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The impact of a father's presence during newborn resuscitation: a qualitative interview study with health care professionals

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ARTICLE SUMMARY

Article Focus:

The research question for this study was; 'What are the experiences of health care professionals of the father's presence during newborn resuscitation in the delivery room?' To address this question, the objectives of this phase of the study were:

1. To conduct interviews utilising the critical incident approach with HCPs who had experience of newborn resuscitation when the baby's father was present.
2. To provide an account of the experiences of HCPs of newborn resuscitation when the baby's father was present.

Key messages:

The key messages and significance of the study are:

1. Whilst the health care professionals were aware of the information and support needs of fathers during newborn resuscitation, they acknowledged that these needs were rarely met.
2. The health care professionals in this study had not received education and training specifically about supporting fathers during newborn resuscitation.
3. The health care professionals in this study did not utilize strategies to support fathers that are recommended when relatives are present during resuscitation events in other critical care settings.

Strengths and limitations:

This independent study is the first reported exploration of the experiences and perceptions of health care professionals involved in neonatal resuscitation in the delivery room when the baby's father was also present. The critical incident approach proved to be an

appropriate way to gain insight to the participants' experiences and the context in which the resuscitation occurred. Asking participants to focus on the father enabled many of them to consider the impact of newborn resuscitation on fathers for the first time. Although some participants chose to describe events that occurred a while ago, they had no difficulty remembering what happened or their feelings at the time. Whilst some participants found describing events upsetting; no-one wished to discontinue the interview. Although undertaken in one setting, the extent to which the findings apply to other health care professionals encountering newborn resuscitation can be considered.

Abstract

Objective: To explore the experiences of health care professionals of the father's presence during newborn resuscitation in the delivery room.

Design: A descriptive, retrospective design using the critical incident approach. Tape-recorded semi-structured interviews were undertaken with health care professionals involved in newborn resuscitation. Participants recalled resuscitation events when the baby's father was present. They described what happened and how those present, including the father, responded. They also reflected upon the impact of the resuscitation and the father's presence on themselves.

Setting: Participants were staff recruited from a large teaching hospital in the UK.

Participants A purposive sample of 37 health care professionals including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians.

Results Participant responses were analysed using thematic analysis. Four themes were identified: 'whose role?' 'saying and doing' 'teamwork' and 'impact on me'. Whilst no-one was delegated to support the father during the resuscitation, midwives

and anaesthetists most commonly took on this role. Most participants felt the midwife was the most appropriate person support fathers. All health care professional groups said they often did not know what to say to fathers during prolonged resuscitation. Teamwork and inter-professional working were felt to be of benefit to all concerned, including the father. Some paediatricians described their discomfort when fathers came to the resuscitaire. None of the participants had received education and training specifically on supporting fathers during newborn resuscitation.

Conclusions This is the first study to specifically explore the experiences of health care professionals of the father's presence during newborn resuscitation. The findings suggest the need for more focused training about supporting fathers. There is also scope for service providers to consider ways in which fathers can be supported more readily during newborn resuscitation.

INTRODUCTION

When a newborn baby requires resuscitation in UK settings, the father will usually be present because most fathers attend the birth of their baby and delivery and resuscitation generally take place in the same room (1,2,3). Whilst some studies have investigated the impact on health care professionals (HCPs) of parental presence during neonatal resuscitation in the neonatal unit (NNU) (4,5); the father's presence during newborn resuscitation in the delivery room has only been reported in terms of the impact on the father (6).

The experiences of HCPs of the presence of a relative during the resuscitation of a family member has been investigated in settings such as adult and paediatric intensive care and accident and emergency (7,8,9). Early 'witnessed resuscitation' (WR) research identified that HCPs had a generally negative view of this experience (10). In addition to the potentially harmful psychological effect and physical risks to the relatives, HCPs felt WR would impinge on themselves and their practice in a

negative way (8,11,12). However, despite some initial opposition, most HCPs now embrace the concept of WR and it has become accepted practice in many Western countries over the last two decades. This reflects a generally more open and inclusive approach to health care and recognition of the need to deliver family-centred care (13,14).

The feelings and perceptions of HCPs' experiences of the father's presence during newborn resuscitation in the delivery room have not previously been investigated. These phenomena were explored as part of a study of father's experiences of childbirth and the immediate care of their baby (6). The aim of this part of the wider study was to gain a broader understanding of fathers' experiences through HCPs' accounts of episodes of care. Participants also reflected on the ways in which the father's presence impacted on themselves and their practice. This paper focuses on the findings pertaining to the experiences of HCPs of the father's presence during newborn resuscitation.

METHOD

Participants

A purposive sample of 37 HCPs including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians was recruited from one large teaching hospital in the UK (Table 1). The only inclusion criterion was that the HCP had experience of neonatal resuscitation in the delivery room when the baby's father was present. No exclusion criteria were identified. Participants were

recruited using a range of strategies: posters inviting HCPs to take part were displayed in various locations within the maternity unit and NNU; HCP meetings were attended to discuss the study and information leaflets were distributed in the delivery suite and NNU. Some participants also recommended other HCPs. In accordance with the critical incident approach, recruitment continued until a range of HCPs who had encountered a variety of experiences was recruited (15).

Six HCPs approached about the study decided not to take part (2 midwives and 4 neonatal nurses). Another six said they would participate but staff shortages and workload issues meant that the interview did not take place (2 midwives, 2 neonatal nurses, 1 paediatrician and 1 obstetrician). The sample included participants with diverse clinical backgrounds and experience (16) (Table 1). Detail regarding the participants' ages has not been included to safeguard their anonymity. The participants were from a range of ethnic backgrounds corresponding to the main groups represented in the study site's local population. The relatively high number of neonatal nurses interviewed is because this part of the study also explored HCPs' experiences of the father's first visit to his baby on the NNU (not reported here). All the neonatal nurses who participated in this phase of the study, regularly attended delivery suite to support other staff during newborn resuscitation.

INTERVIEWS

Semi-structured, qualitative interviews were undertaken using the critical incident approach (17). Participants were asked to select an incident involving newborn resuscitation in the delivery room when they and the baby's father had been present.

They described what happened and how those present, particularly the father, responded (15,18). The interviewer (MH) used key questions and follow-up questions to facilitate the description of events and to explore HCP perceptions and feelings. This flexible approach enabled HCPs to describe what happened and their feelings in their own words (19,20). In order to ensure a range of scenarios were explored, participants were then asked to describe a contrasting incident (21,22). The interviews ranged between 22 and 78 minutes (mean 48 minutes). Participants were interviewed in a private room within the Hospital. Most of the interviews took place on weekday afternoons within the HCP's working day. With participant informed consent, the interviews were tape-recorded to enable verbatim transcription and data analysis. At the end of the interview, participants were given a debriefing sheet identifying possible sources of support. In accordance with qualitative methods; data collection, transcription and data analysis were carried out concurrently (20,23). The study was approved by the Solihull Local Research Ethics Committee (05/Q2706/104). University and trust approvals were also obtained. All participants gave informed consent immediately before the interview.

ANALYSIS

Thematic analysis was undertaken using the software package 'NVivo 7'. The first transcript was coded into themes. These were organized into themes, each of which contained a number of related sub-themes. Subsequent transcripts were then analysed and additional themes or sub-themes were generated when the data captured something new. 'NVivo' software was used to facilitate the process as it facilitates the identification of relationships between the themes (24). Data collection

continued until no new themes were identified (data saturation) (19,25). The themes and sub-themes were reviewed and amended until the final framework was agreed by both authors.

RESULTS

Analysis of the data generated four themes: 'whose role?' 'saying and doing,' 'teamwork' and 'impact on me' which are described and illustrated with direct quotations.

Whose role?

This theme focuses on which HCP supported and communicated with the father during and after the resuscitation. In the events described no-one exclusively took on these roles during the incident and no-one was delegated to do so. This was because HCP attention was focused on delivering care to the mother and/or baby (Table 2 – 2.1). Whilst all HCP groups felt the midwife was the most appropriate person to support and communicate with the father, they acknowledged that she had other responsibilities at the time (Table 2 – 2.2). Communication with the parents during the resuscitation was usually directed towards the mother. Participants thought this was appropriate because unlike the father, most mothers could not see what was happening. In addition, HCPs believed that fathers could hear what was being said. Consequently fathers received limited direct information and support and this was generally only given on an 'ad hoc' basis.

Any information that was given to fathers during the resuscitation was usually provided by an anaesthetist or midwife. This was most commonly general information because they did not feel it was their responsibility to give more detail at this time. On occasions when the resuscitation was prolonged neonatal nurses sometimes went over to the parents to explain what was happening when the baby's condition had been stabilised (Table 2 – 2.3). Once resuscitation was completed some babies required NNU admission whilst others remained with their parents. Paediatricians, neonatal nurse practitioners and neonatal nurses described speaking to the parents at this time. However, midwives also recalled advocating for parents by prompting paediatricians to speak to parents before they left the delivery room. All HCP groups discussed whether they debriefed the fathers after the resuscitation. Most midwives described attempting to speak to the father by himself to explain what had happened and correct misunderstandings. However, in many instances this was not possible because of other demands or lack of opportunity. Anaesthetists and obstetricians felt it was not appropriate for them to debrief fathers and although paediatricians, neonatal nurse practitioners and neonatal nurses recalled instances when they had done this, the discussion was usually initiated by the father days or weeks later, when the baby was being cared for in the NNU. A general reluctance to get involved in these discussions was reported, particularly amongst neonatal nurses who had been present during the resuscitation (Table 2 – 2.4). They felt uncomfortable discussing events particularly if they thought the father would become distressed. They were also concerned about being asked questions they could not answer.

Saying and doing

Participants reflected on factors that influenced what they said to fathers and the ways they supported them during and after the resuscitation. Anaesthetists and midwives acknowledged that they usually only gave fathers general information during the resuscitation because they were uncertain what was happening or how the baby was responding. However, they tried to say something positive such as commenting on the amount or colour of the baby's hair.

When paediatricians, neonatal nurse practitioners and neonatal nurses spoke to parents after the resuscitation the information given varied, ranging from detailed information to a more general summary of events. Needing to get the baby to the NNU as quickly as possible appeared to influence the nature and extent of information given. Consequently parents whose baby required more extensive resuscitation were often given the least amount of information.

Being able to draw on previous experience and background knowledge was felt to be invaluable. However, most participants had not received any education or training about communicating with fathers, either generally or in specific situations such as newborn resuscitation. More senior HCPs also said they did not address these issues in their teaching (Table 3 – 3.1). Midwives who had trained more recently had received some teaching about supporting fathers in general, but this was minimal. All HCPs felt their way of supporting and communicating with fathers had evolved through experience. Some midwives and anaesthetists felt they had become skilled at observing non-verbal cues portrayed by fathers and this enabled them to support them more effectively. Other HCPs drew on experience in related specialties, taking

personal responsibility for their own learning, discussions with fathers and reflection on their practice (Table 3 – 3.2).

