

# Paediatric Intensive Care Staff Experiences of Debriefing Post Critical Incident; a Qualitative Study of the Leeds 'time Out' Method

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## Research article

**Keywords:** Time out, debrief, staff support, well-being, critical incidents, peer support

**Posted Date:** September 14th, 2020

**DOI:** <https://doi.org/10.21203/rs.3.rs-67719/v1>

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# Abstract

## Background

How intensive care teams respond to critical incidents is important for maintaining effective patient care, staff education and morale(1). We investigated Paediatric Intensive Care (PIC) staff experiences of participating in novel 20 minute group 'time outs' held after critical incidents.

## Method

A qualitative study using semi-structured interviews with staff attendees of 'time outs'. Interviews transcribed and analysed using thematic analysis. Results shared with interviewees for participant validation. Ethical approval granted by the University of Leeds School of Medicine Research Ethics Committee (approval number SOMREC17-020).

## Results

8 semi-structured interviews lasted on average 45 minutes each. Participant roles; 1 Consultant, 1 PIC grid trainee, ST3 Paediatrician, 1 Advanced Nurse Practitioner, 2 Band 6 Nurses and 2 Band 7 Nurses. Thematic analysis generated 1,060 initial codes, subsequently revised until a thematic map emerged, containing five main themes:

1. Context and culture in which critical incidents and 'time outs' are embedded, including hierarchy and local politics.
2. Pragmatics of organising and evaluating 'time outs'.
3. Position of valued clinical psychologists, who were removed from the 'time outs'.
4. Reflections on coping and resilience, notably blame and fear.
5. Process of attending a time out and its impact – both positive (clinical knowledge and the ability to cope) and negative (damaging if inappropriately run).

## Conclusion

The data contextualised the time outs within the complex PIC environment, with politics, communication challenges and hierarchies affecting how staff respond and how they are supported following critical incidents. Though practical challenges of time outs were noted, this intervention has potential to improve the understanding and well-being of PIC staff after critical incidents.

## Introduction

PIC is a unique clinical environment. Unwell children are looked after by highly specialised clinical teams. Children can be admitted for long periods, with complex relationships formed between staff and families.

Traumatic incidents on PIC take many forms, from a situation in which a team performed well despite a pressured environment, to unexpected child death(1). Burnout and moral distress is well described in intensive care unit staff (2,3), and in the United Kingdom (UK) PIC is experiencing staff recruitment and retention challenges (4).

This working environment has an impact on PIC staff mental health (5). There is a renewed awareness of the importance of staff well-being, with institutions being encouraged to provide better access to well-being services for staff (6). Peer to peer support has an important role in staff well-being, as demonstrated by the increasing popularity of Schwartz rounds across North American and UK healthcare institutions (7).

One common attempt at peer support is an adaption of debriefing techniques following critical incidents. A survey of UK paediatric emergency departments' debriefing practice concluded "*Little is currently known about the benefits of debriefing hospital staff after critical incidents. Debriefing is, however, widely practised*" (8).

### **The 'Time Out' process**

Despite early promise, Mitchell's (1999) Critical Incident Stress Management (CISM) (9) has become more controversial, poor outcomes associated with large structured group debriefing leading to these being dropped in favour of targeted individual help (10). This potentially leaves services without a rapid, group based response to allow open communication, similar to 'time outs' used by surgical teams after adverse events (11). Mitchell's framework offers a number of possible interventions at different stages post-incident, however. One is the Small Crisis Management Brief (SCMB). The 'time out' process developed by Leeds Children's Hospital PIC staff is an adaptation of this (12). This meeting aims to provide peer support, identify any risk related to the incident and learning for individuals, teams and wider systems.

Following traumatic incidents, staff are invited to an opt-in 20 minute discussion, ideally taking place during the same shift as the incident. Everyone has an opportunity to discuss feelings and raise learning points without blame or recrimination. The meeting is facilitated by a senior member of staff (either nursing or medical) having attended in-house local training. Education about normal reactions to traumatic events and signposting to other sources of support is also included. Guidelines on facilitating a 'time out' meeting have been created with input from a clinical psychologist (12). Attendees complete a short evaluation as they leave, and anonymised notes on themes discussed are emailed to staff involved in the incident, regardless of whether they attended the 'time out' or not. The 'time out' process and how facilitators are trained is discussed in more detail in figure 1.

