Reducing healthcare conflict: outcomes from using the conflict management framework

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ABSTRACT
Objective To test a new conflict management framework (CMF) to help staff identify and de-escalate conflict between staff and patients/families.

Design Before/after study that reports staff quality of life, frequency/severity of conflicts and qualitative interviews on using the framework. Data were collected from May 2017 to September 2017.

Setting A paediatric oncology department day-patient and 23-bed inpatient ward.

Intervention A two-stage CMF used by staff during daily handovers to identify and then manage conflict cases with families.

Results Staff found the CMF to be helpful in identifying and de-escalating conflicts. The number of conflicts reported decreased by 64% from baseline to follow-up. Communication regarding conflict identification improved. Reports of staff burn-out decreased between the two time-points (n=55 at baseline, n=31 at follow-up; p=0.001). Scores on compassion and secondary traumatic stress did not change.

Conclusions The CMF substantially reduces the incidence of conflicts and is an acceptable approach for staff. Continued use of the framework would require it to be fully integrated into the working of the ward, which would need to include senior medical buy-in. Further refinements to the framework have been made and will be tested in four UK sites in 2018/2019.

BACKGROUND
Serious conflicts in paediatric services have resulted in ‘intense national and international scrutiny’ (p1891).1 Conflicts between patients, families and staff in paediatric health services are damaging to everyone involved: the child, the family members and the treating clinicians. Advances in life-sustaining interventions mean that more babies and children live longer and access oncology services for many years, but often live with greater morbidity. Clinical implications include an increased frequency in difficult decision-making regarding the benefits versus the burden of intensive and invasive treatment, especially when curative treatment is no longer possible. Such circumstances have been brought into sharp focus by cases such as Ashya King,2 where the parents and healthcare professionals disagreed about the benefits and burden of proton beam therapy to treat his cancer. Such disagreements can and do lead to communication breakdown between clinicians, patients and relatives, as well as between the clinicians themselves. The multipartner nature of much paediatric work, such as the triad dynamic of clinicians, patient and relatives, may increase the potential for disagreement and conflict.3

Paediatric conflicts tend to escalate through three distinct phases (mild, moderate and severe) if not recognised and managed early, and such conflicts can have long-lasting impact.4 Time taken up with managing conflict can be considerable,5 with communication breakdown, disagreements over treatment and unrealistic expectations cited as common causes.

If conflict is not identified and resolved at an early stage, differences in viewpoint can become entrenched and lead to court action or public confrontation, exemplified by recent cases internationally.6–10 The use of court interventions is both financially and emotionally damaging to all parties. There is little recognition or support within health service systems to manage conflict in paediatric services, yet there is an urgent need to identify acceptable and effective methods for doing so to support families and staff to identify and manage it. The aim of this study was to build on earlier work in training staff, by also implementing and testing a novel approach to paediatric staff managing conflict, called the conflict management framework (CMF).

The CMF
The CMF was developed to assist clinicians in managing conflicts and preventing escalation. It has two stages. Stage 1 focuses on prompting staff
to be aware of and avoid conflict triggers. It is used during daily huddles/handovers. If conflict has been identified, the framework prompts staff to engage with the family as soon as possible, explore their concerns and agree a communication plan with them, for example, agreeing how often they will be updated about their child’s care and by whom. By recognising what triggers conflict, engaging with the family as quickly as possible and agreeing a plan of action, escalation of conflicts to stage 2 is prevented.

Stage 2 is a four-step process to be followed if a conflict continues to escalate and has led to communication breakdown between patient(s)/family members and the clinical team, preventing the treating team from providing optimal care. At stage 2, conflict is recognised as serious, so senior hospital managers are informed of the case, and if necessary so too are child protection teams, legal services and hospital security.

Daily use of the CMF was championed by a senior nurse, ensuring that appropriate actions were taken and that the key staff at the ward and management levels were kept informed of stage 2 cases.

Four days of training in conflict management, using an approach and materials with proven efficacy, were provided by the study team prior to commencing use of the CMF. The first 3 days provided 6 hours of training to senior clinicians and managers across the hospital, including approximately 10 staff from the paediatric oncology team. Oncology staff unable to attend these sessions were offered training by the ward educator using the same materials, content and learning outcomes. Training was undertaken by approximately half the ward staff. Training focused on three key elements: (1) recognising conflict and how it escalates, (2) empathy and perspective-taking, and (3) communication skills, primarily exploring the family’s point of view before explaining the clinician/hospital standpoint. The fourth day focused solely on introducing the CMF to the oncology team and training them in how to incorporate it into daily ward routine.

