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Chronic condition self-management support within a respiratory nursing service

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E-mail: sharon.lawn@health.sa.gov.auLAWN S & LAWTON K (2011) *Journal of Nursing and Healthcare of Chronic Illness* 3, 372–380**Chronic condition self-management support within a respiratory nursing service**

Aim. The aim of this study was to report the steps taken by health professionals in practice to embed an innovative chronic condition self-management support programme. Within a small Australian Respiratory Nursing Service in Australia between 2008–2010.

Background. Chronic obstructive pulmonary disease (COPD) encompasses chronic obstructive lung conditions such as emphysema and chronic bronchitis. These debilitating chronic conditions require a coordinated service response by health professionals across the spectrum of inpatient and community care services to support patients' to effective management their health and prevent exacerbations.

Conclusions. By recognising the importance of the different phases of change involving diagnostic, planning, implementation, ongoing monitoring and review, but also the supporting tools for data collection, the readiness of staff for change, the mapping of barriers and enablers and planning for short- and long-term impacts, this Respiratory Service was able to embed effectively into practice a more coordinated service for patients with COPD across the inpatient/community continuum.

Relevance to clinical practice. This change process was undertaken by respiratory nurses in the field using the Chronic Care Model and associated tools to guide implementation and sustainability of the change. Guided by identification of enablers and gaps of most relevance to these health professionals and those they serve, effective service improvement was achieved. The description of how these health professionals achieved change holds lessons potentially for others attempting to improve support for chronic condition self-management across other areas of health.

Key words: chronic condition self-management, chronic obstructive pulmonary disease, embedding, implementation, organisational change, respiratory nursing

Introduction

Chronic obstructive pulmonary disease (COPD) encompasses chronic obstructive lung conditions such as emphysema and chronic bronchitis (Australian Lung Foundation 2008, McKenzie *et al.* 2010). Globally, COPD presents a significant health burden with at least 4 million deaths per year. The true picture is unknown because of under-diagnosing, under-reporting, poor collection of disease registry data and insufficient preventive strategies (World Health Organisation 2009). COPD is a leading cause of death and disease burden in Australia, second only to heart disease, stroke and cancer (Australian Lung Foundation 2008). The health related costs of disease management per case of COPD is higher than cardiovascular disease, osteoporosis and arthritis (Australian Lung Foundation 2008, McKenzie *et al.* 2010). The personal costs in loss of working life, disability, premature mortality and family/caregiver impact cannot be underestimated. Acute exacerbation is the most common reason for medical visits, hospital admissions and death among patients with COPD [Adams *et al.* 2007, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2007, Kaplan 2009]. The purpose of this article is to discuss the steps taken to embed an innovative chronic condition self-management support programme within a small Respiratory Nursing Service in a large metropolitan hospital in Australia.

Aim

During evaluation of the Respiratory Service, it was discovered that a gap existed in the provision of chronic care to clients needing home oxygen, many of whom fell outside the scope of the Chronic Disease GP Plus initiative. The focus was to make the entire service more chronic condition focused, allowing Respiratory Chronic Disease Management support to be offered to all clients. There were four key objectives within this vision:

- 1 Improve systematic recall/review of patients.
- 2 Increase patient numbers at the support group.
- 3 Improve use and understanding of emergency packs.
- 4 Improve the consistency of process and outcome measurement tools (and the care planning process) used by members of the respiratory team in managing clients.

The team was enthusiastic towards change for providing better chronic care. The RCDN had a priority to up skill herself and to establish the GP Plus aspects of the service and the RNs had a vision to provide better patient chronic care for all clients. One of the RNs took the lead in

gauging enthusiasm for change within the service and commenced postgraduate self-education in chronic disease management [Flinders Human Behaviour and Health Research Unit (FHBHRU) 2010] to further support the process. The project was conducted between July 2008–March 2010.