### **Objectives**

To investigate staff experiences participating in a novel 20 minute group 'time out' after traumatic incidents involving the PIC team. The following domains were identified:

1. What are the perceived outcomes for staff participating in 'time outs'?
2. Is there an emotional impact on staff participating in 'time outs'?
3. Do 'time out' meetings contribute to staff personal and professional development?
4. Did staff engage with the 'time out' process?

## Methods

This qualitative study used semi-structured interviews with staff attendees of 'time outs'. A topic guide was produced by the researcher to guide the interviews. Ethical approval was obtained from the University Of Leeds School Of Medicine Research Ethics Committee (approval number SOMREC17-020).

Potential participants were identified from confidential records of previous 'time out' meetings and approached via email. Around 50 members of staff had been involved in 20 'time outs' that had taken place over an 18 month period. We aimed to interview between 6 – 10 members of staff, aiming to capture a mixture of clinical roles and grades. Participants were given a study information leaflet and signed a consent form prior to the interview. Interviews were recorded digitally and securely stored. Interviews occurred between January and March 2018.

Interviews were transcribed by the lead researcher and then a thematic analysis (13) performed. Further revision of the initial thematic analysis was performed in conjunction with the project supervisors (a PIC consultant and a consultant clinical psychologist with no links to PIC). A final thematic map was produced and emailed to participants for respondent validation and quality control.

Both the lead researcher and the PIC consultant project supervisor work on the PIC unit involved in the research and had previously worked with all the participants. They are both involved in a quality improvement project developing and rolling out the 'time out' model on PIC locally. The lead researcher is a PIC trainee with previous experience of qualitative methodology at undergraduate level. The lead researcher received a grant from the University of Leeds to complete a Masters in Child Health, to which this research project contributed.

## Results

8 semi-structured interviews were carried out lasting between 30 and 60 minutes. This generated 361 minutes (6 hours) of transcribed material. Participants' level of PIC experience ranged from 5 months to 25 years (table 1). 1,060 summary codes generated for thematic analysis developed into a thematic map (figure 2).

Interview number	Participant clinical role	Participant background	Number of 'time outs' attended	Interview length in minutes	Summary codes generated
1	ST 3 paediatric trainee doctor	Qualified 6 years, 5 months experience PIC.	1	39	141
2	Consultant Paediatric Intensivist	Consultant PIC 4 years, interested in peer support.	4 (facilitated 3)	39	107
3	ST6 Paediatric Intensive Care Medicine grid trainee	18 months PIC experience.	2	50	173
4	Band 6 sister PIC	9 years of nursing experience, 5 years PIC.	4	54	143
5	Band 7 senior sister PIC	Interested in staff support on PIC.	6 (facilitated 2)	50	95
6	PIC Advanced Nurse Practitioner	Newly qualified PIC ANP, 25 years nursing experience.	1	46	143
7	Band 6 sister PIC	5 years PIC experience, band 6 post 1 year.	2	31	99
8	Band 7 senior sister PIC	20 years of PIC experience.	3	52	159
<b>Total</b>				<b>361</b>	<b>1,060</b>

Table 1. Participant summary, interview length and summary codes generated

## Key themes

### 1. Context and culture in which traumatic incidents and time outs are embedded; hierarchy, local politics and triggers.

The impact of hierarchy and local politics upon the nature of incidents and the PIC response featured in every interview. One participant highlighted that *"Most of the problems here come from... the perception that this... is not going anywhere..."* showing how complex the PIC environment can be for staff looking after children whose chance of recovery is poor.

Another participant felt they experienced a *"witch hunt"* following the successful resuscitation of a child.

There were examples of hierarchy being protective, with the majority of 'time out' meetings instigated by consultants as *"there was a felt need for a meeting"*. Consultants can instigate formal peer support and seemed to be highly regarded for doing so. One junior participant describes the consultants in almost superhuman terms:

*"I don't know how people do this job all time, because it's been .. it's quite a hard job.. lots of children dying"*.

