

The Haemodialysis Models of Care Program

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Abstract

Aim In view of concerns with current staffing shortages and increasing workloads in haemodialysis units across New South Wales (NSW) a program was developed and implemented to assist nurses to change the way they organise and deliver nursing care to people receiving haemodialysis. The Haemodialysis Models of Care (HMoC) Program was designed to achieve two outcomes: a) making better use of resources to improve the way care is provided and b) empowering renal nurses so that they are capable of independently improving their working environment. The aim of this paper to provide an overview of the process and outcomes from the HMoC Program.

Method The HMoC Program commenced in 2006. The program involved four training workshops over a 12-month period with specific and detailed activities to be undertaken between the workshops. Teams from 19 haemodialysis units participated in the program. The teams identified their own project issues to address, according to the needs of their workplace. The outcomes of the program were evaluated after two years.

Results Evaluation of the program revealed that the haemodialysis nurses who completed all program requirements developed leadership and project management skills that most were unaware of before, as well as analytical and networking skills. Analysis of the outcomes of the projects has identified that patient care has improved, work is better organised, and there is improved satisfaction for patients and staff.

Conclusion The achievements of the participating teams were beyond expectations, and it was recommended that this program be offered on an ongoing basis to haemodialysis nursing teams across NSW as a means of developing nursing leadership skills and improving patient care.

Keywords

Models of care, haemodialysis, leadership, change management.

Introduction

It was estimated in 2004 that the number of haemodialysis patients in New South Wales (NSW) would be likely to increase each year at a rate of around 5% (Gibberd & Martin, 2004). This expected cumulative increase raised concerns within the Renal Services Network (NSW) about the ability of the haemodialysis nursing workforce to meet predicted demand, given the level of nursing shortages in Australia at the time (O'Brien-Pallas *et al.*, 2004).

In response to these concerns a workshop was held in 2005 where renal nurse leaders identified their concerns with current staffing shortages and workloads in haemodialysis units and proposed a range of strategies to manage the problems (Chiarella & Westgarth, 2005). A key strategy was to review how services were provided for haemodialysis patients in satellite and in-centre units, and to redesign processes to make better use of current staffing levels.

Subsequently, a program was developed and implemented, partly funded by the (then) NSW Greater Metropolitan Clinical Taskforce (now the Agency for Clinical Innovation), to assist nurses to review and possibly change the way they organised nursing care for people receiving haemodialysis. The Haemodialysis Models of Care (HMoC) Program was coordinated by Professor Mary Chiarella (who was funded by the Nursing and Midwifery Office of the NSW Department of Health) and Ms Fidye Westgarth (Renal Services Network Manager).

The goal of the HMoC Program was for nurses in haemodialysis units in NSW to identify opportunities and to change the way care is delivered – in order to make better use of available resources to provide optimal patient care. The program itself was designed to achieve two outcomes: a) making better use of resources to improve the way care is provided and b) empowering renal nurses so that they are capable of independently improving their working environment.

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Fowler *et al.* (2006, pp. 40–41) refer to a model of care as a ‘nursing practice model’ and define it as:

... an operational model for redesigning nursing practice for the provision of patient care in an organisational setting, specifically at a clinical services unit level (ward). Furthermore it governs the manner in which nurses organise work groups, communicate with work group members and other disciplines, interact, make decisions, and create an environment within which nursing care is delivered among care providers, and specify communication and coordination patterns necessary to support (patient) care.

Davidson *et al.* (2006, p. 48) state that in order to achieve sustainable, effective and efficient changes, a well-planned, systematic process is essential, regardless of whether change in health care delivery is attempted on a micro basis (for example, ward level) or macro basis (for example, national or state system) The HMoC Program provided nurses with the opportunities to develop and implement change projects in their workplaces with the support of a well-planned, systematic process. The processes used were based on clinical practice improvement principles (NSW Department of Health, 2002) and aligned with recognised Practice Development (PD) principles.

This paper describes the well-planned and systematic process used to achieve the HMoC Program goals and also sets out the results which demonstrated that the program met its intended outcomes.