METHODS
This study was conducted using pre/post measures. A mixed-method approach to measurement was adopted with quantitative outcome measures and qualitative interviews. Following published conflict work, the theoretical basis for the tool and the outcome measures focus on communication and empathy as core constructs.

Participants and measures
The CMF was tested in a paediatric oncology department day-patient and 23-bed inpatient ward in Princess Margaret Hospital, Perth, Australia.

Frequency and severity of conflicts were collected with a tool used in previous conflict work, and completed on a daily basis by the clinical staff. The tool recorded the number, duration, causes and severity of conflict cases, time taken to manage them, and the staff involved in managing the case. Training was provided to the team on several occasions to assist them in using this data collection tool.

Staff empathy and compassion were measured using the Professional Quality of Life Scale (ProQOL). This has three subscales: compassion satisfaction and compassion fatigue, burn-out, and secondary traumatic stress. Consequently, the tool connects with recent concerns regarding compassion in UK healthcare and the approach which patients and families expect from healthcare professionals. Because each scale is psychometrically unique, it cannot be combined with the other scores. It has good psychometric properties, with good validity and reliability, with the three scales having an alpha of 0.87, 0.72 and 0.80, respectively. All staff in the inpatient unit were invited to complete the scale. We hypothesised that staff quality of life would increase from baseline to follow-up.

Perceptions of the CMF were gathered via interviews with 10 staff, including doctors, nurses and allied health professionals. The sample was drawn purposively from the oncology ward to capture a range of perspectives on the CMF. Staff were invited to be interviewed by the ward’s study coordinator. The interviews focused on ease of use, effectiveness, impact on team management and morale, confidence in managing conflict, and whether CMF use succeeded in de-escalating or resolving conflicts. Staff confidence and perceived skill in identifying conflict early and managing it as a team were also explored, alongside feedback on revisions to the CMF to increase the effectiveness and/or usability of the tool.

Data collection
Data were collected for 1 month at baseline (April/May 2017) and 1 month at follow-up (August/September 2017). Recordings of frequency and severity of conflicts were completed by the ward staff.

Staff perceptions of the CMF were gathered using one-off audio-recorded qualitative interviews, conducted on the oncology unit. Purposive sampling sought to recruit a selection of staff from different levels of seniority for the interviews. Questions focused on the implementation of the CMF to identify conflicts and respond to conflicts, team communication, completing the CMF paperwork and any changes that would strengthen the CMF. Interviews were conducted by a female researcher with a track record in healthcare conflict research and a PhD in health services research. The interviewer had liaised with some interviewees throughout the course of implementation and had been a cotrainer on the conflict course prior to commencement. All interviewees were provided with information sheets, clearly describing the purpose of the CMF and the study. Interviews lasted between 10 and 20 mins; transcripts were not returned to participants for comments.

Analysis
Descriptive statistics were used to analyse and report the frequency/severity and time taken in managing conflicts. The ProQOL was analysed using Mann-Whitney U tests. Paired analysis was not possible due to not all staff providing identifiers to enable pre/post matching of the data.

An alpha level of p=0.05 was set for all statistical tests, and data were managed using SPSS V.24.

Thematic analysis was used for the transcribed interview data. Inductive analysis proceeded through a five-stage process of thematic analysis. Stage 1 involved familiarisation with the data set. Stage 2 involved identifying a thematic framework. Stage 3 involved indexing the data with reference to the thematic framework. In stage 4, responses were synthesised from across respondents into a working grid of themes. Stage 5 focused on data interpretation and finalisation of key emergent themes. Qualitative data were coded and analysed in the software package NVivo V.10 by one researcher. Saturation of core themes was reached within the sample interviewed.

RESULTS
Number, severity and staff time in managing conflicts
A clinically significant decrease in conflict incidents was observed from baseline to follow-up, dropping by 64% (from 22 to 8).
The overall severity and time taken in managing the conflicts had increased (see table 1) due to one conflict during the follow-up period, a stage 2 case, which accounted for 990 mins (80%) of the time. Conflict incidence and severity are described in table 1.