Hierarchies were being broken down by 'time out' meetings. A participant discusses the benefit of everyone being invited to speak during the 'time out' meetings:

*"if everybody is seen to make a contribution and everybody's contribution is valued then hopefully it will become ... easier".*

Another participant highlights how breaking down hierarchies helps peer support:

*"it's not just about being junior staff or senior staff, you know, everybody is vulnerable in a certain way"*

Triggers for needing a 'time out' were numerous. Common themes included complex congenital heart surgery, conflict with families, death of long-term PIC patients, airway emergencies and communication failure.

## **2. Pragmatics of organising and evaluating 'time outs'; facilitating, organising and meeting outcomes**

Participants varied in their feelings towards being able to facilitate and lead a 'time out' meeting. A range of responses were captured; from *"any idiot can run the 'time out' meeting..."* through to *"going into a room with stressed people they might feel .. what can of worms is this going to open?"*

The act of going home was important for participants, as they physically distanced themselves from potential sources of trauma. However, on leaving PIC staff are left to deal with traumatic incidents alone. Staff dwell on stressful events and may leave work not fully understanding what has happened, leaving them open to misinterpretation and inappropriate self-blame. One participant observed:

*"I think the debriefing process meant that rather than taking that home with him or feeling that he was to blame .... you can't take that horrible experience on and panic every time ..., you need to take it and know how to manage it next time"*

Another participant describes the staff response following an intense incident towards the end of a night shift:

*"we stayed an extra half hour after our shift ....I think we all needed to .. I don't think anyone would have slept otherwise"*

A recurring theme throughout the interviews was how clinical learning and emotional coping went hand in hand. The 'time out' meetings covers both elements, as described by one participant:

*"People have a chance to say the reason we stopped was ... this... it was futile and not in the child's best interests, people automatically go away with a better understanding and feeling better"*

The challenge of running the 'time out' meetings on the same shift was discussed. A pragmatic approach has been to organise them days later, often when staff are not on shift. This was deemed sub-optimal, as

staff would not be reimbursed for commuting time and some staff felt benefit from discussing the event before they went home. The impact on the individual should be considered:

*"I think ideally people shouldn't be coming in on their own time ... I wonder whether that makes it bigger in your head"*

Participants had mixed feelings on their ability to facilitate 'time out' meetings. A number of participants suggested more 'training' to be able to facilitate meetings. Supervised facilitating of 'time out' meetings would help build participants confidence to lead meetings independently. Facilitating was seen as a job for a confident, senior member of staff:

*"I wouldn't be comfortable at this moment in time to lead .. if I .. spent a day with X and she explained, ... what I needed to do ...then I feel better at doing it".*

### **3. Position of valued clinical psychologists, separate from the 'time outs'**

Participants held clinical psychologists in high regard, but with uncertainty around their role and how best they should support PIC staff *"they're the ones with the training in ... people dynamics ...I think they are probably a good addition to our unit ..."*

They provide one to one support on an ad hoc basis. Participants were uncertain regarding their input in group support sessions on PIC, such as 'time out' meetings with the concern that *"If I felt I needed psychological support I wouldn't want to access it in a room full of the people I work with...."*

Some participants suggested they were a good resource for other people to use, but not themselves as they are *"not usually one who stresses"*. Participants appreciated that they were present on the unit to support staff if needed:

*"you don't always know that you need the support do you...., part of what they are doing is to help you develop coping strategies".*

The relationship between 'time out' meetings and clinical psychologists was developing as they were a recent addition to the department at the time of the research. Participants felt it unfair for clinical psychologists to lead 'time out' meetings, as they lack appropriate nuanced clinical knowledge:

*"because if the person is saying ....I can't deal with, this is the thing I can't get over, and then this person has no idea what they are talking about... it's a clinical dilemma...."*