In developing their ways of supporting and communicating with fathers, HCPs said they drew on two other elements: observing the practice of others and thinking about how they would like to be treated. They described learning from mentors, senior colleagues, their peers or junior staff, and recalled both positive and negative scenarios (Table 3 – 3.3). Obstetricians often specifically mentioned learning good practice from midwives. Several HCPs used the phrase “putting yourself in their shoes.” Female HCPs modified this approach to thinking about how they would like their partner to be treated (Table 3 – 3.4). Despite the various strategies developed over time all HCP groups said they often did not know what to say to fathers during prolonged episodes of resuscitation (Table 3 – 3.5).

Teamwork

Participants identified the importance of effective teamwork during the resuscitation. They felt that when the team worked well together, the situation was usually dealt with quickly and smoothly to the benefit of all concerned, including the father. Senior HCPs described having an ‘instinctive’ way of working with their colleagues such that verbal communication was not required. They described scenarios when those present spontaneously took on different roles and responsibilities assisting and supporting each other (Table 4 – 4.1). Obstetricians and anaesthetists recalled distracting the father so their colleagues could focus on the resuscitation. Anaesthetists also described assisting with the resuscitation, particularly when a

junior paediatrician was having difficulty intubating the baby. Several midwives described responding to a crash call. They often took on the role of 'go-between,' relaying information between the neonatal and obstetric teams and the parents. The importance of senior HCPs supporting junior staff was also identified (Table 4 – 4.2).

Impact on me

During the interviews, the HCPs frequently reflected on the impact of the event on themselves. During the resuscitation, HCPs described trying to adopt a calm and self-assured manner regardless of how they were feeling. They hoped this attitude would be transmitted to the father and as a consequence, he would be comforted and reassured. Many midwives however, said it was difficult to adopt this approach and when recounting specific events described them as being "awful", "horrendous", "terrible" and "shocking." Five HCPs (midwives and neonatal nurses) cried as they recalled the resuscitation and on two occasions, the recording was temporarily stopped. In a less extreme way, when they reflected on specific events, several midwives felt they should have done more to support the father (Table 5 – 5.1).

Another issue some paediatricians and the neonatal nurse practitioners talked about was when the father approached the resuscitaire during the resuscitation. The neonatal nurse practitioners and some of the more senior paediatricians were comfortable with this and felt it did not impact on their practice in a negative way (Table 5 – 5.2). Others however, felt uneasy being watched so closely and felt it placed additional stress on them in an already pressurised situation (Table 5 – 5.3).

The HCPs rarely said the events they described had a positive impact on them. Their relief and satisfaction when all was well was usually implied rather than stated. This may be because in many cases, the busy nature of the care setting meant that they often quickly became involved in the care of other parents and babies with limited opportunity to reflect on what had happened. Midwives were the only HCPs who described becoming emotional when the resuscitation was successful. This is probably because in most cases they had been directly involved in the couple's care during labour.

DATA SHARING

No additional data available.

DISCUSSION

This is the first reported study to explore the experiences and perceptions of HCPs involved in neonatal resuscitation in the delivery room when the baby's father was present. The interviews provide strong evidence of HCPs' perspectives of this type of scenario. Although all HCP groups said the fathers needed support and information during the resuscitation, it was acknowledged these needs were almost always unmet. This confirms a finding from an earlier phase of the broader study (6). In most cases HCPs felt their priorities at the time were the health of the baby or the mother. Although HCPs thought the midwife was probably best placed to support the father it was acknowledged that that she had a duty of care to the mother and was often

involved in her ongoing care. A key factor in the failure to meet the needs of fathers appeared to be that none of the professional groups involved had direct responsibility to support and communicate with him. It was frequently stated that “he wasn’t my patient.”

Most HCPs were aware that in other care settings a designated HCP often supports relatives when they witness resuscitation events (8,26,27). The role of the chaperone is to explain what is happening and to support, reassure, and de-brief the relative. They can also intervene if the relative’s behaviour becomes distracting (14,26). This role is generally undertaken by a senior HCP, usually a nurse, who can provide appropriate information and support (26). Whilst the HCPs suggested a chaperone would be beneficial for fathers, it was felt staff shortages and lack of resources would prevent this from happening.

The HCPs identified a number of factors that could have added to what would have already been a difficult experience for fathers. These factors included a lack of direct information at key points and situations where fathers were excluded or marginalised. Many HCPs also described the impact of events on them and aspects they found difficult. An issue that frequently occurred was what to say during prolonged resuscitation. Experienced HCPs as well as those who had been working in the specialty for a short time identified this difficulty. The more acute distress displayed by midwives and neonatal nurses during the interviews was most commonly because they felt the situation was not handled well and they felt culpable

to some extent. Obstetricians, anaesthetists and paediatricians were more 'matter-of-fact' about what happened and did not appear to feel responsible when a father's needs were not met. However, paediatricians described their discomfort when fathers came to the resuscitaire. This may indicate a lack of confidence in their ability or their recognition that the presence of the father can cause additional pressure at an already stressful time. This was explored in the early literature regarding WR in other care settings which reports that HCPs felt WR would have a negative impact on their practice (8,11,12). However, over time HCPs who have been exposed to WR have found ways to accommodate it in their practice.

Guidance about supporting parents in the delivery room is given in the recently updated European and UK newborn life-support training programmes, mainly in relation to communicating with parents before, during and after the event (28,29). However, no specific guidance is given about ways to communicate with or ways to support the father. This would appear to be an area worthy of development given the lack of confidence that some HCPs expressed about communicating with fathers during resuscitation events, particularly when the resuscitation was prolonged.

STRENGTHS AND LIMITATIONS

The critical incident approach proved to be an appropriate way to explore HCPs' experiences of specific events. Asking participants to focus on the father enabled many of them to consider the impact of newborn resuscitation on fathers for the first time. Although participants sometimes talked about the parents collectively, the interviewer's subsequent probing questions encouraged them to concentrate on their

experience with fathers. Some participants chose to describe events that occurred a while ago. However, they had no difficulty remembering what happened and their feelings at the time. As their description of events progressed, the HCPs were often surprised at how clearly they could recall what happened. Whilst some found describing events upsetting; none wished to discontinue the interview. None of the HCPs chose to describe an incident where the baby did not survive. HCPs may have thought that this was what was required, although this was not stated by the interviewer. Alternatively, they may have deliberately elected not to recall an incident that they thought they would find too sensitive or potentially controversial to discuss. Although undertaken in one setting, the findings from this independent study provide insight to the experiences and perceptions of HCPs and the context in which the resuscitation events occurred (19). The extent to which the findings apply to other HCPs encountering newborn resuscitation can therefore be considered. To gain a broader view of HCPs' experiences and the longer term impact, this study could be replicated with larger groups of HCPs. It would also be valuable to explore the experiences of HCPs where the baby did not survive the resuscitation. Although such a study would present challenges, it would have the potential to provide insight to situations that could have profound and possibly long lasting effects on HCPs. This in turn could influence the provision of HCP education, training and support in the future.

IMPLICATIONS FOR PRACTICE

To some extent newborn resuscitation is part of the normal working day for many HCPs involved in neonatal care. However, some midwives and neonatal nurses

became distressed when discussing events some of which occurred some time ago and yet remained a strong memory. This suggests there is a need for greater recognition of the impact of resuscitation events on HCPs. The provision of opportunities for formal and informal reflection on practice, debriefing and support could be more extensive.

The HCPs were generally aware of the needs of fathers during and after newborn resuscitation. However, a number of difficulties and challenges affected how they supported and communicated with fathers. Whilst there is increasing evidence pertaining to the needs of fathers, in maternity care, HCPs generally focus on the needs of mothers and babies (30); duty of care and professional responsibilities determine this. Nevertheless, it would appear that there is scope for much more extensive HCP education and training about supporting and communicating with fathers around the time of newborn resuscitation. The allocation of resources to support the provision of a chaperone for fathers during resuscitation would also be worthy of consideration by service providers (8,14).

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COMPETING INTERESTS

Both authors have completed the Unified Competing Interest form at http://www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years, no other relationships or activities that could appear to have influenced the submitted work.

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AUTHORS' CONTRIBUTIONS

Dr M.E Harvey (MH) developed and designed the research proposal, negotiated access to the study-site, obtained the required approvals, recruited participants,

conducted the interviews, undertook the data analysis and wrote the first draft of this paper. Professor HM Pattison (HP) supervised MH throughout the study, agreed the coding framework, contributed to and has agreed the final version of the paper. MH is the guarantor.

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HCP Group	No.	Sex	Time from initial qualification	Length of time in current post
Midwives	12	Female*	1 – 29 years	6 months – 5 years
Neonatal nurses	10	Female*	2 – 32 years	6 months – 23 years
Neonatal nurse practitioners	2	Female*	7 – 19 years	6 months – 7 years
Obstetricians	3	Female	9 – 22 years	1 – 6 years
Anaesthetists	4	2 Female 2 Male	6 – 16 years	1 – 6 years
Paediatrician	6	1 Female 5 male	2 – 33 years	2½ months – 18 years

*No males were employed in this role during the period of recruitment

Table 1 Participant biographical details

Table 2	Whose role?
2.1	*"My main focus is the mother. I think that's, I think it's important to understand that because the mother's my patient, the father's not my patient."* (Anaesthetist14)
2.2	*"When the baby was born and she needed resuscitating, he ran out the room crying. I felt like I should have ran after him really which I couldn't at the time because I was trying to like stop her* ((the mother)) *from bleeding. So it was difficult but I did think, oh my God."* (Midwife9)
2.3	*"I at that time, I could not speak to dad because we, our priority was the baby and baby needed intubating. Once that was done I was able to then go and speak to mum just to give her brief information of what was going on, how the baby was."* (NeonatalNurse1)
2.4	*"It's not my place, just in case he asked me sensitive questions that I'm not able to answer. It's very difficult in that situation especially if you've got a very sick baby. I would not take part in that at all."* (NeonatalNurse5)

Table 3	Saying and doing
3.1	*"I don't think it's anything that anybody's spoken about and I suppose I don't really speak to the trainees who come through about it either."* (Paediatrician16)
3.2	*"I think my practice is probably based on what I've heard husbands and partners tell me and how they felt."* (Midwife15)
3.3	*"I have a series of horror stories of observing my consultant teachers in days of yore making a complete and utter hash of it. And I use that you know and I just, you just learn by thinking, right, if I live a thousand years, I will never do that."* (Paediatrician15)
3.4	*"I always say, speak to people how you would want to be spoken to. Treat them the way you want to be treated and just put yourself in their situation. You know, it's your partner, that's your baby and somebody's not even acknowledging that you're there, how would that make you feel?"* (Obstetrician61)
3.5	*"It was awful. No-one was saying anything and mum was crying. I was just thinking please, please somebody say something."* (NeonatalNurse7)

Table 4	Teamwork
4.1	*"If I'm happy the mother's suturing is done and mum's not bleeding, mum's fine and everybody is working on the baby then I will stay and do whatever I can whether it's fetching for the paediatrician or whether it's staying and supporting mum and dad because the midwife's helping the paediatrician."* (Obstetrician10)
4.2	*"It's like yesterday the shoulder dystocia, the baby needed to be resuscitated. Me and the Shift Leader talked about it, like you know, you go over it like, oh that was awful and, oh he* ((the father)) *was crying, oh it was terrible and you just talk about it and then that helps you to kind of deal with what's happened."* (Midwife9)

Table 5	Impact on me
5.1	"*You try and support the fathers and meet their needs when it happens. I do have days where I go home deflated thinking I really wish I could have done more for him that day."* (Midwife12)
5.2	"*I don't mind it at all. I'm used to people watching what I do and I think he needs to see anyway."* (NeonatalNursePractitioner14)
5.3	*"I don't like it. Not because it's a worry to me it's just because I don't happen to like being watched when I'm working."* (Paediatrician7)
5.4	*"Yes. Even now, after all this time, there are some difficult deliveries and you want to, you share in all of that emotion and it's very easy to kind of get prickly eyes when the baby is ok." (*Midwife7)

Interview schedule

Opening statement: **This interview forms part of a larger study that aims to gain an understanding of the experiences and perceptions of fathers who attend the birth of their baby, especially when the baby has required resuscitation at birth and / or admission to a neonatal unit.**

Within this interview I am particularly interested in your experience of situations when a sick / preterm baby is delivered, requires resuscitation at birth and / or admission to a neonatal unit, and the baby's father is present. Before consideration of key issues, can I clarify the following?

