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Title Page

Working together to understand why infants die: a qualitative study of professionals' experiences of joint agency investigation of sudden unexpected death in infancy

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Professor Griffiths declares she has no competing interests

Authors' contributions

The study was designed by both authors. JG collected all data, conducted the analyses and wrote the initial report. FG advised on study progress, data analysis and report writing. Both authors commented on and approved the final version of the manuscript, have a copy of the manuscript and share responsibility for the results.

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Abstract

Introduction

A comprehensive Child Death Review programme commenced in England in 2008; police, healthcare and social care professionals now work together, using a joint agency approach (JAA) to investigate unexpected child deaths. The aim of this paper is to explore professionals' experiences of the JAA investigation of sudden unexpected death in infancy (SUDI).

Methods

This was part of a mixed methods study evaluating the JAA investigation of SUDI. Professionals participated in qualitative interviews and case notes were scrutinised. Data were analysed using a Framework Approach.

Results

23/113 eligible SUDI cases were recruited, 26 professionals involved in investigating 12/23 SUDI cases were interviewed giving theoretical saturation of data. The overarching theme was the conflict between the need to investigate deaths while remaining sensitive to families. Other themes were the role of uniformed police, working together, supporting parents, and the benefits and difficulties of joint working practices. All professionals were positive about the JAA, especially joint police and paediatric interviews and home visits. The difficulties included non-engagement by social care and poor liaison with coroners.

Conclusion

The JAA seems a thorough investigative process but could be improved by closer joint agency working and information sharing, and more support and training for professionals.

Key practitioner messages

Joint agency investigation of unexpected infant deaths enables a detailed understanding of causes of death and provision of support to families.

Joint home visits by police and paediatricians following unexpected infant deaths provide more detailed information and can be more sensitive to families than police death scene examination alone.

Prompt information sharing across all agencies is a key part of effective investigation of unexpected infant deaths.

Key words

Inter-professional working

Sudden Unexpected Death in Infancy

Child death review

Child protection

Background

After a sudden or unexpected child death, determining the cause of death and supporting bereaved families involves team working across professional boundaries. Many countries including the USA, UK, Australia and New Zealand, have established comprehensive multi-professional child death review processes (CDR) with the aim of learning why children die, to help prevent future child deaths (Vincent, 2014, Fraser et al., 2014). Middle-income countries such as South Africa, have also attempted to introduce standardised medico-legal investigation of unexpected infant deaths, although not without significant difficulties (du Toit-Prinsloo et al., 2013). CDR can involve the prospective immediate investigation of unexpected deaths, including obtaining detailed medical histories, death scene analysis, and multi-agency case reviews (Sidebotham and Pearson, 2009); this is usual practice in some states of the USA, New Zealand and the UK (Brixey et al., 2011, Hutchison et al., 2011, HM Government, 2015). CDR may not involve the police, for example in Norway complaints by bereaved families resulted in legal changes prohibiting police investigation of unexpected infant deaths (Boylestadt, 2014). Prospective investigation typically occurs following sudden unexpected infant deaths (SUDI). The rate of SUDI varies widely between countries, ranging from 0.19/1000 live births in the Netherlands, 0.45 in the UK, to 1.01 in New Zealand, with SUDI accounting for 18-46% of post neonatal mortality (Taylor et al., 2015).

Effective investigation into unexpected child death requires involvement of police, healthcare, social care and coroners, all sharing information and working together (Garstang et al., 2015b). While responses to unexpected child deaths have developed rapidly over recent years, there has been relatively little research into professionals' experiences of these processes. In a recent US study (Rudd et al., 2014) of professionals' experiences of multi-disciplinary coroner or medical examiner-led child death investigations, the professionals focused on legal