Method

Participation was invited from all 28 Renal Units in NSW, seeking two participants per team. All teams required endorsement by their local Directors of Nursing and Midwifery (DoNMs) before commencing the HMoC Program. Before commencing, the team members were also required to identify their expected goals from their participation in the program to the HMoC Program coordinators.

Twenty nursing teams from the (then) Area Health Services in NSW registered in the HMoC Program. At the first workshop and subsequently, the participants received training in a range of skills to equip them to undertake reviews of nursing care delivery practices and organisation of care in order to identify potential for improvements. The teams were then required to carry out these audit and review processes in their own haemodialysis units and develop a workable plan to undertake change, based on the best available evidence, to address the issue(s) they chose to address. Through a series of four full-day workshops held over a 12-month period, the nursing teams learned how to implement changes in complex working environments and how to evaluate their changes. Structured feedback was required at various intervals between the workshops and this assisted the nurses to practise the skills learned in the workshops.

A key feature of the program design was the input from four senior renal nurses, known as the guidance team. The guidance team members were chosen for their demonstrated leadership skills and provided clinical grounding for the coordinators and clinical expertise to the participants, both at the workshops and through site visits and telephone support between workshops.

Each guidance team member was allocated a number of teams and worked closely with them throughout. In this way, we were trying to develop communities of practice “groups of people informally bound together by shared expertise and passion for a joint enterprise” (Wenger & Snyder, 2000, p. 139).

Following completion of the workshops, two further processes were undertaken. The first was a national conference, The Haemodialysis Nursing Forum, held in February 2008. The second was the evaluation of outcomes of the program, conducted 12 months after the fourth workshop, to determine whether the individual projects were sustainable without the continued intervention from the coordinators and guidance team. This was undertaken in December 2008 by a survey of all original participating teams, with feedback of results provided to all teams at their final workshop in December 2008.

Content of program

Each workshop included structured sessions, with workgroups facilitated by the guidance team. The content of the four one-day workshops is provided in Table 1.

Table 1. HMoC workshop program.

HMoC workshop content
Workshop #1: Getting started – “Identifying the problem”
Set expectation to identify what works and what doesn’t, with a view to changing practice and/or organisation of care.
Provide the “how to go about it” – the tools to review one’s current model of care: process mapping, patient stories etc.
Enable teams to return to their own clinical areas and review them
Workshop #2: Planning for change
Teams report back on what they have found, including their baseline measure
Provide training on how to approach undertaking a ‘change’ project.
Set expectations for measuring the progress of team projects (i.e. outcome indicators)
Set expectations for team actions required over the following 10 weeks
Workshop #3: Achieving change
Teams report back on what strategies they tested, plus their results measured
Teams share knowledge and learn from the experience of others.
Presentation and workshop on understanding power and politics, and removing barriers to change.
Teams left with a structured action plan for the next three months, including how they would measure their outcomes
Workshop #4: Getting recognised
Teams report back on what they had implemented, plus their results measured
Presentation and workshop on “ensuring sustainability”
Presentation and workshop on report writing: “Sharing your results with others” – think about publication!
Teams receive an outline of expectations over the next 12 months, and the evaluation process

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Teams made progress with their project planning during these workshops and returned to their workplace with a clear time line of what they were expected to achieve over the next few months.

The main learning from the HMoC Program was divided into three skill sets: 1) data collection, analysis and reporting; 2) presentation and public speaking; and 3) networking and communication skills.

1. Data collection, analysis and reporting skills

The workshops were held over a 12-month period, at three-monthly intervals. During the workshops, participants were given education on data collection and analysis. Between the workshops the participants were provided with detailed templates to complete in their workplace, and to feed back to the coordinators at regular intervals. These templates were designed to give structured assistance to the nurses in terms of information-gathering, data analysis and ultimately a PowerPoint presentation of any findings to feedback to the group. The purpose of these fairly stringent requirements was to provide detailed and unambiguous expectations to the participants. This was considered to be quite challenging for the participants initially but, as they became used to the expectations, they reported that this provided them with structure and guidance. Site visits were also offered by members of the guidance team. These visits provided both clinical and logistical support to the clinicians, and facilitated a deeper understanding of local constraints facing participating teams. The visits were also an opportunity to clarify any concerns or misunderstandings about data collection and reporting and also to assist them to keep their projects manageable and on-track.