### **4. Reflections on coping and resilience; fear and blame**

A variety of powerful responses were seen in participants, notably blame, fear and concerns around litigation. Participants felt sharing thoughts and feelings on a stressful situation can help them cope, suggesting *" ... you've got to share an experience... to move it on.."*

One participant described her thoughts on working on PIC: *“There are people that are given a rotation in PICU, that is their worst nightmare.....it’s a very steep learning curve ... you are kind of mentally prepared for the job before you start...”*

Nursing participants discussed intense feelings of personal blame, more so than medical staff. A participant with both nursing and medical experience reflected that *“the medical world is a lot more supportive”*. One nurse reflected on a recent event:

*“the worst thing that can happen to you is an accidental extubation, it’s horrendous, you feel so guilty”*.

#### **5. Process of attending a time out and its impact – both positive (clinical knowledge and the ability to cope) and negative (damaging if inappropriately run); learning conversations, emotions and potential conflict**

All participants valued the ‘time out’ meetings and felt the model worked for staff support locally. One participant described the meetings as a way of *“nipping in the bud...”* staff angst and stress after critical incidents. When run in the suggested format, ‘time out’ meetings had a positive impact on clinical knowledge and on the ability of staff to cope. A participant made the following observation:

*“ when you see people that have been to ‘time out’ meetings .. their shoulders are a bit lower ..... I’m not going to say they are smiling .... but some of the stress has gone...”*

There were examples of clinical learning coming from ‘time out’ meetings, such as this PIC trainee’s reflection:

*“we often ask for these things that other people do, and maybe... that it’s not always as simple ....”*

When inappropriately run they have the potential to be damaging. One participant described *“three fairly different experiences”*. In one instance she felt a ‘time out’ meeting was organised to give negative feedback on a clinical situation:

*“it was very much like you should have done it differently and it was a very horrible experience...”*

Another meeting occurred *“following the proper format”* for a ‘time out’. A patient had deteriorated on the high dependency unit and an emergency call had not been put out. The discussion was different, in a more supportive manner:

*“.... it was never like ‘oh you should have done that’, it was like maybe... we should put them out cos maybe you can get more help quicker”*.

#### **Participant validation**

5 out of 8 participants responded, who agreed that the thematic map was an accurate representation of what was discussed. One participant presumed that *“themes around support and learning would have*

*been more strongly represented*'.

## Discussion

Unsurprisingly perhaps, the complex hierarchical and political relationships in PIC impact on how staff feel they are supported following traumatic incidents. The 'time out' meetings themselves do seem to be a powerful and normally positive experience. They were easily recalled by participants, in some cases more so than the incidents themselves. The challenge of running meetings and the impact on staff coming in on days off was a practical finding for designing peer support programs.

### **Considering the original study aims and objectives:**

Understanding how clinical learning informs emotional coping following critical incidents is crucial. 'Time out' meetings appear to be an excellent platform for this. The emotional impact on staff following 'time out' meetings is complex, but generally positive. Importance was placed on meetings being facilitated without *'becoming a free for all'*.

High levels of engagement with the 'time out' process from staff were evident in our sample, who had attended varying numbers of 'time outs'. Any perceived lack of engagement was related to infrequency of meetings and challenges of getting staff to return on days off. All participants reported attending only some of the meetings that they had been invited to and had actively declined to participate in others. It appears to be useful for staff to know that the option of a meeting exists.

Participants suggested further training for facilitators to lead a 'time out'. The 'time out' model was regarded as straight forward and useful. There was a felt need for opportunities to lead meetings under supervision.

### **Methodological issues, strengths and weaknesses**

A broad range of PIC experience and clinical roles were captured with the 8 participants. Both the lead researcher and the project co-supervisor are involved in the 'time out' quality improvement project and had worked with all 8 participants. This introduces potential social desirability bias (desire to say the right thing to the researcher). It's equally possible, however, that this facilitated honesty as participants may not have shared their experiences in a similar way with a complete stranger, unaware of the context of PIC.

There has been surprisingly little qualitative research into peer support in PIC, given how this method explores thoughts and feelings in detail. Participant validation and thematic analysis with project supervisors (one of whom is completely removed from PIC) gives this work strength.

