THE ROLE OF THE HEALTH EDUCATOR IN FACILITATING PROCESS IMPROVEMENT IN HEALTH-CARE SETTINGS

A THESIS

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ROSEMARY DONKIN

SAINT FRANCIS XAVIER UNIVERSITY

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ABSTRACT

This study describes the planning, design, implementation, and evaluation of an adult educational program that had as its purpose the continuous process improvement of health care. It answers three fundamental questions which may be of interest to health educators: (a) What changes can be demonstrated in health care as a result of educating staff on process improvement? (b) How can health educators facilitate the implementation of process improvement in their workplaces? and (c) What factors affect the successful practice of process improvement in various health-care settings? The study was conducted over a 6-month period and involved 44 members of quality teams in four rural health-care facilities. Each of these health facilities has varying service deliveries, varying numbers of beds available for clients, and varying numbers of employees working at these facilities. The literature on needs assessment, program planning and implementation, adult learning perspectives, barriers to participation, and strategies for evaluating transfer of learning to the workplace is reviewed and discussed in this study. The steps taken to facilitate a continuous process improvement program are explained and the factors which influenced the successful practice of this continuous quality improvement strategy in the workplace are identified. Recommendations are offered to other adult educators interested in facilitating continuous process improvement programs in health-care settings.

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CHAPTER 1

INTRODUCTION

During the past decade, Canadians have been bombarded with media coverage concerning the state of the present health-care system and the negative effects of health reform. The stories being reported in newspapers and on television across the country paint a picture of an ailing social institution suffering the pains of bed closures, reduced emergency room service, increased waiting lists for medical procedures, and a drain of health professionals who are flocking to other countries for permanent employment. Those health professionals who have survived the staffing cutbacks and overall deterioration of the Canadian public health service now face the reality of working in a very different environment than they had experienced for the past 20 years. Over- utilized emergency services, shortage of health professionals, public unrest, and the constant push to do more with less have left many people employed in health care questioning their future.

As a registered nurse and health educator, I have watched as the financial pressures that the Canadian federal government has placed on the Province of Nova Scotia has forced it to enter into health reform and restructuring. The reduction in transfer payments from the federal government, coupled with the demand to balance the provincial budget, has forced Nova Scotia's health care administrators and concerned citizens to take a good hard look at what has been happening behind the doors of doctor offices, in hospitals, and in community health services, in order to assess the level of

wellness of our provincial health-care system. What I saw was happening, I did not like. I discovered through the media that the same deterioration was occuring in Nova Scotia's health services was happening in the rest of Canada. After realizing that these changes in the Nova Scotia health system would continue to challenge health professionals, I began to question whether or not there was a way to maintain or possibly improve the quality of the services being offered in the facilities where I am employed. As I examined the latest approaches in quality management, I gained an appreciation and working knowledge of the methodologies of continuous quality improvement (CQI); one component, continuous process improvement interested me, and I began to learn about the implementation of this component in health-care settings. Consequently, I examined the theory and practice of adult education and specifically focused on two areas: program development and transfer of learning to the workplace. I concluded that ideas from these areas could empower me to facilitate process improvement methods in health care. In this study I describe how I developed a structured approach that other health educators may use if they want to facilitate the implementation of process improvement methods and to assist health-care providers in the transfer of learning from the classroom to the health-care setting.

Background Information

In 1994 the provincial government released a report developed by The Minister's Action Committee on Health System Reform titled Nova Scotia's Blueprint for Health System Reform, which outlines a strategy to reform the province's health system from one which has been traditionally an acute-and-illness-focused service to one which will

emphasise health promotion, illness prevention, and centers focused on wellness services. Initially this plan seemed to inject hope into a suffering system plagued with the pains of stagnation. However, this plan did not identify the processes required to integrate this new approach to health care into the province's present system, nor did it identify strategies to educate the health-care administrators and managers who were charged with the task of implementing these changes. Consequently, this plan has become another report just sitting on a shelf of the provincial legislative library.

Nevertheless, the reality of the health workplace did not permit health providers to turn a blind eye to the need for change in the way the service was being delivered to clients. By 1997, health facilities were falling under the scrutiny of government auditors demanding an end to overspending, of external reviewers inspecting the functions and outcomes of client care, and of a well-educated public questioning the services being offered on their behalf. The questions frequently asked of health administrators were: What services are we getting? How much do they cost? What are the results? Are you doing the right things, and are you doing those things right?

This sweep of health reform resulted in the division of Nova Scotia into four health regions each having its own board of directors. Health-care managers quickly learned that maintaining the status quo was no longer acceptable. A different era had evolved and strategies for improving the way care was being delivered to clients and families became the focus of attention of health services across Nova Scotia. The Northern Regional Health Board recognized the need to ensure that quality health services were being offered to the citizens of their catchment area of Cumberland,

Colchester, and Pictou Counties. They also believed these services must be measured and monitored on a regular basis. A quality management advisory group, of which I am a member, was established within the Northern Region; its purpose is to monitor the effectiveness and efficiencies of health services of the Northern Region.

New trends in quality management were emerging concurrently with health reform. These trends had been utilized by the private business sector for several years, in part because these profit-making organizations focus on improved customer satisfaction in pursuit of increased profit margins. Health care was slow to respond to these new strategies, in part because there is less pressure for client satisfaction or financial accountability in a publicly funded monopoly. However, the health-care system is focusing its attention now on providing clients with a cost effective, high quality service with positive client outcomes. Emphasis is placed on reviewing what and where services are being offered, the personnel providing the services, the processes involved in the service delivery, and the outcomes of these services. In order to improve services to clients, health providers within the Northern Region had to reorient themselves to this new approach to quality management. This required that they investigate possibilities for strategies and formulate plans for improvement.

I have been employed in the Nova Scotia health system as a registered nurse for the past 23 years; for the last 10 years I have coordinated educational services for multiple hospitals and health services. During those years I have gained considerable interest and experience related to quality issues in health care; the members of the Regional Quality Management Advisory Group and the members of the on-site quality teams share this

common interest. The regional group oversees the quality management program for the Northern Region, while the on-site quality teams concentrate on the quality management program for their specific facility or service. The advisory group and the site teams link with each other through common representatives. While assessing the present status of quality management programs within the Northern Region, the Regional Quality Management Advisory Group quickly identified that the nine facilities and two services under their jurisdiction were at various stages of quality management development.

Within the Northern Region progress has been made toward the implementation of a consistent approach to quality management within all sites and services. A natural progression of a quality management program is the integration of continuous process improvement, but unfortunately, not all sites were ready to implement this approach, nor did health providers understand how process improvement could help to improve services to their clients. Because many of these sites had already experienced considerable change within the past several months, there was concern that the members of the on-site quality management teams would be reluctant to or even fear more change. Health-care facilities and services within the Northern Region were being asked by the Board to report on the quality of services being offered to their clients and improve those services if needed. The Regional Quality Management Advisory Group recognized the importance of having the on-site quality management team members understand the concepts of continuous process improvement.

The Problem for This Study

I selected four sites at which to integrate continuous process improvement as a CQI methodology into the existing site-based quality management program. Actually, the sites' local quality team members are the ones accountable for improving service to their clients, but they did not have the educational theory or the practical skills to implement process improvement. Because there were very few resources available to assist the team members with the implementation of process improvement in their health-care settings, and because this quality strategy could improve services to clients, these team members needed to learn the skills.

Following an investigation of the literature, I noted sufficient evidence to show how CQI strategies such as process improvement can assist health-care organizations to improve outcomes, but acquired less information about the actual facilitation approaches needed to implement these strategies in various health-care settings. There was little evidence about the transfer of learning relating to process improvement theory and practice in the health-care workplace setting. In this regard, Rosenstein (1998) notes that for survival in a competitive, managed-care market, health providers must identify, develop, and implement process improvement activities. Similarly, Brooks and Verhey (1994) suggest that training programs for project teams must be developed to educate staff about problem solving and improving patient-care services.

It became clear to me that there is no generally acceptable formal structure for health educators to use when facilitating a continuous process improvement approach for health care. Therefore, I decided to examine various models of program design and to

apply my findings to the planning and implementation of this particular study. I was particularly interested in learning approaches that I thought might provide the on-site quality team members with experience in putting the theory of process improvement into practice. Another dimension of my research is focused on methods of evaluating the transfer of learning from the classroom to the workplace.

The Purpose

The main purpose of this study is to examine how and if process improvement can be taught to health providers. I sought to answer the following questions in this study: (a) What changes can be demonstrated in health care as a result of educating staff on process improvement? (b) How can health educators facilitate the implementation of process improvement in their workplaces? and (c) What factors affect the successful practice of process improvement in various health-care settings? In order to address these questions I conducted an extensive needs assessment; developed a structured workshop that included both a theory and practical application component on continuous process improvement, using examples from health care; implemented the workshop; and conducted a post-evaluation process to determine if there had been a transfer of learning from the classroom to the health-care workplace.

My intent was to develop a structured approach that could assist other health educators in facilitating the strategy of continuous process improvement into various health-care settings. In order to collect data for the study, I circulated an evaluation questionnaire to the program participants at the end of the educational session in order to

identify the effectiveness and appropriateness of the workshop. I held interviews with the site managers, and some of the participants, six months after the workshop had been held to determine if the skills that had been learned during the sessions had resulted in change at the workplace.

Scope and Limitations

This study is in the area of human resource development, specifically on the topic of continuous process improvement for on-site quality management team members who are responsible for monitoring and improving health services offered to clients at their respective sites. The aspect is program planning with emphasis on planning for transfer of process improvement strategies to the health-care workplace. The study took place over a 6-month period and involved members of quality management teams from four rural health facilities within the Northern Region. I delivered four workshops for these team members; these were held at the individual health-care facility sites. The first two workshops were 6 hours in length and following a revision to the workshop content, workshops three and four were 3 ½ hours in length.

I held these workshops over a time span of 5 months. Sessions for Site 1 and Site 2 were held in the late spring, and sessions for Site 3 and Site 4 were held in the fall of the same year. I scheduled the educational sessions around the summer vacations of quality team members. I asked the workshop participants to complete an evaluation questionnaire at the completion of the workshop and I held follow-up interviews with the site managers 6 months following the sessions. These interviews were intended to

determine if changes had been made to work processes at the health facilities and if transfer of learning had taken place.

The study was limited to those on-site quality team members who had demonstrated an interest in learning the strategies of continuous process improvement and whose on-site quality program had developed to the point where process improvement activities could enhance their program. The study did not include quality team members who had previously participated in process improvement workshops or those teams members who demonstrated no interest in this topic. The study did not include quality teams whose individual quality programs had not advanced to the point of needing to incorporate process improvement activities into their program. Each of these sites had a different mode of service delivery, and varied in the number of beds available for clients and the number of employees working within the sites. All on-site quality management teams were comprised of a multi-disciplinary group of health providers; not all health disciplines were represented equally on each team at each site; and these team members belonged to either professional or non-professional working classifications. There were 44 quality team members who participated in the study.

Assumptions

In designing the workshop on continuous process improvement for on-site quality management team members, I made four assumptions. The first assumption is that the members of the on-site quality teams participated in the workshop sessions because they had a genuine interest in the CQI strategy. Their interest in learning process improvement

strategies, could increase the odds of process improvement projects being implemented in their health-care workplace. The second assumption is that the on-site quality management team members recognized the potential that continuous process improvement could have for the delivery of a superior service to their clients. Consequently, they would work diligently to overcome workplace obstacles impeding the implementation of the process such as time restraints, attitudinal barriers, and organizational roadblocks. The third assumption is that the team members could utilize the process improvement strategies as a means to improve their standard ratings as established by the Canadian Council of Health Services Accreditation (CCHSA). This could ensure that the health service their site offers to the client meets or exceeds the minimum expectation set by this council. I also operated under the assumption that the on-site quality team members could transfer their learning from the classroom setting to the workplace once given the basic theory and practical application skills required.

Definition of Terms

Several terms used in this thesis have meanings that are more restricted than those that occur elsewhere in the literature. For clarification purposes, my use of these terms is defined here.

Client refers to a person (or group) who is the recipient of the service. This could include patients, co-workers, agencies, or professionals.

Continuous quality improvement refers to a quality management approach that stresses the importance of throughly reviewing work processes as a means for improving

services being offered to the client. The emphasis is placed on the way work is being done rather than on the individual actually performing the work.

Feedback refers to the information that is communicated back to an individual or group following a group discussion about a certain topic or question.

