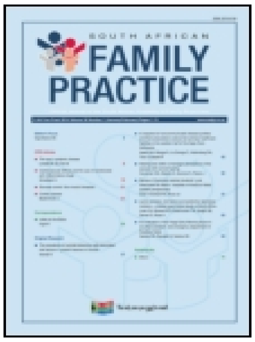

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Improving the annual review of diabetic patients in primary care: an appreciative inquiry in the Cape Town District Health Services

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Improving the annual review of diabetic patients in primary care: an appreciative inquiry in the Cape Town District Health Services

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Abstract

Background: Diabetes is a common chronic disease in the Cape Town District Health Services and yet an audit of diabetic care demonstrated serious deficiencies in the quality of care. The Metro District Health Services (MDHS) decided to focus on improving the annual review of the diabetic patient. The MDHS provides primary care to the uninsured population of Cape Town through a network of 45 Community Health Centres (CHC).

Methods: An appreciative inquiry was established amongst the staff responsible for diabetic care at the 15 CHCs that had newly appointed facility managers. The inquiry completed three cycles of action-reflection over a period of one year and included training in clinical skills as requested by the participants. At the end of the inquiry a consensus was reached on the learning of the group.

Results: This consensus was expressed in the form of 11 key themes. CHCs that reported success with improving the annual review formed chronic care teams that met regularly to discuss their goals, roles and to plan improvements. These teams developed more structured and systematic approaches to care, which included the creation of special clubs, attention to the steps in patient flow and methods of summarising and accessing key information. These teams also appointed specific champions who would not rotate to other duties and who would provide continuity of leadership and organisation. These teams also supported continuity of relationships, clinical management and organisation of care. Teams involved the community and local non-profit organisations, particularly in the establishment of support groups that could disseminate medications and build health literacy and self-efficacy. Some teams emphasised the need to also care for the carers and to not just focus on workload and output indicators. More successful CHCs also grappled with balancing of the workload, quality of care and waiting times in a way that improved all three in an upward spiral. Patient satisfaction, staff satisfaction and clinical outcomes were seen as interlinked. There was a need to plan methods for empowering patients and build self-efficacy through a variety of facility- and community-based as well as individual- and group-orientated initiatives. Training in clinical skills was requested for foot and eye screening. Feedback was given to the MDHS on the need to improve referral pathways and access to preventative services such as dieticians, podiatrists and vascular surgery. Finally, the inquiry process itself together with the annual audit supported organisational learning and change at the facility level.

Conclusion: Improving the annual review has more to do with the organisation of care than gaps in knowledge or skills that can be addressed through training. While such gaps do exist, as shown by the training around foot screening, the main focus was on issues of leadership, teamwork, systematic organisation, continuity, staff satisfaction, motivation and the balancing of quality care provided, quantity of care demanded and queuing required. The appreciative inquiry (AI) process supported decentralised organisational learning and, while key themes were shared, the specific solutions were localised.

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Introduction

South Africa has self-reported prevalence rates for diabetes of 2.4% in men and 3.7% in women.[1] Studies in the Cape Town area suggest rates in the coloured population as high as 10.8%.[1] It is estimated that 25,800 diabetic patients are known to the Metro District Health Services (MDHS). In 2005 an audit of diabetic care demonstrated serious deficiencies in the quality of care.[2] After considering the results the MDHS decided to focus on improving the process of care, specifically in relationship to the annual review. Current guidelines[3,4] recommend that a person with diabetes be reviewed in detail at least once a year and list a number of tests that should be completed (see Table I). Patients should also be asked about any specific complaints, concerns or complications and the following issues should be assessed and discussed:

- levels of glycaemic control and results of key tests,
- lifestyle issues such as diet, weight loss, smoking, exercise and alcohol,
- medication use and side effects,
- targets for the year ahead and a related management plan, and
- the need for any referrals.

