

Can improving suture skills of junior medical staff in a psychiatric hospital reduce transfer of inpatients to Accident and Emergency for care of self harm wounds?

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Introduction

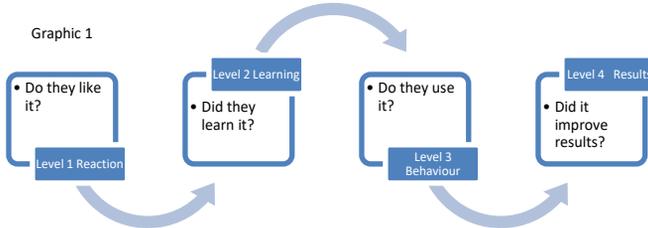
This ~~Plan-Do-Study-Act~~ project was prompted by the experience of junior doctors on nightshift at The Royal Edinburgh Hospital (REH), a large psychiatric hospital. Due to lack of junior doctor experience self harm wounds and lacerations by accidental injury are commonly managed by sending patients to the Emergency Department on another hospital site. Patients who have self harmed are evidently in a state of high emotional distress which is exacerbated by transfer to a busy A&E. A nurse escort is often necessary resulting in depletion of nursing staff numbers on the wards with stressful workforce implications particularly out of hours.

We developed an intervention that we hope will improve patient satisfaction while reducing nursing staff pressures, workload in the Emergency Department and transport costs.

Methods

1. We undertook retrospective data gathering on avoidable A&E transfers for simple wounds.
2. We designed and implemented two practical wound management / suturing workshops. These were attended by 21 trainees working at REH and were supervised by an Emergency Medicine consultant and a Plastic Surgery Clinical Fellow.
3. Kirkpatrick's model (graphic 1) was used to evaluate this teaching intervention through pre and post workshop questionnaires which included photographs of wounds requiring a decision on management.

Graphic 1



4. Trainees were encouraged and supported to attend A&E at the Royal Infirmary Edinburgh for further practical experience to consolidate skills learned during the workshop.
5. A centrally located suture kit was created to aid in the fast and efficient management of wounds particularly out of hours.
6. In 6 months we will look again at the number of avoidable A&E transfers for simple wound closure to gauge improvement.

Results

- **25 potentially avoidable transfers** to A&E identified for management of simple wounds in 2016; 24 self harm & 1 head injury.
- Workshops were attended by 51.3% of junior doctors.
- **100% of trainees enjoyed the workshop and felt it was relevant to them** (level 1 Kirkpatrick Model).
- 90% of trainees would make no changes to the workshop.
- **85% felt confident enough to suture independently** after the workshop
- **Twice as many positive responses to questions on confidence with independent management of simple wounds** (33% to 64%) – see graph 1

Graph 1



Could you manage these wounds without transfer to A&E?



A selection of photographs from the post workshop questionnaire

Graphic 2

Discussion

- This PDSA project highlights a perceived dearth in junior doctors' knowledge and confidence in wound management and practical suturing skills but an eagerness to overcome this. Trainees enjoyed the workshop; finding it useful, relevant and appropriately pitched to their level.
- Post workshop, more trainees correctly identified a simple wound and more felt able to manage this locally.
- There was also an increase in uncertainty regarding more complex wounds which could not be managed locally, with more "neither agree nor disagree" answers. Worryingly a small number of trainees (3) thought they would be able to manage these wounds independently. This will hopefully be remedied through practise in A&E, and more focus on appropriate versus inappropriate wounds to manage locally in the next workshop.
- The number of 25 avoidable transfers may be an underestimation due to strict inclusion criteria at data collection.
- Kirkpatrick Model level 3 will be evaluated through a tally chart trainees will fill in when they manage a wound independently.
- Kirkpatrick Model level 4 will be evaluated following a re-audit in six months on the number of avoidable A&E transfers for simple wound management.
- The sustainability of this project will be ensured via suturing workshops every 6 months for the new rotation of junior doctors.

Conclusion

We look forward to studying the impact of this patient-centred, cost effective intervention over the next year on patients, nurses and the Emergency Department. We will also build on trainee awareness of patient safety and limitations of competence. Sustainability is key; will we need to look to training nurses in wound management to overcome the barrier of rapid turnover of medical staff?