Setting

The Respiratory Service consists of three nurses who care for specific clients with COPD, working in the context of a larger multi-disciplinary acute inpatient hospital and linked community services. The current Respiratory Service was formed in 2009 as part of an amalgamation of the Respiratory Unit nursing services at the hospital. This brought together two respiratory nurses (RNs) and one Respiratory Chronic Disease Nurse (RCDN) – GP Plus (SA Health 2007). The latter position was created in mid-2008 as part of an out-of-hospital strategy in response to the recommendations of the National Chronic Disease Strategy (National Health Priority Action Council 2006). The RCDN role was designed to provide chronic disease management support to a specific target population including frequent presenters and those newly diagnosed, with the aim of building their self-management capacity in the community. A large component of the role includes the coordination of a pulmonary rehabilitation course. The RN role has been established for greater than 30 years in this setting. Prior to the recent changes, its role predominately was to facilitate home oxygen equipment provision and provide education on respiratory conditions and devices. In recent years, this role has expanded and the Respiratory Service now employs two nurses to fulfil a role which includes case management of approximately 170 clients on home oxygen, coordination of complex respiratory clients with high care needs, education to patients, staff and students on respiratory-related matters and provide specialist nurse support to the respiratory outpatient clinics, sleep laboratory and pulmonary function laboratory based at the hospital. In this sense, the current Respiratory Service is one service serving two distinct client groups, with nursing staff working together as part of integrated assessments and aims, then dividing clients between the RN (clients with more complex and greater severity of chronic conditions) and RCDN roles (less complex). Unlike the former Respiratory Service which was largely hospital based with few formalised processes for following clients and their care into the community or linking with community-based support services, the new Respiratory Service aimed to address this, among other concerns, in a more integrated way.

The change process

During the period when the service was proposing and then attempting change, in 2008–2009, there was a general readiness for change and a movement towards chronic disease management across the health system with the release of the state and national Chronic Disease Action Plan (National Health Priority Action Council 2006, SA Health 2009). There was recognition of increasing burden of chronic diseases on the health system and future predictions of dire consequences if changes were not made to improve management now. The National Chronic Disease Strategy had been on the table for some time and momentum was starting to occur across both primary and acute care at a state level. Major steps in the change process are described below and are represented also in Table 1.

A state health department initiative of mapping the Respiratory Services across the entire metropolitan region was also commenced in early 2008 around the time the Respiratory Service was contemplating change. It identified that there was a high burden of chronic respiratory disease that, if not managed better, would become much worse. This evaluation of Respiratory Services throughout the region led to a working party being formed to address key recommendations of the mapping initiative. Changes to the way services would be delivered in the future, to be more chronic condition focused, were certainly on the horizon. In June 2008, opportunities were offered to hospital and community-based health professionals from across the health services to attend a forum on chronic disease self-management support which introduced the Flinders' Program (FHBHRU 2010) to the service, highlighted the importance of better chronic

Table 1 Timeline for changes to the respiratory nursing service

Date	Activity performed
January/June 2008	Broad evaluation of the State's Respiratory Services is underway based on increasing pressures on existing services and increased awareness of the growing burden of chronic disease
June 2008	Presentation by National Chronic Condition Self-management Expert to Central Northern Adelaide Health Service staff
August 2008	Respiratory staff attend a 2-day workshop on Chronic Condition Self-management Care Planning (The Flinders Program of Chronic Condition Management)
October/November 2008	Change Mentor and Trainer in the Flinders Program begins regular visits to/contacts with the Respiratory team as part of a broader designated and funded role in supporting a range of health services across Central Northern Adelaide Health Service to work through change processes aimed at embedding chronic condition self-management support approaches. This role continues until Sept 2009 With mentor support, the Respiratory team conducts its first ACIC assessment (Bonomi <i>et al.</i> 2002) of the existing service to measure its existing level of effective chronic condition self-management support
December 2008/ January 2009	The Respiratory team incorporates discussions about planning for change into its regular staff meetings. A draft Strategic Plan is developed
January 2009	Consultation and peer review occurs with multi-disciplinary staff and departments within the hospital that are linked to Respiratory Service patients and activity. They provide feedback on the Strategic Plan
January/July 2009	The Respiratory team undertakes mind mapping and Plan, Do, Study, Act cycles (Kubina <i>et al.</i> 2007) to address gaps and issues identified by the ACIC process
March 2009	The Partner In Health (PIH) scale [Flinders Human Behaviour and Health Research Unit (FHBHRU) 2010] is administered to Respiratory Service clients to provide baseline data on clients' self-management capacity and level of physical, emotional and social impact of COPD on their lives
August 2009	The PIH tool is repeated with Respiratory Service clients to measure any improvements in their self-management capacity and physical, emotional and social impacts of COPD on their lives
August 2009	The PACIC is given to Respiratory Service clients
September 2009	A second ACIC is completed by the Respiratory team, supported by the mentor to measure any changes to its level of effective chronic condition self-management support. From this point forward, mentor support is provided only as needed by phone
March 2010	The PIH tool is repeated with Respiratory Service clients to measure any improvements in their self-management capacity and physical, emotional and social impacts of COPD on their lives Self-Management issues are found to be no longer prominent in the client group, especially the impact of disease. Linkage into support groups is improved significantly. Less people are found to need follow-up. Previously, approximately 50% of those surveyed had more than 3 issues, now only about 5% have more than 3 issues