Job title / Qualifications / Length of time qualified / Length of time this post

KEY ISSUES TO EXPLORE

There are a variety of situations that you might have experienced:

- **The antenatal preparation of fathers (i.e. before labour has started) particularly if the birth of a sick / preterm baby is anticipated.**
- **Being at the delivery of a sick / preterm baby when the baby's father is also present.**
- **Being at the resuscitation of a newborn baby when the baby's father is also present.**
- **Being present when a baby is admitted to the neonatal unit when the baby's father is also present.**

Which of the above do you have experience of?

When was the last time that you encountered each situation?
(check each individual situation)

So, for the purpose of this interview we'll be talking about you ……..

- *Being involved in the antenatal preparation of fathers (i.e. before labour has started) particularly if the birth of a sick / preterm baby is anticipated.*
- *Being at the delivery of a sick / preterm baby when the baby's father is also present.*
- *Being at the resuscitation of a newborn baby when the baby's father is also present.*
- *Being present when a baby is admitted to the neonatal unit when the baby's father is also present.*

Can you recall an occasion you were involved with relating to ……..?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
Why does this case particularly spring to mind?

Is there anything that you'd like to add, particularly regarding what happened to the father?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
Do you know if the father wanted to be there?

Thinking back to that occasion, do you think that the situation went well or not as well as it could have done?

Why do you think this was the case?

What about the father in this case? – looking at it from his perspective – did it go well or not as well as it could have done?
Why do you think this was the case?

Can you recall a contrasting situation you were involved with, by that I mean one that didn't / did go well?– can you tell me about that?
Follow up any specific information to clarify description of events.
Clarify details / participant's role in the situation – what did you do / say?
What do you think were the key issues that made this situation different to the previous case?
Why does this case particularly spring to mind?

Is there anything that you'd like to add, particularly regarding what happened to the father?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
From his perspective do you think that he'd say it went well or not as well as it could have done?
Clarify participant's role in the situation – what did you do / say?

What do you suppose fathers feel that they need in terms of information / support antenatally / <u>prior</u> to the delivery / resuscitation / admission of their baby?
On what basis do you say this?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do think are the issues that a health care professional should consider when supporting a father at this time?
Do you think that different fathers have different needs? – if so – how do you determine individual needs?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

What do you suppose fathers feel that they need in terms of information / support <u>during</u> the delivery / resuscitation / admission of their baby?
On what basis do you say this?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do you think are the issues that a health care professional should consider when supporting a father at this time?
Do you think that different fathers have different needs? – if so – how do you determine individual needs?
How do you determine if the father wants to be there?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

What do you suppose fathers feel that they need in terms of information / support <u>after</u> the delivery / resuscitation / admission of their baby?
On what basis do you say this?
What impact do you think being present at….. has on fathers?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do you think are the issues that a health care professional should consider when supporting a father at this time?

Do you think that different fathers have different needs? – if so – how do you determine individual needs?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

Can you tell me about the nature / extent of any educational preparation you've received regarding the provision of support specifically for fathers during delivery / resuscitation / admission to the neonatal unit?
Clarify details.
Have you participated in 'mock' incidents? For example: labour ward drill?).
Was it father / mother / parent focused?
Has this been adequate?
If no how do you now know what to do / say in these situations? What additional educational preparation do you feel you need?
Apart from more formal educational preparation, how else have you learned what to do / say in these situations?

We've talked quite a lot about the health care professional role when supporting fathers – I'd like now to ask you to think about the impact that carrying out this role has on you – can you tell me about that?
Positive / negative impact – particularly re: helping / supporting fathers.
Short & long-term effects.
Is this always the case or just sometimes?
If sometimes – what key factors trigger this effect on you?
Re: negative effects – how do you deal / cope with this?
In these situations is there anything that fathers could do to help you?

Do you have any suggestions about ways that hospitals / health care professionals could help fathers who experience the situations we've discussed?
Follow-up any specific issues that might have been raised earlier.
Does the hospital have policies / procedures / guidelines re: supporting / care of fathers? – if yes – clarify details – if not – why not? – do you think that there should be policies / procedures / guidelines in place?
What advice would you give to another health care professional who might be about to support a father in one of these situations for the first time?

Are there any other issues that you would like to raise in relation to these issues?

Can I end by asking some more information about yourself?
Age / How would you describe your ethnicity /

Thank-you very much for your help with this part of the study.

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The impact of a father's presence during newborn resuscitation: a qualitative interview study with health care professionals

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The impact of a father's presence during newborn resuscitation: a qualitative interview study with health care professionals

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ABSTRACT

Objective: To explore health care professionals' experiences around the time of newborn resuscitation in the delivery room, when the baby's father was present.

Design: A qualitative descriptive, retrospective design using the critical incident approach. Tape-recorded semi-structured interviews were undertaken with health care professionals involved in newborn resuscitation. Participants recalled resuscitation events when the baby's father was present. They described what happened and how those present, including the father, responded. They also reflected upon the impact of the resuscitation and the father's presence on themselves. Participant responses were analysed using thematic analysis.

Setting: A large teaching hospital in the UK.

Participants: Purposive sampling was utilised. It was anticipated that 35-40 participants would be recruited. Forty-nine potential participants were invited to take part. The final sample consisted of 37 participants including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians.

Results: Four themes were identified: 'whose role?' 'saying and doing' 'teamwork' and 'impact on me'. Whilst no-one was delegated to support the father during the resuscitation, midwives and anaesthetists most commonly took on this role. Participants felt the midwife was the most appropriate person support fathers. All health care professional groups said they often did not know what to say to fathers during prolonged resuscitation. Teamwork was felt to be of benefit to all concerned, including the father. Some paediatricians described their discomfort when fathers came to the resuscitaire. None of the participants had received education and training specifically on supporting fathers during newborn resuscitation.

Conclusions This is the first known study to specifically explore the experiences of health care professionals of the father's presence during newborn resuscitation. The findings suggest the need for more focused training about supporting fathers. There is also scope for service providers to consider ways in which fathers can be supported more readily during newborn resuscitation.

ARTICLE SUMMARY

Article Focus:

The research question for this study was; 'What are the experiences of health care professionals of the father's presence during newborn resuscitation in the delivery room?' To address this question, the objectives of this phase of the study were:

1. To conduct interviews utilising the critical incident approach with HCPs who had experience of newborn resuscitation when the baby's father was present.
2. To provide an account of the experiences of HCPs of newborn resuscitation when the baby's father was present.

Key messages:

The key messages and significance of the study are:

1. Whilst the health care professionals were aware of the information and support needs of fathers during newborn resuscitation, they acknowledged that these needs were rarely met.
2. The health care professionals in this study had not received education and training specifically about supporting fathers during newborn resuscitation.
3. The health care professionals in this study did not utilize strategies to support fathers that are recommended when relatives are present during resuscitation events in other critical care settings.

Strengths and limitations:

- Although undertaken in one setting, the findings from this independent study provide insight to the experiences and perceptions of HCPs and the context in which the resuscitation events occurred
- The critical incident approach was generally an appropriate way to explore HCPs' experiences of specific events. This approach enabled many of them to consider the impact of newborn resuscitation on fathers for the first time.
- Some participants found focusing on issues pertaining to the father more difficult and sometimes talked about the mother or the parents collectively. However, subsequent probing questions encouraged them to concentrate on the father.
- Some participants chose to describe events that occurred a while ago. It is therefore difficult to determine the extent to which recall bias influenced their descriptions. However, they appeared to have no difficulty remembering their feelings or what happened. They were often surprised at how clearly they could recall the event.
- Incidents where the baby did not survive were not described. HCPs may have thought the researchers were only interested in events where the baby survived, although this was not stated by the interviewer. Alternatively, they may have deliberately elected not to recall an incident that they thought might be too sensitive or potentially controversial to discuss.

- Whilst the preliminary data analysis was undertaken by the first author, the thematic framework was discussed with the second author as it was developed and the final framework was agreed by both authors.
- Given the qualitative nature of this study, it is inappropriate to generalize the findings to the wider population. However, in accordance with the notion of transferability, the findings of this study have highlighted issues that may be of relevance in other settings.

INTRODUCTION

The birth of their child is often a landmark event for a father and can be an important episode in the on-going process of adaptation to parenthood. Short and more longer term benefits of a father's involvement in the life of his child have been described which can impact on the father, his partner, his baby and society more generally (1,2,3). As a consequence there has been a drive in the UK over the last 10 years to engage and involve fathers more readily, particularly during the perinatal period and during childbirth specifically (4,5,6). However, in order to ensure that fathers are appropriately supported during the perinatal period, it is important that health care professionals (HCPs) have insight to fathers' experiences and needs.

Whilst for the majority of men childbirth is straightforward, for others it is not. When a newborn baby requires resuscitation in UK settings, the father will usually be present because most fathers attend the birth of their baby and delivery and resuscitation generally take place in the same room (7,8,9). Whilst some studies have investigated the impact on HCPs of parental presence during neonatal resuscitation in the neonatal unit (NNU) (10,11); the father's presence during newborn resuscitation in the delivery room has only been reported in terms of the impact on the father (12).

The experiences of HCPs of the presence of a relative during the resuscitation of a family member has been investigated in settings such as adult and paediatric

intensive care and accident and emergency (13,14,15). Early 'witnessed resuscitation' (WR) research identified that many HCPs were not supportive of this approach (16). They were concerned that relatives would be unduly distressed or would be at risk of physical harm due to the nature of the environment. HCPs also felt WR would impinge on themselves and their practice in a negative way (14,17,18). However, despite some initial opposition, most HCPs now embrace the concept of WR and it has become accepted practice in many Western countries over the last two decades. This reflects a generally more open and inclusive approach to health care and recognition of the need to deliver family-centred care (19,20).

The feelings and perceptions of HCPs' experiences and perceptions of the father's presence during newborn resuscitation in the delivery room do not appear to have been previously investigated. The aim of this part of a wider study (12) was to gain a broader understanding of fathers' experiences through HCPs' accounts of episodes of care. Participants also reflected on the ways in which the father's presence impacted on themselves and their practice. This paper focuses on the findings pertaining to the experiences of HCPs of a father's presence during newborn resuscitation.

