POLICY

Policy and pregnancy: the impact on working families in the NHS

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ABSTRACT

The NHS is the largest employer in the UK, with 77% of its workforce made up by women. The UK Health and Safety Executive clearly states that 'risks to a pregnant woman and her baby must be minimised by employers'. Recent studies demonstrate that shift work, uncontrolled working hours and night shifts increase risks to the developing fetus; however, this evidence has not been taken up by the NHS. Our analysis explores women's experience of conception and pregnancy in the NHS.

The thematic analysis from the survey results identified several key areas: feeling unable to speak up to their trainers and programme directors; unable to control their work patterns; conflicting and inconsistent guidance; and being caught between occupational health and the trust or deaneries. This subsequently leads to greater stress, longer unnecessary exposure to occupational hazards, and complications in pregnancy and career outcomes.

KEYWORDS: policy, pregnancy, gender, discrimination

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Introduction

The NHS employs 1.5 million people, of whom 77% are women.[1] The UK Health and Safety Executive clearly states that 'risks to a pregnant woman and her baby must be minimised by employers'.[2] Our study attempts to identify the difficulties pregnant women face while working in the NHS. It is a qualitative study to explore women's experience of conception and pregnancy in the NHS. Through qualitative research methodologies, we hoped to identify the key themes that present barriers.

There is ample evidence that the clinical workforce experiences more difficulties conceiving and during pregnancy than the non-clinical workforce. A recent meta-analysis has provided proof that working nightshifts while pregnant leads to a 21% increased risk of preterm delivery and a 23% increased risk of pregnancy loss.[3] Pregnant women working more than 40 hours per week are 38% more likely to experience a pregnancy loss and 21% more likely to deliver preterm.[4,5] Rogers *et al* found that pregnant female trainee surgeons were more likely to have adverse pregnancy events compared with the partners of male trainee surgeons (65.0% vs 11.5%; p=0.0002) or than with female non-surgical colleagues (p=0.0329).[6]

There have been many reports of clinical staff who request to come off on-calls, nights or to reduce their working hours only to be told that there is 'no evidence' that working long hours harms them or their babies. They are made to feel they are not a 'team player' and eventually get told 'no' or are penalised.[7] However, the untoward events that result from these management decisions are not captured or aggregated and the data is not transparent. Indeed, there is no national requirement for all NHS trusts to do exit interviews for those leaving the NHS. This has been piloted in Solent NHS Trust.[8]

There is significant variation in pregnancy policy and risk assessments within the NHS. Some London foundation trusts' policy is to stop on-calls for all pregnant psychiatry doctors as soon as they inform their employer, whereas many other trusts will ask doctors to stay on the on-call rota until 30 weeks. Some risk assessments do not specifically comment on established hazards to pregnant women, such as anaesthetic gases, radiation, teratogenic chemicals or iodine.[9] Similar problems are faced by nurses and other members of the clinical workforce; theatre scrub nurse: 'I was not told about all the risks of chemicals I am in contact with. Only found out from this post. Long shifts and heavy lists despite being on light duties due to previous miscarriages.'

The regulation of working lives for pregnant women in the NHS is dependent on vague guidance from NHS Employers which does not quote the most up-to-date evidence and perpetuates inaccuracies that, in some trusts, are used to prevent women from protecting themselves and their unborn children while working in the NHS.[10] This makes navigating the system confusing, difficult and, ultimately, is detrimental to the progress of women in healthcare. It also impacts the national ambition to halve the rates of stillbirths by 2030, through the NHS *Saving babies' lives* initiative.[11]

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The objective of our study was to capture and explore women's experience of conception and pregnancy in the NHS.

Methods

We used qualitative research methodology in order to better understand the complex issues women and men with families face while navigating training and working in the NHS. A survey was developed by the authors following discussion with women and men who worked in the NHS in different roles, levels and grades and experienced difficulties while pregnant or trying to navigate maternity or paternity leave. The survey was then piloted with 10 people for usability and interpretability. There were amendments made on this basis and it was subsequently disseminated via social networks (Twitter and Facebook), WhatsApp groups and email networks of women and men working in the NHS.

These data have not been previously captured and, therefore, the study was designed to capture all possible staff-reported experiences through an easily accessible online survey with open questions and wide inclusion criteria. The authors hoped to collect data from across the UK.

The inclusion criteria were women or men who had been pregnant or on maternity or paternity leave while working in the NHS in all parts of the UK. Male allies were also encouraged to complete the survey. Participants were purposively selected or self-selected, and further participants were captured through snowballing technique. It was disseminated from 10 August 2019 to 10 November 2019.

The survey is available from supplementary material S1.

All data was stored on an encrypted computer and anonymised.