2. Presentation and public speaking skills

There was a clear expectation from the beginning of the program that the teams would provide presentations at consecutive workshops in relation to their progress and outcomes. This requirement to present in public was initially daunting for the majority of these clinicians, most of whom had not given a formal presentation before. Nurses do not usually go into nursing with an expectation that they will need to develop public speaking skills and many find this highly challenging (Buresh & Gordon, 2006). It was, therefore, important to provide a gradual progression into presenting their work, particularly given the variation in initial progress.

At the first feedback session, participants were asked to discuss the information they had been required to collect within their workshop tables. At subsequent workshops, team members were required to present a short report on their progress. The presentation times were gradually increased until they culminated in each completing team giving a 20-minute presentation with charts and data to a conference audience of 150 people.

3. Networking and communication skills

Because of the nature of clinical nursing work, the focus of clinical nurses is inevitably local and concerned with the day-

to-day demands of their ward or unit. However, the factors that create the culture or climate within a ward or unit are usually mediated by external fiscal, political and professional issues.

A key aim of this program was to assist these clinical nurses to change their local environment through their impact and influence on the broader environment in which their unit was situated. The importance of nurses learning communication and relationship building skills as part of their political growth and development has previously been identified by key nursing leaders (Hughes & Calder 2007; Diers 2004).

Both within the workshops and as part of their feedback requirements, the coordinators emphasised the need for the nurses to position themselves in that broader environment, and to understand the needs and concerns of their key stakeholder groups. All participants were required to produce reports on their project outcomes for submission to their DoNMs and this was supported by a workshop session on report writing.

Project evaluation

Evaluation of the project was critical to ascertaining whether the interventions were sustainable (Institute for Innovation and Improvement, 2010) and whether they would hold up after the program's workshops were completed. Thus, in addition to the formative evaluations, a two-year summative evaluation time frame was selected. Two years after commencement, all teams that commenced the HMoC Program, regardless of whether they completed, were asked to evaluate their progress over the two-year period via a self-report survey. The evaluation survey was undertaken to answer the following questions:

- i) Did participation in the HMoC Program lead to changes in the way care is provided in the teams' workplaces?
- ii) Was the change a benefit and was it sustainable? (Demonstrated by measurable outcomes)
- iii) Have participants developed skills/attitudes/behaviours that they had not used before?

The teams were asked to consider their progress from a range of perspectives: improving patient outcomes (clinical outcomes), improving workflow and efficiency, improving patient satisfaction and improving staff satisfaction. The non-completing teams were asked to participate in the evaluation in order to provide a comparison group.

Individual evaluations

Each project team was required to identify the change they wished to achieve, to submit baseline measurements prior to implementing the change in order to ascertain the true nature of the problem, and to undertake formative and summative data collection. This continuous improvement methodology has been widely implemented in health care and has been shown to produce effective improvements (Grol, Berwick, & Wensin, 2008), although, as previously stated, sustainability of these programs continues to be elusive.

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Results

The HMoC Program was designed to achieve two outcomes: making better use of resources to improve the way care is provided and empowering renal nurses so that they are capable of independently improving their working environment. Twenty teams from haemodialysis units across NSW enrolled in the program and 14 continued to attend the workshops. Eleven teams (55%) completed all course requirements. All participants who completed their project requirements developed analytical and interpersonal skills that they had not known previously, and it was apparent from their feedback and presentations that participants had grown in knowledge and ability by the end of the first 12 months.