METHOD

A qualitative descriptive, retrospective design was utilised using the critical incident approach (21).

Participants

Purposive sampling was utilised to recruit participants from one large teaching hospital in the UK. It was anticipated that 35-40 participants would be required in order to obtain descriptions of a range of scenarios. Therefore recruitment, data collection and data analysis occurred concurrently until data saturation was achieved. The only inclusion criterion was that the HCP had experience of neonatal resuscitation in the delivery room when the baby's father was present. No exclusion criteria were identified. Participants were recruited using a range of strategies: posters inviting HCPs to take part were displayed in various locations within the maternity unit and NNU; HCP meetings were attended to discuss the study and information leaflets were distributed in the delivery suite and NNU. Some participants also recommended other HCPs. In accordance with the critical incident approach (21), recruitment continued until a range of HCPs who had encountered a variety of experiences was recruited (22).

Forty-nine HCPs were approached about or volunteered to take part in the study. Six HCPs subsequently decided not to take part (2 midwives and 4 neonatal nurses). Another six said they would participate but staff shortages and workload issues meant that the interview did not take place (2 midwives, 2 neonatal nurses, 1 paediatrician and 1 obstetrician). The final sample consisted of 37 HCPs including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians. The sample included participants with diverse clinical backgrounds and experience (23) (Table 1). The participants were from a range of ethnic backgrounds corresponding to the main groups represented in the study site's local population. Detail regarding the participants' ages and ethnicity have not been

included to safeguard participant anonymity. Neonatal nurses were recruited because this part of the study also explored HCPs' experiences of the father's first visit to his baby on the NNU (not reported here). All the neonatal nurses who participated in this phase of the study, regularly attended delivery suite to support other staff during newborn resuscitation.

INTERVIEWS

Semi-structured, qualitative interviews were undertaken using Flanagan's critical incident approach (21). Participants were asked to select an incident involving newborn resuscitation in the delivery room when they and the baby's father had been present. The intention was to explore the HCP's interpretation of the father's experience. Participants described what happened and how those present, particularly the father, responded (22,24). Some chose to describe incidents that had occurred within the previous week, whilst others selected events that had occurred several months ago. The interviewer (MH) used key questions and follow-up questions to facilitate the description of events and to explore HCP perceptions and feelings. The use of the follow-up or probing questions varied according to the participant's initial response. In some instances HCPs began by talking about the mother or the parents collectively. However, subsequent probing questions encouraged them to focus their account on the father. This flexible approach enabled HCPs to describe what happened and their feelings in their own words (25,26). In order to ensure a range of scenarios were explored, participants were asked to describe two contrasting incidents (27,28). The interviews ranged between 22 and 78 minutes (mean 48 minutes). Participants were interviewed in a private room within the Hospital. Most of the interviews took place on weekday afternoons

within the HCP's working day. With participant informed consent, the interviews were tape-recorded to enable verbatim transcription and data analysis. Five HCPs (midwives and neonatal nurses) cried as they recalled the resuscitation and on two occasions, the recording was temporarily stopped. At the end of the interview, all participants were given a debriefing sheet identifying possible sources of support. In accordance with qualitative methods; data collection, transcription and data analysis were carried out concurrently (26,29). The study was approved by the Solihull Local Research Ethics Committee (05/Q2706/104). University and trust approvals were also obtained. All participants gave informed consent immediately before the interview.

ANALYSIS

The first author transcribed the interviews and undertook preliminary data analysis. The transcriptions were read and reread in order to facilitate understanding. Thematic analysis was then undertaken whereby the first transcript was coded into themes. Subsequent transcripts were then analysed and additional themes or sub-themes were generated when the data captured something new. The software package 'NVivo 7' was used to facilitate this process as it enables the researcher to identify relationships between the themes (30). During this stage, the development of the thematic framework was undertaken in consultation with the second author. Data collection continued until no new themes were identified during data analysis (data saturation) (25,31). The thematic framework was then reviewed and revised by both authors until the final framework was agreed.

RESULTS

Analysis of the data generated four themes, each of which contained subthemes: 'whose role?' 'saying and doing,' 'teamwork' and 'impact on me.' These themes are described and illustrated with a direct quotation that represents the participants' responses. Whilst the focus of the study was the experiences of fathers, a range of quotes have been utilised to demonstrate the extent to which participants also referred to the parents or the mother.

Whose role?

This theme focuses on whose role it was to support the father during and after the resuscitation. In the events described no-one exclusively took on these roles and no-one was delegated to do so. This was because HCP attention was focused on delivering care to the mother and/or baby (Table 2 – 2.1). Whilst representatives of all HCP groups felt the midwife was the most appropriate person to support and communicate with the father, they acknowledged that she had other responsibilities at the time (Table 2 – 2.2). Verbal communication with the parents during the resuscitation was in most cases directed towards the mother. Participants thought this was appropriate because unlike the father, most mothers could not see what was happening. In addition, HCPs believed that fathers could hear what was being said. Consequently fathers received limited direct information and support and this was generally only given on an 'ad hoc' basis.

Any information that was given to fathers during the resuscitation was usually provided by an anaesthetist or midwife. This was most commonly general information because they did not feel it was their responsibility to give more detail at this time. On occasions when the resuscitation was prolonged neonatal nurses sometimes described going over to the parents / mother to explain what was happening when the baby's condition had been stabilised (Table 2 – 2.3). Once resuscitation was completed some babies required NNU admission whilst others remained with their parents. Paediatricians, neonatal nurse practitioners and neonatal nurses described speaking to the parents at this time. However, midwives also recalled advocating for parents by prompting paediatricians to speak to parents before they left the delivery room.

All HCP groups discussed whether they debriefed the fathers after the resuscitation. Most midwives described attempting to speak to the father by himself to explain what had happened and correct misunderstandings. However, in many instances this was not possible because of other demands or lack of opportunity. Anaesthetists and obstetricians did not feel it was part of their role to debrief fathers and although paediatricians, neonatal nurse practitioners and neonatal nurses recalled instances when they had done this, the discussion was usually initiated by the father days or weeks later, when the baby was being cared for in the NNU. Many of the participants were reluctant to get involved in these discussions particularly neonatal nurses who had been present during the resuscitation (Table 2 – 2.4). They felt uncomfortable discussing events particularly if they thought the father would become

distressed. They were also concerned about being asked questions they could not answer.

Almost all participants were aware that other specialties have implemented WR strategies to support relatives who are present during the resuscitation of a family member. Whilst participants felt that these strategies would be of benefit to fathers, they felt these were unlikely to be implemented due to staff shortages and a lack of resources (Table 2 – 2.5).

Saying and doing

This theme focuses on the HCPs' reflection on factors that influenced what they said to fathers and the ways they supported them during and after the resuscitation. Anaesthetists and midwives acknowledged that they usually only gave fathers general information during the resuscitation because they were uncertain what was happening or how the baby was responding. However, they tried to say something positive such as commenting on the amount or colour of the baby's hair.

When paediatricians, neonatal nurse practitioners and neonatal nurses spoke to parents after the resuscitation the information given varied, ranging from detailed information to a more general summary of events. Needing to get the baby to the NNU as quickly as possible appeared to influence the nature and extent of information given. Consequently parents whose baby required more extensive resuscitation were often given the least amount of information.

Being able to draw on previous experience and background knowledge was felt to be invaluable. However, most participants had not received any education or training

about communicating with fathers, either generally or in specific situations such as newborn resuscitation. HCPs in senior posts also said they did not address these issues when teaching juniors (Table 3 – 3.1). Midwives who had trained more recently had received some teaching about supporting fathers in general, but this was minimal. All HCPs felt their way of supporting and communicating with fathers had evolved through experience. Some midwives and anaesthetists felt they had become skilled at observing non-verbal cues portrayed by fathers and this enabled them to support them more effectively. Other HCPs drew on experience in related specialties, taking personal responsibility for their own learning, discussions with fathers and reflection on their practice (Table 3 – 3.2).

In developing their ways of supporting and communicating with fathers, HCPs said they drew on two other elements: observing the practice of others and thinking about how they would like to be treated. They described learning from mentors, senior colleagues, their peers or junior staff, and recalled both positive and negative scenarios (Table 3 – 3.3). Obstetricians often specifically mentioned learning good practice from midwives. Several HCPs used the phrase “putting yourself in their shoes.” Female HCPs modified this approach to thinking about how they would like their partner to be treated (Table 3 – 3.4). Despite the various strategies developed over time all HCP groups said they often did not know what to say to fathers during prolonged episodes of resuscitation (Table 3 – 3.5).

Teamwork

When thinking about factors that may have impacted on the father’s, participants identified the importance of effective teamwork and inter-professional working during

the resuscitation. They felt that when the team worked well together, the situation was usually dealt with quickly and smoothly to the benefit of all concerned, including the father. Senior HCPs described having an 'instinctive' way of working with their colleagues such that verbal communication was not required. They described scenarios when those present spontaneously took on different roles and responsibilities assisting and supporting each other (Table 4 – 4.1). Obstetricians and anaesthetists recalled distracting the father so that he could not see what was happening and to reduce the risk of him hindering the resuscitation in any way. This approach enabled their colleagues to focus on the resuscitation and none of the fathers intervened with the resuscitation in the incidents described. Anaesthetists also described assisting with the resuscitation, particularly when a junior paediatrician was having difficulty intubating the baby. Several midwives described responding to a crash call. They often took on the role of 'go-between,' relaying information between the neonatal and obstetric teams and the parents. The importance of senior HCPs supporting junior staff was also identified (Table 4 – 4.2).

Impact on me

Whilst the intention of this study was to explore the HCP's interpretation of the father's experience, the HCPs frequently reflected on the impact of the events they described on themselves. During the resuscitation, HCPs described trying to adopt a calm and self-assured manner regardless of how they were feeling. They hoped this attitude would be transmitted to the father and as a consequence, he would be comforted and reassured. Many midwives however, said it was difficult to adopt this approach and when recounting specific events described them as being "awful",

"horrendous", "terrible" and "shocking." In a less extreme way, when they reflected on specific events, several midwives felt they should have done more to support the father (Table 5 – 5.1).

Another issue some paediatricians and the neonatal nurse practitioners talked about was when the father approached the resuscitaire during the resuscitation. The neonatal nurse practitioners and some of the more senior paediatricians were comfortable with this and felt it did not impact on their practice in a negative way (Table 5 – 5.2). Others however, felt uneasy being watched so closely and felt it placed additional stress on them in an already pressurised situation (Table 5 – 5.3).

The HCPs rarely said the events they described had a positive impact on them. Their relief and satisfaction when all was well was usually implied rather than stated. This may be because in many cases, the busy nature of the care setting meant that they often quickly became involved in the care of other parents and babies with limited opportunity to reflect on what had happened. Midwives were the only HCPs who described becoming emotional when the resuscitation was successful. This is probably because in most cases they had been directly involved in the couple's care during labour.