condition management and provided a direction to start the process of change.

Starting the process towards change

With the support of Australian Better Health Initiative (ABHI) funding (Australian Government Department of Health and Ageing 2008), the three Respiratory Service staff started by completing a review of their existing service using an Assessment of Chronic Illness Care (ACIC) tool (Bonomi *et al.* 2002). This internationally validated tool measures health services' current capacity to deliver effective chronic condition self-management support based on the six broad domains of Wagner's Chronic Care Model (Wagner *et al.* 1996, 2001) that is central to the World Health Organisations' recommendations for addressing the growing burden of chronic disease internationally (WHO 2005). These domains are: Organisation of HealthCare System, Community Linkages, Self-management, Decision Support, Delivery System Design and Clinical Information System. Within each domain, a series of likert-rated statements (3–5, basic support for chronic illness care; 6–8, reasonably good support; 9–11, fully developed chronic illness care) enable service staff to rank their progress towards providing optimum chronic condition management and self-management support to their client populations and to identify and target areas for improvement. Over time, as their understanding of good care increases and they continue to implement effective practice changes, the service should see overall improvements on their ACIC scores. Hence, the ACIC can be used to provide a baseline upon which a service can repeat the ACIC tool 6–12 months later to gauge their progress and to inform further improvement efforts.

Prior to the change, staff from the Respiratory Service believed that, to some degree, they were already chronic condition focused, but in reality they were looking after a chronic disease population in an *ad hoc* way with little structure to support what they were doing. From the outset, they recognised the importance of the different phases of change involving diagnosis of current strengths and gaps in service, planning, implementation, ongoing monitoring and review, but also the supporting tools for data collection, the readiness for change, the mapping of barriers and enablers and planning for short- and long-term impacts (Brand 2007). Peer review prior to planning for the change helped identify the strengths and gaps within the existing service from the perspective of hospital-based multi-disciplinary health professionals (such as Respiratory Specialist Physicians, Physiotherapists, Dietitians, Occupational Therapists and Social Workers) who worked closest with the Respiratory Service

team. This highlighted the need for a strong focus on evidence and teaching. Initially, the ACIC was completed separately by the Respiratory Service RNs and RCDN who felt at the time they were at very differing stages of practice change. The ACIC identified many gaps in chronic care. Staff focused on and measured two main areas initially: self-management (RN score 5.5/RCDN score 4.25) and delivery system design (RN score 5.5/RCDN score 5.5). This was because they recognised that they could not change everything at once so they methodically worked through the ACIC and looked at what they could change with least effort and what was needed to support future chronic disease care. With the goals of introducing better chronic care support, enhancing their community care and to improve access to the service, staff started work on a strategic plan to provide vision for the next 3 years (Glasgow *et al.* 2003).