The number of families involved in conflicts dropped substantially at follow-up, as did the number of days with conflicts (22 at baseline and 8 at follow-up). The dominant causes of conflict were ‘family micro-managing care’ and ‘communication breakdown’. For example, staff reported:

Mother expressed ongoing frustrations+concerns around lack of communication by both medical+nursing staff around care and management of [child]. Mother expressed lack of communication around IV antibiotics especially. (case note of CMF stage 2 case)

Of the 17 staff invited for interview, 9 participated (5 nurses, 2 doctors, 1 social worker and 1 clinical psychologist). Qualitative data indicated that the training and CMF facilitated the early identification and management of low-level conflicts, resulting in only more severe conflicts being reported. For many this involved also facilitating earlier interventions to manage conflict, recognising that it had the potential to stop conflicts from escalating:

I definitely think there has been a positive impact, I think we have some patients and parents where we’ve had low level conflict that if we’d not addressed would have continued to escalate. (Interviewee 6)

Staff reflected that the CMF had increased their confidence in managing conflict. At times this stemmed from feeling that discussing conflict was an acceptable part of team handover; for others, it had enabled more of a focus on positively managing difficult situations:

[The CMF] has given people strategies to deal and certainly myself it’s changed my approach from wanting to fix, to the listening and trying to walk their walk if you like, so to look at it from their perspective. [...] It increased my personal confidence, comfort with dealing with some issues. (Interviewee 3)

The impact on morale was reflected on by some interviewees:

I’d like to think that’s it’s improved morale. (Interviewee 4)

For some staff, adopting the CMF, and being able to discuss and address conflict head on had led to a change in ward culture, where parents’ concerns were explored more frequently and more gently:

I think it’s a little bit of a culture shift. (Interviewee 7)

Another interviewee indicated that the framework had led to senior managers adopting new ward rounds too, indicating a cultural shift in open and ongoing communication with families to identity and address concerns early on.

Table 2 outlines the staff involved in managing conflicts during baseline and follow-up data collection. At follow-up, nurses’ involvement reduced substantially and multidisciplinary involvement increased. This indicates that communication and management of conflicts had begun to be acknowledged as a team concern.

### Table 1 Conflict incidence, severity and time

|        | Pre (n=22) | Post (n=8) |
|--------|------------|------------|
| Severity | Median: 3.  | Median: 5.  |
|         | Range: 2–5.5. | Range: 2–6. |
| Time (min) | Total: 835. | Total: 1240. |
|         | Range: 5–150. | Range: 10–180. |

Staff compassion and empathy

Outcomes for staff work-related quality of life were analysed. As table 3 demonstrates there was a statistically significant decrease in burn-out at follow-up (p<0.001). Scores in compassion and traumatic stress improved, but not at a statistically significant level. Lower scores indicate lower distress.

### Table 2 Staff involved in managing conflicts

| Staff group | Pre (n=37) | Post (n=29) |
|------------|------------|------------|
| Staff nurse/registered nurse: 20. | Consultant: 7. |
| Consultant: 8. | Other doctor: 5. |
| Other manager: 3. | After-hours manager: 1. |
| Clinical nurse specialist: 1. | Registered nurse: 4. |
| Sister: 1. | Social work: 2. |
| Other: 1. | Chaplain: 1. |
| Student nurse: 1. | Inpatient nursing director: 1. |
| Occupational therapist: 1. | Physiotherapist: 1. |
| Security: 1. | Shift coordinator: 1. |
| Refugee consultant: 1. | |

Table 3 Staff compassion, burn-out and secondary traumatic stress

| Professional Quality of Life Scale | Pre | Post | Statistical significance |
|-----------------------------------|-----|------|--------------------------|
| Compassion satisfaction (n=53)    | Median: 40 (average). | Median: 40 (average). | 0.863 |
| Range: 29–48.                    | Range: 31–50.          |                          |
| Burn-out (n=55)                  | Median: 27 (average).  | Median: 22 (low).        | 0.001 |
| Range: 15–39.                    | Range: 14–35.          |                          |
| Secondary traumatic stress (n=53)| Median: 21 (low).      | Median: 21 (low).        | 0.214 |
| Range: 15–31.                    | Range: 14–36.          |                          |

Bold font indicates statistically significant.
Initially we were having lots of conflict information handed over in our team handover and it was making the handover last for too long. Everybody was getting off shift late, and that makes people negative towards what’s going on so we’ve kind of gone very low level in handover so we’ll say there is conflict. […] If there’s conflict it would be handed over at the bedside and then during bedside handover as the nurses have been on the previous shift you then get all the details and then obviously we have access to the file to then go over to look at the history. (Interviewee 6)

Several interviewees felt that the CMF could only work if senior clinicians and hospital managers were committed to the process. Involvement of the medical team and senior management had been very well received:

I think there’s enough awareness and I think there’s enough people in leadership positions that have been driving it that it becomes more ingrained in our day to day work. (Interviewee 3)

**DISCUSSION**

The CMF substantially reduced the number of conflicts over the course of 6 months, and a statistically significant change in staff burn-out was observed. Compassion satisfaction and secondary traumatic stress did not change at a statistically significant level.