DISCUSSION

This is the first known reported study to explore the experiences and perceptions of HCPs involved in neonatal resuscitation in the delivery room when the baby's father was present. The interviews provide strong evidence of HCPs' perspectives of this

type of scenario. Although all HCP groups said the fathers needed support and information during the resuscitation, it was acknowledged these needs were almost always unmet. This confirms a finding from an earlier phase of the broader study (12). HCPs felt this was because their priorities at the time were the health of the baby or the mother. A view also shared by fathers in an earlier phase of this study (12). Although HCPs thought the midwife was probably best placed to support the father it was acknowledged that that she had a duty of care to the mother and was often involved in her ongoing care. A key factor in the failure to meet the needs of fathers appeared to be that none of the professional groups involved had direct responsibility to support and communicate with him. It was frequently stated that "he wasn't my patient" or "that's not part of my role."

Most HCPs were aware that in other care settings a designated HCP often supports relatives when they witness resuscitation events (14,32,33). The role of the chaperone is to explain what is happening and to support, reassure, and de-brief the relative. They can also intervene if the relative's behaviour becomes distracting (20,32). This role is generally undertaken by a senior HCP, usually a nurse, who can provide appropriate information and support (32). Whilst the HCPs suggested a chaperone would be beneficial for fathers, it was felt staff shortages and lack of resources would prevent this from happening.

The HCPs identified a number of factors that could have added to what would have already been a difficult experience for fathers. These factors included a lack of direct information at key points and situations where fathers were excluded or marginalised. Many HCPs also described the impact of events on them and aspects

they found difficult. An issue that frequently occurred was what to say during prolonged resuscitation. Experienced HCPs as well as those who had been working in the specialty for a short time identified this difficulty. The more acute distress displayed by midwives and neonatal nurses during the interviews was most commonly because they felt the situation was not handled well and they felt culpable to some extent. Obstetricians, anaesthetists and paediatricians were more 'matter-of-fact' about what happened and did not appear to feel responsible when a father's needs were not met. However, paediatricians described their discomfort when fathers came to the resuscitaire. This may indicate a lack of confidence in their ability or their recognition that the presence of the father can cause additional pressure at an already stressful time. This was explored in the early literature regarding WR in other care settings such as adult and paediatric intensive care and accident and emergency departments which reports that HCPs felt WR would have a negative impact on them (14,17,18). However, over time HCPs who have been exposed to WR have found ways to accommodate it in their practice.

Guidance about supporting parents in the delivery room is given in the recently updated European and UK newborn life-support training programmes, mainly in relation to communicating with parents before, during and after the event (34,35). However, no specific guidance is given about ways to communicate with or ways to support the father. This would appear to be an area worthy of development given the lack of confidence that some HCPs expressed about communicating with fathers during resuscitation events, particularly when the resuscitation was prolonged.

STRENGTHS AND LIMITATIONS

The study's strengths and limitations are acknowledged:

- The critical incident approach was generally an appropriate way to explore HCPs' experiences of specific events. This approach enabled many of them to consider the impact of newborn resuscitation on fathers for the first time.
- Some participants found focusing on issues pertaining to the father more difficult and sometimes talked about the mother or the parents collectively. However, subsequent probing questions encouraged them to concentrate on the father.
- Some participants chose to describe events that occurred a while ago. It is therefore difficult to determine the extent to which recall bias influenced their descriptions. However, they appeared to have no difficulty remembering their feelings or what happened. They were often surprised at how clearly they could recall the event.
- Incidents where the baby did not survive were not described. HCPs may have thought the researchers were only interested in events where the baby survived, although this was not stated by the interviewer. Alternatively, they may have deliberately elected not to recall an incident that they thought might be too sensitive or potentially controversial to discuss.
- Whilst the preliminary data analysis was undertaken by the first author, the thematic framework was discussed with the second author as it was developed and the final framework was agreed by both authors.

Although undertaken in one setting, the findings from this independent study provide insight to the experiences and perceptions of HCPs and the context in which the

resuscitation events occurred (25). Given the qualitative nature of this study, it is inappropriate to generalize the findings to the wider population. However, in accordance with the notion of transferability, the findings of this study have highlighted issues that may be of relevance in other settings (23). To gain a broader view of HCPs' experiences and the longer term impact, this study could be replicated with larger groups of HCPs. It would also be valuable to explore the experiences of HCPs where the baby did not survive the resuscitation. Although such a study would present challenges, it would have the potential to provide insight to situations that could have profound and possibly long lasting effects on HCPs. This in turn could influence the provision of HCP education, training and support in the future.

IMPLICATIONS FOR PRACTICE

To some extent newborn resuscitation is part of the normal working day for many HCPs involved in perinatal care. However, some midwives and neonatal nurses became distressed when discussing events some of which occurred some time ago and yet remained a strong memory. This suggests there is a need for greater recognition of the impact of resuscitation events on HCPs. The provision of opportunities for formal and informal reflection on practice, debriefing and support could be more extensive.

The HCPs were generally aware of the needs of fathers during and after newborn resuscitation. However, a number of difficulties and challenges affected how they supported and communicated with fathers. Whilst there is increasing evidence pertaining to the needs of fathers, in maternity care, HCPs generally focus on the

needs of mothers and babies (36); duty of care and professional responsibilities determine this. Nevertheless, it would appear that there is scope for much more extensive HCP education and training about supporting and communicating with fathers around the time of newborn resuscitation. The allocation of resources to support the provision of a chaperone for fathers during resuscitation would also be worthy of consideration by service providers (14,20).

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COMPETING INTERESTS

Both authors have completed the Unified Competing Interest form at http://www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years, no other relationships or activities that could appear to have influenced the submitted work.

DATA SHARING

No additional data available.

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AUTHORS' CONTRIBUTIONS

Dr M.E Harvey (MH) developed and designed the research proposal, negotiated access to the study-site, obtained the required approvals, recruited participants, conducted the interviews, undertook the data analysis and wrote the first draft of this paper. Professor HM Pattison (HP) supervised MH throughout the study, reviewed and agreed the coding framework, contributed to and has agreed the final version of the paper. MH is the guarantor.

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HCP Group	No.	Sex	Time from initial qualification	Length of time in current post

Midwives	12	Female*	1 – 29 years	6 months – 5 years
Neonatal nurses	10	Female*	2 – 32 years	6 months – 23 years
Neonatal nurse practitioners	2	Female*	7 – 19 years	6 months – 7 years
Obstetricians	3	Female	9 – 22 years	1 – 6 years
Anaesthetists	4	2 Female 2 Male	6 – 16 years	1 – 6 years
Paediatrician	6	1 Female 5 male	2 – 33 years	2½ months – 18 years

*No males were employed in this role during the period of recruitment

Table 1 Participant biographical details

Table 2	**Whose role?**
2.1	*"My main focus is the mother. I think that's, I think it's important to understand that because the mother's my patient, the father's not my*

	patient." (Anaesthetist14)
2.2	*"When the baby was born and she needed resuscitating, he ran out the room crying. I felt like I should have ran after him really which I couldn't at the time because I was trying to like stop her* ((the mother)) *from bleeding. So it was difficult but I did think, oh my God."* (Midwife9)
2.3	*"I at that time, I could not speak to dad because we, our priority was the baby and baby needed intubating. Once that was done I was able to then go and speak to mum just to give her brief information of what was going on, how the baby was."* (NeonatalNurse1)
2.4	*"It's not my place, just in case he asked me sensitive questions that I'm not able to answer. It's very difficult in that situation especially if you've got a very sick baby. I would not take part in that at all."* (NeonatalNurse5)
2.5	*"There's no-one specifically to do that, unless we employed an extra member of staff just to look after the father, but we can't do that." (Anaesthetist13)*

Table 3 Saying and doing

3.1	*"I don't think it's anything that anybody's spoken about and I suppose I don't really speak to the trainees who come through about it either."*

	(Paediatrician16)
3.2	*"I think my practice is probably based on what I've heard husbands and partners tell me and how they felt."* (Midwife15)
3.3	*"I have a series of horror stories of observing my consultant teachers in days of yore making a complete and utter hash of it. And I use that you know and I just, you just learn by thinking, right, if I live a thousand years, I will never do that."* (Paediatrician15)
3.4	*"I always say, speak to people how you would want to be spoken to. Treat them the way you want to be treated and just put yourself in their situation. You know, it's your partner, that's your baby and somebody's not even acknowledging that you're there, how would that make you feel?"* (Obstetrician61)
3.5	*"It was awful. No-one was saying anything and mum was crying. I was just thinking please, please somebody say something."* (NeonatalNurse7)

Table 4	**Teamwork**
4.1	*"If I'm happy the mother's suturing is done and mum's not bleeding,*

	mum's fine and everybody is working on the baby then I will stay and do whatever I can whether it's fetching for the paediatrician or whether it's staying and supporting mum and dad because the midwife's helping the paediatrician." (Obstetrician10)
4.2	*"It's like yesterday the shoulder dystocia, the baby needed to be resuscitated. Me and the Shift Leader talked about it, like you know, you go over it like, oh that was awful and, oh he* ((the father)) *was crying, oh it was terrible and you just talk about it and then that helps you to kind of deal with what's happened."* (Midwife9)

Table 5	**Impact on me**
5.1	"*You try and support the fathers and meet their needs when it*

	happens. I do have days where I go home deflated thinking I really wish I could have done more for him that day." (Midwife12)
5.2	"*I don't mind it at all. I'm used to people watching what I do and I think he needs to see anyway."* (NeonatalNursePractitioner14)
5.3	*"I don't like it. Not because it's a worry to me it's just because I don't happen to like being watched when I'm working."* (Paediatrician7)
5.4	*"Yes. Even now, after all this time, there are some difficult deliveries and you want to, you share in all of that emotion and it's very easy to kind of get prickly eyes when the baby is ok." (*Midwife7)

The impact of a father's presence during newborn resuscitation: a qualitative interview study with health care professionals

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Objective: To explore health care professionals' experiences around the time of newborn resuscitation in the delivery room, when the baby's father was present.

Design: A qualitative descriptive, retrospective design using the critical incident approach. Tape-recorded semi-structured interviews were undertaken with health care professionals involved in newborn resuscitation. Participants recalled resuscitation events when the baby's father was present. They described what happened and how those present, including the father, responded. They also reflected upon the impact of the resuscitation and the father's presence on themselves. Participant responses were analysed using thematic analysis.

Setting: A large teaching hospital in the UK.

Participants: Purposive sampling was utilised. It was anticipated that 35-40 participants would be recruited. Forty-nine potential participants were invited to take part. The final sample consisted of 37 participants including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians.

Results: Four themes were identified: 'whose role?' 'saying and doing' 'teamwork' and 'impact on me'. Whilst no-one was delegated to support the father during the resuscitation, midwives and anaesthetists most commonly took on this role. Participants felt the midwife was the most appropriate person support fathers. All health care professional groups said they often did not know what to say to fathers during prolonged resuscitation. Teamwork was felt to be of benefit to all concerned, including the father. Some paediatricians described their discomfort when fathers came to the resuscitaire. None of the participants had received education and training specifically on supporting fathers during newborn resuscitation.