Table I: Key tests and examinations for annual review

Test/Exam	Frequency
Glycated haemoglobin	Quarterly if treatment changes or not meeting goals. At least twice a year if stable
Visual acuity and dilated eye exam	Yearly
Comprehensive foot exam	At least yearly (more often in at-risk feet)
Lipid profile (or at least total cholesterol)	Yearly (less frequent if normal)
Serum creatinine level	Yearly
Proteinuria (macroalbuminuria)	Each regular diabetes visit
Microalbumin measurement	Yearly if no proteinuria
Blood pressure	Each regular diabetes visit
BMI and waist circumference	Both yearly and weigh at each regular diabetes visit
ECG	Yearly if possible

The MDHS noted that many previous attempts to train health workers in the necessary skills had made little impact. The MDHS also realised that feedback from higher management on performance was often negative and critical in a way that did not motivate change. It was felt that one of the reasons training was ineffective was that it was usually once-off, imposed on the health workers and unrelated to the contextual and organisational difficulties that they faced in implementation. A new approach was therefore suggested that involved engaging chronic care teams in a process of organisational learning and inquiry over a significant period of time with training provided when requested by the health workers and in relation to specific goals. In addition it was decided to embrace an appreciative rather than critical perspective that would value and nurture the health workers' experience and abilities.

The MDHS offers public sector health services to the uninsured population of Cape Town. Patients are mostly from lower socioeconomic groups. They are African or Coloured and speak either Afrikaans or Xhosa as a first language. Services are offered via a network of 45 Community Health Centres (CHCs), nine of which are open 24 hours and provide acute trauma and emergency services. Ambulatory patients are seen by both clinical nurse practitioners and doctors. At many of the larger CHCs chronic care for diabetes, hypertension, epilepsy and asthma is offered on specific days in clubs that are organised by professional or staff nurses.

Methods

The 15 CHCs at which facility managers had been appointed were invited to participate in an appreciative inquiry (AI).[5] The purpose of the inquiry was to explore how the annual review of the diabetic patient could be improved. An AI was used as a form of action research[6] that consciously adopted an appreciative rather than a critical stance.

Doctors, nurses, facility managers, and health promoters, who were involved in chronic care at each CHC, were invited to participate in the AI. The inquiry was facilitated by a family physician, an endocrinologist and two senior managers from the MDHS. Participants were divided according to the MDHS substructures into the same four groups at each meeting, each with their own facilitator. The group met four times over a period of one year and completed three cycles of planning, action, observation and reflection. At the first meeting each subgroup developed 10 visionary statements for diabetic care, using the AI, to guide their future plans and actions. At each subsequent meeting staff reported back on progress made with the actions that had been planned at the previous meeting and reflected on what they had learnt. Following this they would realign themselves with their vision and plan further actions for the next few months. At the group meetings the facilitators made detailed notes during all discussions, feedback sessions to the whole group were recorded on audiotape and a written summary of all reflections and plans were circulated amongst members of the group soon after each meeting. The endocrinologist and family physician also provided specific training as requested by the group. The managers from the MDHS took requests for resources and feedback from the group to higher management and also visited the CHCs between the AI meetings. At the last meeting participants were all asked to complete a questionnaire on their teamwork and on how they had implemented foot screening. In addition the key findings that emerged from the AI were presented to the group for validation and discussion.

Ethical approval was given by Stellenbosch University.

Findings

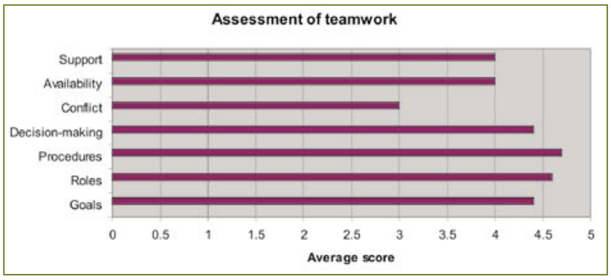
The findings of the inquiry are presented below as a number of themes that emerged from the groups' reflections and learning. Each of these themes was found in the experience of the health workers to be an important aspect of improving the diabetic annual review.

Build chronic care teams

At many CHCs the staff involved in chronic care (receptionists, nurses, clinical nurse practitioners, health promoters, doctors, pharmacists) never met as a group and people worked in isolation with a focus on just getting through the number of patients. A number of chronic care teams started to meet regularly to discuss the vision and goals created during the AI process. These meetings also enabled staff to clarify their complementary roles and build relationships. The AI group asked for a clearer policy on who should be part of the team for chronic care at each CHC. For example, not every health centre had a health promoter and a clear policy would enable them to motivate for posts. In addition access to dieticians was variable and access to podiatrists mostly non-existent.