processes rather than families. Nearly one-third of professionals did not usually allow parents to hold their child after death, half did not routinely contact parents with the results of post-mortem examination, and only 17% of parents had face-to-face follow-up with professionals. Most professionals were dissatisfied with the service they provided. Although this study relied on a convenience sample recruited on-line through professional associations, the sample size was large (195) and representative of experienced practitioners with half the respondents providing services to populations of more than 500,000. There are also few publications on the effectiveness of prospective CDR of SUDI cases but these suggest difficulties with non-specialist staff conducting investigations. A retrospective evaluation of SUDI enquiries carried out by non-specialist police officers in New Zealand found that important information, such as medical history or sleep position was missing in nearly half of cases (Hutchison et al., 2011). In the USA a retrospective review of SUDI investigations found that specialist nurses obtained additional relevant information in 44% of cases when compared to non-specialist police officers (Pasquale-Styles et al., 2007). Both these studies were large with over 200 SUDI cases each, with all eligible cases being included in the analysis; this suggests that SUDI investigations are best performed by professionals with additional SUDI expertise.

England and Wales adopted a detailed CDR process in 2008, the joint agency approach (JAA) to unexpected child deaths. All such deaths are investigated jointly by police, health and social care following national statutory guidance (HM Government, 2015). The aims of the JAA are to establish the complete cause of death and address the needs of family; including emotional support, and child safeguarding concerns. The JAA investigation is led by experienced paediatricians and the police response is provided by Child Abuse Investigation Unit (CAIU) teams who have expertise both in child death and safeguarding. The JAA consists of taking the deceased infant and parents to an Emergency Department, a joint interview by a paediatrician and police officer either at the hospital or parental home where a detailed medical history and

account of events from the parents is obtained, a joint home visit (JHV) by police and paediatrician to examine the death scene, and follow-up for the parents. There is inter-agency communication throughout the JAA with an initial information sharing meeting held shortly after the death and a final case discussion to review the full causes of death. Coroners' enquiries are separate but it is expected that information is shared between JAA professionals and coroners. The process of the JAA is shown in figure 1.

Figure 1 Flow chart of the process of the JAA

In this study, we aimed to understand professionals' experiences of the JAA as this has potential to contribute to improving CDR investigations and support for families. We conducted a mixed-methods study evaluating the JAA investigation of SUDI which captured the perspectives of both bereaved families and professionals, and reviewed causes of death. This paper reports results from this mixed-methods study on the experiences of professionals; results relating to parental experiences and causes of death have been reported elsewhere (author 2017, author 2016b, author 2016a). For this paper our research question was:

What are the experiences of professionals investigating sudden unexpected infant deaths using a JAA?

Methods

This paper reports the experiences of professionals investigating SUDI using the JAA as part of a mixed-methods study obtaining qualitative interviews from both professionals and families as well as quantitative data from case records. Using in-depth interviews permitted a wider understanding of participants' experiences, the different data sources were combined into one analysis, enabling us to consider professionals' experiences reported at interview with events

detailed in the case notes. We then compared findings between cases, allowing us to make generalisations from the results.

Inclusion criteria, identification and recruitment of professionals

We recruited families of SUDI cases prior to recruiting professionals. To be eligible for the study SUDI cases must have lived and died in (NAME) region of the UK and JAA investigations had to be complete with no ongoing criminal investigations. Infants included in the cases were aged between one week and one year at death, and died between 01 September 2010 and 31 August 2013. We used the CESDI SUDI study definition of SUDI as being the death of an infant which was not anticipated as a significant possibility 24 hours before the death or where there was a similarly unexpected collapse leading to or precipitating the events which led to the death (Fleming et al., 2000).

Families were recruited with the assistance of local paediatricians, all parents gave consent for the research team to access case records relating to the JAA investigation and they could choose to participate in in-depth interviews.

Data collection

We aimed to interview the CAIU police officers, paediatricians, specialist nurses and social workers who had taken part in JAA investigations of the SUDI cases in which parents had participated in in-depth interviews. We identified these professionals purposively, by reviewing the JAA case records.

