Case Study Report of SIMTEGR8 User Workshop 3: Rapid response, Falls

Marianne Bamkin, Gemma Barrow and Ed Ostler

Purpose of report	To document and reflect upon the process of using a computer simulation model in order to promote debate and make changes to patient pathways
Organisations involved in Case Study	Healthwatch Leicestershire and Leicestershire County Council
Structure/Format of Event	2 hour workshop
Aim of Event	To review a computer simulation model of Rapid Response – Falls in order to engage patients with the process of avoiding emergency admissions; to explore ways of measuring patient satisfaction and therefore make recommendations to Leicestershire County Council
Date of Event	2nd February 2016 10.15 – 12.15
Aim of SIMTEGR8	To assess the effectiveness of using a SimLean methodology in order to stimulate debate and recommend actions in order to improve patient pathways

Context of Event

The SIMTEGR8 project is collaboration between Loughborough University, Leicestershire County Council and Healthwatch Leicestershire. This project is using computer modelling and simulation techniques developed by SIMUL8 Corporation to analyse the effectiveness of four healthcare interventions to reduce emergency admissions to hospital that Leicestershire County Council is trialling. The project uses a series of workshops to examine the patient pathway of each intervention; one set for stakeholders of each intervention and one set where users of the interventions (patients and carers) are invited to give their views.

This case study report deals with the third of the user workshops which were conducted as a partnership between staff of SIMUL8 Corporation, Loughborough University and Healthwatch Leicestershire. This is the case study report of the workshop for:

Rapid Response - Falls – Support from East Midlands Ambulance Service for people who fall at home or in the community

The workshop was hosted at Voluntary Action LeicesterShire by Healthwatch Leicestershire and facilitated by the Research Associate from Loughborough University, the simulation consultant from SIMUL8 Corporation and the Healthwatch representative all of whom were attached to the project.

The workshop was structured using a facilitated workshop environment.

> **Model Understanding**: The model is explained to the participants and the simulation run showing the movement of patients around the system
> **Problem Scoping**: The discussion them moves on to issues that have been revealed by running the model and their own issues and concerns
> **Improvements**: The discussion turns to methods of improving the pathway and finding ways measuring patient satisfaction

In order to capture their thoughts and actions, cards (Appendix 1) were given to the delegates for them to write down their personal aims and outcomes for the workshop. Similarly, sticky notes were supplied for the participants to record their thoughts and questions about the model or the patient pathway. At the close of the session delegates were asked to complete the "aims" cards; and to rank their experience on a Likert scale.

Description and account of workshop

There were 8 people present, 2 from the case study organisations, 1 representative of SIMUL8 Corporation, 2 from Loughborough University and 3 participants. It was found to be difficult to identify and invite anyone with first-hand experience of the falls service. Two people had hoped to be available but ultimately were not able to attend due to other commitments. Therefore, the participants were 2 patients who had experience of urgent or emergency healthcare and the community engagement officer for East Midlands Ambulance Service (EMAS). However, they offered insights into patient concerns and highlighted possible issues with the patient pathway and the computer simulation.

The aims stated by the participants before the session started were as follows:

> Information and contribution into present processes of thought and good practice for combating full emergency admissions
> User experience of the service; did it help? Was there a follow-up and what happened afterwards
> User perspective and what we think it is like from a patient perspective
> Knowledge on how the system works and is monitored

The workshop commenced by familiarising the participants with the intervention and the concept of simulation modelling. The researcher gave an overview of the background to the SIMTEGR8 Project and the EMAS Representative explained that each county covered by the ambulance service has a specific falls pathway. For example, Northamptonshire has their own pathway and offers specialist falls assessments and treatment for people who are aged 65 years and over. She explained that they are dealing with issues quite holistically and has a dedicated ambulance car to respond to "falls" calls.

Leicestershire County Council considered the Northamptonshire model but it was thought that the County was too rural for such a model to be effective. Therefore, in Leicestershire, 104 of the 160 paramedics have received specialist falls training. This means that the paramedic will assess the patients in order to decide whether they should be transported to hospital or can be cared for at home thereby referring the patient to community teams. It was also explained that falling is the major reason for calls to 999 and the volume of the calls, linked to the demographics of Rutland provides a challenge to EMAS.

In order to explain the patient pathway further an animated video of the falls pathway was shown. The simulation consultant explained how the "before" and "after" process maps of the patient pathway were used to build the computer simulation. The computer simulation was then run pausing at intervals while the journey of a named patient was demonstrated, comparing his experience prior to the intervention, and afterwards.

Feedback from participants

Comments were raised about entering the patient pathway. For example, it was noted that although residential care homes may have clinical and nursing staff suitably qualified to treat a fallen resident the protocol is to always call 999. Similarly, participants were curious about calls to 111, and it was revealed that when contacted by the 111 team EMAS has to attend a

fall without the option to "Hear and Treat", that is to decide whether a visit is really necessary or whether the caller can be referred on to community care. The participants agreed that it would be interesting to see EMAS data on what calls come from NHS 111.