Identified gaps and actions taken to change

Many of the changes occurred concurrently, as many of them supported one another or were needed to progress to the next stage. Within Wagner's Chronic Care Model (Wagner *et al.* 1996, 2001) the service identified gaps in the following areas and implemented changes accordingly:

Delivery system design

Previously, the Respiratory Service was predominately clinical focused and the RN job description was unclear and did not reflect the growing shifts in collaborative practice and community care. Therefore, it provided little guidance on the actual structure to the roles of the two nurses in those positions. Early on in the planning of change it became apparent that there were issues with the way service was structured, with both nurses doing the same role and no clear division of responsibilities. This may have been good for succession planning for leave arrangements. However, to introduce change and implement a strategic plan it was difficult to proceed with this *ad hoc* way of service provision. The team identified early that one staff member was a little passive towards the change process. They decided to divide the service and provide dedicated roles to each staff member, splitting of services into community and hospital-based roles which saw the nurse who was the main change agent on the community side, where the most significant changes were occurring. This helped to drive the changes, and ensured that the process was continuously evaluated (Kubina *et al.* 2007). Mind mapping was used as a tool to work out how the change would look and what series of steps were needed to achieve this change. This redesign of the community arm of the service also incorporated Plan, Do, Study, Act (PDSA)

cycles to test each stage of change and allow modifications as they went along (Johnson & Paton 2007, Kubina *et al.* 2007).

The Respiratory Service staff had no regular forum to discuss, plan or progress activities they were working on. Therefore, dedicated space within regular team meetings was set aside to address this and to continue to build the enthusiasm towards the proposed changes. All members of the service were involved in the discussion, even when the change did not directly affect them. Initially, frequent meetings was required to discuss the early stages and plan change and, as time progressed, the meetings occurred three monthly.

Decision support/clinical information systems

Previously, the Respiratory Service staff had an awareness of best practice guidelines for respiratory disease but had not really applied them to their practice with clients as service specific guidelines (Wagner *et al.* 2001). Only recently, the Australian Asthma and Respiratory Educators Association guidelines have been released to inform workforce practice [Australian Asthma and Respiratory Educators Association (AAREA) 2010]. As part of planning for change, a series of flow charts were developed, initially to assist with correct referral for services, but to then provide pathways for the Respiratory Service to follow. These flow charts formalised many of the processes and ensured best practice guidelines were implemented. Flow charts included a pathway for exacerbation management to assist in the hospital avoidance programme. Other pathways included review pathways for home oxygen users, Chronic Disease Nurse review pathway and a pulmonary rehabilitation pathway.

The RNs had an oxygen client database they had been using for many years. Predominately, the database stored demographic data and allowed the printing of a list of all clients currently on oxygen. The RCDN had no database, only keeping paper records and patient files. The GP Plus strategy provided no additional resources for electronic record keeping and had no information technology (IT) support. Together, the Respiratory Service staff mapped the process of what they wanted out of the database. The ability to enter review data and provide follow-up prompts was the first priorities for change (Glasgow *et al.* 2003). Previously, follow-up had been determined by a system of manually writing in when clients were seen on a spreadsheet and then generating a list. This activity was labour intensive and open to much error from those writing in the data from diary entries every 1–2 months then determining who required review and producing a list. The RCDN, having a different client base and mandated to include the specific dataset requirements of the GP Plus, needed a separate database

made. It had the ability to produce monthly statistics on contacts and incorporated review data and follow-up prompts.

The database initiative started with a plan using mind maps for each separate database, with many of the proposed changes tested using PDSA cycles. Several meetings were also held with the hospital's IT support person to discuss changes, how they were working and what modifications were needed. The changes have alleviated duplication of documentation and streamlined a more effective mechanism of follow-up that is less labour intensive and provides more time for clinical care. It has been enhanced by the use of tools to measure clients' self-management capacity (see section below) allowing patients to be prioritised for review more effectively, based on their needs, with a list being generated every 35 days. There have been some resource issues related to having adequate staffing to provide all the reviews when they are due; this continues to be a work in progress. There has been ongoing development of the database with plans for review data to now be placed in the case notes to allow improved communication. There are also future plans for exacerbation management and post acute review data to be captured in the database and to link this with the relevant pathways. The service is now working towards entering outcome measures (for example, hospital avoidance statistics, bed days saved) into the database to make review of this data easier; at present this is still being manually collated. In the future, one database for both part of the Respiratory Service will be achieved as more tools and resources become common to both. Ideally, one clinical information system for all is required but this is still a long way off with many different systems used between community providers, general practitioners and the hospital services.