Case records

We studied records from all agencies for details of events commencing from the parents' initial contact with emergency services until the conclusion of the JAA with the final case discussion. All data were extracted using standard proformae which were developed with the advice of

experienced paediatricians, police officers and social workers. Prior to interviewing the professionals, the case records were read and probes for the interview noted.

In-depth interviews with professionals

These were conducted after collection of data from families. Professionals were asked in detail about their experiences of JAA SUDI investigations relating specifically to the recruited case.

The interview schedule was developed with advice from paediatricians and police officers skilled in SUDI investigations. In addition to the probes noted from the case records, we developed probes from our analysis of family interviews, although we took care not to reveal family interview content. At the end of interviews, the professionals were asked to comment on their experiences more generally. These latter general comments were analysed and are reported separately to case specific data.

Professionals gave informed written or verbal consent to participate. The interviews were either face-to-face or by telephone, and were audio-recorded, transcribed and anonymised. Interviews lasted between 20 minutes and one hour. Professionals had access to the case records not relying on recall alone, but they usually reported vividly remembering cases. All interviews took place between February 2012 and January 2014.

JG conducted all interviews; she is a female paediatrician experienced in the JAA process. She conducted this research as part of a PhD. This was explained to all participants during the consent process. JG kept reflective notes throughout the process of data collection and analysis to provide insights for analysis.

Qualitative data analysis

We analysed data using a Framework Approach (Ritchie and Spencer, chapter 9 in Bryman and Burgess, 1994) with NVIVO version 10 software. Framework Approach was developed for

policy evaluations; it is grounded in the original accounts of the subjects of research, is a systematic process and allows for within and between case analyses. The analysis stages were as follows. Firstly, JG checked all transcripts for accuracy with the audio-recording prior to coding, data analysis was concurrent with interviewing but member checking was not formally undertaken. We first developed a coding structure for the parental interviews, then applied and refined this for use on the professional interviews. The coding structure was reviewed with the whole research team (JG and her supervisors, FG an academic clinician with expertise in qualitative and mixed-methods research and PS an academic paediatrician and SUDI expert) and subsequently reviewed with a wider study user group of JAA professionals and bereaved parents. The content of each code was read to ensure consistency and determine how the codes related to each other. The codes were then arranged into broad themes and a framework matrix developed for each. The matrices included data for each case from interviews and case notes and were used to summarise and manage the data allowing for comparison within and between cases. All analysis was undertaken by JG, and subsequently reviewed and refined in discussion with her supervisors.

Ethical Issues

Participation by families and professionals was on the basis of fully informed consent; professionals were informed that they would be identified by profession only, for example police officer or paediatrician. All participants had the option to stop interviews or withdraw from the study at any time.

The study received ethical approval from the local NHS Research Ethics Committee 12/WM/0211 and 10/H/1206/30. Research and Development approval was obtained from all involved NHS Trusts and Social Care departments, and the project was approved on behalf of the police by the lead officers for child protection in the participating police forces.

Results

We recruited the families of 23/113 SUDI cases; reasons for non-recruitment are shown in table 1.

Table 1 Reasons for non-recruitment of SUDI families

Reason for non-recruitment	Number of cases (%)
Ongoing investigations	9 (10)
Family not informed of study by local paediatrician	32 (36)
Family declined or lost to follow-up by paediatrician	20 (22)
Family declined to participate in study when invited to do so	29 (32)
Total	90 (100)

14/23 recruited families were interviewed, the professionals involved in these 14 cases were eligible for recruitment to this study. We recruited professionals for 12/14 cases, in all 12 cases a police officer and healthcare professional were interviewed. The details of professionals interviewed are shown in figure 2.

Although we did not interview professionals for every recruited SUDI case, the range of parental experiences was similar between those cases with or without professional interviews.