Results of a questionnaire (19 staff from 10 CHCs) on teamwork at the end of the AI suggested that teams were functioning well. The strongest areas were in knowing goals, and understanding roles and procedures. The weakest areas were conflict management, availability of team members and mutual support. A number of people felt unable to make an assessment as they had only just joined the team.

Figure 1: Assessment of teamwork



Note: All questions have a maximum score of 5, except conflict, which is scored out of 4.

Have a structured and systematic approach

CHCs without clubs tried to introduce them as a more systematic and structured approach, which was possible when patients were seen together. The steps that the patient followed through the CHC were identified and the tasks expected of the role-players at each step were defined. In some CHCs there were too many steps, which created long waiting times and inefficient care. Other strategies were aimed at summarising and improving access to key information in the medical record. This enabled the health worker to see what had and had not been done, as well as identify trends in terms of control. These strategies included the use of coloured paper for diabetic information, the use of a stamp with the components of the annual review to be completed at each visit, or the development of a single sheet of paper with a summary of key information for the whole year. Another strategy was the development of decision support tools that translated the guidelines into practical and easy to use desktop reminders and prompts. Finally, CHCs found it useful to try and collate information on community-based resources and referral pathways so that there was continuity of this information amongst rotating staff members.

Provide leadership for the chronic disease management team

Success was continually linked to the presence of a champion to lead the team. Staff identified that improvements in quality of care were only sustained when there was a person responsible for chronic disease management (CDM) over a longer term period. At almost all CHCs staff continuously rotated into and out of the club and there was no one to take responsibility for the organisation of care and implementation of policy over the long term. As a result innovations and initiatives lasted only as long as the group of staff remained in the club. Almost none of the CHCs had a post linked to CDM or even a member of staff with this responsibility as part of his or her job description. As a result of this insight it was proposed that the need for a leader of CDM at each facility be included in the emerging CDM policy. One of the key responsibilities of this leader was to engage with the facility manager and ensure that equipment was ordered, repaired and calibrated; that CDM had a voice and was reflected in the budget; and that staffing needs were identified and posts filled.

Build continuity of care, information and teams

Success was also reported in those CHCs that supported continuity. Continuity meant that functional knowledge and relationships were sustained over time in a way that enhanced organisational systems, teamwork, therapeutic relationships and clinical decision-making. As discussed above, the presence of a leader over the longer term supported continuity of organisational and administrative systems. In addition CHCs that had CDM teams with some stability in their membership and less frequent rotation functioned better as a team and developed more trusting relationships with patients. Continuity of patient information was also enhanced by better structure in the medical record as described above. Appointment systems that brought patients back on a specific day and sometimes in batches over the course of the day improved continuity with patients and their individual management plans.

Involve the community

Success was also reported in those CHCs that partnered with community-based resources. A few of the CHCs engaged with local non-profit organisations to set up support groups for diabetic patients in the community. The health promoter at the facility was seen as a key link in setting up and facilitating these support groups. Support groups were able to disseminate prepackaged prescriptions on a monthly basis, between check-ups, and therefore reduce the workload at the health centre. They were also able to improve patients' understanding of their disease and build self-efficacy. The need for patients to be more involved in the planning and revision of services for CDM at the facility was also highlighted, but remained a largely theoretical concept.

