

Time off the ward: an action research approach to reducing nursing time spent accompanying children to X-ray

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Abstract

Nursing staff on a busy medical ward were concerned about the amount of time spent off the ward accompanying children to X-ray and for other radiological investigations. They chose this as the focus for an action research project.

Aim: to improve the process of accompanying a child to X-ray and reduce the amount of time spent off the ward by nursing staff.

Method: A facilitated action research approach was used which involved defining the issue, gathering baseline measures, introducing changes in practice and repeating the measures.

Outcomes: The changes in practice included telephone negotiation of timings between ward staff and X-ray, the inclusion of X-ray in the orientation programme of new staff and students, and the establishment of a link nurse system. Audits, performed before and after changes in practice, demonstrated that the proportion of time spent in X-ray was halved.

Conclusion: Changes in day-to-day practice, implemented at ward level, can have a measurable impact on routine events and in building co-operative relations between departments. The facilitated action research process provided a structure and direction to the process of improving practice whilst providing an opportunity to learn new skills.

Key words

- Research and development
- Change management
- Children: hospitalised

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Accompanying children off the ward for radiological and other investigations is a routine part of everyday ward practice. As medical ward staff we recognise that while such investigations play an important part in the child's care, delays in the process could mean that the child, family and nurse are absent from the ward for longer than necessary.

An opportunity to address this issue arose when our hospital trust provided funding to support a year-long programme of facilitated action research to improve the co-ordination of care. This article reports the background, process and outcomes of an action research project into time spent off the ward by nursing staff.

Background

Nurses who have experience of working on a medical ward will know that radiological investigations are a frequent and regular event for the children in their care. These investigations play a key role in providing diagnostic information and helping to monitor the child's response to treatment. However, when, as a ward team, we

looked at ways to improve co-ordination of care in our clinical area, we identified nursing time spent off the ward as an issue we wanted to address. We perceived that the amount of time spent off the ward accompanying children for investigations was higher than necessary, reducing our availability on the ward to provide care for other patients.

Aims and objectives

Our project aimed to reduce the amount of time nurses spent accompanying children to the X-ray department for radiological investigations. Our objectives were to: clarify and improve the process of accompanying a child to X-ray, and to promote the development of a positive professional relationship with colleagues in the X-ray department.

Approach

An action research approach, based on the cycle of identifying an issue, collecting baseline measures, implementing change and re-measuring (Lewin 1946), was adopted. This has been used successfully to support the development of children's nursing practice in other settings (Coyer *et al* 2007) and

action research



Most of the time spent by nurses off the ward is used to accompany children for radiological investigations

to develop roles in an organisational context (Williamson *et al* 2004). The project was led by a nurse researcher (AB) from the local university, who was funded by the hospital to facilitate a programme of action research projects throughout the trust. Project meetings began in November 2006 and ran through to March 2008. A total of 19 meetings were held. These usually took place on the ward, although we also met at the university when we had management days and the duty rota allowed. Meeting away from the ward meant we were less likely to be interrupted and it also gave us the chance to look more objectively at our project work.

Baseline measures

An audit was carried out to measure time spent off the ward by nurses accompanying children for investigations, over a period of one month. We designed an audit sheet to record information on the day and time of the event, the grade of staff, their destination, and the duration of absence. Paper copies of the audit sheet were kept in a file at the nurses' station and completed by staff every time they left the ward. The results were entered into Excel spreadsheets which we then used to analyse

the information collected. This audit allowed us to quantify the actual amount of time nurses were spending off the ward, giving us figures to support our initial impressions of the scale of the issue.

The audit revealed that most of the time spent by nurses off the ward was used to accompany children for radiological investigations (see Figure 1a). A total of 52 hours per month was recorded. The audit also showed that Tuesday was the day when most time was spent off the ward (see Figure 2). We were able to use this information to demonstrate the scale of the issue to our colleagues and to persuade them that it needed to be addressed.

As part of our baseline information gathering we undertook a mapping exercise, using post-it notes to represent all the stages in getting a child to X-ray and to identify which staff were involved at each stage. This allowed us to pinpoint where the process ran smoothly and where there were gaps and delays. Using the process map and identifying the staff involved helped us recognise that many stages of the process depended on effective communication between the ward and the X-ray department.

If communication between the departments was poor the process of having an X-ray was directly affected. Common instances of poor communication were linked to either short notice of the need for an investigation or longer than expected waiting time, either on the ward or in the X-ray department. We realised that to smooth the X-ray process, we would also have to find ways of improving our day-to-day communications with the X-ray department and that this would require the development of a closer working relationship between staff in the two areas.