The CMF addresses calls for early intervention in managing conflict and could act as a tool to obviate financially and emotionally costly court action or complexity of arbitration. Burn-out is a recognised potential sequelae to work-related stress, with high prevalence in specialties such as intensive care. Staff burn-out is associated with reduced patient safety, making it an important focus for interventions. Further, the CMF has the potential to reduce the substantial burden of staff time/cost associated with managing conflict and emotional burden on staff and families. Communication breakdown is a recognised component of conflict escalation and was evident in the data from this study. Both communication and conflict management need to be viewed as core skills in paediatric specialties where there is complex case management of critically ill children. Staff reported that the training provided them with a marked advantage by improving their communication skills with families. Notably listening and perspective-taking were both cited as important, reflecting what Ranjan et al refer to as frequently neglected communication skills. This study has successfully extended previous work where training was offered as a stand-alone intervention by adding the CMF as a framework that staff can adopt when they identify conflict.

Benchmarking this site to others regarding number of conflicts observed is not possible, since there are few data available on conflict incidence where service size and patient throughput are reported. Where data do exist, high levels of conflict have been documented, and are linked with poorer patient prognosis and the need for complex multidisciplinary care. Thus, while it is not possible to gauge whether an incidence of 22 or 8 might be considered on a par with other services, the reduction was substantial, yet the remaining conflicts warrant ongoing intervention and concern. Further prevalence studies are required to provide helpful benchmarking within and across services to drive up standards and promote proactive conflict management strategies.

Although interviewees roundly praised the training they had received prior to the CMF being implemented, the data may be biased as the interviewer had cofacilitated the training sessions. The study’s generalisability is limited by receiving insufficient outcome measures to enable a fully powered analysis. A power calculation was not used to inform sample size for the collation of baseline or follow-up incidence and severity of conflict.

Further work is required to understand family perspectives on the use of the CMF, and refinements which would improve their experiences when disagreements occur. A full economic evaluation of the CMF should also be conducted, where the costs of staff training (including backfill for those in clinical roles) are assessed against the savings in time spent managing conflicts, legal fees and expenses such as sickness of staff. Although there is some evidence regarding the incidence of conflict in different clinical specialties, further work could helpfully examine the culture of different departments and hospitals to consolidate learning on the contextual features that influence when conflict breeds or is stifled. Consequently, a multisite and cross-specialty study of the CMF is warranted to understand its implementation potential.

**CONCLUSION**

The principles of the CMF of early intervention and de-escalation are core drivers in reducing the negative sequelae of conflict. Since many of the conflicts were focused around communication, it would be prudent for hospitals to ensure ongoing training in staff/family communication. For continued use of the framework, senior leadership is required at the ward and hospital levels, including buy-in from medical colleagues. The implementation benefited from such leadership during this study. Further development and refinement of the CMF are being conducted in four UK paediatric sites in 2018/2019 to improve its usability and impact. Following a number of recent high-profile court cases involving disputes between clinicians and parents, the need to adopt more structured approaches to identifying and managing conflict has been expressed by clinicians, medical ethicists and judges. Structured approaches to identifying principal concerns and subsequent actions could incorporate the CMF as an effective approach to managing conflict in these complex cases.

**Contributors** LF and SB designed the work. LF acquired the data. LF and SB interpreted the data, drafted the work and revised it critically for intellectual content. LF and SB approved the final version of the manuscript. LF and SB agreed to be accountable for all aspects of the work, ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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**Competing interests** SB is the director of the Medical Mediation Foundation, an organisation that provides conflict management training and mediation in situations where there is disagreement/conflict between patients and healthcare professionals. However, the manuscript does not focus on mediation as a solution.

**Ethics approval** Approval for this study was granted by the Western Australia Children and Adolescent Human Research Ethics Committee and the R&D Department prior to study commencement (PRN: RG500041). Interview quotes are presented without identifiers to preserve the confidentiality of the interviewees.

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**Data sharing statement** Any requests for anonymised raw data should be directed to the corresponding author.

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