cimino G, Ginetti A, Colombi I, et al. Adenomyosis and adolescence: A challenging diagnosis and complex management. *Diagnostics (Basel)*. 2024;14(21):2344. <https://doi.org/10.3390/diagnostics14212344>

## Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.