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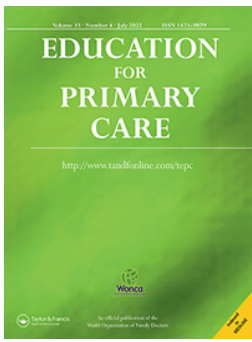
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Ciaran Conway & Trevor Thompson

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SEA change – the use of significant event analysis in primary care teaching

Ciaran Conway and Trevor Thompson

Center for Academic Primary Care, Bristol Medical School, University of Bristol, Bristol, UK

ABSTRACT

Background: Significant event analysis (SEA) is a concept familiar to clinicians as a means to facilitate group learning. Our academic primary care teaching team recognised that often significant educational events are not afforded the same formal evaluation and reflection. We designed a proforma for the analysis of events in our setting and scheduled regular meetings to discuss those events raised. In this paper we describe a year long trial of our novel Significant Event Analysis for Education (SEAFE).

Evaluation: The pilot was evaluated using an online questionnaire.

Discussion: Over the 12 months of the pilot 19 SEAFEs raised and discussed with a wide range of subjects covered. 78% of our team felt that the use of SEAFEs had imporved their practice as clinical academics and 89% supported the continued use of SEAFE.

Conclusion: We have demontrated that SEA can be used in an academic primary care educational setting to bring about group learning and improvement in academic practice. We are planning to continue the use of SEAFE within our team with plans to try to pilot this outside of a primary care setting soon.

Background

Learning from significant events is an important part of clinical training and can help change behaviour [1]. In medical education, we too experience significant events. Perhaps a teacher inadvertently exposes a group of students to COVID-19 or a student feels unsupported in the aftermath of racist comments from a patient. Such events are regrettable and time consuming to resolve. In a similar vein, we might see an ambitious teaching event going off without a glitch, or a difficult situation deftly resolved by the team on the ground. In all these cases there is the opportunity for learning to be shared, avoiding the folly of repeated errors and setting us up to enjoy the satisfaction of repeated success. However, in a busy teaching department it is more likely that such opportunities for team learning get overlooked.

We outlined in this journal last year our desire to try to introduce into our department a way of systematically learning from such events to improve our future practice. [2] This report outlines an evaluation of how we went about implementing this strategy and whether we achieved our aim of improving our practice as medical educators for the benefit of our students.

Significant event analysis

As clinicians, the formal analysis of 'Significant Events' is ingrained in us from an early stage in our training. The concept of *Significant Event Analysis* (SEA) has been in existence within primary care for decades and it is likely that anyone reading this will be familiar with the concept [3]. In a typical SEA, the nature of a significant occurrence is unpicked by the wider clinical team in a safe and supportive environment, with learnings recorded and their implementation later verified. The focus is on systemic learning rather than holding a particular clinician to account and it has been shown to facilitate team learning [4].

We knew therefore, that SEA was a tried and tested way to document and learn from events in a clinical setting. This led us to wonder whether this tool could be put to use in a primary care teaching environment. There was no single event that brought about this discussion within our team. Rather, there was a growing sense that we were gaining experience as individuals which, if shared, could benefit the whole team and therefore our students and teachers more generally.

CONTACT Ciaran Conway ✉ ciaran.conway@Bristol.ac.uk 📧 Clinical Lecturer, Centre for Academic Primary Care, Bristol Medical School, University of Bristol, Canynge Hall, 39 Whatley Road, Bristol BS8 2PS, UK

With this in mind, we set out to design and pilot SEA in our academic setting. We termed this tool *Significant Event Analysis for Education* or as it became known SEAFE ('see-fee').

Method

We designed our proforma (Figure 1) after considering and reviewing clinical SEA proformas from local surgeries. A coversheet to the proforma reminded users of our definition of a significant event:

> [A significant event is] something that is outside our normal routine and contains lessons for the whole team

The cover sheet also included a reminder of where to save the document and a reminder that significant events could comprise both positive and negative occurrences. We were mindful that the concept of reporting significant events may be less familiar to our non-clinical administrative colleagues which may leave people open to feeling adversely criticised in a public forum. Therefore, we held a separate briefing meeting with our administrative team to outline the rationale and theory behind our pilot and answer any questions they may have had.

Colleagues were encouraged to submit their SEAFE forms to a central email address as and when events occurred. We carved out a section of our thrice yearly Senior Management Team (SMT) meeting in order to discuss any SEAFEs that had been submitted in that third of the year. Under more normal circumstances the SMT is a face-to-face meeting but for the 12 months of this project this took place online due to the COVID-19 pandemic. At this meeting, the author of each SEAFE was invited to outline the salient points of the event and the learning points highlighted. Discussion around the case was encouraged and a formal action plan was agreed as a team. This was then documented and the finalised SEAFE was saved in a shared drive for future access. Example SEAFEs can be seen in Tables 1 and 2. At the end of the yearlong pilot, an anonymous online survey was sent to our whole team to evaluate the SEAFE tool.

PART A *(to be completed prior to SMTT discussion)*

Title of SEAFE	
Owner of this SEAFE	
Date	
Brief Summary of Event(s) and any actions taken	
What was done well?	
What could've been done better?	
Suggested learning points	
Suggested actions	

PART B *(to be completed after to SMTT discussion)*

Date Discussed	
Present at SMTT (initials only)	
Agreed Learning Points	
Agreed Action Points	
Date of Next SMTT ( )	

Figure 1. Significant event analysis for education 'SEAFE' proforma.