Evaluation outcomes

The individual projects were evaluated two years after the HMoC Program commenced, via a self-reported survey. The non-completing teams were asked to participate in the evaluation in order to provide a comparison group and, where relevant, results from both groups were reported. Just under 50% of the groups did not complete the program so it was considered important to ascertain their reasons for non-completion. The most common reasons for non-completion were that they were already involved in other projects or that they had unmanageable workplace workloads or that staff turnover led to a lack of leadership for the projects.

Table 2. List of projects undertaken by those who completed the HMoC.

Program

PROJECT topic	Achievement
Patient (work)flow	Improved timely flow of acute care patients from the wards to the renal unit, from an unworkable system where 53% of patients were unacceptably late to a goal of fewer than 10% late arrivals.
Vascular access documentation	Improved patients' vascular access documentation from an <i>ad hoc</i> system to a structured patient access history chart for all haemodialysis patients.
Dialysis Prescription response	Improved the response time for nursing staff to implement changes within a week of the revision to patients' dialysis prescription. This involved improving staff knowledge and confidence to respond to changes in biochemical markers.
Multi-skilled workforce	Increased staff skills at a rural renal unit so that all haemodialysis staff were also skilled in peritoneal dialysis procedures.
Improving the outreach service	Improved service delivery and patient outcomes by changing from an <i>ad hoc</i> , reactive service to providing a standardised, structured, proactive outreach service for home-based dialysis patients.
Fluid management	Improved nursing fluid assessment and response for care of haemodialysis patients, in order to reduce frequency of patient hypotensive episodes.
Surveillance and patient management plan	Development of a structured surveillance and management plan for rural haemodialysis patients, to support early detection and prevention of further complications.
Primary nursing model of care	Changed nursing practice from inconsistent methods of problem identification to holistic assessment and management of patient care problems in a rural haemodialysis unit – extending to sister dialysis units.
Organisation of patient care	Changed the organisation of work and staff skills mix in a large, busy haemodialysis unit and improved efficiency, patient safety and staff support.
Primary nursing project	Enhanced the existing primary nursing model in a large satellite haemodialysis unit and achieved agreed targets for patient biochemical markers.
Case management model of care	Changed the organisation of work and provision of care in a large haemodialysis unit, from the former <i>ad hoc</i> primary nursing model to a formal case management model with clear guidelines and supportive mechanisms.

The evaluation questionnaire was circulated to 19 of the 20 teams that registered for the HMoC Program in December 2006. There was one team that registered but neither attended any of the workshops, nor completed any project tasks. This team was excluded from the evaluation process. Of the 19 teams surveyed, 11 teams had completed all project requirements (from three metropolitan and eight rural sites) and eight teams discontinued (seven metropolitan and one rural). There were 19 complete responses received in the evaluation survey (response rate=100%).

Of the 11 teams that completed the program requirements, 82% attended all the workshops. Of the eight teams that withdrew, none attended all four workshops; however, 38% attended up to three of the four workshops. Those that withdrew had not been completing the tasks required of them between workshops

It was a feature of the HMoC Program to provide support to the teams. Site visits were offered to all teams; however, only five of the teams that completed took up the offer as well as one of the teams which did not complete. In addition to the site visits, phone contact and coaching support was provided, including personal tutorials by phone, on working with spreadsheets and creating graphs. A support phone call was made to the team by the coordinators or a member of the guidance team when it was identified that a team was behind with program requirements. This support was variable for teams, depending on their project

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topic and their capability. The provision of these supports was unrelated to whether a team continued with the HMoC Program.

Nature of projects undertaken

Teams were asked to undertake projects that met the needs of their own workplace. The key issues addressed by the completed projects are found in Table 2.

Evaluation against desired outcomes

A) Making better use of resources to improve the way care is provided

All 11 completing teams (100%) said their delivery of care had improved as a result of their participation in the HMoC Program. From the group that did not complete the program, one team (13%) claimed that their care had improved.