Multi-disciplinary refers to the members of the quality teams. It means the team members normally work in various departments. Multi-disciplinary does not mean merely the traditional professional groups of nurses or physicians, but includes dieticians, housekeepers, technicians, and other personnel who work within health-care settings.

A health provider refers to an individual who works within a health-care setting and who provides a direct or indirect service to patients and their families.

Quality management refers to a process used in industry and health care to measure the efficiencies and effectiveness of services offered to clients.

Plan of Presentation

This thesis is divided into four chapters. Following from this introductory chapter, in chapter 2 I review the literature about continuous process improvement in health care as it relates to human resource development, program design, transfer of learning to the workplace, and relevant adult education concepts. This chapter also discusses the importance of identifying the learning needs of participants, establishing learning objectives, planning and evaluation methods, and determining if transfer of learning has occurred.

In chapter 3, I describe the design of a workshop that focused on continuous process improvement for site-based quality management team members working in health care. The workshop involved conducting a needs assessment, planning, designing, implementing, and evaluating a continuous process improvement workshop for these team members in four health-care settings within the Northern Region. This study provided important information about the appropriateness of this session and the factors that influenced the workshop's outcomes.

In chapter 4, I offer a discussion and explanation of the outcomes described in chapter 3. I also link the theoretical foundation noted in the literature with the practical application to the adult education workshop described in chapter 2. Chapter 4 also answers the questions posed in chapter 1 and addresses the issues and ethical challenges that were noted during the study. This chapter ends with my conclusions about facilitating an approach for continuous process improvement in health care and my recommendations to other health educators interested in facilitating continuous process improvement for health-care providers.

CHAPTER 2

A REVIEW OF THE LITERATURE

The health educator, in the present health-care environment, is constantly challenged when trying to assist health-care employees with an ever evolving and changing workplace that is directed toward continuous quality and process improvement. To facilitate this movement effectively, health educators must have a sound knowledge of the principles of adult education, the skills necessary to plan programs for adult learners, the ability to identify workplace barriers to change, and the strategies required to motivate health organizations that are presently in transition.

In this chapter I review relevant literature in order to provide a theoretical framework for the study. Human resource development is concerned with the intellectual growth potential and competency development of employees on a personal and work related basis. The facilitation of a process improvement workshop for the members of on-site quality management teams should be based on relevant adult educational principles and practices. For these reasons five bodies of literature have been selected for this chapter: adult learning perspectives, program planning and development, continuing education for health-care providers, facilitation of learning in the workplace, and continuous process improvement. The various viewpoints represented in this survey of the literature provide a wide variety of ideas that cross the boundaries from education to work and from instruction to action.

Adults as Learners

Educators in health-care settings within the Northern Region are working with mature adults who have a great deal of life experience. It is essential for these health educators to comprehend the characteristics of the adult learner if they wish to be effective facilitators in continuing learning activities. In this section I discuss adult learning perspectives, factors influencing adults' participation in learning events, and barriers to learning.

Adult Learning Perspectives

To appreciate the field of adult learning, adult educators must comprehend the structure and nature of the typical adult participant. The educator can use this knowledge to facilitate adult learning sessions. A great deal of research has focused on profiling the typical adult learner. According to Merriam and Caffarella (1991):

> The adult education participant is just as often a woman as a man, is typically under forty, has completed high school or more, enjoys an above average income, works full-time and most often in a white-collar occupation, is married and has children, lives in an urbanized area but more likely in a suburb than a large city, and is found in all parts of the country, but more frequently in the West than in other regions. (p. 64)

This description of the typical adult learner has changed very little since Johnstone and Rivera (1965) profiled it more that 30 years ago. O'Keefe (1977) estimates that rising levels of education for the baby boomers will result in a 17.5 % participation rate for adults in the United States from 1980 and onward. This estimate is also supported by Chimene (1983) who calculated that well over 16% of all Americans would be involved

in some form of adult learning by 1996. Although no current Canadian statistic is available, I believe the Canadian population is not very different from the American population in regard to adult educational activities.

If adult educators accept the following basic assumptions and practice sound principles relating to adult learning, participants may be more willing to take part in learning activities. According to Knowles (1987), several assumptions can be made about adult learners. These assumptions are: (a) adults have a need to know why they should learn something, (b) adults have a deep need to be self-directed, (c) adults have a greater volume and different quality of experience than children, (d) adults become ready to learn when the experience in their life situations demand a need to know in order to do something to perform more effectively and more satisfactorily, (e) adults enter into a learning experience with a task-centered, problem-centered, or life-centered orientation to learning, and (f) adults are motivated to learn by both extrinsic and intrinsic motivators.

Knowles (1992) recommends that learners should be active participants in the process of inquiry, and that this process should start with and build on the background, needs, interests, problems, and concerns of the adult. He also suggests that the learning experience will be enriched if there is interaction among the learning participants. Vella (1994) supports Knowles' viewpoint about adult interaction. In her words, "One basic assumption in all this is that adult learning is best achieved in dialogue" (p. 3). Vella has identified 12 principles to enhance this dialogue, and believes adults may find programs more appealing if these principles are followed. They include: (a) listen to learners' needs and wants; (b) create a safe and respectful learning environment; (c) build sound

relationships between teacher and learner; (d) pay careful attention to content and reinforcement; (e) facilitate learning by doing; (f) be respectful of learners as decision makers in their own learning; (g) consider the ideas, feelings, and actions of participants; (h) help adult learners see the immediate results of their learning; (i) provide clear roles in communication between learner and facilitator; (j) foster an atmosphere of teamwork; (k) support engagement in learning; and (l) design the learning events to be accountable to the learners.

Brookfield (1986) has identified other principles. He proposes what he refers to as underlying guidelines to assist in facilitating adult learning which address self-direction, respect, reflection, collaboration, and praxis. Although many sets of principles identify factors that influence adult participation, some adults, nevertheless, choose not to participate.

Factors Influencing Adult Participation

Why do adults participate in learning? Vella (1994) speculates that people are naturally excited to learn anything that helps them to understand their own lives. Similarly, Knowles (1992) theorizes that adults become ready to learn those things that are relevant to their life tasks and problems. Caffarella (1994) believes adults participate in learning programs because learning encourages their ongoing growth and development as individuals, assists them when responding to practical problems and issues relating to adult life, helps them to prepare for current and future work opportunities, assists them when they need to adapt to change, and provides them with opportunities to examine community and societal issues.

Participation factors for adult learners have been the focus of much adult education research. One researcher of this topic, Courtney (1992), notes:

> Those who appear eager and willing to participate in organized learning activities are distinguishable from those who are not by an underlying attitude which sees education as a positive force, to be equated with happiness, and finds in it also a mechanism for solving acute problems. However. . . the person must be in a situation calling for the solution of a particular problem. (cited in Merriam & Caffarella, 1991, p. 83)

Smith (1991) cites multiple factors that have stimulated adults to learn. Some of these are: (a) accelerating social change, which has revealed the importance of life-long learning; (b) breathtaking increases in available knowledge and technology; (c) new perspectives on teaching, learning, and the purposes of formal and nonformal education; (d) school reform, educational equality, and learner empowerment, which have emerged as highly controversial issues; (e) new institutional forms and delivery systems, each with special methodological demands; and (f) more diverse and sophisticated approaches for investigating learning processes. Adults will participate in educational activities if they identify a need, and if the activity will assist them in resolving real life problems. The health educator must develop the skills necessary to assist organizations and individual employees to identify their learning needs. However, not all adults will be receptive to an educator helping them to address learning needs, and the adult educator must recognize the barriers that some adults face regarding participation in continuing education activities.

Barriers to Adult Learning

Various deterrents to continuing education affect the behaviour and willingness of adults to participate in learning activities. It is important for educators to understand the difficulties and barriers adults face with regard to participating in educational opportunities.

Adults usually approach learning with a wide variety of past and present emotional experiences relating to school and current roles in their life and work environments. Merriam and Caffarella (1991) identify nine areas of difficulty adults face that might hinder them from participating in educational courses. These difficulties include: (a) insufficient time, (b) personal problems, (c) social norms, (d) past negative feelings about institutions, (e) negative feelings about learning, (f) attitudes about the value of education, (g) an indifference to learning, (h) the level of course difficulty, and (i) a lack of information on educational activities available. Similarly, Darkenwald and Valentine (1986) suggest that adults do not participate because of a lack of confidence, a lack of course relevance, a concern with time restraints, a low personal priority for learning, a problem with cost, and difficulty with personal problems.

Even though time constraints represent the primary and universal factor that adults report when asked why they do not participate in continuing learning activities, other major issues also influence their decision. Kersaities (1997) notes that young women are often faced with the trouble of arranging for child care. Lack of information on the cost of programming and the accessibility of courses have also been cited as deterrents to adult participation. Another factor is the lack of relevant educational offerings; some people

cannot find a program or an educator who suits their needs and expectations. Yet, other adults do not participate in educational activities because they have no desire and no perceived need to enroll in organized learning. Educators must understand these problems and attempt to assist the learner in overcoming these obstacles through creative program planning. The adult educator must always respect and understand those individuals who choose not to participate for whatever reasons. Courtney (1992) believes many adults have been contaminated by their previous schooling. Individuals in some schools may have had knowledge presented to them merely as theory. Inasmuch as these ideas seemed to have no relevance to the students' lives and the everyday problems they faced, some grew to resent and avoid educational activities. Thus, the adult educator must be skilful in planning the program so that the educational experience is both meaningful and rewarding for the individual who has chosen to become involved in the learning activity.

Program Planning

Program planning for adults can be a rewarding, creative, and frightening experience for the adult educator. The aim of the educational experience should be to meet the participants' learning objectives effectively. This section addresses participants' needs, processes for planning, learning intents, and effective evaluation.

Models of Program Planning

Mills, Cervero, Langone, and Wilson (1995) suggest that adult educators should construct programs intended to improve some situation in the world of the participant. Mills et al. ask some basic questions about program planning such as: "What kind of

programs can best bring about the desired outcomes, and what is the purpose, the audience, the venue, the content, and the cost of these programs" (p. 1). These are fundamental issues that are identified in various program planning models. A clear understanding of the issues involved in planning effective programs for adult learners is required if the learning outcomes are to be positive. Many program planning models have been identified in the literature, and there are common threads that bind all of these models together. Caffarella (1994) identified the following commonalities: the importance of the context in which programs are planned, and the idea that there are identifiable components and tasks that are important to the planning process. Colgan (1993) reviewed many models and notes that most emphasise program design, planning, positioning, culture, learning, and environments.

Caffarella's Model

Caffarella's (1994) model of program planning for adults is an interactive model. This model is drawn from the work of other authors such as Sork (1990), Cervero and Wilson (1992, 1994), and is based on six assumptions. These assumptions include: (a) adult education should focus on what the participants will actually learn and how the learning will effect change; (b) planning adult education programs takes both advanced preparation as well as last-minute decisions; (c) program planning is an ongoing process of organizing, evaluating, and re-organizing; (d) the planning process is a joint effort of program sponsors, organization of human resources, and the planners themselves; (e) there is not one recipe that guarantees successful programs every time, and much depends on the individuals involved in the planning, and results vary accordingly; and (f) program

planners must become versatile through practice, success, and failure. Careful evaluation of the planning efforts can help to identify strengths and weaknesses in a program. Caffarella speaks of program planning as an interactive process, rather than as a linear progression of planned events. This idea of program planning as a process is also supported by others. Kannel (1989), for example, believes educators should recognize that the traditional step-by-step models need to be replaced and changed; the process of program planning should be a group of activities or tasks all functioning in sequence but not isolated from each other. Program planning must include the identification of participants' needs and the adult educator should reflect upon the strategies required to assist the programs' target group in assessing their learning needs.

Participants' Needs

An integral component of successful program planning is determining what participants already know and what they hope to accomplish. Davis (1986) points out that validating bodies frequently urge course providers to make deliberate provisions for the needs of adult learners. He believes the reason for this directive is that adult learners have a distinct perspective on the learning process and environment and have well defined expectations regarding the outcomes of their experience. These identified needs can assist the educator in developing learning objectives that later can become an outcome measurement to determine the quality of the program. These needs can be uncovered in many ways.