Figure 2 Details of professionals interviewed

Professionals were asked how many SUDI cases they had investigated previously, this is shown in figure 3. Most paediatricians in this study had managed less than 8 SUDI cases previously, and there were 16 different paediatricians for the 23 SUDI recruited cases. We are unable to give the demographics of participants as this was not recorded in order to maintain their anonymity.

Figure 3 Individual professionals prior experience of SUDI investigations

The professionals interviewed talked about their experiences of the JAA process and of supporting families. Our analysis identified an overarching theme of the conflict between the requirements for professionals to thoroughly investigate deaths whilst remaining sensitive to the needs of bereaved families. The other themes we identified were: working together, supporting parents, and benefits and difficulties of joint agency working, these are illustrated in figure 4. Quotes are given to illustrate each theme, identified by profession only to ensure anonymity.

Figure 4 Diagram of themes and sub-themes

Working Together

The role of uniformed police

Uniformed, non-specialist police were the first professionals to attend the home in 9/14 cases. Their priority seemed to be the investigation of the death rather than supporting parents; in 7 homes police commenced formal crime scene investigations increasing parents' distress (see author 2017). On 2 occasions, uniformed police actions actually hindered sleep scene analysis.

'... So the [uniformed] police had gone in with great big size 10 boots and caused a lot of distress to the family, ... we had to recoup all of that...then it went quite well but we clearly could not look properly at the place where the baby had been sleeping because

the police had torn a great hole in the mattress and so all the bedding was not how it had been.’ (Paediatrician 1)

In 2 cases, uniformed officers delayed contacting CAIU police despite 24 hour service provision.

‘And there lies the difficulty because the way we respond is we send untrained uniformed staff first of all and sometime it can be an hour, hour and half before I get a phone call.’ (Police officer 1)

Joint medical and police interviews

Paediatricians and police found taking a joint medical history and account of events from the parents helpful, particularly as it gave enquiries a medical rather than police focus which reassured families. Joint history taking did not jeopardise any subsequent potential criminal enquiries.

‘I think the form [multi-agency SUDI record] was very good ...and I think getting the paediatrician to complete it going through the family history, it gives us what we need initially....If a police officer is there with a pocket book out ... filing out notes, it gives that... like we are gathering evidence for a criminal investigation. So I think that’s very useful, that the paediatrician takes the lead...’ (Police officer 2)

In 3 cases, paediatricians interviewed parents without the police; some police were happy with this practice but some re-interviewed parents.

‘I wasn’t present when the first part of the history was taken, which means that I miss out on some of the story and I end up asking questions at a later point, which they’ve already been taken through.’ (Police officer 3)

Joint home visits (JHV)

National statutory guidance is that a joint home visit (JHV) by a specialist police officer and health professional to view the scene of death should occur for all SUDI cases. This is to determine the exact sleeping arrangements for the final sleep, the home circumstances, clarify issues in the parents' accounts and provide support for families. However, not all areas follow this guidance, in 5 cases police visited homes alone. All professionals who took part in JHVs strongly preferred these to solo police visits. Police and paediatricians explained that the different professional perspectives resulted in a more detailed understanding of events and the paediatricians' presence reassured parents, downplaying the legal aspects.

'...I wanted it to look like it's a medical professional taking the lead here and we were there and supporting. I think the home visit is very good. Because you've got that...two different lenses really...' (Police officer 4)

'I felt it went quite well...I would say that the police handled it very sensitively... But Mum was able to sort of demonstrate to us on the double bed exactly where the baby was, what position Mum was in, what position Dad was in...' (Specialist nurse 1)

Some paediatricians and police commented on the stressful nature of JHVs due to the parents' distress:

'...These home visits initially are always quite stressful because obviously the acute grief of the family....' (Paediatrician 2)

In contrast to the experiences of police who took part in JHVs, police officers who had never participated in JHVs could not see their value. They misinterpreted the aim of JHVs as purely forensic rather than to give a wider understanding of the circumstances of death. Parents

typically found solo police visits much more upsetting than JHVs (author 2017) and in 3 cases without JHVs, details were missed from death scenes.