Community resources

The RNs had an affiliation with the local community-based respiratory support group but really sought to strengthen these ties under their proposed changes. Recognising the valuable role the support group played in preventing social isolation and providing much needed support (Coppa & Boyle 2003), the Respiratory Service offered their clients a sponsorship opportunity to become a member of the Respiratory support group. The Respiratory Service sought to obtain 50 sponsored memberships for 2010, to strengthen support group numbers and also link those who were socially impacted by their disease with people who understood their struggles and could provide first hand experiences. The mapping of the process was fairly straight forward: talk to the group, make sure they had capacity for new members, write sponsorship letters, and approach drug company

representatives and equipment suppliers to fund the new members. How payments would be made became a little more challenging and their affiliated national body was approached to help with this by accepting payment, issuing tax receipts to the sponsors and then redirecting funds to the support group. Recruiting members was relatively simple using the Respiratory Service's existing client newsletter which provided a great arena to advertise this opportunity of having a free membership. To compliment this sponsorship, a second initiative of a planned morning tea was arranged. The morning tea acknowledged World COPD Day 2009 and the Respiratory Service's plan centred on a one-off event to motivate clients to look into ways of living better with their respiratory chronic condition. Held at the hospital, it provided a forum for new members to meet existing members of the support group. The affiliation has also seen the service able to help the support group by adding weight to their grant applications, by adding a letter of support to their submission stressing the important work they do in helping people be more active with their respiratory condition through planned outings. It is hoped the funding of transport will be obtained in future. These initiatives have been successful in achieving what the service set out to do. From an initial offer of 50 memberships, 47 clients were recruited. Further recruitment through 2010 has seen group numbers increase to 84 members.

Chronic disease support/self-management

The most significant area of proposed change was related to chronic disease management and self-management support. The service offered case management support but this was more reactionary to a crisis rather than offering preventative strategies to support better self-management of chronic conditions. To address this issue, Respiratory Service staff conducted a patient assessment of chronic illness care (PACIC) (Glasgow *et al.* 2005) with service clients to help inform the change process. This survey tool is similar to the ACIC and based around the same six domains found in the Chronic Care Model (Wagner *et al.* 2001). However, its role is to review the 'now' of how chronic care focused service clients see their healthcare service and service providers to be. Repeating the PACIC enables services to assess in the future if changes to their service were reflected in the clients' survey feedback. A review of the PACIC is planned as an annual event for the Respiratory Service.

To build self-management support skills, all Respiratory Service staff underwent training in the Flinders Program of Chronic Condition Management (incorporating self-management) (FHBHRU 2010). This holistic evidence-based self-management care planning approach was used with clients of the service to build a self-management support focus into its

direct interactions with clients. Its purpose is to assess clients' self-management knowledge, skills, actions, impacts of their chronic conditions and barriers to self-management from which the client and health professional are able to identify collaboratively problems and goals for change within an agreed client-centred care plan. Both the RCDN and the change agent RN completed the care plan competency associated with this training. These two proactive staff also completed training in communication and motivational interviewing, which are central to this approach (Lawn *et al.* 2009). The RCDN also commenced a cognitive behavioural therapy course. For the two staff actively practising these techniques, the training has been very useful in embedding the fundamentals needed to provide better chronic disease management support and motivate and empower clients towards behaviour change (Kubina *et al.* 2007, Dennis *et al.* 2008). The skills learned are also in line with the national capabilities identified as necessary to support effective chronic condition self-management (Lawn & Battersby 2009).