Conclusions This is the first known study to specifically explore the experiences of health care professionals of the father's presence during newborn resuscitation. The

Comment [M1]: R2 – reworded to more accurately reflect purpose of study

Comment [M2]: R2 - added

Comment [M3]: R2 – deleted from results section and added here

Comment [M4]: R2 – information regarding participants moved to next section

Comment [M5]: R1 - Information added regarding anticipated / final sample size

findings suggest the need for more focused training about supporting fathers. There is also scope for service providers to consider ways in which fathers can be supported more readily during newborn resuscitation.

ARTICLE SUMMARY

Article Focus:

The research question for this study was; 'What are the experiences of health care professionals of the father's presence during newborn resuscitation in the delivery room?' To address this question, the objectives of this phase of the study were:

1. To conduct interviews utilising the critical incident approach with HCPs who had experience of newborn resuscitation when the baby's father was present.
2. To provide an account of the experiences of HCPs of newborn resuscitation when the baby's father was present.

Key messages:

The key messages and significance of the study are:

1. Whilst the health care professionals were aware of the information and support needs of fathers during newborn resuscitation, they acknowledged that these needs were rarely met.
2. The health care professionals in this study had not received education and training specifically about supporting fathers during newborn resuscitation.
3. The health care professionals in this study did not utilize strategies to support fathers that are recommended when relatives are present during resuscitation events in other critical care settings.

Strengths and limitations:

Comment [M6]: Section amended to correlate with strengths and limitations section in main paper

- Although undertaken in one setting, the findings from this independent study provide insight to the experiences and perceptions of HCPs and the context in which the resuscitation events occurred
- The critical incident approach was generally an appropriate way to explore HCPs' experiences of specific events. This approach enabled many of them to consider the impact of newborn resuscitation on fathers for the first time.
- Some participants found focusing on issues pertaining to the father more difficult and sometimes talked about the mother or the parents collectively. However, subsequent probing questions encouraged them to concentrate on the father.
- Some participants chose to describe events that occurred a while ago. It is therefore difficult to determine the extent to which recall bias influenced their descriptions. However, they appeared to have no difficulty remembering their feelings or what happened. They were often surprised at how clearly they could recall the event.
- Incidents where the baby did not survive were not described. HCPs may have thought the researchers were only interested in events where the baby survived, although this was not stated by the interviewer. Alternatively, they may have deliberately elected not to recall an incident that they thought might be too sensitive or potentially controversial to discuss.
- Whilst the preliminary data analysis was undertaken by the first author, the thematic framework was discussed with the second author as it was developed and the final framework was agreed by both authors.

- Given the qualitative nature of this study, it is inappropriate to generalize the findings to the wider population. However, in accordance with the notion of transferability, the findings of this study have highlighted issues that may be of relevance in other settings.

INTRODUCTION

The birth of their child is often a landmark event for a father and can be an important episode in the on-going process of adaptation to parenthood. Short and more longer term benefits of a father's involvement in the life of his child have been described which can impact on the father, his partner, his baby and society more generally (1,2,3). As a consequence there has been a drive in the UK over the last 10 years to engage and involve fathers more readily, particularly during the perinatal period and during childbirth specifically (4,5,6). However, in order to ensure that fathers are appropriately supported during the perinatal period, it is important that health care professionals (HCPs) have insight to fathers' experiences and needs.

Whilst for the majority of men childbirth is straightforward, for others it is not. When a newborn baby requires resuscitation in UK settings, the father will usually be present because most fathers attend the birth of their baby and delivery and resuscitation generally take place in the same room (7,8,9). Whilst some studies have investigated the impact on HCPs of parental presence during neonatal resuscitation in the neonatal unit (NNU) (10,11); the father's presence during newborn resuscitation in the delivery room has only been reported in terms of the impact on the father (12).

The experiences of HCPs of the presence of a relative during the resuscitation of a family member has been investigated in settings such as adult and paediatric intensive care and accident and emergency (13,14,15). Early 'witnessed resuscitation' (WR) research identified that many HCPs were not supportive of this approach (16). They were concerned that relatives would be unduly distressed or

Comment [M7]: R2 - Introduction amended and references added

Comment [M8]: R2 – clarification re: HCPs negative view of witnessed resuscitation

would be at risk of physical harm due to the nature of the environment. HCPs also felt WR would impinge on themselves and their practice in a negative way (14,17,18). However, despite some initial opposition, most HCPs now embrace the concept of WR and it has become accepted practice in many Western countries over the last two decades. This reflects a generally more open and inclusive approach to health care and recognition of the need to deliver family-centred care (19,20).

The feelings and perceptions of HCPs' experiences and perceptions of the father's presence during newborn resuscitation in the delivery room do not appear to have been previously investigated. The aim of this part of a wider study (12) was to gain a broader understanding of fathers' experiences through HCPs' accounts of episodes of care. Participants also reflected on the ways in which the father's presence impacted on themselves and their practice. This paper focuses on the findings pertaining to the experiences of HCPs of a father's presence during newborn resuscitation.

Comment [M9]: R2 – statement reworded

Comment [M10]: R2 – rationale for study

Comment [M11]: R1 – to clarify referring to individual fathers

METHOD

A qualitative descriptive, retrospective design was utilised using the critical incident approach (21).

Comment [M12]: R2 – sentance added

Comment [M13]: R1 – reference added

Participants

Purposive sampling was utilised to recruit participants from one large teaching hospital in the UK. It was anticipated that 35-40 participants would be required in

order to obtain descriptions of a range of scenarios. Therefore recruitment, data collection and data analysis occurred concurrently until data saturation was achieved. The only inclusion criterion was that the HCP had experience of neonatal resuscitation in the delivery room when the baby's father was present. No exclusion criteria were identified. Participants were recruited using a range of strategies: posters inviting HCPs to take part were displayed in various locations within the maternity unit and NNU; HCP meetings were attended to discuss the study and information leaflets were distributed in the delivery suite and NNU. Some participants also recommended other HCPs. In accordance with the critical incident approach (21), recruitment continued until a range of HCPs who had encountered a variety of experiences was recruited (22).

Forty-nine HCPs were approached about or volunteered to take part in the study. Six HCPs subsequently decided not to take part (2 midwives and 4 neonatal nurses). Another six said they would participate but staff shortages and workload issues meant that the interview did not take place (2 midwives, 2 neonatal nurses, 1 paediatrician and 1 obstetrician). The final sample consisted of 37 HCPs including midwives, obstetricians, anaesthetists, neonatal nurse practitioners, neonatal nurses and paediatricians. The sample included participants with diverse clinical backgrounds and experience (23) (Table 1). The participants were from a range of ethnic backgrounds corresponding to the main groups represented in the study site's local population. Detail regarding the participants' ages and ethnicity have not been included to safeguard participant anonymity. Neonatal nurses were recruited because this part of the study also explored HCPs' experiences of the father's first visit to his baby on the NNU (not reported here). All the neonatal nurses who

Comment [M14]: (& subsequent two comments) R1 – re: why 37 participants

Comment [M15]: R1 – clarification regarding number of participants approached and final number of participants

Comment [M16]: (& previous two comments) R1 – re: why 37 participants

Comment [M17]: R2 – asked for information about age and ethnicity of participants. We have reviewed the various ways this could be done but feel all would risk identification of participants – so this information has not been included as stated here

participated in this phase of the study, regularly attended delivery suite to support other staff during newborn resuscitation.

INTERVIEWS

Semi-structured, qualitative interviews were undertaken using Flanagan's critical incident approach (21). Participants were asked to select an incident involving newborn resuscitation in the delivery room when they and the baby's father had been present. The intention was to explore the HCP's interpretation of the father's experience. Participants described what happened and how those present, particularly the father, responded (22,24). Some chose to describe incidents that had occurred within the previous week, whilst others selected events that had occurred several months ago. The interviewer (MH) used key questions and follow-up questions to facilitate the description of events and to explore HCP perceptions and feelings. The use of the follow-up or probing questions varied according to the participant's initial response. In some instances HCPs began by talking about the mother or the parents collectively. However, subsequent probing questions encouraged them to focus their account on the father. This flexible approach enabled HCPs to describe what happened and their feelings in their own words (25,26). In order to ensure a range of scenarios were explored, participants were asked to describe two contrasting incidents (27,28). The interviews ranged between 22 and 78 minutes (mean 48 minutes). Participants were interviewed in a private room within the Hospital. Most of the interviews took place on weekday afternoons within the HCP's working day. With participant informed consent, the interviews were tape-recorded to enable verbatim transcription and data analysis. Five HCPs (midwives and neonatal nurses) cried as they recalled the resuscitation and on two

Comment [M18]: R2 – clarification of critical incident approach used

Comment [M19]: R2 – clarifying purpose of study

Comment [M20]: R2 – clarification re: time lapse between incident and interview

Comment [M21]: R2 – explanation added re: use of probing questions.

Comment [M22]: R2 – clarification of the number of incidents described

Comment [M23]: R2 – moved from results section

occasions, the recording was temporarily stopped. At the end of the interview, all participants were given a debriefing sheet identifying possible sources of support. In accordance with qualitative methods; data collection, transcription and data analysis were carried out concurrently (26,29). The study was approved by the Solihull Local Research Ethics Committee (05/Q2706/104). University and trust approvals were also obtained. All participants gave informed consent immediately before the interview.

ANALYSIS

Comment [M24]: R1 and R2 – clarification re: data analysis process

The first author transcribed the interviews and undertook preliminary data analysis. The transcriptions were read and reread in order to facilitate understanding. Thematic analysis was then undertaken whereby the first transcript was coded into themes. Subsequent transcripts were then analysed and additional themes or sub-themes were generated when the data captured something new. The software package 'NVivo 7' was used to facilitate this process as it enables the researcher to identify relationships between the themes (30). During this stage, the development of the thematic framework was undertaken in consultation with the second author. Data collection continued until no new themes were identified during data analysis (data saturation) (25,31). The thematic framework was then reviewed and revised by both authors until the final framework was agreed.

RESULTS

Analysis of the data generated four themes, each of which contained subthemes: 'whose role?' 'saying and doing,' 'teamwork' and 'impact on me.' These themes are described and illustrated with a direct quotation that represents the participants' responses. Whilst the focus of the study was the experiences of fathers, a range of quotes have been utilised to demonstrate the extent to which participants also referred to the parents or the mother.

Whose role?

This theme focuses on whose role it was to support the father during and after the resuscitation. In the events described no-one exclusively took on these roles and no-one was delegated to do so. This was because HCP attention was focused on delivering care to the mother and/or baby (Table 2 – 2.1). Whilst representatives of all HCP groups felt the midwife was the most appropriate person to support and communicate with the father, they acknowledged that she had other responsibilities at the time (Table 2 – 2.2). Verbal communication with the parents during the resuscitation was in most cases directed towards the mother. Participants thought this was appropriate because unlike the father, most mothers could not see what was happening. In addition, HCPs believed that fathers could hear what was being said. Consequently fathers received limited direct information and support and this was generally only given on an 'ad hoc' basis.