Kannel (1989) cautions that the traditional needs analysis can mislead educators. Instead, they should ferret out needs by listening with a third ear, and should form

informal listening networks. She goes on to explain that the traditional style of needs assessment asks participants to fit answers into an outline that is provided for them. Other authors, such as Vella (1994), suggest that recognizing needs should be a continuous process. Even after participants' needs are identified further needs are often discovered. Designing innovative ways to do needs assessment is a constant challenge for educators. Vella highlights three methods which she has found useful; ask, study, and observe. Similiarily Mills et al. (1995) note that needs are quite often not identified in a formal needs assessment process. In their paper, they quote one educator who says, "I feel a lot of times one of the most valuable planning tools is just to talk to people, maybe on the tailgate of the truck" (p. 11).

O'Neil et al. (1995) agree with Vella and describe needs assessment as a continuous process rather than a discrete step, as one finds in most program models. Needs identification ensures that the linkage between the program developers and the customers and stakeholders is ongoing. Caffarella (1994) confirms the fact that one of the most important outcomes of a needs assessment is a commitment by those involved in the process to ensure that the ideas from the analysis are actually used in the development of the program. She cautions educators not to raise false hopes in people who participate and contribute to a needs assessment.

Once the learning needs have been identified, the adult educator must reflect on these needs and decide on the best approach to fulfill the expectation of the participants. Many decisions must be made regarding the creation of this new learning environment. The program and the participants' objectives, the educational content, the practical

application of learning, and the evaluation process must share equal importance and consideration, because all factors will have a direct impact on the outcome of the program plan. The adult educator should choose a program planning model that incorporates all of these components in it.

Process for Planning

Many program planning models have been identified in the literature. Caffarella (1994) suggests that an adult educator should choose the model that best fits his or her own beliefs and values. Educators must reflect upon their personal and ethical issues when selecting a planning model that they are comfortable implementing. Once the appropriate model has been selected, formalized planning can begin. A program planning model that O'Neil et al. (1995) developed is called the "Best Practice Model." They believe their model is effective in a fast-paced world of non-stop learning, change, and transition. They have incorporated five previously existing models and have addressed the new challenges facing adult educators beyond this century. This model has nine discrete steps which challenge educators to focus on organizational requirements, performance expectations, training requirements, program design, content, evaluation strategies, delivery strategies, and measurable results that include a feedback loop. The incorporation of the feedback loop provides a continuous mechanism to evaluate changes within an organization and helps to ensure the goals of the program are being met on an ongoing basis. This ongoing process of feedback is advantageous not only to organizations, but also to the individual adult learners, who have been active participants and may wish to evaluate their progress on the basis of their individual learning

objectives. These learning objectives are based on the participants' needs and naturally flow from those needs, once they have been identified.

Learning Intents

Participants gain a sense of control and direction when learning objectives are clearly stated and communicated. Abruzzese (1992) describes three types of objectives: program objectives, course objectives, and class objectives. Program objectives identify outcomes that are expected to be accomplished at the completion of an entire series of classes; course objectives are the means by which program objectives are completed; and class objectives are specific instances of action. According to Abruzzese, these objectives must be stated in measurable, valid, and observable terms that clearly indicate to the learner the content to be learned, how the content is to be learned, and what behaviour is necessary to demonstrate that learning has taken place.

Caffarella (1994) emphasises the need for learning objectives to be written so the participants can clearly understand what is involved in the program. In her view, the objectives can be used to increase internal consistency, to help ensure transfer of learning, and to formulate evaluation questions. Vella (1994) also addresses the importance of achievement-based objectives as a method to assure accountability and to honour the learners as decision makers in their own learning. Each objective must be related to a learning task that involves cognitive, affective, and psychomotor activities and content. Vella cautions that the sequence of the objectives should be related to the sequence of the tasks, and each task should reinforce the previous learning. If these objectives are understood by the participants, then their ability to evaluate the outcomes of their learning

can be enhanced. The adult educator can assist learners to evaluate their learning experience and progress by promoting techniques that enhance effective evaluation.

Effective Evaluation

Feedback from participants during and after an educational session can provide the learner and the adult educator with insight into an area of the program content requiring program modification. Successful training should rely on the educator's ability to make adjustments in the program, based on this feedback. Merwin (1986) proposes that adult learners, as well as organizations, need to know whether their investment of time, money, and effort for training is worthwhile. A process for evaluation may provide information about the effectiveness of the training, and may act as a stimulant to further motivate participants to perform at a higher level. This evaluation process also can act as a positive reinforcement for participants' achievements and can strengthen the educator's sense of self-worth.

Pancer and Westhues (1989) note that many educators approach evaluation as a final stage of program planning. They suggest that the evaluation process should begin in the early phase of the program design and should be integrated as an ongoing method of program development. If this suggestion is followed, the learning sessions could be modified or revised according to the participants' feedback. Once the learning objectives are established and the content of the learning experience is determined, the evaluation process should begin and continue periodically throughout the program.

Abruzzese (1992) describes the evaluation process as a hierarchial triangle which begins simply and evolves to complex levels of evaluation. This evaluation triangle

identifies frequencies of implementation, and establishes cost factors. The first level, termed the process evaluation, is referred to as "the general happiness with the learning experience evaluation" (p. 239). It focuses on the program, the objectives, the faculty, the teaching and the learning methodologies, and the physical facilities. The second level is the content evaluation, which consists of evaluating a change in knowledge, affect, or skill, by using self-rating scales, pre and post tests, or demonstrations. The third level is outcome evaluation, which identifies a change in practice or behaviour following the learning sessions. This outcome for the individual might be the integration of a new value, a new skill, or a new process. Continuing up the level of complexities is the impact evaluation, which highlights institutional results attributable in part to the learning experiences. Examples of this evaluation result may be improved quality in a service or product, a cost benefit, or the level of participants'effectiveness demonstrated at the workplace. The final level in the model is termed total program evaluation, which is demonstrated in the outcomes of an organization in terms of overall global goals and objectives for a year (or their designated period of time).

Caffarella (1994) refers to the evaluation process as the "heart" when judging the value or worth of an educational program. Evaluation may be a challenge because it is sometimes difficult to demonstrate that program outcomes are really tied to what happens in a program. Unusual or unplanned occurrences may have an impact on the outcome of a well-planned program. Measurable outcomes may be difficult to determine and may be clouded by poor or unrealistic judgement calls. Some educators may be reluctant to have judgements placed on their ability to develop and present a program, especially if their

job performance is rated on the results of these evaluation outcomes. Caffarella also acknowledges that despite the challenges and problems faced with evaluation, there are many benefits that accrue from integrating evaluation into program planning. Some of the positive benefits of evaluation are: (a) helping to keep staff focused on the goals and objectives of the program, (b) providing information for decision making on all aspects of the program, (c) identifying improvements for the design and delivery of individual learning events, and (d) allowing for accountability. Once the evaluation process is developed, the information obtained from the data can help to set ground rules, summarize achievements, determine learning, transfer knowledge and skills, and reveal areas of training effectiveness and improvement.

Vella (1995) advocates evaluating whether the participants in an educational program have experienced a transfer of learning. She proposes evaluating transfer of learning through the development of action indicators. If a problem has been identified, which has resulted in the need for learning to resolve the problem, then educators should look for a reduction of those problems after the learning has taken place. If adults participate in an educational session to advance their careers, to perform their job more efficiently, or to become more competitive in the workplace, these action indicators can be developed to measure the outcome of the education. Vella argues that, "Such qualitative indicators--human signs--speak to the success or failure of adult learning efforts" (p. 147). The adult educator needs to develop measurable indicators during the program planning phase that can assist in the evaluation of both the participants' learning objectives and the overall program purpose.

Continuing Education for the Health Provider

Health-care service delivery in this decade is becoming focused on the quality of service provided to the clients and their families. Consequently, the service needs to be driven by client satisfaction. Continuing education for health-care providers is one avenue that supports quality improvement and promotes change and improvement in services. In this section, I discuss participation in health-care education, continuing education, and barriers to participation in health-care settings.

Overview of Continuing Education

The purpose of continuing education is to build upon the knowledge base the health provider presently has and to enhance the skills, techniques, and attitudes that are practised in the workplace. As Huntley (1989) explains, "Tertiary institutions do not, indeed cannot, educate and train people for a career that spans a lifetime" (p. 19). She believes that the formal education of health providers only prepares them to begin to practise, but to continue this task over their lifespan requires continuing education, which means lifelong education.

Kersaitis (1997) refers to continuing professional education as the study of, or the educational activities relevant to, a given profession. Except where otherwise specified, continuous professional education refers to both self-directed and other-directed study. Cervero (1992) claims that the primary goal of continuing education should be to improve professionals' ability to engage in wise action. Morrison (1992) suggests that professionals have a need to update their knowledge and skills because this updating is vitally important in a rapidly changing world. He believes that the very nature of a

professional is someone who in his or her vocational life is essentially a self-directed and autonomous practitioner licenced to make judgements affecting peoples' lives. This license to make judgements in itself should be a catalyst for the health provider to participate in continuing educational activities.

Baskett (1993) says, "The modern professional must learn how to constantly evaluate, interpret, and manage changing and often conflicting ideas and information that impinges upon his or her practice" (p. 16). He points out that professionals are undergoing rapid changes in their work environments and for this reason they must aquire the necessary knowledge, competencies, and attitudes required in their changing workplace. This is especially true for health professionals, who function in an environment experiencing rapid change.

Houle, Cyphert, and Boggs (1987) define the goals of continuing education for the professional as follows: to expand the base of theoretical knowledge they presently have, to increase the skills and ability to find solutions to problems, and to build upon the experiences they have as professionals. Hewlett and Eichelberger (1996) find changes in patient-care delivery to be dependent upon multiple factors, which include continuing education for the health-care provider. One of the outcomes of health providers learning about process-improvement strategies is a higher quality service for the client.

Maple (1987) has identified commonly held beliefs about continuing education for health-science providers; they include: (a) all health professionals should continually update their knowledge and skills; (b) such updating is ideally achieved on a voluntary basis, to ensure the participation of all practising professionals; and (c) continuing

education should be made mandatory and preferably tied to registration. She believes that the public now demands greater accountability from health providers and that this public awareness has been developed through legislative malpractice cases, through agency regulation, and through the voices of consumer organizations.

Participation in Health-Care Education

A quality improvement program should incorporate performance reviews for those health providers delivering care to the client. Abruzzese (1992) observes that these reviews often evaluate and document the level of competence an individual is performing or expected to perform in the workplace. She notes that performance development tools have proven to be effective when managers are establishing expected levels of employee performance. Those tools can also be used to establish an individual's goals and objectives for future learning. She claims that worth and value are measured by the bottom line and results must be worth the investment. In this regard, cost-benefit analysis is an essential decision-making tool for deciding whether to keep a health service operating. Abruzzese concludes from her study that performance review, standards of practice, competency certification, and job expectations by employers are reasons why health providers should participate in continuing education.

Many health-care organizations provide learning sessions in the workplace for staff. The Northern Regional Health Board is such an organization. It not only provides a degree of ongoing education delivery for the employees, physicians and volunteers; it also advocates continuing education in its mission and values statements. The quality of this service varies according to available funding and the education personnel available.

Marsick and Watkins (1992) explain that improvements in the workplace cannot succeed without the employees taking a greater role in decision making about their immediate work. In their view, employees should support the concept of continuous learning in the workplace, but they sometimes view learning as taking place only in the formal structure of courses and training programs. Therefore, it is difficult for some employees to think of their own jobs as a method of learning and development. On this topic, Marsick and Watkins (1996) note that informal and incidental learning often takes place from experience, and occurs outside the classroom. They define a learning organization as one wherein continuous learning runs parallel to work and is integrated within work processes. When this happens, employees constantly seek out ways to make things better at the work site, and the organization can support this type of learning through the integration of stated beliefs, values, strategies, policies, and procedures into the workplace. The result can be a continuous journey of learning and improvement.

Continuing Education in the Health-Care Setting

The delivery of an educational service within the health-care system is a challenge because the employees practice in a variety of clinical settings. These settings include acute care hospitals, long term care facilities, community health, addictions service settings, and restorative-care delivery settings. The diversity of clinical settings means the health provider must be prepared to develop their skills and knowledge in order to meet the demands of this changing health care environment. Cooper (1997) proposes:

> Concurrent with the shift in health care reform is the realization that employees need a working knowledge of the corporate mission and goals to enable organizations to service and remain competitive. As

> a result, nursing education departments today provide skill training, diversity training, individual development and organizational change education for their nurses. (p. 27)

O'Grady and Wilson (1995) suggest that integrated learning in the workplace is based on the workers' combined thoughts, feelings, feedback, and experiences, and without all these components, real understanding does not occur. They regard learning as a part of the fabric of how work is performed for everyone in a health-care organization. A commitment to learning means excuses for not learning are unacceptable.