Table 1. An example SEAFE relating to a teaching session.

A student was triggered by a teaching session around domestic violence & sexual abuse (DV&SA). When investigated, it was found that there had been inadequate forewarning of the session's contents and signposting to student support within the teaching materials. A SEAFE was conducted and discussed. The outcome of the SEAFE was that future students would receive more advanced warning of forthcoming DV&SA teaching and be explicitly signposted to support. The content of this particular session was also modified. Furthermore, the SEAFE was shared with the DV&SA research group within the University who have, as a result, founded a student advisory board which now helps to shape and review DV&SA teaching materials before they are delivered.

Table 2. An example SEAFE relating to a organisation issue.

A practice due to take 6 third year students pulled out of teaching the night before it was due to start as a sudden staffing crisis occurred, brought about by a COVID-19 outbreak within the surgery. As the teaching was being delivered online it was possible to allocate all of these students to alternative practices at short notice. However, it highlighted an issue which could easily occur again in any year group and would be a particular problem if teaching were face to face.
A SEAFE was raised and discussed. It was concluded that each year group lead should 'stress test' their course to ensure that they would be able to cope with a practice (or practices) dropping out at short notice. It was also agreed that in future recruitment rounds during the pandemic each year group would aim to run at a surplus of places so that students could easily be placed if this were to occur again.

Results & evaluation

A total of 19 SEAFEs were raised in the 12 months of the project. Of these, 16 were raised by clinical academics and 3 by administrators. All 19 SEAFEs related to negative events with no positive SEAFEs recorded. Table 3 shows the sorts of topics covered by the SEAFEs over this time.

This was a small pilot study. The evaluation took place as an online anonymous questionnaire which asked members of the primary care team (academic and administrative) to comment on the proforma used and their views of the SEAFE as a learning tool. Staff within the team were asked if they felt that the use of SEAFE had improved their practice and whether they supported its use going forward.

A total of 9 members of staff completed the evaluation (69% return rate comprising 6 clinical academics and 3 administrators). Staff felt that the style of the proforma was useful with 100% of users describing it as easy to use, with some mentioning its simplicity and similarity to clinical SEA proformas as the main reasons for this. The main complaint from users was that the discussion within the SMT meeting felt rushed.

Table 3. Frequency of SEAFE topics during this pilot.

Topic	Number of SEAFEs
Data Protection	6
Administrative	4
Unconscious bias	4
COVID-19	2
Other	3

Overall, 78% of respondents felt that the use of SEAFE had improved their practice and 89% supported the continued use of SEAFE. One user summarised their support for SEAFE thus:

. . . the tide of academic life rushes back and forth and the marks of events are easily erased from the individual and collective memory. The SEAFE allows one to reflect as one records the event, marshal one's learning and present that to the wider group. Thus, one feels that the learning/pain might not have been in vain.

Discussion

The main limitation of this pilot was its size. Our department of around 13 staff is a small cohort from which to draw definitive conclusions. However, we feel that despite this, the SEAFE model is transferable with potential for use on a wider scale. We plan to present our findings at medical school level later this year as we feel that there is scope for this method to be used in other clinical educational settings. It would be interesting to pilot this approach in non-clinical subjects too, in order to explore whether staff who are likely unfamiliar with this approach find it easy to use and beneficial to their work.

We had no preconceived ideas of how many SEAFEs would be raised over the 12 month trial period. In practice we raised more than one and a half every month. SEAFEs were completed in the main by clinicians rather than by members of the administrative team. In our case an unfamiliarity with the process may have been a factor in this, although it is conceivable too that administrators may have simply encountered fewer incidents than their clinical academic colleagues.

All of the SEAFEs related to 'negative' events. This is despite an explicit reminder to users on the front page of the proforma that raising positive events as SEAFEs was encouraged.

The main complaints about the SEAFE process centred around the discussion of the SEAFEs as a group. This took place during our triannual SMT meeting which already had a full agenda. Hence some of the group felt that the discussions were 'squeezed in' and less helpful as a result. This trial took place during the COVID-19 pandemic and therefore each of these discussions took place online. The sort of sensitive discussions that can surround a SEAFE may be better suited to an in-person meeting. In future, to mitigate both of these points, we plan to conduct our SEAFE meetings as a separate standalone event which will be in person if possible.

Table 4. Summary of learning points.

- When designing your own SEAFE proforma keep it simple and align it closely with existing clinical SEA proformas to ensure ease of completion.
- Take time to train non-clinical staff in the process; they may be less familiar with SEA.
- Try to ensure a supportive environment which encourages the raising of SEAFEs as a learning tool rather than for apportioning blame
- Encourage staff to raise 'positive' SEAFEs when things go well
- When conducting a SEAFE review meeting ensure ground rules are set and try to conduct these in person (rather than online) where possible.

Overall, our group found that the use of SEAFEs was a positive one. The team found that it improved their practice and a clear majority felt that we should continue its use. We plan therefore to continue using the SEAFE within our team and review and improve its use for the coming academic year.

We have summarised our experience in Table 4 where we outline our practical advice for anyone considering implementing a similar approach in their own institution.

Conclusion

We have demonstrated that a structured approach to reflection can lead to improved practice and a sharing of knowledge not afforded to informal and serendipitous exchange of experiences. We feel that a large part of the success of this pilot was the pre-existing familiarity with the SEA process from our clinical academics. Hence, we believe that our SEAFE model has the potential to be utilised by other clinical academics outside of primary care.

Disclosure statement

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