Questions were raised about the effect on the pathway of people who make their own way to A&E. It was speculated that the large quantity of patients in A&E impeded staff in the hand over from ambulance to hospital. This in turn slows ambulance availability and response time. For example, 40 ambulances available over an 8 hour shift with 10 stacking at Leicester Royal Infirmary produces a knock on effect to the system.

It was also discovered that EMAS can triage people to go Urgent Care Centres. Equally, EMAS will transport patients to A&E if they insist on going there and refuse alternative treatment.

Improvement

The discussion then turned to a more formal format. The participants considered whether they understood the pathway, that it made sense and what changes may be needed to improve the experience for patients. The following points were made:

- Concept of the service is very good
- More analysis should be done on the reasons for this pathway to be chosen for the county
- Whether the model is really achieving what it is aiming to do?
- Is it working for the patient and EMAS?
- Could anyone other than the paramedics do the assessments?
- The geography of the county can have a bearing on the entry point into the pathway
- Although the falls pathway is short and simple it is affected by the entire rapid response and A&E admissions system
  - Queue management systems and stages of triaging should improve A&E overload and ambulance stacking

The participants were then asked whether they consider that the falls pathway is reducing A&E admissions, does it provide home care that is as good as being in hospital and are the resources being used effectively? One of the patient representatives commented that although an admission to emergency care is deferred and an individual may be admitted on a subsequent occasion "any non-admission is a good thing," The other participants agreed with that sentiment.

Participants felt that the Falls Risk Assessment Tool (FRAT) training that the paramedics have had is making improvements in patients being treated in their own homes and then being referred to other teams. For example; EMAS would be called to a patient's home for a patient who had fallen out of bed. Before the tool came in, EMAS may be called to attend the same patient on repeated occasions. However, using FRAT, the patient can be referred to another team and appropriate care put into place. Participants were concerned about adding FRAT training to the paramedic workload. This was answered by a phone call to a paramedic who stated that that from the perspective of the front line the pathway is successful as having it in place enables EMAS to make the referral. Being trained to use FRAT reassures the paramedic that they are doing a safe assessment and knowledge that the patient will receive on-going treatment is important. The LCC representative reported that of all the interventions in place this is the most cost effective.

The participants strongly believed that treatment at home is as good as, if not better than being cared for at hospital, especially for elderly people. They made the following comments:

> Personally I think you get more care as you get immediate one to one attention from EMAS paramedics
>
> Saves a lot of time for patients if they can be treated at home
>
> Elderly patients would prefer to be treated at home
>
> Some people may feel that the home care is not as good

Some concern was expressed about multiple conditions limiting the patient choice of pathway and the availability and quality of community care – some individuals may prefer A&E rather than paying for private care.

Measuring Patient Satisfaction

Due to the small number of participants the exercise to gather user opinions of patient satisfaction criteria and measurement tools was adapted. Each of the patients sat with a non-patient participant and together they considered ways of measuring quality, speed, dependability and flexibility of healthcare. Their thoughts were then shared with the group. Overall, it was considered that paper based surveys were not a good way of gathering patient feedback, individuals are "tick box overloaded". Similarly any electronic method of gathering data would need to be quick and simple. The participants thought that verbal conversations with staff would provide immediate accurate and timely patient perspectives although it was realised that healthcare staff are limited for time. It was noted that:

> Negative experience should be shared as learning points
>
> Patients answer direct questions
>
> Staff training is vital for patient quality
>
> Satisfaction can be measured by successful end results

Reflection

Although this workshop session had a small number of attendees all participants were highly engaged with discussion throughout. It was noted that the patients were eager to talk, especially about their personal experiences. The only point of disengagement was noticed during the simulation, when requests for exploring different scenarios were not forthcoming. As in previous workshops where there were participants with direct experience of the intervention it was evident that their first-hand knowledge contributed to the success of the debate. Direct answers to participant questions and explanations of the reality of the patient pathway provided useful data to further improve the model. Similarly, having the representative of LCC at hand to put forward their viewpoint helped the participants and the facilitators to understand the context and importance of the intervention. The experience of the patients, although they had not experienced FRAT, gave insight into the concerns of patients and put the intervention into context with the wider emergency service.