A thematic analysis of survey responses was conducted using Braun and Clarke's 6-step framework (Box 1).[12]

Results

The analysis was conducted by an author trained in qualitative research methodology. The data collection was a document study where the survey responses were reviewed by the researcher.[13] The documents were coded, sorted, grouped, summarised and catergorised.[14]

One-hundred and seventy people completed the survey; 10 were men and 160 were women. Of the 160 women who completed the survey, 126 women had experienced pregnancies while working in the NHS. These 126 women commented on 183 pregnancies between them. Fifty-six the respondents were Black, Asian and minority ethnic (BAME) and all had experienced difficulties in pregnancy. The specialties of these 126 women are summarised in Table 1.

Box 1. Braun and Clarke's six-phase framework for doing a thematic analysis

Step 1: Become familiar with the data

Step 2: Generate initial codes

Step 3: Search for themes

Step 4: Review themes

Step 5: Define themes

Step 6: Write up

Table 1. Specialties

Occupational health	5
Physiotherapy	4
Pharmacy	2
Dentistry	1
Midwifery	2
Nursing	5
General practice	7
Accident and emergency	3
Psychiatry	1
Clinical oncology	1
Anaesthetics	22
Surgery	33
Medical	18
Paediatrics	22

Thirteen women reported no problems with their working conditions during their 13 pregnancies. Some of the reports of good practice can be seen supplementary material S2.

One-hundred and thirteen women experienced difficulties over 170 pregnancies; 56 of these women were BAME. There was wide variation in when respondents came off their on-call duties, ranging from 13 weeks to 33 weeks. The earliest untoward workplace event took place in 1999 but the majority occurred in the last 3 years. These problems occurred across the country and included Cheshire, Cumbria, Derbyshire, Devon, Dorset, Durham, Essex, Gloucestershire, Greater Manchester, Herefordshire, Lancashire, London, Northumberland, Nottinghamshire, Oxfordshire, Scotland, Staffordshire, Suffolk, Yorkshire and others.

The thematic analysis of difficulties experienced is summarised in Table 2. Many women experienced multiple occupational hazards with unsafe work conditions.

Several women commented that, although they could stop nights and on-calls, they had to make up for it by doing more on-calls earlier in their pregnancy or with long days and working more shifts over the course of the week resulting in longer total working hours. Many had their hours reduced but then lost their pay and this impacted their maternity pay.

These untoward working environments while pregnant and working for the NHS were associated with various negative health and pregnancy outcomes (Table 3).

The respondents perceived that their pregnancies and associated complications led to certain negative career outcomes (Table 3).

Discussion

In her bestselling book, *Invisible Women*, Caroline Criado Perez highlights that women are disadvantaged in their access to healthcare.[15] This includes delayed endometriosis diagnosis, adverse pregnancy outcomes during pandemics and how women's healthcare services are often in acute and in continual demand.[16–19]

From our survey, it is apparent that women working in the NHS are also at increased risk of poor outcomes to their health and the health of their fetuses. It is well established that radiation

Table 2. Thematic analysis of difficulties experienced during pregnancy

Inconsistent guidance	160
Poor risk assessment	150
Advised to speak to occupational health to reduce hours / on-call pattern but occupational health requested a referral and not able to help without long delays	137
Loss of autonomy / involvement in discussion regarding working patterns	87
Unable to reduce working hours / come off on-call rota	129
Unable to take adequate breaks	142
No rest facilities	45
Felt pressure to do unsafe things	54
Bullying and harassment	28
Placed at a hospital with a long commute	6
Unsafe workplace conditions:	143
Exposure to potentially violent patients (GP/psychiatry home visits)	10
Exposure to radiation	35
Exposure to non-scavenged anaesthetic gases	20
Exposure to infection risk (chicken pox or CMV)	12
Exposure to chemicals	31
Lack of support (solely on call)	15
Forced to do transfers of patients	20
Lack of support for return to work	48

CMV = cytomegalovirus; GP = general practice.

Table 3. Negative outcomes

Negative health and pregnancy outcomes	
Health complications	125
Bleeding in pregnancy while on call	17
Braxton Hicks while on call	6
Repeated collapse	12
Pelvic girdle pain	8
Sciatica	15
Recurrent infections in the mother	8
Pregnancy loss in the first trimester	11
Pregnancy loss in the second/third trimester	15
Pre-term delivery	9
Intrauterine growth restriction	15
Fetal anomaly	4
Uterine rupture	2
Bleed behind placenta	2
Near death in the mother	2
Difficulty conceiving	8
Delayed starting family and fertility problems	7
Negative career outcomes	
Negative impact on career	48
Held back / failed annual review of competency progression	12
Loss of salary (forced to start maternity leave early / missed on-call deducted)	13
Gave up training number but stayed in specialty	10
Left specialty	5
Left NHS	6
Middle grade contract not extended	2

Some responses are seen in supplementary material S3.

decreases the chances of implantation and is harmful to the fetus, especially in the first 8 weeks.[20] However, of 183 pregnancies, 35 were exposed to radiation. Two fetuses had anomalies and, although it is difficult to confirm causality, it is not best practice regardless. The current literature states that exposure of 1 mSv over the course of a pregnancy is safe.[21] However, this is crude with little reflection on the fact that organogenesis occurs in weeks 0–8 and, if the entire 1 mSv is received during this period, it may lead to pregnancy loss or deformity. In addition, dosiometers are not widely available nor mentioned in risk assessments. One trainee was asked to wear lead to allegedly protect her fetus from technetium-99 from sentinel lymph node biopsies. However, gamma radiation is not stopped by lead.[22–24]

Twenty-six pregnancy losses occurred in 183 pregnancies (14.2%), which is greater than the national average of 12%.[25]

It is also well established that exposure to anaesthetic gases leads to increased risk of spontaneous pregnancy loss with a relative risk of 1.9 of spontaneous abortion (pre-scavenging).[26,27] Yet, 20 pregnancies were exposed to anaesthetic gases in which the clinician felt to be unsafe.