Clearly changes to care practices are not unique to teams undertaking the HMoC Program, but the results also suggest that structured programs such as these are highly influential in facilitating change. Of the teams completing the program, 100% had introduced changes to their delivery of care and 63% of the non-completing teams had also introduced change. All 11 teams

that completed the program requirements (100%) provided evidence of sustained and improved outcomes demonstrated by one or more of their chosen outcome indicators. Of the eight teams that did not complete the program, three teams still reported some measurable benefit from interventions and two of these teams provided evidence of sustained improvement in their outcomes achieved by December 2008. For the teams that did not complete the HMoC Program requirements, the improvements they achieved were unrelated to their exposure to the program and were perhaps related to involvement in other projects. The key items from this evaluation are shown in Table 3.

Participants were also asked about changes to staff morale, patient morale and communications both within and beyond their renal unit and general efficiency within the workplace. Comparison between the groups is provided in Table 4.

Individual evaluations

Feedback from the 11 teams that completed the HMoC Program listed 45 KPIs to measure their outcomes. There was considerable overlap of the clinical indicators because many were aiming to demonstrate evidence-based practice,

Table 3. Comparison of project participation and outcomes, by completion status.

Question	Completing teams	Withdrawn teams
Did teams complete all requirements of HMoC Program?	11 /11 teams (three metropolitan and eight rural)	0/8 teams (seven metropolitan and one rural)
How many workshops did the team attend?	82% of teams attended all four workshops	25% attended one workshop 25% attended two workshops 50% attended three workshops 0% attended four workshops
What was the key issue that the team wanted to address, for their dialysis unit?	Documentation 1 Fluid management 1 Organisation of workflow 1 Outreach service 1 Primary nursing 3 Skilled workforce 1 Structured patient management 2 Team nursing 1	Communication 1 Fluid management 1 Home dialysis 1 Skilled workforce 1 Structured patient management 1 Team nursing 1 Vascular access 2
What has been changed in your workplace, to address the issue?	100% had changed organisation of work. 40% of these had also changed policy and/or clinical protocols and 20% had also changed their staff education practices.	43% had changed organisation of work, and 28% had changed policy and/or clinical protocols. 29% had not changed anything in their workplace.
Did participation in the HMoC Program lead to change in the delivery of care in their workplace?	All 11 teams (100%) said delivery of care improved as a result of their participation in the HMoC Program.	71% said delivery of care did not change as a result of their participation in the HMoC Program. One team did not know and one team said it had improved (<i>however, this may not have been a reflection of the HMoC Project</i>).

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Table 4. Additional project outcomes: Improvements to staff and patient morale and to communications.

Issue	Completing teams*	Withdrawn teams*
Changes to staff morale for dialysis nursing staff:	80% of teams: nursing staff morale improved	72%: no effect on morale, or they did not know if there was any change
Changes to staff morale for medical staff:	Two teams: medical staff morale improved. Two teams: no effect Six teams: did not know	Two teams: medical staff morale improved. Two teams: no effect Three teams: did not know
Changes to staff morale for allied health staff:	Four teams: allied health staff morale improved. Two teams: no effect Four teams: did not know	Five teams: no effect Two teams: did not know
Changes to dialysis patient morale:	Five teams: patient morale improved. Two teams: no effect Three teams: did not know	One team: patient morale improved. Three teams: no effect Two teams: did not know
Perceived changes to efficiency of their unit:	Eight teams: efficiency had improved. Two teams: no effect	Three teams: efficiency had improved. Four teams: no effect
Effect on communication in their dialysis unit:	All teams said communication had improved within their haemodialysis unit	Three teams: communication improved. Four teams: no change
Effect on communication with departments outside their dialysis unit:	Seven teams: communication had improved outside their unit. Two teams: no change	Two teams: communication had improved outside their unit. Five teams: no change

*Note: Some respondents failed to answer every question.

according to CARI Guidelines (CARI, 2008). The outcomes of the individual projects were evaluated using KPIs from four perspectives: patient outcomes; workflow/efficiency; patient satisfaction; and staff satisfaction, as outlined in Table 5.

Not all projects were successful in achieving their stated goals within the predetermined time frames, which accounts for the incomplete data. However, all teams identified that they considered the progress to be worthwhile – even the exercise of developing structured processes for managing patient care was considered to be invaluable for improving patient care.