If a health-care organization provides educational opportunities for individual employees who support the mission and values of the organization, then the organization must also understand that there are many factors that influence the ability of the health-care provider to participate in continuing educational activities. Health educators can greatly assist individuals and organizations with the identification of barriers to continuing education and develop strategies to overcome those barriers.

Health educators can assist employees as they explore various educational program options that offer the learner the content, the delivery method, and the competency level that suits the learners needs and lifestyles.

Continuing education programs that are considered mandatory for a health provider can offer the greatest challenge for the educator. These programs are frequently mandated by law (for example the Workplace Hazardous Materials Information Systems), and the content is often very structured. The health educator can reduce the monotony of these programs by using learner-centered methods and involving the participants in the choosing of those methods. Employees often resent mandatory educational programs

because the content can be repetitious; offering a variety of learning methods from board games, video presentations, or self-learning modules, seems to improve participation (Brookfield, 1986).

Barriers to Participation in Health-Care Settings

Although health-care providers often are urged to participate in educational activities, there remains a relatively large percentage who do not participate in planned sessions or other forms of skill upgrading. If health-care educators are expected to facilitate a process of learning in the workplace, they need to be familiar with the problems that the care providers face that may impede their participation in continuing education programs.

In a study involving 300 randomly selected nurses, Cooper (1997) found that several factors impeded their ability to participate in continuing education programs. These factors include: (a) a changeable work situation, (b) a high ratio of staff to clients, (c) heavy workloads, (d) severity of the client's illness, (e) unpredictability of client health status, (f) lack of money, and (g) under-staffing. She also points out that many of the nurses cited their nurse manager as an obstacle to their participating in education sessions, because the manager failed to approve an educational request or to plan for extra replacement staff, or to design an alternative client assignment that would allow the nurses to participate. Waddell (1993) notes that many aspects of the educational programming itself are barriers to the participation of health providers. Problems with program planning--the program schedule, the location of the program, the marketing or publicity of the event, the costs or registration fees involved, and the relevance of the

topic being presented--are cited as obstacles to participation. Because these barriers have an impact on program planning, program planners need to fully appreciate this influence on the target audience.

The employer can create barriers which affect the ability for the health provider to frequent instructional sessions. Some facilities are staffed with only one specialist per department, and the employer must decide whether the care provider can attend an educational event or must provide a needed service to the public. Interruption in service can result in longer waiting times, in delayed diagnosis, and in unhappy clients. The sentiments of one health provider working in a small facility is recorded by Huntley (1989):

> This town does not have another radiographer to act as locum. If I go away, the patients have to be taken by ambulance to the next town, or the operations have to be cancelled. It used to worry me that I don't go to courses, but it doesn't now. The equipment hasn't changed anyway. (p. 22)

Rural health settings such as those within the Northern Regional Health Board are a particular challenge for the health educator attempting to provide an education service to employees in these remote facilities. The geographical location of these sites can be a problem for the staff who need to travel to work, thus making them reluctant to travel again for educational activities. No matter what the size of an organization, problems can result from both internal and external sources. Cherry (1987) identifies several of these problems as they relate to organizational program planning. One of these problems is the difficulty in obtaining experts to provide adequate instruction for the health-care provider.

Many of the advances in health care involve highly technical and computerized procedures. Some speakers have their presentation timetables booked months ahead, often making the procedure or the topic out-of-date by the time they can present. Cherry also notes that the willingness for management to support and encourage staff to participate as a barrier. Management is frequently involved in the day-to-day operations of the service, so little time is spent in long-term planning, goal and objective setting, or futuristic thinking. Very little planning for the educational needs of the health-care provider often results in inadequate allocations in the budget for replacement staffing.

Facilitating Workplace Learning

In 10 years, my role as an educator within the Northern Region has evolved primarily into a consulting role. I promote the principles of adult education and assist others with the development of educational programs whether it is to introduce a new skill into the workplace, or to further develop an employee competency. The environment I have been attempting to create within the health-care facilities, that I have been associated with, is one of continuous and a life-long commitment to learning. The literature shows that my colleagues in other settings have been involved in similar initiatives.

Promoting a Learning Climate in the Organization

Health-care providers can learn in varied ways which include peer coaching, mentoring, self-learning activities, hands-on practice, and workshop instruction. Health

educators can assist managers to develop a learning environment for their staff. The introduction of preceptor programs into the workplace often gives employees an increased sense of pride and renewed interest in their work. Professional journals made readily available at the worksite may stimulate discussion about certain health-care topics. The introduction of research studies within the service or the use of the Internet to explore health-care topics are methods of promoting learning in the health-care workplace. Marsick and Watkins (1996) explain that organizations can create a learning culture in the workplace. They suggest leadership that distinguishes offering courses from promoting learning:

> Leadership for learning means understanding the difference between providing courses for their own sake and building long term learning capacity that transforms people and organizations. Strategic leadership includes knowing when structures promote or inhibit learning. For adult educators in organizations, strategic leadership usually involves partnering with managers and other change agents. (p. 20)

Nonaka (1991) believes that few managers grasp the true nature of the knowledge-creating organization. In North America, a more traditional approach to knowledge in the workplace involves the processing of information only. Data, codified procedures, universal principles, and other quantifiable information have been the key to efficiency, cost control, and improved customer satisfaction. Nonaka suggests there are other avenues that organizations should use to help improve service and to stimulate the staff to participate in learning activities. He thinks the key factors to organizational success are personal commitment, the employees' sense of identity within the enterprise, and the organization's mission and vision. These factors represent an approach that puts

knowledge creation at the center of the organization. Expertise in practice is shared with others at all levels within the organization, and new ideas for change and innovation are discussed, fostered, and created. The main focus in this type of approach is to continuously challenge employees to examine and then to re-examine what they take for granted in the workplace. For example, during a time of rapid reform in health care, this process of examination may be an alternative not only to survive the transition but to give birth to new knowledge and ideas.

Both care providers and organizational managers have roles in promoting a learning climate. O'Grady and Wilson (1995) observe, "People do not get involved in activities that have no meaning for them. Leaders must set the time aside to have the kinds of conversations that lead to high involvement" (p. 57). They note, however, that if the health providers' personal goals coincide with the organization's goals, the management is more likely to embrace educational participation and other efforts that result in personal and organizational effectiveness. Health providers in the workplace need to have a clear understanding of the mission, vision, and values of the service so they can evaluate their own effectiveness in the organization. Once these learning needs have been identified, the care providers can then select the avenue that best assists them in obtaining the skills required to effectively meet whatever is expected of them.

Health-care managers need to reflect upon the development activities their service providers are involved with in order to determine if the workshops, seminars, and other training opportunities are resulting in a good return for their investment of time and money. Parry (1990) suggests that managers begin to ask themselves whether the

employees want to be involved in the educational session, what is included in the program design, what follow-up is necessary with the employee, and whether the organizational factors such as climate and culture support the transfer of the learning back to the workplace. Georgenson (1982) notes that of the many elements that influence the skills an employee demonstrates at the workplace none has more impact than that of the immediate manager. He explains that most employees work hard to meet the expectations established by their employers. Sometimes when employees attempt to implement the ideas gained at an educational program, they meet resistance from both their supervisor and their peers. Setting objectives and learning goals between the manager and the employee is essential if the learning climate is to be successful. Georgenson writes that managers should provide employees with immediate feedback regarding the training, and this means the managers must be familiar with the program content. Continuous evaluation and feedback regarding the employees' performance objectives in relation to the learning is necessary for both a learning climate and the transfer of learning.

Supporting Transfer of Learning to the Workplace

Parry (1990) highlights many practices that educators can use to help ensure transfer of learning to the workplace. These include: (a) have the employee fill out an action plan explaining how they will integrate their newly acquired knowledge back to the workplace, (b) bring managers together before a course, to set objectives and expectations they want to be demonstrated when the program is completed, (c) create a performance

contract in which each participant agrees to meet certain criteria, and (d) evaluate periodically the employee's ability to change their behaviour at the workplace following the training.

Similarly, Georgenson (1982) summarizes transfer of learning to the workplace in the following five steps: (a) set the proper stage, (b) jointly identify a work project to be completed during the course, (c) provide proper feedback, (d) be supportive, and (e) integrate the course procedures into daily work.

In the present world of health care, considerable time and effort are being spent developing and tracking measurable indicators. Garavaglia (1993) believes in measuring training transfer through evaluation, having the employee demonstrate ways the training improves productivity, measuring changed behaviour through reports from supervisors, conducting surveys using questionnaires to indicate if training has improved service, having employees complete action plans and send copies to the manager, interviewing employees following the educational program, observing the employee in the workplace following the training, and asking the employee for a written report of how they are implementing change at work as a result of the program. Garavaglia advocates that managers spend less time concentrating on improving training design and more time on supporting training on the job. He also suggests that there are two reasons for the failure of learning to transfer to the workplace: the work environment does not support the learned behaviour, and the participants think the training was irrelevant. Garavaglia emphasizes, "Successful training involves two phases, the acquisition of skill or knowledge and the maintenance of behaviour when the trainee returns to the worksite" (p.

Preparing a transfer of learning plan is one aspect of program planning that Caffarella (1994) believes has been neglected in the past. She explains,

> It has been assumed that this application of what was learned at the educational program would somehow just happen and that the proposed changes as a result of this learning were the worry of someone other than those responsible for planning the program. (p. 115)

She advocates that educators who are planning programs should consider the transfer of learning as an integral part of their program design. Several strategies Caffarella identifies as assets when planning for the transfer of learning are: (a) determine the key players who need to be part of the process; (b) provide mentors or coaches, start self-help or support groups, or develop individualized learning plans that can assist participants to apply what they have learned; and (c) decide when the strategies for the transfer of learning should be employed. Health educators need to develop a clear understanding of the competencies that an employee is expected to demonstrate in the workplace and assist the employee in developing these competencies. These competencies should strive to meet the mission, values, and goals of the organization. Managers should establish and evaluate job expectations for the employees that are in concert with the mission, values, and goals.

Quality Management

The Northern Regional Health Board is undergoing a reform of the services it offers. The focus is on the appropriateness and effectiveness of services to clients based on the expressed needs from those clients and their communities. There is greater collaboration between the clients and the health-care provider through dialogue with

collaboration between the clients and the health-care provider through dialogue with community health boards and client focus groups. This dialogue attempts to identify the health-care needs of the clients and how they would like those needs met. There is also an increase in the search for current health-care models that have proven to be successful to assist health providers interested in re-aligning services for their clients. It is hoped that these models can provide the structure and the evidence required for health providers to make better decisions.

The Nature of Process Improvement

Larson (1998) states, "In the current health-care environment, process and outcome standards are the basis for continuous quality improvement programs" (p. 34). Larson suggests that the processes and outcome standards need to be client focused and require a high priority in any quality management program.

Sasala and Jasovsky (1998) refer to a continuous quality improvement program implemented at Raritan Bay Medical Center (RBMC), where a committee was assembled to improve the patient education documentation process. Following a complete detailed investigation of the present process and through competent problem-solving and decision-making skills, this committee revised the documentation process. The committee found that patient education is now truly integrated at RBMC, with every pertinent discipline involved in decision making throughout the process of continuously improving the patient education process and documentation. This is one example of how the integration of process improvement into a quality management program can be of benefit.

Continuous process improvement strategies are also advocated by Rosenstein

(1998), who proposes that opportunities for process improvement must be identified, developed, and implemented if an organization is to survive in the current health-care environment. Sukati (1995) supports process improvement as the foundation of quality improvement. She claims, "Finding a process to improve is a basic requirement for quality improvement" (p.114). The importance of process improvement in health care does not mean it is a complicated, time-consuming effort that requires countless investments of time and money to implement. The investment of time is noted by Plsek (cited in Sukati, 1995), who states,

> A quality improvement team need not solve every problem, nor address every issue, in order to make noticeable improvements. Focusing on the vital few enables a quality improvement team to achieve the highest return on the investment of its resources and effort. (p. 114)

Lewis et al. (1998) suggest that organizations that have developed a learning culture coupled with an environment open to improvement are organizations where the philosophy of quality management flourishes. They state:

> Quality management thrives in flexible organizations with the capacity to plan, design, and refine care processes. Learning organizations, characterized by openness to innovation and efficient internal dissemination of lessons learned in one arena to other applicable units and settings, have the vital capacity to undertake practice and outcome improvements. (p. 19)

Strategies that Promote Continuous Process Improvement

If quality management requires an organization to adopt a philosophy and an entire change in the approach to evaluating service delivery, how do the employees acquire the knowledge necessary to incorporate this new philosophy into their daily practice? Fritch and Dolson (1996) believe that innovative education is the key to re-

employee's mind-set toward a continuous process and quality improvement approach. They have developed numerous short, humorous and interactive activities designed to teach health-care employees the techniques involved in continuous quality and process improvement. These activities were presented at the senior management meetings, then offered to the rest of the employees at a later date. This strategy resulted in the full integration of a continuous quality and process improvement philosophy into the workplace within 4 years.