Many clinical staff were told that they could not alter their working patterns and had to start maternity leave early. This is in direct contradiction to the government guidance that only within the last 4 weeks of pregnancy are pregnancy-related health problems a cause to start maternity leave early.

Women did not feel able to speak up to their trainers and programme directors, were not able to control their work patterns, had conflicting and inconsistent guidance, and felt caught between occupational health and the trust or deaneries. This subsequently led to greater stress, and longer unnecessary exposure to occupational hazards and complications. Some of these have been devastating and others have made clinical staff leave the NHS entirely.

The government has laid out very clear guidance for employers regarding occupational hazards in pregnancy.[2]

If the risk cannot be removed employers must take the following actions.

- Action 1: Temporarily adjust her working conditions and/or hours of work. If that is not possible, then proceed to action 2.
- Action 2: Offer her suitable alternative work (at the same rate of pay), if available. If that is not possible, then proceed to action 3.
- Action 3: Suspend her from work on paid leave for as long as necessary to protect her health and safety and that of her child.

However, within the NHS there is huge unwarranted variation in fulfilling these requirements from the poor risk assessment, unclear pathway to action, and pressure and bullying to continue unsafe practice. The way that pregnant patient-facing clinical staff are treated results in negative financial and career progression outcomes. A recent survey of surgical trainees demonstrated that >27% of pregnant doctors did not feel supported by their department during pregnancy.[28] Liang *et al* identified 'lack of pathways for independent and specific support' as one of the key reasons that women leave clinical careers.[29]

Although the data were collected before the pandemic, during this write up, the unwarranted variation throughout the NHS has

never before been so lethal. During the COVID-19 pandemic, many patient-facing pregnant clinical workers have been told to continue working despite being in the 'high-risk' governmental category and should be self-isolating. The intersectionality of gender and race is brought into stark relief during this time.[30] Heightened focus on risk assessments for BAME staff is currently an urgent issue in view of the greater number of deaths in this community in the NHS during the COVID-19 pandemic.[31] Recent reports from MBBRACE and the *BMJ* special issue, *Racism in medicine*, have identified women from BAME communities are more likely to die while pregnant.[32,33]

This is by no means a comprehensive analysis, subject to self-selection bias. Further work is required. Given that qualitative research is characterised by responsivity to context, the steps of data collection and analysis were iterative. If further research is carried out, the data collected from that work would lead to a deeper understanding of the study questions and will lead to adaption and expansion of the original plan.[34]

An analysis should be done by NHS England of every trust and NHS facility in the country for their risk assessment pro forma and policy on pregnancy for patient-facing clinical staff. With women making up 77% of the NHS workforce, pressure to address the gender pay gap and bring more women into board membership, an urgent overhaul of policy related to pregnancy is required.

It is clear that NHS Employers must issue more detailed information on what risk assessments should include based on the most up-to-date clinical trials. Greater transparency is required with specific national standards to mandate all pregnant women across all NHS establishments are given the option to:

- come off the on-call rota when the patient-facing clinical staff requests without a general practitioner or occupational health letter, or consultant approval
- work less than 40 hours, if required
- stop doing tasks that require wearing heavy protective clothing
- stop working with radiation from conception
- stop working with non-scavenged anaesthetic gases
- have access to information on common occupational hazards (such as iodine-based scrub solutions, cytotoxic drugs, heavy lifting, infection risks, cement, chemicals or radiation) and how to avoid them.

Trusts must be held to account with data disaggregated for gender, race and other protected characteristics, and reported, collated and presented in an open and transparent fashion.

The Supported Return to Training programme will address some of the issues regarding returning to work following time out.[35]

We understand that some women will choose to balance training opportunities with raising a family and adjustments can be made to allow this, but the ability to protect her unborn child from harm must ultimately be supported as we cannot expect the individual to overcome an institution on her own. ■

Supplementary material

Additional supplementary material may be found in the online version of this article at www.rcpjournals.org/fhj:
S1 – Survey questions.
S2 – Reports of good practice.
S3 – Responses regarding outcomes.

Conflicts of interest

Nada Al-Hadithy, Katie Knight, Rose Penfold, Greta McLachlan and Lucia Magee are all co-founders of Women Speakers in Healthcare (www.womenspeakersinhealthcare.co.uk), an organisation set up to improve gender balance at all healthcare events.

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