Introducing change

Once communication had been identified as the key to improving care co-ordination, practical ways of achieving this were suggested and an action plan formulated. The plan included three main measures: first, introduce the practice of ward staff telephoning the X-ray department before each visit to negotiate mutually convenient times; second, nominate a link nurse to be a professional representative and conduit for communication; and third, extend the ward orientation programme for new staff members and students so that it would now include a visit to the X-ray department. All these measures were introduced before a second audit was carried out.

Measuring the outcomes

The second audit revealed that the proportion of time nurses were spending off ward in X-ray had halved since the first audit, from 24 per cent down to 12 per cent (see Figure 1b). The actual hours off the ward had reduced from 52 to 32 hours per month. We also found that the day when most time was spent off the ward had changed from Tuesday to Wednesday. This was useful when preparing the off-duty rota because it enabled us to anticipate when more staff hours were needed. A link nurse from the ward had been identified and had made contact

with a radiographer from the X-ray department. The orientation programme for new staff and students had been extended so that they could now visit the X-ray department – an opportunity that had been overlooked on the previous programme.

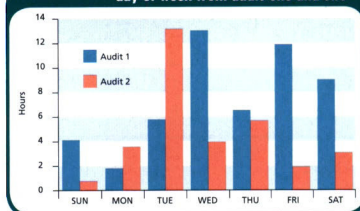
Discussion

Although the reduction in time spent off the ward demonstrated by the audits was encouraging, we recognised that factors other than the changes we had introduced may have influenced the results. During the time between the two audits, another medical ward opened in our hospital. The new ward was for children of the same age and with similar needs as our ward. This sharing of the caseload may account for some of the reduction in time spent off the ward that was noted between audits.

Another factor that may have influenced the change was the appointment of a ward housekeeper. Part of her role was to accompany less dependent children to the X-ray department. The higher number of student nurses on the ward at the time of the second audit may also have influenced the results. Irrespective of the effect these influences may have had, the measures we introduced – the increased telephone negotiation, the establishment of a link nurse and the inclusion of X-ray in the orientation programme – were considered by the ward team to be valuable to our practice and we have continued with them.

We discovered, as Coghlan and Casey (2001) have described, that change involving other departments can be challenging and can take longer than change that involves one clinical area. This is especially

Figure 2
Comparison of time spent off ward by day of week from audit one and two



true when the departments are a long way apart physically. By scrutinising our own practice we were able to identify changes that could be made unilaterally at first in the hope of influencing others involved in the process. Although this took longer, it did eventually lead to the desired change.

Having one staff member who could dedicate time to the project helped to maintain continuity of the project in the context of staff changes. Having an external facilitator helped us to keep the momentum going and to reach our defined goals, as did peer involvement in the practical collection of data and in maintaining the change in practice.

There is, however, another aspect to the project we consider important: we learned skills while being involved in the project that we can apply to other situations. For example, we learned how to collect and process the information we had collected. We learned practical ways to engage with colleagues in different departments to bring about changes in practice. We also learned how to prepare and present our findings at hospital-wide meetings and at an international conference. The latter involved preparing an application for bursary funding to support attendance at the conference, which was in itself another new experience.

Conclusion

The project demonstrated that changes in day-to-day practice, implemented at ward level, can have a measurable impact on routine events and promote co-operation between departments. The facilitated action research approach gave structure and direction to the improvement of this routine aspect of ward practice while providing an opportunity for us to learn new skills PN

References

- Coghlan D, Casey M (2001) Action research from the inside: issues and challenges in doing action research in your own hospital. *Journal of Advanced Nursing*, 35, 5, 674-682.
- Coyer F et al (2007) Establishing an action research group to explore family-focused nursing in the intensive care unit. *International Journal of Nursing Practice*, 13, 1, 14-23.
- Lewin K (1946) Action research and minority problems. *Journal of Social Issues*, 1, 2, 34-46.
- Williamson GR et al (2004) Developing lecturer practitioner roles using action research. *Journal of Advanced Nursing*, 47, 2, 153-164.

Figure 1a
Location of nurses spending time off the ward: audit one, July 2006

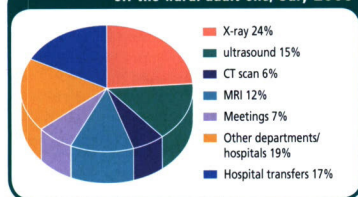


Figure 1b
Location of nurses spending time off the ward: audit two, October 2007