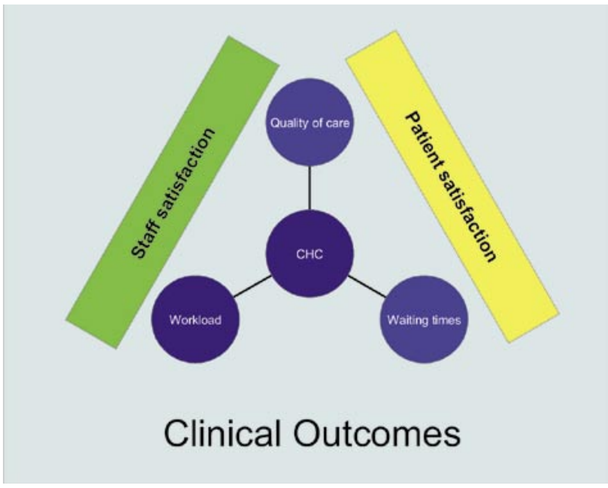
Care for the carers

Some CHCs had the need to care for the carers as the first item in their vision statements. The public service strike, which occurred in the middle of the AI process, also had a major negative effect on staff morale, especially in districts where a number of striking staff were temporarily fired. Creating and building CDM teams was one strategy that led to the staff involved feeling more satisfied, supported and motivated. More social interactions within the team were also proposed. The need for facility level and higher managers to value staff satisfaction and motivation and not just workload or output indicators was highlighted.

Balance quantity, quality and queues

CHCs consciously struggled and experimented with the balancing of the workload, quality of care and waiting times (see Figure 2).

Figure 2: Balancing quantity, quality and queuing



For example, a very high workload led to longer waiting times with decreased patient satisfaction and decreased quality of care due to short hurried consultations with irritated patients. As a result patients remained poorly controlled and according to the guidelines had to be seen more often. Patients were brought back every month and therefore the high workload was maintained. Thus a vicious cycle of dissatisfaction was created amongst both staff and patients experiencing low quality of care. At one health centre the AI led to reflection on this issue and extra staff worked later in the day to see each patient properly for a number of weeks in order to break the vicious cycle. As a result they reduced the workload in the club, as patients were better controlled and were seen at longer intervals. This enabled better quality of care and shorter waiting times.

Achieving an appropriate balance of these three factors appeared to have a relationship with staff satisfaction, patient satisfaction and clinical outcomes. For example, when staff were forced by the high workload to continuously operate in survival mode and to knowingly offer poor quality care, they became dissatisfied and demotivated. Likewise patients who took the whole day to get through the system and who were then seen in a rush by a stressed health worker became dissatisfied and lost trust in the health centre. It was clear that clinical outcomes in a system that operates on this basis will be less than ideal. Almost all of the other themes described here impact in some way on the balance between these three factors. For example, the building of teams with the correct number and mix of well-trained staff will directly influence all three factors.

Empower patients and build self-efficacy

This topic was often expressed as getting the patients to take ownership and responsibility. CHCs reported that it was best to use multiple opportunities, methods and people to educate and interact with patients. Waiting times could be used more constructively for this purpose. The team tried to ensure that the messages and information were both clear and consistent between different members. Given the high workload, group methods of health education needed to be developed. Some CHCs also introduced structured programmes so that different topics were addressed at consecutive visits. Support groups were again seen as an ally in this goal and it was also believed that patients could be coached to expect and request key aspects of the annual review. It was noted that sharing information helped to build more trusting relationships.

Develop clinical skills

Staff requested specific training in the areas of foot and eye screening.

Foot screening

Staff did not have a concise approach to assessing if a diabetic foot was at risk. The Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) guideline for risk assessment of the diabetic foot[7] was introduced. This approach was implemented at nine of the CHCs and screening was performed by the doctor, clinical nurse practitioner (CNP) or professional nurse. Nylon monofilaments had to be specifically imported for the project and were not available on local tender. Screening was usually performed during routine visits in the consultation, but could also be incorporated into the tests performed in the club room. Despite training, only the doctors demonstrated the ability to correctly distinguish intermittent claudication and rest pain from other types of pain. For those identified as having an at-risk foot, education was provided by the doctor, CNP or health promoter. The guidelines recommended involvement of a podiatrist for at-risk feet, but only three of the CHCs had access to podiatrists, who were all in the private sector. For those at higher risk the CHCs tried to refer patients to vascular surgery at a tertiary level, but again accessibility was limited to those requiring emergency surgery. CHCs did not refer patients to services at the secondary level or to diabetic clinics at the tertiary level.

Eye screening

At the same times as the AI process another diabetic project was initiated to introduce retinal screening at CHCs using a mobile fundal camera.[8] During the AI process staff were trained how to measure visual acuity and identify cataracts using the red reflex. In the workshops staff planned how they would organise the preparation of patients for photographic retinal screening and how they would manage the reports. A checklist of key issues was developed to assess if a health centre was ready to implement the photographic retinal screening.