Kelly-Heidenthal (1998) suggests, "Accountability for quality improvement is a hallmark of the professional" (p. 294). She believes strategies for the integration of quality improvement into care must include theory building, classroom discussion, skill-building exercises, and exercises to strengthen a positive attitude and commitment to quality improvement practices. She also states that professionals should act as role models to health-care students and that these professionals should demonstrate accountability for monitoring and improving the quality of the services they offer.

Summary of the Literature

Five bodies of literature have been selected and reviewed in this chapter. Various viewpoints have been presented regarding adult education perspectives, program planning, continuing education for health providers, facilitating learning in the workplace and continuous process improvement. This brief literature survey included various researchers' reflections about the typical adult learner. Many authors agree that adults are compelled to participate in continuing education activities in order to solve a problem in

their lives. The need for information, the need to acquire a skill or competency, or the need to change some facet in their lifestyle are reasons why adults participate in continuing education sessions. The factors influencing adult participation in educational programs were reviewed. These factors also included the barriers to adult learning: disinterest, fear of failure, lack of resources, family commitments, and inability to locate the course or instructor to meet the adult's expectations.

A review of the literature on program planning and development identified the importance that educators must take to ensure the learning needs of the participants are met or exceeded. Emphasis was placed on the identification of adult learning needs, development of measurable learning objectives, delivery of program content that fulfills the learning objectives, variation of the methods of content delivery, and planning for the program evaluation process.

The review then focused on continuing education for health providers and the factors that influence their participation in educational activities. These factors include the expectation that health professionals acquire current knowledge and skills in order to make wise clinical decisions. Barriers that have an impact on the health providers' ability to participate in continuing learning programs were discussed. These barriers include workplace conditions such as heavy workloads, the lack of replacement staffing, the lack of planning to free time for the health provider to attend learning sessions, and the absence of management expectations for the health provider to attend.

The review also discussed facilitation of workplace learning and the need for organizations to create a learning environment where all employees embrace continuous

learning through various means. Learning can take the form of journal clubs, coaching and mentoring sessions, preceptorship programs, self-directed programs, on-the-job practice, and formal workshops with an instructor. The organization must develop the potential of its employees by creating a culture where continuous learning in planned, integrated, and expected in every facet of the workplace.

The final section in this review of the literature focused on the need for quality management in health-care settings. The role that quality management plays in health care was noted, as was the role of quality indicators in identifying the need for process analysis. The application of process improvement strategies was briefly discussed. Some of these strategies included the theory of quality management, interactive exercises demonstrating the application of process improvement into the workplace, and skill-building activities that incorporate the various components of a continuous quality and process improvement approach.

In the next chapter, I describe the workshop I designed and delivered in an effort to create change in the workplace and improve services offered within the Northern Region.

CHAPTER 3

DESCRIPTION OF THE STUDY

In this chapter I describe a continuous process improvement program I planned and implemented for the quality management team members of four health-care facilities under the leadership of the Northern Regional Health Board. This educational program consisted of a one-day workshop that covered several aspects of process improvement. It was offered to the quality management team members at each site that had identified an interest in this topic and whose quality program was developed to the point where process improvement strategies could be an asset. I began with the assessment of participants' needs, then I describe the planning and the design of the program. Next, I describe the implementation of the program for each of the four health-care sites, including the findings from the evaluation questionnaires of each session. Finally, I present the 6-month follow-up interviews with site managers during which we discussed outcomes that the participants had contracted to accomplish upon returning to the workplace.

Assessment of Need

I first recognized the need for some type of educational support for continuous process improvement in my health region. Quality improvement teams had been set up at each site, and I wanted to expand their function to include process improvement. Thus, my first task was to assess the real and perceived needs of team members. This needs

assessment consisted of three components: (a) the review of reports by Racine and Varin (1995) and The Canadian Council of Health Services Accreditation (1997) and a report from Whiting et al. (1998), (b) the coordination of focus groups for the quality management team members of two sites to discuss the need for a process improvement program, and interviews with the site managers of the other two health-care facilities; and (c) the setting of my own learning intents.

Reports of External Evaluators

In 1995, Racine and Varin, surveyors with the CCHSA, conducted a review at one of these four sites within the Northern Region. Their report states, "The transition to a quality improvement program, along with a change of emphasis from structure to process and outcomes, are encouraged. A formalized method of reporting medical quality improvement activities to the board is also required" (p. 1). In 1997, another report from the CCHSA recommended that the Northern Regional Health Board assume overall accountability for the development and implementation of a quality improvement approach throughout the organization. This report also urged the staff to identify performance indicators to assist with the quality monitoring and improvement projects, and to communicate those improvements to the Northern Regional Health Board. These recommendations gave clear direction for the need to implement a continuous process improvement approach within the Northern Region.

Whiting, Peczeniuk, and MacLean, a group of independent external surveyors, conducted a survey at another Northern Region health-care site; their 1998 report stated, "Provide recommendations for establishing a framework to ensure total quality

"Provide recommendations for establishing a framework to ensure total quality management within a regional context. Provide educational resources to support change in developing a framework for CQI within a regional context" (p. 39). As the scope of these recommendations is very broad and involves the entire Northern Region, I focused on four health-care facilities within the Northern Region to conduct this study. These four sites were selected because their quality programs were well developed and the team members had expressed an interest in expanding their quality programs to include process improvement. Because the site-based quality management team members are responsible for quality activities within their facilities, the recommendations noted in the reports are directly applicable to them.

Focus Groups for Members of Quality Management Teams

To further assess the need for a continuous process improvement program I conducted two focus group discussions with the members of two of the on-site quality management teams. The first focus group (at Site 1) involved the site manager, physiotherapy manager, nurse manager, and laboratory technician (one male and three female employees). The second focus group at Site 2 consisted of an employee from plant operations, the supervisor of environmental services, a laboratory manager, two nurse managers, and an administrative secretary (three male and three female employees). For each of these focus groups, I wanted the quality management team members to express their perceived need for such a program, to assess their present knowledge of process improvement, to identify their preferred learning style, to indicate their time commitment to this activity, and to establish their learning intents.

The focus group meetings lasted approximately 45 minutes and the team members spent the first 25 minutes discussing the structure of their quality program and the quality activities they were presently involved with. This discussion also included the monitoring of established quality indicators that the teams were in the process of tracking. I used an interview questionnaire to focus the remainder of the discussion on the needs of the quality management team members. This questionnaire consisted of seven questions (see Appendix A), which used both a narrative format and a rating scale.

Following my discussions with these focus group members and after completion of the questionnaire, the members of these two health care facilities' quality management teams determined there was a definite need to implement an educational program on continuous process improvement within their sites. Both groups, by consensus, chose a one-day, 6-hour workshop with a facilitator.

Quality management team members from Site 3 and Site 4 did not participate in focus group discussions because convening focus groups would interfere with the services offered to the clients due to their limited staffing numbers. I chose instead to conduct personal interviews with the managers at Site 3 and Site 4. Based on the results of these interviews, the site managers decided that a process improvement program could benefit these facilities. These managers are members of their on-site quality management teams, and they were able to provide a global perspective and to identify the direction the teams needed to develop, in relation to quality improvement strategies.

Setting the Learning Intents

Based on the input from the focus group members, and the interviews with the site managers, I established eight learning intents. These learning intents were then referred back to the site managers and the focus group members and were validated as presented. If the workshop met the participants' learning needs, then following the education session the learners should be able to: (a) visualize and explain work in terms of processes and systems, (b) construct flow charts to represent a work process (c) monitor a work process and compare its performance to the expectations of the client or customer, (d) describe the value of throughly analysing a work process before making improvements or changes to it, (e) explain the need to measure and monitor the performance of a work process in order to make improvements, (f) identify the opportunities for improvement in work processes in order to better meet or exceed customer satisfaction, (g) demonstrate successfully the above skills in a practice setting, and (h) develop a plan to utilize these skills to improve the quality of work processes at the worksite.

These learning intents were used during the planning phase for designing the workshop. These intents were constructed to meet the participants' needs and to be measurable and achievable. These learning intents provided the necessary framework for the design of the workshop because the workshop content was structured to meet these intents.

Planning and Design

I approached the planning and design of this workshop from the desired outcome perspective. The workshop was intended to introduce the skills of continuous process

improvement to the quality team members so they could recommend and implement change and improvements in their workplace. In order to achieve the best possible outcomes from this workshop, I realized that a detailed plan and design were necessary. In this section I discuss the various activities and decisions required during the pre-planning phase, then I discuss the format and content of the educational workshop.

Pre-Planning Activities and Decisions

There were many issues I needed to reflect upon before I began the actual development of this workshop. The first decision was who would facilitate the session. The focus group members had expressed their preference for a workshop format with a facilitator. Thus, I needed to locate someone with knowledge, background, and experience in continuous process improvement. The person had to be familiar with health care and its challenges and be someone who would be available for ongoing support following the education session. Based on a self-evaluation of my own skills and abilities, I offered to act as the facilitator for the workshops and the Regional Quality Management Advisory Group and site managers agreed. I recommended that the workshops be offered once at each of the four health-care sites, with each session lasting 6 hours. I prepared and reviewed with the site managers a budget available for these workshops, and we jointly decided to hold the sessions on the premises of each health facility (this eliminated the cost of renting space).

I also discussed the means of meeting the learning intents with the site managers. I explained I had accumulated a large number of resources about the topic. We agreed that my challenge was to incorporate enough theory of quality management into the workshop

to provide the participants with adequate background information, and to focus mainly on continuous process improvement, and the application of its principles to the workplace, using practical examples of health-care work processes.

I considered methods very carefully. To incorporate the various learning preferences of the participants would take time and skill, but would help to ensure that all the participants would be exposed to a variety of their preferred learning styles. Equally important was the method I used to evaluate this workshop. The evaluation I decided upon consisted of two parts: (a) a post-session participant questionnaire, and (b) interviews with site managers 6 months after the workshop, to determine if the participants implemented process changes that improved the services offered to their clients in their individual work sites. During the pre-planning phase I also pondered whether I was prepared to make adjustments to the workshop content or approach during the implementation based on the responses from the post-evaluation questionnaires at prior sessions. I decided that I would vary the workshop according to the information and suggestions obtained from the evaluations of prior learners.

The workshop content included a short lecture about the theory of quality management and continuous process improvement. Case studies were discussed in small group sessions and questions that were included with the case study were explored by the group. Video segments were shown to demonstrate a quality team analysing a work process and developing recommendations for change. Examples from the health-care workplaces were used during the workshops to demonstrate the steps involved in analysing the work processes that employees must complete everyday. As I developed

this workshop I considered the participants' various learning styles, their present knowledge of the topic of continuous process improvement, and their need to apply their newly acquired knowledge in the workplace. In the next sub-section I give an overview of the workshop format and content.

Format and Content for the Workshops

Information from the focus group questionnaires indicated that the various team members had varying educational backgrounds and preferred learning styles. Thus, one challenge I faced was to deliver the information so that everyone in the group could experience at least one delivery method they were comfortable with. Therefore, I incorporated a combination of short lectures, group practice exercises, video presentations, individual reading, and small group discussions into the workshop. A short, humorous ice-breaker was selected to help the learners relax and assist them to focus their attention away from the problems and challenges of their work settings and onto the topic to be presented. Following this introductory exercise, I used a short lecture to provide a brief history of the origins of quality management use in private industry and how it relates to our present-day, health-care system. I used the information from a workbook by Zenger Miller Inc. (1997) called Analysing Work Processes as part of the workshop content because it incorporated examples of processes I thought the participants could relate to their everyday living experiences. The case study included in this workbook focused on a recruitment and selection process, an example with which the participants could easily identify from their workplace. This information gave the learners a practical step-by-step review of a simple work process which could later be compared to examples

from health care. After researching many resources I selected a video; I made my selection because the video's demonstration of concrete examples of work process illustrated effectively to the participants the importance of understanding their present-day process in detail before any changes are made. I designed group discussions to give the participants time to be together as a team and to select a work process they are presently involved with at their work site. In addition to scheduling content activities, I had to consider various facilitative process factors. For example, because of health providers' habitual use and reliance on cellular telephones or pocket pagers, I had to consider how to reduce the number of distractions from these instruments during the workshop.