'I don't see how it could help. We take photographs of the scene and sometimes we seize bedding if there's blood on it ...if there is nothing suspicious I don't know how that would help the paediatrician.' (Police officer 5 -no experience of JHV)

'Probably we did [miss details], we did on the sort of precise sleeping arrangements. Yes, I'm sure we did.' (Specialist nurse 2 case without JHV)

Multi-agency meetings

All professionals were very positive about both the initial information sharing meeting and final case discussions describing them as "helping to put the pieces together" and as a major conduit for effective communication. Nearly all professionals commented on the importance of full attendance by all agencies enabling both specialist information about the death and background information to be discussed. In 5 cases professionals spoke of their role in planning support for families.

'I thought the initial multi-agency meeting was very good... just to get that real understanding of each agency's knowledge of the family and then it was a little bit of a tasking meeting really with people going away with their various tasks to do.' (Police officer 2)

'At the final meeting you're looking at how to support the family in the future. Mum wanted to get pregnant again ... and because she'd moved, they were making sure that records had been forwarded and a follow-up phone call was made [to the new GP] I think that's a really, really good thing.' (Police officer 6)

Supporting parents

All paediatricians and nurses talked of how they aimed to visit families to provide emotional support and explain the cause of death. In 4 cases healthcare professionals were concerned by delays obtaining information for parents and in 2 cases they felt that inadequate support was provided.

‘I think the most useful part was that I was able, with the health visitor, to offer some support following the death.’ (Specialist nurse 1)

‘...I think we all learn as we go along from experiences of what happens...the stony silence following our initial flurry of visits...’ (Paediatrician 2) ‘I don’t think it worked very well for the family...we’ve got a bereavement midwife for neonates but we are very poorly set up in terms of ongoing support I think.’ (Paediatrician 3)

Benefits and difficulties of joint agency working

Positive aspects

All professionals described their experiences of joint agency working very positively with good working relationships between agencies and individuals key to this. Police and paediatricians recognised their complementary roles; allowing dual perspectives on situations, being able to provide a balance between the need to investigate a potential crime whilst being sensitive to the needs of the family.

‘I always find it of great assistance to have the paediatrician there with you and you can actually share what both your viewpoints are; it’s more a case of two professionals trying to work out exactly what has happened and at the same time trying to cause as little distress to the parents as possible.’ (Police officer 7)

'I thought that the joint working there was quite good because the police had spoken to me about the children's father and explained that he was a risky adult ... they arranged to meet him at the police station.... they invited me along to that which I thought was much more helpful because it was the same sort of questions really...'

(Social worker 1)

Difficulties with joint agency working

Professionals considered that although in all cases the JAA went well overall, in 6 cases it had a poor start with lack of joint working and co-ordination between agencies.

'It wasn't truly joined up, that the police did do their own thing... No, I think they'd already done it [visited the home] ... they were off and sorting it before... we became involved as a community team...' (Paediatrician 4) Professionals spoke more about difficulties they encountered with the JAA in general rather than relating to specific cases. These related to boundary issues as each locality implemented the regional protocol differently. Sometimes the role of SUDI paediatrician was shared between hospital and community paediatricians necessitating case handovers, disrupting continuity and causing delays. Healthcare professionals and police officers described some hospital paediatricians as actively blocking joint agency working, viewing SUDI a purely medical event.

'The lack of continuity with paediatricians is a problem. The difficulty with suspicious deaths is when the story changes with different doctors - they might not realise.' (Police officer 8)

'Yeah, we back off it, that's right because traditionally ...as a team [JAA professionals] we don't work necessarily that well with them [hospital paediatricians], so they actually do often feel that that's their role [managing SUDI] and their responsibility and don't want us to tread on their toes, very much so.' (Paediatrician 3)

Working with coroners

In some locations, professionals were highly critical of coroners. In 4 cases, professionals complained of the difficulties accessing post-mortem (PM) examination reports contrary to national statutory guidance (HM Government, 2015). Final case discussions cannot be held without PM results so this led to delays sharing information with parents.