During this workshop the patient pathway was mentioned an equal number of times to the computer simulation. The increased iconography used for the simulation this time, with identifiable people moving across the screen appeared to capture the attention of the participants. The service in general was the topic that was discussed the most frequently, highlighting such issues as:

> Frequent fallers
>
> Entry points to the pathway
>
> How EMAS works
>
> Personal experience of emergency care
>
> Quality of service

It is perhaps indicative of the close integration of the services involved with this particular intervention, that the wider context was discussed more times than either the patient pathway or the simulation. Such a concern with the effect of the wider context reflects the thoughts expressed during the Stakeholder workshop for the Falls intervention. In this workshop, however, participants pin pointed the issues, such as queues, reasons for falls occurring, the cost of the service and homecare.

Other issues expressed were:

Paramedic training
Ways leading to the patient pathway including111 calls
Additions to the simulation

Finally, the Likert scales that 3 of the participants completed indicated that they had had a positive experience at the workshop (Figure 31). Two strongly agreed that the workshop was useful and 1 agreed. They all thought that workshop helped them focus on the patient pathway and 2 thought that they had increased their understanding of computer simulation. All were undecided whether LCC staff should use computer simulation to plan patient pathways.

Figure 1: Participants' Opinion of Workshop
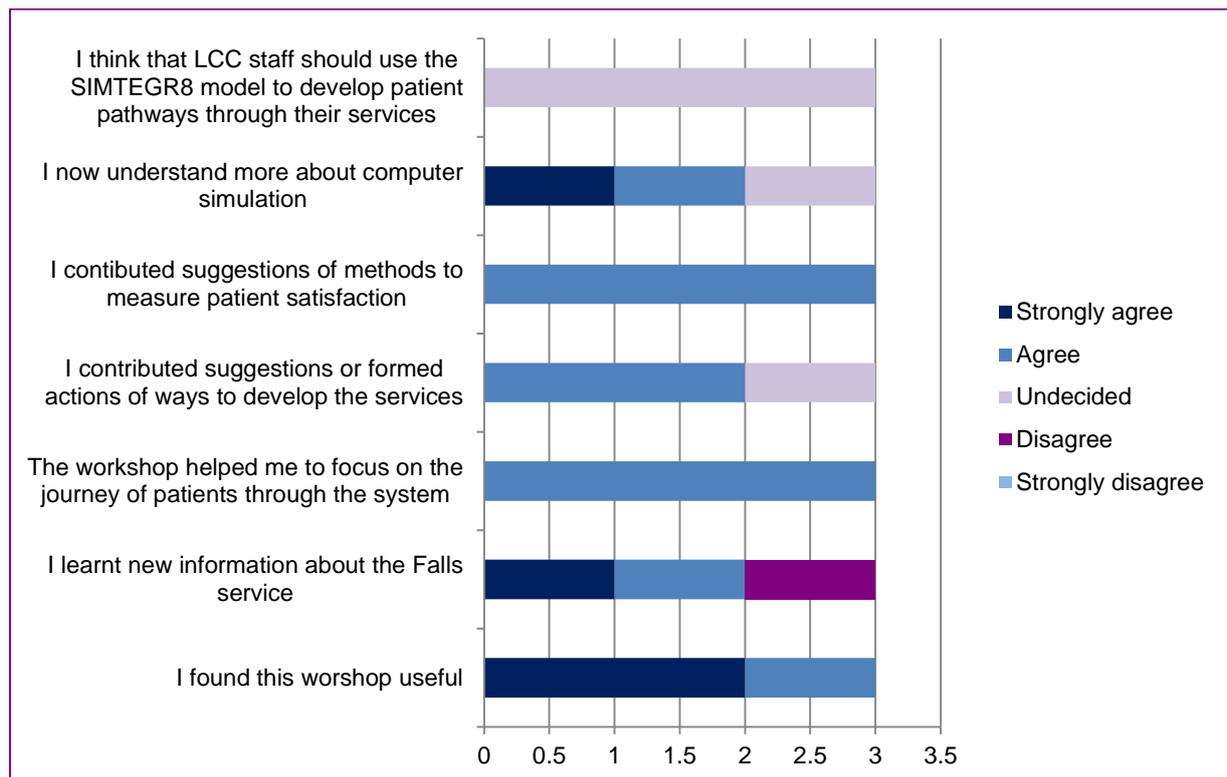
It was found that:

Participants were engaged with discussion
It was useful to have representatives of patient groups, LCC and EMAS present
Details of the service and the effect of A&E overload were considered
The participants engaged with the computer simulation well
Patients are tired of paper based evaluations

The use of a computer simulation of a patient pathway in this case appeared to be an essential part greater discussion of the patient pathway and the Falls service. Including the viewpoints from EMAS, patients and LCC provided detail and data to improve the simulation.

Next steps

    Use the information gleaned to improve the simulation
    Include thoughts on patient satisfaction to summarised report
    Follow up the delegates to discover their general opinion of the workshops

Appendix 1

Sample of card given to delegates to record personal aims

This is what I hope to gain from this workshop	This is what I did gain from this workshop
	I consent to a follow up phone call: Phone no