At the completion of each workshop each participant was asked to complete an action contract (see Appendix B), which was used to encourage the learners to make a personal commitment to take the information they had learned during the session and apply it to the workplace. This contract prompted the learners to document four actions: (a) a work process they would focus on at their worksite, (b) a date when they should begin their review of the process in a formal manner, (c) a colleague to whom they could report their progress, and (d) an anticipated date of completion. In the next four sections I describe the implementation of that workshop and its modifications at each of the sites.

Site 1 Implementation

The workshop for Site 1 took place on a Friday in the middle of May. The participants consisted of 14 members of the site-based quality management teams. The

manager of physiotherapy, an occupational therapist, a social worker, a dietician, a licenced practical nurse, the site manager, two laboratory technicians, a housekeeper, and a diagnostic imaging technician.

Flow of the Workshop

I began the workshop with a review of the agenda and the learning intents. I gave the participants the opportunity to add or delete items from the agenda or to enhance the learning intents. This group agreed to accept the agenda and intents as stated but asked if the workshop could be shortened by 30 minutes to allow staff to attend another organized function; in compensation, the group agreed to shorten the nutrition breaks. A blank flipchart was provided for the learners to write down topics of interest which arose during the group discussions, and I explained that these would be addressed before the workshop was over. Following a short humorous activity which resulted in laughter and jokes being passed among the group, I took the opportunity to inform the learners that this session had been planned for them and if they had questions about any aspect of the content they were encouraged to ask immediately. It was my intention to keep the workshop environment comfortable and relaxed in order to encourage the learners to add their expertise to the content, to ask for clarification when needed, and to make general comments as the day progressed.

A group activity titled "What is a Process" was initiated to help identify three processes the participants have in their personal lives. They were asked to write these processes on a piece of paper supplied on the tables and then asked to pick one of these written processes, give it a name, state its beginning and end point, what its purpose is,

written processes, give it a name, state its beginning and end point, what its purpose is, and who the main consumer of this process is. I spoke to the participants about an example of a personal process from my life and then they were given 5 minutes to complete their own work. I asked for two volunteers from the participants to each share their example processes with the large group. The laboratory technician gave the example of doing the laundry, indicating that the dirty laundry in the hamper was the beginning point of the process; the end point of the process was clean, folded clothes in the dresser drawers; the main output was clean clothes; and the consumer were the family members. The registered nurse used the example of making the morning coffee as a simple process she is involved with. The beginning point is an empty coffee maker; the end point is freshly-brewed coffee in her cup; the main output is the coffee; and both she and her husband are the consumers. These examples were helpful, and the rest of the group indicated they had similar types of examples. When asked if they understood this simple concept, they agreed that they did.

The next item on the agenda was a short lecture on the components of continuous quality and process improvement. I started this lecture with the definition and main steps in a work process. A helpful tool for me when I described process to this group was the use of the overhead projector and a transparency to illustrate a simple work process flow chart. When the participants were asked if they understood this concept, the diagnostic imaging technician said, "It seems like a pretty simple concept to me." The rest of the group agreed, then I continued to share with them some of the simple work processes from their health-care facility.

The focus of the lecture shifted to the four stages of team development and the factors that help teams succeed with projects. I thought this topic was important because these participants were expected to return to their workplace and begin reviewing processes as a team. Understanding team development could be helpful for these participants to reflect upon, because it might increase their probability of success when attempting to complete their projects at their workplace.

I reviewed traditional organizational structure and described the Northern Region health-care service delivery as a series of work processes, each involving several departments. I asked the group to name a complex organizational process and the site manager responded by identifying the recruitment, hiring, and selection process which is coordinated by the human resources department but also involves any service department seeking to hire a new employee. When the entire group was asked if this was a good example of a complex work process the participants all agreed, and this reply confirmed for me that this group seemed to have grasped one more concept of process improvement. I then continued to ask the group what would happen if one department were to make changes to their part of the work process without consulting the other services involved in the entire process. The occupational therapist replied, "People would get ugly because it may change what they have to do with their part of the process," and the others agreed.

Scholtes (1988) believes the 85/15 Rule developed by the quality expert, Joseph Juran, who suggests that 85% of quality problems can be traced to work processes and only 15% can be traced to people. I presented this theory to the group and during the discussion that followed, the site manager then asked, "What about the 15 % that don't

want to do a good job"? I responded by saying, "From my experience, that group of employees are the ones who consume the majority of the managers' time and create about 80% of the work problems. They are your challenge"! The rest of the group agreed. The group was asked to consider what cues or warning signs might be identified at a work place to indicate that a work process was in trouble. The participants called out their responses which I recorded on a flip chart. The responses included: increased customer complaints, increased employee sick time, increased staff turnover, decreased staff morale, and an increase in missed deadlines and work errors. These were all helpful responses. A short discussion followed regarding the difference between analysing a work process and solving a problem. It is my experience that health providers like to jump right into problem solving before they analyse the present work process in detail and study every aspect of it. I mentioned to these participants that I have witnessed process improvement projects fail because team members assume they know the problems and give solutions before a full investigation of the work process is completed. A nurse manager replied, "Yes but we're such good problem solvers, we always think we have all the answers!" The rest of the group laughed and one participant replied, "That's why we keep making the same mistakes over and over; we don't take our time."

After a nutrition break we viewed the video of a work process being analysed by a team. When the video was finished, I divided the participants into three small working groups and asked each group to choose one of the work processes they had listed earlier in the session, then to select all of the customers involved in the process and what expectations the customer might have for the service being offered. The laboratory

technician remarked, "Oh, our client wants it all, immediate service every time, nobody wants to wait!" The rest of his group chuckled then began to clearly identify the process, the clients, and the client expectations. One participant said, "It's hard to imagine what their expectations are." I agreed and suggested that they think of themselves as clients and decide what they would want from the service. The group agreed to try to do this during the lunch break.

After lunch I asked the participants if this educational experience was meeting their objectives. The nurse manager responded, "I've never thought about looking at work this way; it is interesting to think when something goes wrong it's not always someones' fault." Another learner stated, "This is better now for me, I like to get to the practical side of things." Next, I reconvened the three small groups and asked them to explore their chosen processes relating them to steps 3 and 4. I asked the group members to role play or imagine themselves as the client and to identify the expectations they might have from a service. One participant moaned and said," Not role playing, I'm no good at that." Another member of her group said, "You be the client and tell us what you want, you've always been good at that!" Again the group laughed and began role playing as the client or identifying client expectations. Following this group exercise, I reviewed an actual work process which I had previously analysed in detail, in order for the participants to view another health-care process improvement activity.

Before the participants left the workshop, I asked each of them to reflect upon the information presented to them during the session and to think about how they could apply the knowledge they had gained to their individualized work settings. I introduced the

participants to an action contract. I explained that the contract's purpose was to obtain a commitment from them to take the skills they had learned during the workshop and transfer them to the workplace. The contracts were circulated to the learners and I asked them to complete and return them to me at the end of the session. One of the participants asked if the site manager would get these and another wanted to know about their purpose. The entire group appeared uneasy, and I could sense their apprehension. I assured them that these contracts were for their own use as a means of self-direction and self-commitment and would not be given to the manager. I did ask if I could obtain a photocopy of the contract for my records and the group agreed. At this point, the participants seemed to relax, began to complete the contracts, and gave me permission to use the information as part of my evaluation. I reviewed each of the workshop learning intents with the group and asked if the learning needs of the group had been addressed during the workshop. All of the participants agreed that they had been achieved. Next, I asked the participants to complete a short evaluation questionnaire and to leave the forms on their tables for me to collect. I explained that they did not need to sign their names to these evaluations. The session ended within the 6-hour time-frame and many of the participants stayed behind following the session to tell my that they had enjoyed the day and to ask me about ongoing support to help them with their process review activities. I told them I was available for ongoing support and gave them my office telephone number. Each participant had been given a set of handouts throughout the workshop summarizing the key elements covered during the day. I also left a comprehensive workbook with the site manager that the participants could use for future reference.

My Observations and Informal Feedback

As the facilitator I was pleased with the outcome of this first session. The activities followed the agenda order, seemed to flow logically and smoothly, and were completed in the allotted time. Although I found components in my presentation difficult to explain to the participants, for example the idea of process analysis versus problem solving, they did not comment on this fact in the questionnaire. There was active group participation during the small working sessions and I found the participants very eager to ask questions and seek clarification as required. The resources that were given to the participants (which included copies of the key elements of the workshop) were well received. The examples of work processes the participants had selected were appropriate and they were able to work through these exercises with little difficulty.

There were several challenges that I had to overcome during the session. In an attempt to accommodate the participants, I had agreed to conduct the session on a Friday. From my past experience as a facilitator working with health providers, a Friday is not usually the best day of the week to plan educational events. I learned once again from this experience, that health-providers usually become tired and restless on a Friday afternoon and this group was no exception. The participants were anxious to get to their next function and I was aware of the pressure the group put upon me to finish the session early. The pocket pagers and cellular calls were a constant source of interruption during the session and on several occassions disrupted the entire group. When the participants asked me questions about the action contract I had asked them to complete, I realized that

this may have been their first time to use a self-contract. This task seemed to raise their anxiety level until I explained the purpose of this contract, after which they seemed to relax and complete the contracts without further questions.

The action contracts had prompted the participants to identify the processes they were willing to review once they returned to their regular work area. As the facilitator, I asked the participants to reflect on the obstacles that might impede their progress as they attempted to complete their process review activities and the steps they may need to take to overcome these obstacles. They cited potential barriers, such as the lack of time, an increase in employee apathy, and the lack of people knowledgeable in process improvement. These participants also expressed concern about factors having a negative effect on them like low staff morale, their lack of motivation, and the lack of cooperation from other staff on their work teams who may not have an interest in changing the way things are done at work. The group noted that the obstacles they had listed could be strong deterrents to their success in completing their process reviews. The group also identified several steps they could take to overcome these obstacles, including: (a) attempting to communicate with other employees in the workplace about the benefits of process improvement, (b) explaining to other staff how looking at work process in detail might improve outcomes for all of them, and (c) rescheduling work so time could be arranged to start process reviews and develop flow charts that would help support the revised and improved work processes.

This group identified several work processes at their site that needed to be improved. These included the processes for performance appraisal, fire safety, reporting

laboratory results to physicians, blood collection, and reporting x-ray results. The manager at Site 1 established and communicated to the workshop participants the expectation that these work processes could be improved upon through a series of process review projects which they could conduct.

Participants' Evaluation Results

The evaluation questionnaire I distributed at the end of the session had a mixture of rating and open-ended comment sections. It was one page in length (see Appendix C). The results were favourable in that the majority of participants agreed that their learning intents had been met. Although meeting the participants' learning needs did not guarantee that process improvement projects would be implemented at the worksite, it was an indication to me that these participants had gained some of the skills necessary to implement their projects.

One participant noted she had a problem with some of the workshop content and summed it up with the statement, "This material is a bit dry, difficult to grasp after only 1 session, needs to be reinforced. Use of wall charts a bit overwhelming, too much info." In my role as the workshop facilitator, I did not sense that the majority of participants felt this way nor did the evaluation questionnaires reflect this opinion. The participants indicated that they liked the skills practice and group discussions, and one individual noted, "I enjoyed the hands-on sessions, group/small sessions, hand-outs, group discussion and application to some on-site issues." These were the aspects of the session that most participants found most worthwhile. My past experience of facilitating

workshops for health-care providers confirmed the fact that they enjoy task-oriented work and prefer practical procedural activities, action lists, and interaction and collaboration with others.

I was keen to review the participants' remarks about the areas of this workshop that needed to be improved because I intended to use the feedback for revising the session. One respondent suggested that I link the theory and ideas directly to health care and not attempt to use other topics and examples. Another participant suggested that there was too much material presented for one session and that each participant needed more feedback about their own individual processes. Still another learner remarked that "another workshop is needed to elaborate on some of the finer points." When asked to rate the overall session, all of the participants rated the workshop as good, very good, or excellent. Because this workshop had received a positive overall rating, I decided to implement it in its current format another time and then decide upon the modifications to be made, based on the feedback from both groups.