Prior to the change, client reviews made by the service generally involved workers telling the client what they should be doing or trying to fix issues the client had. As part of change, the challenge was not to solve everything for the client but to empower them to problem solve and be more active in their healthcare (Margereson 2001, Coleman & Newton 2005). Some clients felt that they were giving all the control over to their health professionals. Communicating with clients is a strong feature of the Respiratory Service and often clients were quick to bring to the table their immediate concerns so the service set to build upon these. The training in the Flinders Program helped to provide direction for a more client-centred approach through the provision of a structured interactive interview approach that involved the full involvement of and collaboration with the client in decisions about care. Training in motivational and communication techniques provided staff with the additional skills to support this shift in expectation by clients.

There was no previous method used by the service to assess a clients' self-management ability or to measure change. As part of the change process, we decided to use the Partners in Health (PIH) scale, a validated client self-rated tool (measuring clients current knowledge, understanding, actions taken to manage health and impacts of chronic disease) which is the first step in the Flinders Program, to assess self-management ability at regular 6-monthly intervals (Battersby *et al.* 2003, FHBHRU 2010). Using this tool has enabled us to work out which clients need additional support with chronic disease management and which specific areas to focus that support according to clients' needs. A reduction in

physical, social and emotional impacts of chronic disease is a good outcome for our respiratory clients. Within the PIH scale, these domains all showed improvement at each 6-month interval for the overall client group. In the initial use of the PIH in March 2009, 67% of respiratory clients reported these impacts to be a significant problem for them; in August 2009 this was 60% of clients; and in March 2010 this had reduced to 44% of clients. As the Respiratory Service has strengthened its relationship with the local community respiratory support group and provided the sponsored memberships to the support group, there have been further improvements in clients' reported physical, social and emotional well-being.

Prior to the change, the issue of how to provide services to so many clients that were assessed as needing support had become a problem for the Respiratory Service. The service did not have its full staffing to continue the usual work. Since implementing changes, the addition of extra work involved with more intensive client support has only partially been implemented. Much of the additional support has been through phone coaching after an initial review.

The Respiratory Service had previously used many different information sheets for clients, but had no dedicated primary resource. Reviewing client information and developing a resource folder for respiratory clients that included self-management information therefore became another priority for the service. The service staff developed relevant information and sought client feedback to see if it was what they wanted, was easy to read, understand and provided enough information to support disease management. Feedback on trials of the resource folder has been positive.

COPD exacerbation management

With chronic respiratory disease, an important part of self-management is knowing what to do during an exacerbation (GOLD 2007, McKenzie *et al.* 2007). It became increasingly clear to Respiratory Service staff that many clients were not aware of what to do, when to use their emergency pack or even have an emergency pack and action plan at home. Some clients had used their emergency pack straight after their hospital discharge medications ran out, not realising the purpose of the pack. The process of improving exacerbation self-management support involved mapping the plan using mind maps. There were several concurrent stages to this project and the stages were tested using PDSA cycles. Many hospital-based health professional staff linked with the Respiratory Service did not know who should have an emergency pack. Staff from various disciplines were educated on best practice for treatment of respiratory conditions. This involved educating staff

on what clients need to be told about their emergency pack and when to use it based on their symptoms. Staff interest was gauged about the proposed plan to improve client knowledge. Concurrently an information sheet was developed and sent to a consumer group for feedback on whether it could be easily understood and followed. It also included information on the importance of learning to self-manage and where to find out more information about their condition. A preaudit of clients was performed to confirm what clients already knew. The hospital pharmacy was approached to be the point of dispensing the new information sheets to accompany the packs. The pack was dispensed in a clear bag with a red sticker stating it was an emergency pack, therefore providing greater recognition of the emergency pack as being different to other medications dispensed. A postaudit is planned. A pre and post case note audit identified that the rotation of doctors means that education needs to be ongoing to capture the change in staff. This activity continues to be an ongoing process.