B) Empowering renal nurses so that they are capable of improving their working environment

The three skill sets identified in the method section, namely data collection, analysis and reporting; presentation and public speaking skills; and networking and communication skills, were systematically developed throughout the project. Those participants who completed the project responded in a markedly different way to the questions in the evaluation survey relating to skill development compared to those who did not complete the program. All completing respondents commented positively on skill development, whereas, of those who did not complete the project, none were able to identify any skill development. This was a particularly rewarding outcome of the program, as the personal and professional development of the participants was marked and tangible.

1. Data collection, analysis and reporting

All teams were required to illustrate the progress they made with outcomes data and graphs. There was a positive response when teams were asked what skills they had learned – for example:

To quantify and qualify data, communicate more effectively with stakeholders and produce a professional report. (Team 11)

HEAPS!! We have learnt to assess and evaluate through process mapping, surveying and auditing. Compiling data for reporting of results. The importance of effective communication both written and oral. Recognising issues outside our department and developing strategies to deal with them. (Team 6)

Identifying and exploring problems and solutions, rather than superficial and quick-fix approach. (Team 17)

2. Presentation and public speaking skills

The HMoC Program coordinators observed the gradual development of skills and confidence in public speaking. Ten of the teams presented their projects confidently and professionally to a national forum of 150 health professionals. At the final meeting in December 2008, team members were confidently presenting their achievements in prepared presentations, and then taking questions from the floor and illustrating their unrehearsed responses using their data.

3. Networking and communication skills

The HMoC Program worksheets repeatedly called for teams to

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Table 5. Range of indicators used by participants to evaluate their project outcomes.

Improving patient outcomes (clinical)	Improving workflow/efficiency
% of patients with calcium 2.1–2.4	Number of patient reviews by primary team
% of patients with phosphate <1.6	Number of packages completed:
% of patients with calcium/phosphate product <4.0	% of nursing staff with skills in peritoneal dialysis procedures
% of patients with Hb >110	Increase number of staff able to assist with outreach and home visits
% of patients with Ferritin >500	Close monitoring of patients' IBW
% of patients achieve dialysis adequacy	Monitoring of patients' anaemia studies
% have PO ₄ control of between 0.8 and 1.6	Monitoring of patients phosphate/calcium levels
% have Ca control of between 2.1 and 2.4	% of patients arriving from the hospital wards greater than 20 minutes late for dialysis appointment time.
Minimum BVM ≤92%	Staff workflow affected by late arrivals
Potassium out of range: % adjusted within one week	% documentation of blood volume monitoring (BVM) in the patient records
Bicarb. out of range: % adjusted within one week	% review &/or adjustment of ideal body weight (IBW) following BVM
Magnesium out of range: % adjusted within one week	Staff knowledge and confidence survey
	% home visits attended, as per schedule
	% results reviewed by nursing staff
	% of patients with vascular access history available in medical record
	% documented fluid assessments
Improving patient satisfaction	Improving staff satisfaction
Adverse effect on patients by the late arrivals (as perceived by staff)	Staff satisfied with patient arrival times from wards
Patient waiting time of less than 30 minutes	Staff stress level affected by late arrivals
Patient satisfaction with primary nursing role	Communication between wards, courier and renal unit
	Staff knowledge of biochemical markers
	Nurse satisfaction with primary nursing role

identify possible barriers to change. This activity often identified persons and groups which the teams needed to engage with in the course of their project, and in this way the complex role of 'stakeholders' became very well understood by the teams.

In the feedback from the evaluation survey, teams identified this aspect of the skills they acquired during the project – for example:

Lead by example. Praise and encourage staff that do embrace change. Listen to and encourage input from others. (Team 4)

Have learnt how to engage colleagues in the project, using wide participation and involvement as a key to making any successful change within the unit. Key stakeholders have to feel like they are important to the overall project, and consultation with all participants was imperative. (Team 7)

These results demonstrate that participation in the HMoC Program did lead to changes in the way care is provided in the teams' workplaces. The change was beneficial and sustainable – as demonstrated by measurable outcomes and by improvements in morale, communications and staff and patient satisfaction; and participants developed skills, attitudes and behaviours that they had not used previously.