Site 2 Implementation

The session at Site 2 was held 3 weeks following the presentation at Site 1. The group consisted of 11 members of this site's quality management teams, and included a nurse manager, a registered nurse, the coordinator of the diabetes education center, two dieticians, the manager of laboratory services, an administrative secretary, a maintenance worker, the manager of housekeeping services, and an x-ray technician. The session was held on a Wednesday and the group seemed eager to work. They did not request to have

the session shortened, although the nurse manager was summoned to a crisis within the facility and the administrative secretary left a half hour early due to a personal commitment. The remainder of the group completed the full workshop.

Flow of the Workshop

I presented the same agenda to Site 2 as I had followed with Site 1 and the flow of the presentation was also similar. Once again, I found the content of my short lecture difficult to explain in simple terminology. Although I had attempted to simplify and clarify the information, I noticed the reaction from these participants was similar to that of the participants who had attended the Site 1 session. These learners became restless and weary by the end of this short lecture.

The resources for this session were distributed to the group in file folders at the beginning of the workshop. A participant in the first session had given me this suggestion. These participants were able to follow the material in their folders without difficulty, as I reviewed the content. The group practice session was well received. One participant said, "I can see where these steps could have great benefit in all areas of the hospital if we had the time to actually sit down and study the work steps involved in the processes." One of the dieticians added, "Maybe if we took the time to do this we would save ourselves a lot of time in the long term on wasted steps we do now!" I was very pleased to hear this comment since it was an indication to me that the main purpose of process improvement had been understood. The group exercise which required some abstract thinking was difficult for some of the participants in this group to grasp. The housekeeping manager remarked, "How are we going to know what people expect us to

do; our job is to keep the building clean and that's all we're supposed to do." The maintenance worker added, "Yeah, if something here gets broken then we fix it, how can we imagine what the other employees in this building want from us?" These participants found it a challenge to imagine what their customers expected from their service.

Three members of this group did not receive the action contracts favourably. They engaged in approximately 15 minutes of heated discussion regarding the need for these contracts. They were very reluctant to even discuss the contracts and one of the three stated, "We don't see why we have to complete these, we have never had them before." Another participant who was familiar with self-contracts said, "These are for us to seriously do something with the information we learned today." Another asked "Well, where do they go to then?" At this point I realized that the participants were afraid to commit to future work, and this fear was expressed in their frustration with the forms. One participant wrote on his contract that he did not agree with these action contracts, and so he refused to complete one. The rest of the group completed them after I reassured them that they were for their own use and would not be given to their superiors for review or as a commitment to action.

Evaluation Results

Ten evaluation questionnaires were completed by the participants. All of them agreed their learning intents had been met. One person commented, "I felt quite unfamiliar with this until today's session." Another participant was undecided whether the presentation had met his or her expectation, but the rest of the group agreed it had. Once again, the positive comments I received validated for me the need for this

workshop, and that the health-care providers who had attended gained meaningful and practical information that would assist them in the workplace. These participants noted that they had enjoyed working with the examples presented during the session. One participant said, "Actually working on the information, not just listening, was the aspect of the session most worthwhile." Once again, I noted that health-care providers are usually a highly motivated group of individuals who are able to accomplish projects well in a group setting when given the time, direction, and the support they needed.

One participant suggested the workshop could be improved upon by making the session longer, whereas two others commented it was well done. Overall, the participants found the workshop to be very good. Two participants suggested that I follow up this session with further information, and another stated, "This was effective in that I feel I have the knowledge now to analyse and look at work processes and watch for the results. Thanks, Rosemary, a difficult, yet worthwhile, task."

My Reflections and Changes for the Process

As I reflected on the events of the first two sessions, I began to re-focus on the main purpose of the workshops. Despite one participant's comment that I make the workshop longer, I questioned whether I had included too much information in the agenda and whether I had lost sight of the articulated participants' need, which was to learn how to improve work processes in order to improve client services. Had I attempted to make these participants facilitators of process improvement? Had I given too much detail for the task they needed to accomplish? After much reflection, I concluded that the

workshop could be modified to meet better the needs of the participants in Site 3 and Site 4. I proceeded to shorten the workshop to 3 ½ hours in length.

For the revised workshop I concentrated solely on the steps to improve a working process and I eliminated a great deal of the theory and history about continuous quality improvement that I had presented in the first two sessions. With the agenda changed and a shorter version of the lecture that focused on process improvement only, I re-focused the opening exercise, the examples of working processes, the implementation steps of analysing a process, and the practical components of utilizing process improvement steps. As well, I eliminated the segment on problem solving and the demonstration of an improved process. I measured the impact of these changes by comparing the participant evaluation questionnaire results and the findings at the 6-month post-evaluation phase. I had adjusted the workshop to reflect better the stated learning needs of the participants without compromising their learning intents. In early autumn the Site 3 manager and I met and we decided the next workshop would be in October from 1230-1600 hours, at that site.

Site 3 Implementation

The 10 participants who took part in this revised workshop agenda were members of the Site 3 quality management team. They included a physiotherapist, a dietician, a laboratory technician, two registered nurses, a licenced practical nurse, a receptionist, an office worker, an x-ray technician, and a general worker.

Flow of the Workshop

This group proved to be a highly motivated group of health-care providers and were anxious and enthusiastic to participate. I knew this because they responded quickly and logically to the questions I asked during the session, and their examples of work processes were appropriate. The lecture was shorter and I found the flow and content to be much improved. I did not sense that this group was feeling overwhelmed by too much information, because they did not appear tired or restless during the presentation, as compared to the participants from Site 1 and Site 2. When I asked the group if they needed any points clarified, the laboratory technician said, "It's pretty clear to me, but lets get on with the exercises and we'll let you know if we get stumped with anything along the way."

As the learners began to discuss and implement the steps of analysing a work process I noticed that two participants, the housekeeper and the receptionist, were having difficulty applying the action steps to an actual work process. I had also noted this problem at Site 1. The remainder of the participants were able to work through the exercise without difficulty and began helping the two participants who had the problem. This was an important group behaviour for me to observe, because it demonstrated teamwork and the participants' willingness to assist others in a team effort to accomplish a task. Later the housekeeper stated, "It is really hard to pick apart each little thing we so on the job when it all comes so naturally, these are not things I have to think about because they are part of my routine." I agreed with her that most people find it a challenge

to reflect on each step in a work process in order to draw a detailed picture of how the work is presently being done.

When the participants at Site 3 were presented with the action contracts they did not question the need to complete them.This was a notable difference from the participants at Site 1 and Site 2. These Site 3 participants, however, asked if they could complete the contracts as a team because they would be working on the process review projects together. This seemed like a sensible idea to me, so the team members selected two work processes they would attempt to improve at the workplace and they signed two action contracts.

Evaluation Results

These participants agreed that the workshop was realistic and the learning intents had been met. Overall, they noted that the workshop was good or very good, and that they learned most from the flow charts, the group work, and the team work. They found the workshop format to be satisfactory and one participant suggested the workshop be held away from the workplace whereas the other participants did not make any improvement suggestions.

Site 4 Implementation

Following a telephone conversation with the site manager of Site 4, we agreed to hold the final workshop in late October from 1300-1630 hours in the workplace. Eight members of the quality team attended and they consisted of the site manager, two registered nurses, the recreation director, two cooks, a housekeeper, and the accounting clerk.

Flow of the Workshop

The agenda for this workshop was the same as presented at Site 3. During this workshop the site manager asked if the entire group could select one work process only and use it as an example for the entire team to practice the steps of process improvement. This request seemed to me to be a logical approach because the team would be analysing work processes together in the future. The process they all selected was client documentation. I expressed surprise that the housekeeper and cooks were interested in this example. One of the participants explained to me that this facility was hoping to take a new approach to documentation whereby anyone having contact with the client could document care episodes on the chart. In order for the whole team to have input into the chart, they must have explicit knowledge of the present working process. I then focused the steps of analysing a work process around this documentation example, in an effort to assist the participants with their future work.

As the participants discussed the action steps to process improvement they began to help each other understand the importance of identifying each work step in their process. As I had noted with the other three workshops, some participants had greater difficulty understanding the need to detail the work process and to create a flow chart. The team progressed through the session, asking questions and coaching each other when necessary. One of the registered nurses said, "No one could have told me how incredibly difficult it is to pick out every step of our charting. We just take this stuff for granted and don't think about how to show other people what we do." The recreation coordinator stated, "It's a good time to look at all the steps in charting now if we're all expected to do

it some day soon." The agenda was finished with the completion of the action contracts and the evaluation questionnaires circulated to the group. The participants at this site completed the action contract as a team and all of them signed their names to one contract with no questions asked about the need for the contract.

Evaluation Results

These evaluations indicated the participants agreed or strongly agreed that their learning intents had been achieved. They also noted the workshop was satisfactory or above average. These participants stated that they had enjoyed the hands-on work. One participant suggested that more information could be made available to the participants before the workshop as a way of improving the workshop. This group did not hesitate to do the action contract, neither did they ask questions about its purpose. The participants discussed the start date for the workplace process review project and as a group reached consensus about the start date. The mood of the group was positive and one member commented, "You know, I think this may actually work."

Follow-Up Interviews With Site Managers

Several months following the last workshop I held telephone interviews with the site managers at each of the four health-care facilities that had participated in this study. The purpose of the interviews was to determine if the participants had been able to transfer the skills they had learned at the workshops and put them into practice by implementing process changes in the workplace. The results were determined after the

site managers and I reviewed the number of process improvement activities that the participants at each site had agreed to and compared them to the actual number of changes implemented at the workplace.

The participants from Site 1 had identified 6 work processes which were in need of detailed review. Improvement to 3 of the 6 process projects had been initiated, and 1 had been successfully completed. Of the remaining 3 process projects, 1 was identified as needing to be reviewed on a regional basis and the other 2 had not been attempted. Site 2 had identified 5 processes which the participants agreed to pursue actively when they returned to the workplace; 6 months after the workshop was held, 4 processes had been successfully reviewed and changed. The participants at Site 3 had identified and agreed to review 2 work processes, and at the time of the interview with the site manager both projects had been initiated, but changes to the processes had not resulted. When I contacted the manager of Site 4, she indicated that nothing had been initiated for the process the participants had selected.

At the sites where process improvement projects had been initiated, the managers clearly informed the staff of their expectations; they had been given the time to accomplish the work; and they had received clerical support to collate the data. The managers also stated there were reasons why some of the projects had not been started or completed: (a) lack of staff to sit on the process review project teams, (b) internal problems that prevented the teams from meeting, (c) lack of adequate information systems to gather the data, (d) lack of on-site resource people to supply team support, (e) lack of trained facilitators to assist the teams, (f) lack of practice time and too few

examples of work processes, (g) lack of clear expectations from management to complete the projects, (h) lapse of time between the workshop and the projects starting, (i) difficulty in grasping a new concept after one session, and (j) feeling overwhelmed with the amount of work they were expected to accomplish.

In the next chapter I review the purpose and intent of the study. I also include a discussion about implementing adult learning principles, overcoming barriers to participation, and the importance of creating a positive environment for learning. I also explain the use of a program planning model and how to increase learner participation and commitment. In addition, I discuss the continuous process workshop and the role of the health educator when facilitating the workshop. I conclude with my recommendations based on the results of the study and make comments on further research possibilities.

CHAPTER 4

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to examine how continuous process improvement can be taught to, and practised, by health providers. My intent was to answer the following three questions: (a) What changes can be demonstrated in health care as a result of educating staff on process improvement? (b) How can health educators facilitate the implementation of process improvement in their workplaces? and (c) What factors affect the successful practice of process improvement in various health-care settings? In the first part of this chapter, I discuss the study from the perspective of adult learning principles, identify the benefit of following a program planning model when developing programs for adult learners, indicate the importance of understanding motivational factors and barriers to continuing education in health-care settings, and identify the factors that affect the transfer of learning to the workplace. In the next section, I discuss the three questions stated above as they relate to the challenges that I encountered during the study. In the final section, I draw conclusions about how to facilitate process improvement activities in health care based on the study's results, make recommendations to other health educators based on these conclusions, and suggest topics for future study.

Implementing Relevant Adult Learning Principles

One aspect of human resource development is employee training. Hughes and Mattheis (1998) state, "The key to the success of the organization and the quality of

service is the people who provide service" (p. 423). They continue by noting that organizations must ensure their employees are skilled and training must include measurable indicators to determine clearly if the employee is competent to deliver or enhance a service to the client. An educational program that will assist members of the site-based quality teams in gaining the knowledge and skill necessary to improve a client service needs to follow adult learning principles. Here, I examine the study closely to assess my use of adult learning principles and my deliberate attempts to address barriers to participation.