Comment [M25]: R2 – acknowledgement of sub-themes. Number deliberately not stated

Comment [M26]: R2 – the quotes used throughout are representative of the responses of participants in relation to that particular theme

Comment [M27]: R2- clarification re: fathers / parents / mothers

Comment [M28]: R2 – explanation of theme

Comment [M29]: R2 - clarification

Comment [M30]: R2 - added

Comment [M31]: R2 – re: number of occasions communication directed to mother

Any information that was given to fathers during the resuscitation was usually provided by an anaesthetist or midwife. This was most commonly general information because they did not feel it was their responsibility to give more detail at this time. On occasions when the resuscitation was prolonged neonatal nurses sometimes described going over to the parents / mother to explain what was happening when the baby's condition had been stabilised (Table 2 – 2.3). Once resuscitation was completed some babies required NNU admission whilst others remained with their parents. Paediatricians, neonatal nurse practitioners and neonatal nurses described speaking to the parents at this time. However, midwives also recalled advocating for parents by prompting paediatricians to speak to parents before they left the delivery room.

All HCP groups discussed whether they debriefed the fathers after the resuscitation. Most midwives described attempting to speak to the father by himself to explain what had happened and correct misunderstandings. However, in many instances this was not possible because of other demands or lack of opportunity. Anaesthetists and obstetricians did not feel it was part of their role to debrief fathers and although paediatricians, neonatal nurse practitioners and neonatal nurses recalled instances when they had done this, the discussion was usually initiated by the father days or weeks later, when the baby was being cared for in the NNU. Many of the participants were reluctant to get involved in these discussions particularly neonatal nurses who had been present during the resuscitation (Table 2 – 2.4). They felt uncomfortable discussing events particularly if they thought the father would become distressed. They were also concerned about being asked questions they could not answer.

Comment [M32]: R2 – clarification re: quote used

Comment [M33]: R2 - added

Comment [M34]: R2 – clarification re: reluctance to debrief fathers

Almost all participants were aware that other specialties have implemented WR strategies to support relatives who are present during the resuscitation of a family member. Whilst participants felt that these strategies would be of benefit to fathers, they felt these were unlikely to be implemented due to staff shortages and a lack of resources (Table 2 – 2.5).

Saying and doing

This theme focuses on the HCPs' reflection on factors that influenced what they said to fathers and the ways they supported them during and after the resuscitation. Anaesthetists and midwives acknowledged that they usually only gave fathers general information during the resuscitation because they were uncertain what was happening or how the baby was responding. However, they tried to say something positive such as commenting on the amount or colour of the baby's hair.

When paediatricians, neonatal nurse practitioners and neonatal nurses spoke to parents after the resuscitation the information given varied, ranging from detailed information to a more general summary of events. Needing to get the baby to the NNU as quickly as possible appeared to influence the nature and extent of information given. Consequently parents whose baby required more extensive resuscitation were often given the least amount of information.

Being able to draw on previous experience and background knowledge was felt to be invaluable. However, most participants had not received any education or training about communicating with fathers, either generally or in specific situations such as newborn resuscitation. HCPs in senior posts also said they did not address these

Comment [M35]: R2 – paragraph and new quote added to support issue raised in discussion

Comment [M36]: R2 – clarification re: theme

Comment [M37]: R2 – clarification re: senior HCPs

issues when teaching juniors (Table 3 – 3.1). Midwives who had trained more recently had received some teaching about supporting fathers in general, but this was minimal. All HCPs felt their way of supporting and communicating with fathers had evolved through experience. Some midwives and anaesthetists felt they had become skilled at observing non-verbal cues portrayed by fathers and this enabled them to support them more effectively. Other HCPs drew on experience in related specialties, taking personal responsibility for their own learning, discussions with fathers and reflection on their practice (Table 3 – 3.2).

In developing their ways of supporting and communicating with fathers, HCPs said they drew on two other elements: observing the practice of others and thinking about how they would like to be treated. They described learning from mentors, senior colleagues, their peers or junior staff, and recalled both positive and negative scenarios (Table 3 – 3.3). Obstetricians often specifically mentioned learning good practice from midwives. Several HCPs used the phrase "putting yourself in their shoes." Female HCPs modified this approach to thinking about how they would like their partner to be treated (Table 3 – 3.4). Despite the various strategies developed over time all HCP groups said they often did not know what to say to fathers during prolonged episodes of resuscitation (Table 3 – 3.5).

Teamwork

Comment [M38]: R2 – clarification re: theme

When thinking about factors that may have impacted on the father's, participants identified the importance of effective teamwork and inter-professional working during the resuscitation. They felt that when the team worked well together, the situation was usually dealt with quickly and smoothly to the benefit of all concerned, including

the father. Senior HCPs described having an 'instinctive' way of working with their colleagues such that verbal communication was not required. They described scenarios when those present spontaneously took on different roles and responsibilities assisting and supporting each other (Table 4 – 4.1). Obstetricians and anaesthetists recalled distracting the father so that he could not see what was happening and to reduce the risk of him hindering the resuscitation in any way. This approach enabled their colleagues to focus on the resuscitation and none of the fathers intervened with the resuscitation in the incidents described. Anaesthetists also described assisting with the resuscitation, particularly when a junior paediatrician was having difficulty intubating the baby. Several midwives described responding to a crash call. They often took on the role of 'go-between,' relaying information between the neonatal and obstetric teams and the parents. The importance of senior HCPs supporting junior staff was also identified (Table 4 – 4.2).

Comment [M39]: R2 – explanation re: distraction

Impact on me

Comment [M40]: R2 – explanation re: theme

Whilst the intention of this study was to explore the HCP's interpretation of the father's experience, the HCPs frequently reflected on the impact of the events they described on themselves. During the resuscitation, HCPs described trying to adopt a calm and self-assured manner regardless of how they were feeling. They hoped this attitude would be transmitted to the father and as a consequence, he would be comforted and reassured. Many midwives however, said it was difficult to adopt this approach and when recounting specific events described them as being "awful", "horrendous", "terrible" and "shocking." In a less extreme way, when they reflected

on specific events, several midwives felt they should have done more to support the father (Table 5 – 5.1).

Another issue some paediatricians and the neonatal nurse practitioners talked about was when the father approached the resuscitaire during the resuscitation. The neonatal nurse practitioners and some of the more senior paediatricians were comfortable with this and felt it did not impact on their practice in a negative way (Table 5 – 5.2). Others however, felt uneasy being watched so closely and felt it placed additional stress on them in an already pressurised situation (Table 5 – 5.3).

The HCPs rarely said the events they described had a positive impact on them. Their relief and satisfaction when all was well was usually implied rather than stated. This may be because in many cases, the busy nature of the care setting meant that they often quickly became involved in the care of other parents and babies with limited opportunity to reflect on what had happened. Midwives were the only HCPs who described becoming emotional when the resuscitation was successful. This is probably because in most cases they had been directly involved in the couple's care during labour.

DISCUSSION

This is the first known reported study to explore the experiences and perceptions of HCPs involved in neonatal resuscitation in the delivery room when the baby's father was present. The interviews provide strong evidence of HCPs' perspectives of this type of scenario. Although all HCP groups said the fathers needed support and

information during the resuscitation, it was acknowledged these needs were almost always unmet. This confirms a finding from an earlier phase of the broader study (12). HCPs felt this was because their priorities at the time were the health of the baby or the mother. A view also shared by fathers in an earlier phase of this study (12). Although HCPs thought the midwife was probably best placed to support the father it was acknowledged that that she had a duty of care to the mother and was often involved in her ongoing care. A key factor in the failure to meet the needs of fathers appeared to be that none of the professional groups involved had direct responsibility to support and communicate with him. It was frequently stated that "he wasn't my patient" or "that's not part of my role."

Comment [M41]: R2 – clarification regarding previous publication. This was in relation to the first phase of the study which involved interviews with fathers

Most HCPs were aware that in other care settings a designated HCP often supports relatives when they witness resuscitation events (14,32,33). The role of the chaperone is to explain what is happening and to support, reassure, and de-brief the relative. They can also intervene if the relative's behaviour becomes distracting (20,32). This role is generally undertaken by a senior HCP, usually a nurse, who can provide appropriate information and support (32). Whilst the HCPs suggested a chaperone would be beneficial for fathers, it was felt staff shortages and lack of resources would prevent this from happening.

The HCPs identified a number of factors that could have added to what would have already been a difficult experience for fathers. These factors included a lack of direct information at key points and situations where fathers were excluded or marginalised. Many HCPs also described the impact of events on them and aspects they found difficult. An issue that frequently occurred was what to say during

prolonged resuscitation. Experienced HCPs as well as those who had been working in the specialty for a short time identified this difficulty. The more acute distress displayed by midwives and neonatal nurses during the interviews was most commonly because they felt the situation was not handled well and they felt culpable to some extent. Obstetricians, anaesthetists and paediatricians were more 'matter-of-fact' about what happened and did not appear to feel responsible when a father's needs were not met. However, paediatricians described their discomfort when fathers came to the resuscitaire. This may indicate a lack of confidence in their ability or their recognition that the presence of the father can cause additional pressure at an already stressful time. This was explored in the early literature regarding WR in other care settings such as adult and paediatric intensive care and accident and emergency departments which reports that HCPs felt WR would have a negative impact on them (14,17,18). However, over time HCPs who have been exposed to WR have found ways to accommodate it in their practice.

Comment [M42]: R2 – clarification re: care settings

Guidance about supporting parents in the delivery room is given in the recently updated European and UK newborn life-support training programmes, mainly in relation to communicating with parents before, during and after the event (34,35). However, no specific guidance is given about ways to communicate with or ways to support the father. This would appear to be an area worthy of development given the lack of confidence that some HCPs expressed about communicating with fathers during resuscitation events, particularly when the resuscitation was prolonged.

STRENGTHS AND LIMITATIONS

Comment [M43]: Section amended in response to R1 comments. Bullet points added and limitations acknowledged

The study's strengths and limitations are acknowledged:

- The critical incident approach was generally an appropriate way to explore HCPs' experiences of specific events. This approach enabled many of them to consider the impact of newborn resuscitation on fathers for the first time.
- Some participants found focusing on issues pertaining to the father more difficult and sometimes talked about the mother or the parents collectively. However, subsequent probing questions encouraged them to concentrate on the father.
- Some participants chose to describe events that occurred a while ago. It is therefore difficult to determine the extent to which recall bias influenced their descriptions. However, they appeared to have no difficulty remembering their feelings or what happened. They were often surprised at how clearly they could recall the event.
- Incidents where the baby did not survive were not described. HCPs may have thought the researchers were only interested in events where the baby survived, although this was not stated by the interviewer. Alternatively, they may have deliberately elected not to recall an incident that they thought might be too sensitive or potentially controversial to discuss.
- Whilst the preliminary data analysis was undertaken by the first author, the thematic framework was discussed with the second author as it was developed and the final framework was agreed by both authors.

Although undertaken in one setting, the findings from this independent study provide insight to the experiences and perceptions of HCPs and the context in which the resuscitation events occurred (25). Given the qualitative nature of this study, it is

Comment [M44]: R1 – potential recall bias acknowledged

Comment [M45]: R1 – clarification re: data analysis process

Comment [M46]: R1 – clarification re: potential transferability of findings

inappropriate to generalize the findings to the wider population. However, in accordance with the notion of transferability, the findings of this study have highlighted issues that may be of relevance in other settings (23). To gain a broader view of HCPs' experiences and the longer term impact, this study could be replicated with larger groups of HCPs. It would also be valuable to explore the experiences of HCPs where the baby did not survive the resuscitation. Although such a study would present challenges, it would have the potential to provide insight to situations that could have profound and possibly long lasting effects on HCPs. This in turn could influence the provision of HCP education, training and support in the future.