## Conclusion

Few studies have explored the impact of in-house peer support in PIC, and what little there is has tended to use quantitative methods. This qualitative study has explored staff experiences in detail. Our results demonstrate staff have the potential to benefit from a well-run 'time out' meeting by challenging the hierarchy of decision making, listening to each other and understanding what they feel is experienced by others.

## **Abbreviations**

**ANP** Advanced Nurse Practitioner

**ICU** Intensive care unit

**PIC** Paediatric Intensive Care

**PICU** Paediatric Intensive Care Unit

**PTSD** Post-Traumatic Stress Disorder

**SOMREC** School of Medicine Research Ethics Committee

## **Declarations**

### **Ethical approval and consent to participate**

Ethical approval was obtained from the University of Leeds School of Medicine Research Ethics Committee (approval number SOMREC17-020). Participants were given a study information leaflet and signed a consent form prior to the interview.

### **Consent for publication**

Participants were given a study information leaflet and signed a consent form prior to the interview, including consent for publication.

### **Availability of data and materials**

Transcripts of interviews used to generate qualitative data are not published in this manuscript. They are stored securely and available for review upon request.

### **Competing interests**

none

### **Funding**

The first author received a grant from the University of Leeds to complete a Masters in Child Health. As part of that qualification an original research dissertation was submitted which formed the basis of this manuscript.

### **Authors' contributions**

Dr. Mark Winton is the first author and corresponding author. He prepared the manuscript. Both Dr Sian Cooper and Dr Gary Latchford assisted with the literature review and reviewed the manuscript prior to submission.

### **Acknowledgements**

A special thanks goes to the participants of the research. They gave up their free time to be interviewed, discussing a number of tragic events and their responses to them.

### **Authors' information**

Dr Mark Winton is a specialist trainee in Paediatric Intensive Care Medicine who completed this research as part of a postgraduate masters in child health at the University of Leeds. Dr Sian Cooper is a Consultant Paediatric Intensivist at Leeds General Infirmary. Dr Gary Latchford is a Consultant Clinical Psychologist working for Leeds Teaching Hospitals NHS trust.

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## Figures

### **'Time out' – more detail regarding the intervention being studied**

'Time Out' is a standardised method of providing support after any event that has the potential to cause distress. It was created in 2016 by a working group from Leeds Children's Hospital PIC. A 'Time Out' can be requested by anyone. It is delivered by a clinical member of the team who has received facilitator training. It works best delivered after an acute event and before the shift has ended. The meeting should last around 20 minutes. Since its inception over 30 'Time out' meetings have taken place.

#### **The four stages to the 'Time Out' process**

##### **1: Triggers**

Unexpected events of any nature are common triggers for a 'Time Out'. Examples have been cardiac arrest calls, managing difficult airways and the death of a long term patient.

##### **2: Planning the meeting**

The only way of including everyone involved in the event is to hold the meeting during the same shift. Timing will depend upon department workload and clinical commitments; "buy-in" is required from the nurse in charge.

##### **3: During the meeting**

Confidentiality is emphasised, but also that important lessons learned will be disseminated. The purpose of the meeting is not about blame or investigation. Events are reviewed, gaining individual perspectives. Attendance and contribution should always be voluntary.

##### **4: After the meeting**

Anonymised notes of the meeting are written by the facilitator and emailed to all staff on the list (including those not attending) within 24 hours. Staff are signposted to further sources of support available locally.

#### **Who can be a 'Time Out' facilitator?**

Any clinical member of the team who is interested and enthusiastic about supporting their colleagues.

#### **What does facilitator training involve?**

A four-hour training session on the background to 'Time Out', the principles of promoting staff health and wellbeing, building resilience, recognising signs of burnout and post-traumatic stress disorder, and practical guidance on how to implement the model.

#### **What support is available for facilitators?**

Regular meetings for all 'Time Out' facilitators in the hospital are organised, supported by a psychologist, to enable staff to share their experiences in implementing the model.