Barriers to change

Culture of the service

A passive resistance towards change saw one senior staff member not actively embracing the change but not stopping changes from occurring (Johnson & Paton 2007). Meetings of the regional working party charged with progressing broader changes, helped to address their ambivalence by keeping this and other initiatives on the agenda. In this way, the change agent enlisted 'outside' support so that this staff member was able to perceive the changes as an inevitable part of overall service improvement.

The leadership style

A *laissez faire* management style of leadership existed within the service where each part of the service had been largely free to make decisions and determine their own directions. This resulted in a lack of clear vision of where the Respiratory Service needed to go (Kubina *et al.* 2007, Lawn 2010) and was identified as a potential problem by the change agent early in the change process but also as an advantage because testing of new ways of thinking about the service could be raised with little resistance from the manager in the service. In January 2009, the Respiratory Service commenced work, within the regular team meetings, on a strategic plan for the service to provide clearer direction. During this time, other health professionals across a number of inpatient departments provided consultation to the Respiratory team's strategic plan, given their expected linkages within the inpatient

environment addressing specific issues related to patient care during admission and as part of discharge planning. Between January and July 2009, several broad changes were being attempted concurrently across the health services, with implications for changes in different areas of the service affecting each other so a process of close consultation was important for all concerned. This multidisciplinary peer review and input was sought to identify any additional directions they wanted the Respiratory Service to take.

Community networks

The lack of community providers practising chronic disease support really provided a barrier for full integration of chronic care into the community as planned. Numbers of clients for the RCDN have become large with a component needing ongoing support beyond what the original programme envisaged. There are no supportive community networks to continue the ongoing chronic care support and this has slowed throughput and the recruitment of new clients to the service.

The future

Repeating the ACIC in September 2009, after 9 months of changes, saw a much more cohesive service with staff now able to join together as a team to complete the assessment. They had grown into a service working together on a lot more projects and the meetings had certainly helped keep the momentum to drive change. A lot more knowledge and skills in chronic care were evident, as was a greater awareness of the organisation and supporting services. On the initial ACIC, the service chose to not complete the organisation, community linkages, decision support and clinical information systems sections because they saw themselves as not having enough knowledge about these areas to make an accurate assessment. The second time around the entire assessment was completed and showed great gains in the many domains. The ACIC then lead to further proposed changes for the future, adding to and complimenting what had already been established. As previously mentioned the database is being continually reviewed to add to its present capabilities. Respiratory Service staff have also been working on establishing better community linkages internally among chronic care provider specialty nurses based in the hospital through a chronic disease committee to implement the state's Chronic Disease Action Plan into the broader acute health services. The establishment of an external community primary care service link to chronic care still remains elusive. However, different strategies of networking continue to be worked upon by the change agent. The service has been engaged in a lot more self-promotion of services to allow for

networking among other external providers. The exacerbation and self-management information sheets have been endorsed by the organisation for wider use and the Respiratory Service has been proactively working with nurses from other hospitals in the state that are using or looking to use a similar approach.

Relevance to clinical practice

This change process was undertaken by respiratory nurses in the field using the Chronic Care Model and associated tools to guide implementation and sustainability of the change. Guided by identification of enablers and gaps of most relevance to these health professionals and those they serve, effective service improvement was achieved. The description of how these health professionals achieved change holds lessons potentially for others attempting to improve support for chronic condition self-management across other areas of health.

Conclusion

The change processes described as part of the evolution of this Respiratory Service, highlight that an acutely focused system attempting to address the needs of a chronic disease population with needs for longer term, proactive care are at odds with each other. Hospitals are generally seen as acute service providers; however, more and more chronic patients are receiving care in them. Many of the systems within the hospital are geared towards fixing the problem and sending the patient on their way (SA Health 2009). Chronic diseases have no quick fix and need solutions that build self-management, early intervention and prevention of complications (FHBHRU 2010). Individual services, such as the Respiratory Services discussed here, may be starting to provide comprehensive and systematic chronic illness care but the greater hospital system in which our service sits has not shifted its acute care focus.

Contributions

Study design: KL; data collection: KL; data analysis: KL, SL and manuscript preparation: SL, KL.

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