Discussion

The HMoC Program was found to meet its objectives, both in relation to making better use of resources to improve the way care is provided, and empowering renal nurses so that they are capable of independently improving their working environment.

The projects were mostly cost-neutral, apart from backfilling positions to enable rural team members to attend the workshops in Sydney. These HMoC projects did not lead to increased staffing levels or increased expenditure. However, all have led to better patient care, which for haemodialysis patients is likely to reduce adverse events and unplanned readmissions. Using this change management model, most staff became involved in the change and staff members found they had ownership of the change that was occurring in their workplace.

Such achievements cannot happen from actions by HMoC teams in isolation. Change requires active enabling support from managers, directors, and heads of department (NSW Government, 2010). It also requires the support of the clinical nurses, and usually will require formation of working relationships with other service providers to ensure one's own part of the process can run smoothly.

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Achieving effective change in the workplace is difficult, and does not come naturally to groups working in busy clinical environments. This program used many approaches to assist the changes to occur. Key components are listed below:

- **Authorisation:** Teams were invited to participate in the program via letters of invitations sent to their DoNMs and were then conferred authority to create change by their managers;
- **Leadership:** The leadership shown by the HMoC Program coordinators energised the teams and gave participants belief in their ability to succeed in their projects;
- **Culture:** The guidance team reviewed all workshop components, ensuring that the workshop training tools were meaningful for the haemodialysis nursing environment;
- **Knowledge:** Teams were provided with the knowledge they required at the sessions, so that they understood what they had to do at various stages of the project;
- **Structure:** The program gave the participants step-by-step support to enable them to make progress without having to spend time and energy trying to work these steps out for themselves;
- **Trust:** The project teams showed enormous trust in the project leaders – that they would lead them in the right direction to achieve the change they were aiming for;
- **Communication:** Continued communication with the project coordinators kept the level of interest high and enabled problems to be identified and fixed before they became insurmountable.

Participants who completed all course requirements were emotionally involved in their projects and were motivated by personal factors to achieve their goals. This was the key difference between those who completed the program and those who withdrew – those teams that completed the program were persistent and ensured that they performed the tasks required of them between workshops. The actions that took place between the workshops were more important than attending the workshops themselves.

“Although we were unsure what the data would reveal, the positive outcomes helped maintain the momentum of the project, and reinvigorated those driving the project. The positive outcomes brought recognition to the project and the unit.” (Team 8)

It was also noted that the teams that persisted in completing all components of the program usually had considerable support from their local management, whether via encouragement or seeking feedback at departmental meetings, or supporting the uptake of new systems. Some participants were allowed time away from their clinical workload to complete set tasks from the HMoC Program.

The groups achieved sustainable change through techniques such as setting departmental policy; trialling form design and having it approved by the forms committee; establishing periodic reporting processes through departmental committees;

and other methods of establishing new order in their working environment. Early in 2008 reports were sent by each of the teams to their local DoNM, in recognition of the DoNM's endorsement for their participation in the project.

Conclusion

The support from Area Directors and local DoNMs was critical to achieving success in the workplace. Out of 20 teams that commenced the program, 14 teams actively participated and 11 fulfilled all requirements. In doing so, the participants have developed in their capability for achieving change in the workplace.

The opportunity to develop capability for nursing staff to review work and change processes has led to improved efficiencies in the workplace for haemodialysis units. Clinical benefits were demonstrated, as well as better organised work, and improved patient and staff satisfaction.

The achievements of the participating teams were beyond expectations and it was recommended to stage a second HMoC Program for NSW. The second HMoC Program commenced in 2009, with sponsorship support from Amgen Australia and concluded at the end of 2011.

This project would not have been possible without funding and support from the NSW Agency for Clinical Innovation.

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