A demonstration of the "Time Out" process can be viewed here:

<https://youtu.be/rd7WLMKJY7U>

## **Figure 1**

The 'Time Out' method discussed in more detail, reproduced with permission from Dr S Cooper, Leeds PIC (10)

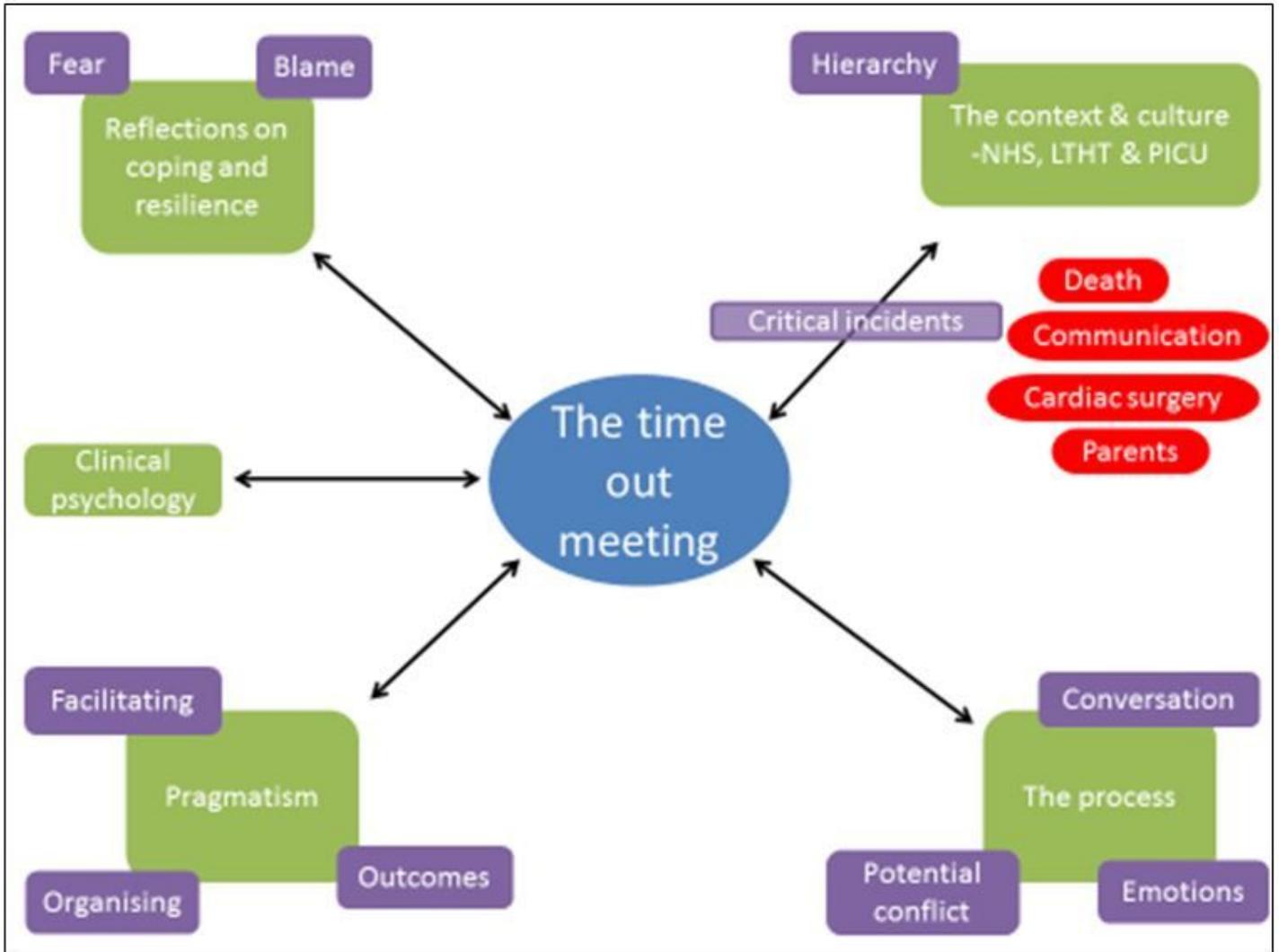


Figure 2

Final thematic tree