‘I think probably the only bit that maybe is not as joined up is around the Coroners and the PM... I know it took some time to get the report....’ (Police officer 4)

‘...the PM came to me, actually the paediatric pathologist sent it to me which was unusual because normally it’s really, really hard to get them out...the Coroner won’t give them to us essentially.’ (Paediatrician 2)

However, in other locations coroners readily shared information with other professionals supporting the JAA investigation.

Social care involvement

There were difficulties working with social care; in only 9/23 cases social care attended both the initial information sharing meeting and final case discussion. In some areas senior social work managers attended initial meetings to decide whether further social care assessment was warranted. In other areas social care rarely participated even with deaths involving parental drug and alcohol misuse, and when social care assessments occurred there was little feedback available to the final case discussion. Details of social care involvement are shown in figure 5.

Figure 5 Details of social care involvement in the JAA for each case

Other professionals’ comments on social care were mixed; 2 were negative concerning poor engagement, but were positive in the 3 cases with social care involvement.

‘there were a few sort of low grade issues that Social Services had just commented on ...but actually when you looked back and you worked it all out there was nothing worrying at all. So actually from that point-of-view, the information sharing [with social care] was very useful...’ (Paediatrician 6)

‘...Getting them [social care] to engage was pretty awful, I don’t think they came to either multi-agency meetings. They did send a report though.’ (Paediatrician 1)

Discussion

In this study we explored professionals’ experiences of the joint agency approach to investigating unexpected infant deaths. Participants valued the different perspectives that joint working practices promoted; in particular joint home visits and death scene examination. Police felt that working with healthcare professionals presented enquiries in a medical rather than legal perspective to parents and was less distressing. Participants found multi-agency meetings helpful not only for information sharing and planning but also to arrange parental support. Participants reported some challenges with the JAA detailing poor initial co-ordination between agencies, lack of social care engagement and difficulties obtaining information from coroners.

Despite many countries having detailed child death review processes, there are as yet few publications concerning professionals’ experiences and none that we are aware of with qualitative data; this study is therefore unique. We found some benefit in the practice of joint death scene analysis by police and paediatricians accompanied by parents, with participants valuing the greater understanding of events arising from their dual perspectives. In contrast, police alone analysing death scenes suggested missed information and increased parental distress. These findings are similar to those from other countries. In Norway, police involvement in SUDI has been minimal since 1991 following complaints about insensitivity by

bereaved families, although healthcare professionals have been concerned that this limits detailed investigation (Boylestadt, 2014). Reviews of SUDI investigations in the USA and New Zealand have shown the benefit of death scene analysis by an experienced health care professional compared to police officers alone (Pasquale-Styles et al., 2007, Hutchison et al., 2011). An earlier UK study of SUDI investigation found that specialist SUDI trained detectives were vital to ensure effective investigation and joint agency working (Sidebotham et al., 2010). Comparable difficulties of sharing information with coroners also occur in other countries such as Australia where coroners' enquiries take place independently of any healthcare input to child death investigations (Garstang et al., 2015b).

The recently updated UK guidelines on managing unexpected child deaths (The Royal College of Pathologists and The Royal College of Paediatrics and Child Health, 2016) address some of the issues identified in this research project. The first police response is now expected to be from specially trained non-uniformed officers and it is highly recommended that all police forces adopt the practice of joint home visits with paediatricians or specialist nurses. UK legislation now requires all coroners to share relevant information with interested parties, such as parents and paediatricians, as soon as it is available (Chief Coroner, 2013) and this has been incorporated into the updated national guidelines. This should help to reduce the difficulties encountered in our study however, there has been no published evaluation of communication with coroners since this update, and anecdotally many paediatricians still report difficulties.