IMPLICATIONS FOR PRACTICE

To some extent newborn resuscitation is part of the normal working day for many HCPs involved in perinatal care. However, some midwives and neonatal nurses became distressed when discussing events some of which occurred some time ago and yet remained a strong memory. This suggests there is a need for greater recognition of the impact of resuscitation events on HCPs. The provision of opportunities for formal and informal reflection on practice, debriefing and support could be more extensive.

The HCPs were generally aware of the needs of fathers during and after newborn resuscitation. However, a number of difficulties and challenges affected how they supported and communicated with fathers. Whilst there is increasing evidence pertaining to the needs of fathers, in maternity care, HCPs generally focus on the needs of mothers and babies (36); duty of care and professional responsibilities

determine this. Nevertheless, it would appear that there is scope for much more extensive HCP education and training about supporting and communicating with fathers around the time of newborn resuscitation. The allocation of resources to support the provision of a chaperone for fathers during resuscitation would also be worthy of consideration by service providers (14,20).

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COMPETING INTERESTS

Both authors have completed the Unified Competing Interest form at http://www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years, no other relationships or activities that could appear to have influenced the submitted work.

DATA SHARING

No additional data available.

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Development and approval of the study, participant recruitment, data collection and initial data analysis were undertaken when the first author held the Bliss Neonatal Nurse Research Fellow post at the National Perinatal Epidemiology Unit, University of Oxford. The first author's PhD fees were met by Birmingham City University and the first author. All other expenses were met by the first author. Aston University was the sponsor. This included providing University approval for the study and ensuring the study was carried out in accordance with the Research Governance Framework.

AUTHORS' CONTRIBUTIONS

Dr M.E Harvey (MH) developed and designed the research proposal, negotiated access to the study-site, obtained the required approvals, recruited participants, conducted the interviews, undertook the data analysis and wrote the first draft of this paper. Professor HM Pattison (HP) supervised MH throughout the study, reviewed and agreed the coding framework, contributed to and has agreed the final version of the paper. MH is the guarantor.

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Comment [M47]: First 6 references added to support amended introduction

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HCP Group	No.	Sex	Time from initial qualification	Length of time in current post
Midwives	12	Female*	1 – 29 years	6 months – 5 years
Neonatal nurses	10	Female*	2 – 32 years	6 months – 23 years
Neonatal nurse practitioners	2	Female*	7 – 19 years	6 months – 7 years
Obstetricians	3	Female	9 – 22 years	1 – 6 years
Anaesthetists	4	2 Female 2 Male	6 – 16 years	1 – 6 years
Paediatrician	6	1 Female 5 male	2 – 33 years	2½ months – 18 years

*No males were employed in this role during the period of recruitment

Table 1 Participant biographical details

Table 2	Whose role?
2.1	*"My main focus is the mother. I think that's, I think it's important to understand that because the mother's my patient, the father's not my patient."* (Anaesthetist14)
2.2	*"When the baby was born and she needed resuscitating, he ran out the room crying. I felt like I should have ran after him really which I couldn't at the time because I was trying to like stop her* ((the mother)) *from bleeding. So it was difficult but I did think, oh my God."* (Midwife9)
2.3	*"I at that time, I could not speak to dad because we, our priority was the baby and baby needed intubating. Once that was done I was able to then go and speak to mum just to give her brief information of what was going on, how the baby was."* (NeonatalNurse1)
2.4	*"It's not my place, just in case he asked me sensitive questions that I'm not able to answer. It's very difficult in that situation especially if you've got a very sick baby. I would not take part in that at all."* (NeonatalNurse5)
2.5	*"There's no-one specifically to do that, unless we employed an extra member of staff just to look after the father, but we can't do that." (Anaesthetist13)*

Comment [M48]: Added to support additional material in relation to this theme

Table 3	Saying and doing
3.1	*"I don't think it's anything that anybody's spoken about and I suppose I don't really speak to the trainees who come through about it either."* (Paediatrician16)
3.2	*"I think my practice is probably based on what I've heard husbands and partners tell me and how they felt."* (Midwife15)
3.3	*"I have a series of horror stories of observing my consultant teachers in days of yore making a complete and utter hash of it. And I use that you know and I just, you just learn by thinking, right, if I live a thousand years, I will never do that."* (Paediatrician15)
3.4	*"I always say, speak to people how you would want to be spoken to. Treat them the way you want to be treated and just put yourself in their situation. You know, it's your partner, that's your baby and somebody's not even acknowledging that you're there, how would that make you feel?"* (Obstetrician61)
3.5	*"It was awful. No-one was saying anything and mum was crying. I was just thinking please, please somebody say something."* (NeonatalNurse7)

Table 4	Teamwork
4.1	*"If I'm happy the mother's suturing is done and mum's not bleeding, mum's fine and everybody is working on the baby then I will stay and do whatever I can whether it's fetching for the paediatrician or whether it's staying and supporting mum and dad because the midwife's helping the paediatrician."* (Obstetrician10)
4.2	*"It's like yesterday the shoulder dystocia, the baby needed to be resuscitated. Me and the Shift Leader talked about it, like you know, you go over it like, oh that was awful and, oh he* ((the father)) *was crying, oh it was terrible and you just talk about it and then that helps you to kind of deal with what's happened."* (Midwife9)

Table 5	Impact on me
5.1	"*You try and support the fathers and meet their needs when it happens. I do have days where I go home deflated thinking I really wish I could have done more for him that day."* (Midwife12)
5.2	"*I don't mind it at all. I'm used to people watching what I do and I think he needs to see anyway."* (NeonatalNursePractitioner14)
5.3	*"I don't like it. Not because it's a worry to me it's just because I don't happen to like being watched when I'm working."* (Paediatrician7)
5.4	*"Yes. Even now, after all this time, there are some difficult deliveries and you want to, you share in all of that emotion and it's very easy to kind of get prickly eyes when the baby is ok." (*Midwife7)

Interview schedule

Opening statement: **This interview forms part of a larger study that aims to gain an understanding of the experiences and perceptions of fathers who attend the birth of their baby, especially when the baby has required resuscitation at birth and / or admission to a neonatal unit.**

Within this interview I am particularly interested in your experience of situations when a sick / preterm baby is delivered, requires resuscitation at birth and / or admission to a neonatal unit, and the baby's father is present. Before consideration of key issues, can I clarify the following?

Job title / Qualifications / Length of time qualified / Length of time this post

KEY ISSUES TO EXPLORE

There are a variety of situations that you might have experienced:

- **The antenatal preparation of fathers (i.e. before labour has started) particularly if the birth of a sick / preterm baby is anticipated.**
- **Being at the delivery of a sick / preterm baby when the baby's father is also present.**
- **Being at the resuscitation of a newborn baby when the baby's father is also present.**
- **Being present when a baby is admitted to the neonatal unit when the baby's father is also present.**

Which of the above do you have experience of?

When was the last time that you encountered each situation?
(check each individual situation)

So, for the purpose of this interview we'll be talking about you ……..

- *Being involved in the antenatal preparation of fathers (i.e. before labour has started) particularly if the birth of a sick / preterm baby is anticipated.*
- *Being at the delivery of a sick / preterm baby when the baby's father is also present.*
- *Being at the resuscitation of a newborn baby when the baby's father is also present.*
- *Being present when a baby is admitted to the neonatal unit when the baby's father is also present.*

Can you recall an occasion you were involved with relating to ……..?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
Why does this case particularly spring to mind?

Is there anything that you'd like to add, particularly regarding what happened to the father?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
Do you know if the father wanted to be there?

Thinking back to that occasion, do you think that the situation went well or not as well as it could have done?

Why do you think this was the case?

What about the father in this case? – looking at it from his perspective – did it go well or not as well as it could have done?
Why do you think this was the case?

Can you recall a contrasting situation you were involved with, by that I mean one that didn't / did go well?– can you tell me about that?
Follow up any specific information to clarify description of events.
Clarify details / participant's role in the situation – what did you do / say?
What do you think were the key issues that made this situation different to the previous case?
Why does this case particularly spring to mind?

Is there anything that you'd like to add, particularly regarding what happened to the father?
Follow up any specific information to clarify description of events.
Clarify participant's role in the situation – what did you do / say?
From his perspective do you think that he'd say it went well or not as well as it could have done?
Clarify participant's role in the situation – what did you do / say?

What do you suppose fathers feel that they need in terms of information / support antenatally / <u>prior</u> to the delivery / resuscitation / admission of their baby?
On what basis do you say this?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do think are the issues that a health care professional should consider when supporting a father at this time?
Do you think that different fathers have different needs? – if so – how do you determine individual needs?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

What do you suppose fathers feel that they need in terms of information / support <u>during</u> the delivery / resuscitation / admission of their baby?
On what basis do you say this?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do you think are the issues that a health care professional should consider when supporting a father at this time?
Do you think that different fathers have different needs? – if so – how do you determine individual needs?
How do you determine if the father wants to be there?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

What do you suppose fathers feel that they need in terms of information / support <u>after</u> the delivery / resuscitation / admission of their baby?
On what basis do you say this?
What impact do you think being present at….. has on fathers?
In your experience, do you think this happens in reality?
Why does / doesn't this happen?
What do you think are the issues that a health care professional should consider when supporting a father at this time?

Do you think that different fathers have different needs? – if so – how do you determine individual needs?
Which health care professional group do you think has ultimate responsibility for supporting fathers at this time?

Can you tell me about the nature / extent of any educational preparation you've received regarding the provision of support specifically for fathers during delivery / resuscitation / admission to the neonatal unit?
Clarify details.
Have you participated in 'mock' incidents? For example: labour ward drill?).
Was it father / mother / parent focused?
Has this been adequate?
If no how do you now know what to do / say in these situations? What additional educational preparation do you feel you need?
Apart from more formal educational preparation, how else have you learned what to do / say in these situations?

We've talked quite a lot about the health care professional role when supporting fathers – I'd like now to ask you to think about the impact that carrying out this role has on you – can you tell me about that?
Positive / negative impact – particularly re: helping / supporting fathers.
Short & long-term effects.
Is this always the case or just sometimes?
If sometimes – what key factors trigger this effect on you?
Re: negative effects – how do you deal / cope with this?
In these situations is there anything that fathers could do to help you?

Do you have any suggestions about ways that hospitals / health care professionals could help fathers who experience the situations we've discussed?
Follow-up any specific issues that might have been raised earlier.
Does the hospital have policies / procedures / guidelines re: supporting / care of fathers? – if yes – clarify details – if not – why not? – do you think that there should be policies / procedures / guidelines in place?
What advice would you give to another health care professional who might be about to support a father in one of these situations for the first time?

Are there any other issues that you would like to raise in relation to these issues?

Can I end by asking some more information about yourself?
Age / How would you describe your ethnicity /

Thank-you very much for your help with this part of the study.