Improve referral pathways

As the CHCs improved their quality of care, they exposed deficiencies in the referral pathways. The need to refer patients to services that could assist with preventing complications (such as dieticians, podiatrists and vascular surgery) or treat identified complications (such as cataracts or retinopathy) increased. It was seen that improvements in primary care may qualitatively change the nature and reasons for referral rather than reducing the overall referral rate. Access to all of the services listed above was very limited.

Foster learning organisations

The AI process itself supported reflection, learning from experience and organisational change at the facility level. The AI process enabled feedback on the results of the 2007 audit, which were reflected on by the CDM teams. The decision to create disease registers at some CHCs was also important in supporting organisational learning and this will enable more effective auditing in future cycles, as well as more effective planning of staffing levels and services. Regular team meetings at the CHCs also enabled ongoing reflection on the teams' vision, goals and plans.

Discussion

It is clear from the AI response to the question of how to improve the annual review of the diabetic patient that the answer is not straightforward and has more to do with the organisation of care than gaps in knowledge or skills that can be addressed through training. While such gaps do exist, as shown by the training around foot screening, the main focus was on issues of consistent leadership, effective teamwork, systematic organisation, continuity, staff satisfaction, motivation and the balancing of quality care provided, quantity of care demanded and queuing required. The AI process supported decentralised organisational learning and, while key themes were shared, the specific solutions were localised. The findings resonate with the "Seven habits of highly effective carers" in chronic disease management, described by Couper for the South African context.[9]

The development of community partners is seen as an important aspect of chronic care.[10] Some CHCs developed community partnerships, such as support groups run by non-profit organisations, and this needs to be further supported by policy, funded, expanded and evaluated. The support groups were seen as one way in which the CHC workload could be reduced and the quality of care increased at six-monthly visits. The support groups were also seen as a way of supporting adherence and self-management.

The importance of enabling patient self-management in chronic care has been highlighted by the World Health Organization (WHO)[10] and staff in the AI clearly saw the need to get patients to take more responsibility and ownership of their condition. The focus, however, was on the content of the interaction and not the nature of the interaction itself. Discussion dealt with the type of information needed, the various opportunities to give it to groups or individuals and the way in which it should be organised. There seemed to be an assumption that giving information alone would lead to change, and that patients were irresponsible about their illness and needed to be convinced by experts on what to do. The need to also look at the communication style and its effect on motivation to change was not in the foreground. Group approaches were seen as more efficient and practical and the challenge therefore is to develop a style of group communication that exchanges information while also empowering patients. The MDHS has developed a group education programme for the newly diagnosed patient that focuses on generic issues of self-esteem, self-efficacy and self-management. Motivational interviewing and a guiding rather than directing style may be helpful.[11] Improving basic health literacy is an important step,[12] but may be insufficient to elicit more complex lifestyle changes.[11]

The lessons learnt from this AI group have also contributed to the development of a new provincial policy on chronic disease management. This policy recognises the need for a broad model of chronic care that embraces the organisational issues, community partnership and patient empowerment highlighted in the AI group and which is not disease-specific. A supportive policy framework is seen as the foundation for complementary community-based and facility-based initiatives with the goal of informed and motivated patients.

The AI process was limited by the lack of continuity in attendance from specific staff at some of the CHCs, as it was important for the same people to journey through the process of vision-building, reflecting and planning and also to share this actively with the whole team at the CHC.

In conclusion the following recommendations are suggested to improve the annual review of the diabetic patient:

1. Create facility-based chronic care teams with long-term and specific leadership,
2. Agree on goals, roles and a structured and systematic approach to care within the team,
3. Foster management and informational continuity,
4. Build community partnerships to support adherence and patient empowerment,
5. Be concerned about staff motivation and satisfaction,
6. Balance the quality of care provided, the quantity of care demanded and the time spent queuing,
7. Improve basic health literacy through both individual-, group-, facility- and community-based methods,
8. Train staff in specific clinical skills that are required to meet the team's goals,
9. Anticipate the impact of different referral patterns once quality of care improves, and
10. Foster a culture of organisational learning, experimentation and quality improvement.

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