Similar to our findings, research concerning multi-agency working in child protection has highlighted the importance of information sharing and co-ordination between services, particularly across boundaries (Newman and Dannenfelser, 2005, Sidebotham et al., 2016). Glennie (2007) identified that effective multi-agency working requires professionals to

understand each other's roles, have skills enabling collaboration and respectful attitudes towards each other. Frost and Robinson (2007) evaluated multi-disciplinary child protection team working and found that health and social care professionals, and police officers found great benefit from working alongside each other and gaining different perspectives reflecting the positive views expressed concerning joint home visits. However, this contrasts with our experience of the lack of involvement by social care in JAA investigations.

Strengths and limitations

Our use of data from case records and parental interviews to inform the professional interviews enabled us to uncover shortcomings such as lack of social care involvement or issues with uniformed police. The interviewer was an experienced SUDI paediatrician and was able to use her clinical knowledge to probe in depth. Through keeping reflective notes and discussion with her supervisors, she continually reviewed how her own experience may be influencing the interviews and analysis. Despite the low rates of recruitment, saturation of data occurred, this was defined as the point when few new data emerged that were relevant to the experiences explored (Holloway, 2013).

The number of interviews with professionals in this study was relatively small due to the difficulty of recruiting families to the wider study. Potentially, paediatricians who were negative about the JAA process may have been less likely to help with recruiting families; thus would not have been eligible themselves to take part. Despite this, we captured a wide diversity experiences; and although professionals were only interviewed from approximately half the recruited cases, the parental experiences in these cases reflected the entire range of parental experiences recorded (see author 2017). Given the diversity of experiences and theoretical saturation of data, the findings of this study are likely to be relevant to the management of sudden infant deaths in other locations with similar detailed investigative processes.

Implications for policy and practice

Currently, appropriately trained health professionals cover relatively small populations on a rota system, therefore attending a SUDI is relatively rare so many fail to gain adequate experience. Internationally, death scene examination is most effective at helping to determine causes and risk factors for death when undertaken by professionals who manage a high volume of cases (Camperlengo et al., 2012, Pasquale-Styles et al., 2007, Brixey et al., 2011, Hutchison et al., 2011). This could only be achieved in the UK if trained health professionals covered a large population possibly making it more difficult for them to work effectively with local services.

The lack of engagement by social care with the JAA needs addressing, considering child safeguarding concerns frequently arise in families with SUDI (Stanton, 2003, Garstang et al., 2015a) and that between 5-10% of unexpected infant deaths may be due to non-accidental injury (Bajanowski et al., 2005, Levene and Bacon, 2004). Similar difficulties have been noted in an evaluation of multi-agency work in domestic abuse, where non-engagement by social care resulted in less recognition of children's safeguarding needs (Peckover and Golding, 2017).

While participants identified that the JAA provided parents with some support, both professionals and parents (see author 2017) felt that more bereavement care was needed. Bereavement support may be best provided outside of the JAA by specialist bereavement counsellors but healthcare professionals could actively assist families to access it.

Support should be available for professionals given the stressful nature of this work. Police officers typically have well established professional support mechanisms (Police Federation, 2018), but provision of formal support for healthcare professionals is more variable. Peer support is widely used by healthcare staff working with sudden child death (Forster and Hafiz,

2015) but this may not always be helpful and can distress the peer-supporters. (Cook et al., 2012). Healthcare professionals may therefore benefit from greater access to formal support.

Conclusion

Following unexpected infant death, joint agency working by professionals enables a thorough investigation, although it can be challenging to remain sensitive to the needs of the bereaved family. There were some issues with poor co-ordination of services, involvement of non-specialist police, lack of engagement by social care and difficulties sharing information with coroners. However, most police, healthcare and social work professionals value these new joint working practices which lead to a greater understanding of the circumstances of death.

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