Implementing Adult Learning Principles

In order to incorporate adult learning principles into an educational program on continuous process improvement, I reviewed the adult learning literature. Knowles (1987) has made numerous assumptions about why adults participate in learning programs. He suggests adults need to understand why they must learn something; want to be self-directed in their learning; will participate if there is a need to know something; and bring considerable life experiences to the learning program. Knowles (1992) also notes that adult learners must be active participants in the process and that this process must build on their needs, interests, and problems. In recognition of these principles, I consciously established focus groups with members of several of the site-based quality team members in order to gain an appreciation of their knowledge of continuous process improvement and to identify if an educational program was needed. I gave the group members an opportunity to discuss the concept of process improvement and the benefits it could have

for them in the workplace. This meeting also gave the team members the chance to make decisions about their educational program by identifying for me what they wanted to learn and how they wanted to learn it.

I also incorporated other adult learning principles in my educational planning and implementation. Vella (1994), for instance, includes listening to the learners' needs and wants; creating a safe learning environment built upon sound relationships; giving attention to the content; designing the learning events to be responsive to the learners' needs; and fostering an atmosphere of teamwork. These principles required that I use active listening skills to grasp the exact views of the focus groups regarding the need for a program on continuous process improvement. It was necessary for me to understand clearly the participants' needs in order to develop the learning intents for the program.

To create a safe and comfortable learning environment, which Vella (1994) recommends, I used humour during the workshop's opening exercise. This exercise helped the group to relax and encouraged everyone to speak in the group setting. In addition, I had a well-established relationship with all of the participants at each of the four sites, a fact that increased the participants' comfort level.

During the focus groups, I encouraged open dialogue about the need for team work when working with process analysis. This approach gave the members an opportunity to talk about their ability to work as a team, based on their past experiences of working on other projects. This was especially relevant for participants from Sites 2 and 3 who intended to approach their process improvement projects from a team perspective rather than as a challenge for individual members.

I also offered the participants the opportunity to have input into the agenda. At the beginning of each workshop session, I reviewed the agenda, and asked if it would be acceptable and if additions or deletions should be made. The agenda was also revised according to the feedback I received from the evaluation questionnaires. This inclusion of their needs and wants is also consistent with Vella's (1994) principle of respecting adults as subjects of their own learning.

I encouraged the participants to write questions on a flip chart so answers could be given before the completion of the workshop. This incorporated Vella's (1994) principle of meeting the expectations of the learners. In keeping with that principle, I also distributed a program evaluation following each session. This information helped me to make changes in the workshop that the participants felt were needed. By encouraging the focus group members to verbalize what they wanted and needed to learn, to identify how they would like their educational program to be structured, and by giving them the opportunity to make changes to the agenda during various stages of the program, I made myself accountable to the learners and encouraged them to increase ownership of the workshop. I incorporated the principle of planning appropriate content and providing ongoing support by preparing a workbook and handouts that the participants could use as resource material following the session. These resources could assist the team members when they began the process improvement projects they had planned, thus giving them control over their learning.

The use of focus groups gave the members of the quality teams an opportunity to understand the direction the quality management program was taking within the Northern

Region. These focus groups also gave the team members the chance to ask questions and make decisions about the future direction of their own site-based quality programs with regard to the benefit of their work at both the regional level and for site-based programs in general. This regional perspective was also included during the workshop in order to articulate clearly that the participants' projects would be reported at the regional level. Giving the team members an insight into the future direction of the regional quality program assisted them in deciding if a program on continuous process improvement would be an asset to them and how it related to the workplace. Caffarella (1994) notes that adults have a need to participate in learning programs that help them to prepare for current and future work opportunities and to assist them when they need to adapt to change.

Overcoming Barriers to Participation

Some adult educators have researched why adults do not participate in continuous learning activities. Kersaities (1997) notes that some adults cannot find a program or an educator that suits their needs and expectations. I believe that my customized program helped overcome some of these barriers. In planning the program I took into account the participants' current knowledge of continuous process improvement, and their preferred learning styles, and I also provided a comfortable environment, in order to meet their learning expectations. Offering to facilitate the sessions myself, following a detailed self-assessment of my skill level, provided the participants with a workshop facilitator with whom they had a well established and trusting relationship. In this way I adhered to providing the participants with a credible presenter that they could feel at ease with.

Courtney (1992) notes that many adults have been affected negatively by their previous learning activities and are reluctant to participate in ongoing educational sessions. He says that some adults resent having to attend learning programs and try to avoid education programs at all costs. I was aware that some potential participants might feel this way. Therefore, I contacted the site managers whom I had identified as possible workshop participants; and during these meetings we agreed that the program would not be mandatory for the employees to attend. Rather, it would be offered and supported by their manager if the employee expressed an interest in attending. Using this approach, I was able to facilitate an educational program for employees who were willing to be active participants, not merely employees who were mandated to attend and who might resent having to take part. In the next section, I examine how I used program planning models to design this educational program.

The Importance of Creating an Environment for Learning

According to Marsick and Watkins (1996), promoting learning in the workplace is very different from providing courses for employees. Creating a culture that stresses continuous learning in the workplace requires an organization to embrace learning at all levels and to utilize numerous learning methods.

Increasing Learners' Interest

In this section I examine my efforts to create an environment that was supportive of learning. Over the past several years I have watched the role of the educator in the

health setting shift from coordinator of inservice sessions to facilitator of continuous learning based on the organization's strategic goals and objectives. In keeping with the strategic direction of the Quality Management Advisory Group of the Northern Region, and realizing that the public is demanding greater accountability from the health providers, I promoted the need for health providers to learn about the concept of process improvement. Nonaka (1991) notes that few managers truly understand the importance of stimulating employees to learn within an organization. Recognizing that this view existed in my own region, I focused a great deal of time in meeting with the managers and the key stakeholders in the four sites in which the workshop was to be held. Nonaka also believes that it is essential that expertise be shared at all levels of the organization, in order to increase the chances of success. Based on the assumption that the front-line employees have the ability and desire to learn about process improvement, I designed the workshop with this group in mind. I operated on the belief that by empowering the non-management employees to affect change within their workplace, they could bring about positive results and begin to meet the expectations of both the public and the organization.

In recognition of the importance of management's involvement in program design, I engaged the site managers in the process of validating the learning objectives for their employees. This approach is consistent with Parry's (1990) belief that managers should become involved in establishing the learning objectives, or intents, for the employees in order to support them adequately and to promote the transfer of learning in the workplace. A manager who has an intimate knowledge of an educational program's

learning intents can better evaluate the success an employee has in transferring the knowledge to the worksite. On this subject, Garavaglia (1993) encourages managers to evaluate the transfer of learning. He recommends a method of performance measurement and behavioural change that encourages employees to complete action plans and send copies to their managers. In keeping with this recommendation, I incorporated action contracts in the workshop design. My expectation was that the contracts would create greater employee accountability and would foster a willingness on the part of the participants to take the information presented during the workshop and implement it in the workplace.

Using a Program Planning Model

Creating an educational program that will best meet the desired outcomes of the participants is a challenge for health educators. In this section, I discuss choosing a program planning model that would encourage participation and commitment, help transfer of learning to the workplace, and create an environment conducive to adult learning.

Choosing a Model

In this section I examine my use of program planning principles to increase participant's learning. Since the Northern Region has adopted a continuous quality management philosophy, the on-site quality teams are expected to participate actively in quality improvement activities and submit reports on these activities to the regional director of quality management. The need to participate in continuous improvement

activities had been identified as a workplace goal, so I focused my attention on structuring a workshop that would assist the quality team members in realizing this goal. Mills et al. (1995) suggest that programs should be designed in such a way that they make an improvement in the life of the participant. This was my intention in choosing a program planning model.

I deliberately used elements of Caffarella's (1994) model because of its flexibility and inclusiveness. One of the more challenging aspects of Caffarella's model is designing instructional plans. This was my greatest challenge because health-care providers are a diverse group of nurses, therapists, technicians, physicians, and support providers. Another challenge relating to the first one was I wanted to choose the appropriate learning strategies to best suit the learning styles of those who were participating in the workshop. In this regard, Caffarella describes many different instructional techniques to enhance adult learning and participation. She suggests using group discussion to enhance knowledge and attitude, simulation exercises to teach psychomotor and thinking skills, and games or reflective exercises to relate values and feelings. Caffarella also stresses the fact that the adult educator must be comfortable in using the strategies or techniques. If the adult educator is not comfortable, these tools can become distracting for the learner. Based on Caffarella's suggestions I incorporated short lectures, group discussion, case study review, practice, and independent work into the workshop. In addition to the different approaches used during the workshop, I also varied the content presentation with video tapes, overhead transparencies, flip charts, and handouts that included information on continuous process improvement. The group work included brainstorming sessions,

practice rounds, discussion, and scenarios requiring group problem solving and decision making. Varying the approaches to instruction facilitated the principle of incorporating multiple learning styles into the educational program.

Many of the adult educators who addressed the topic of program planning stress the importance of identifying and validating learner needs. In addition to Caffarella's (1994) model, I consulted other program planning literature. For example, Colgan (1993) in his work emphasises the need to consider the culture and the environment in which the participants work. Because the work environment within the Northern Region had been changing very rapidly prior to this study, I was fully aware that too much change for the employees could possibly cause a negative outcome for this educational endeavor because of poor timing. Fortunately, at the time of this study there was a period of stability from the time the study was proposed until the actual workshop for the employees took place. This fact convinced me that the members of the quality teams would be ready and willing to learn this new approach to quality management and that the outcomes would be positive. When I shared this conviction with the site managers, they agreed.

O'Neil et al. (1995) describe needs assessment as a continuous part of the planning process rather than as a linear planning process. Initially I approached the identification of program needs through a series of personal interviews. First, I assessed needs at the regional level when I discussed the topic of continuous process improvement with the Quality Management Advisory Group for the Northern Region. Second, I assessed needs at the site level with the managers of the four selected health-care facilities participating in the study. Third, I assessed needs with the focus group members

finally with the workshop participants themselves. Through ongoing discussion at various levels of the organization and during various stages of the program design, I continuously assessed the learning needs of the target group and incorporated their feedback into every stage of the planning process.

Abruzzese (1992) stresses the need to establish and communicate measurable learning objectives and to communicate these to the participants. These objectives or intents must be clearly understood and validated by the participants so the true purpose of the program is well articulated and participants' expectations are met. In keeping with this concern I held interviews with the various stakeholders involved with this learning experience and I developed realistic and measurable learning intents for the workshop. These learning intents were then communicated to the stakeholders, who confirmed their accuracy. I related each learning intent to a learning task, as Vella (1994) suggests, so that the participants could identify easily if the objectives would result in their desired outcomes. During the workshop I provided practice exercises whenever I introduced new content because I knew retention and recall are both enhanced if there is an opportunity to practice and discuss the information introduced.

Planning for Transfer of Learning

Another aspect of my program design was planning for the transfer of learning to the workplace. Merwin (1986) proposes that organizations should be concerned with the results they are getting from their investment of the time and money allocated for training programs for their employees. The process of evaluating learning programs for organizations is a good way to determine if positive results are achieved. In keeping with

this idea, I incorporated a two-stage evaluation process into the workshop. The participants were asked to complete a questionnaire following each workshop and the responses were used to revise aspects of the agenda that the learners suggested needed changed. The second element of the evaluation phase involved interviews with the site managers several months following the workshop. Pancer and Westhues (1989) note that many educators choose to evaluate learning programs at the end of the program, but they suggest that a better way to evaluate is to include evaluation periodically throughout the program. I integrated this ongoing evaluation concept into the workshop asking participants intermittently throughout the session if what I was presenting was meeting their learning intents/objectives, and if they wished to modify the agenda for any part of the session.

Consistent with Vella's (1994) recommendations, I wanted to increase the potential for transfer of learning back to the workplace. During the workshop I introduced concrete workplace examples of process improvement projects as a way to give the participants information on how the concept of process improvement can be implemented at their workplace. I also included learning contracts as a component of the workshop. I asked each participant or team to complete this contract, which took the form of a written commitment to take the information they had learned during the workshop and implement it in the workplace. This type of self-directed contract can often motivate learners when they return to the worksite.

I am aware of the fact that the world of health care is changing rapidly due to advances in research and technology. I agree with Hewlett and Eichelberger (1996) that

one factor that has had a significant impact on the changes in patient care delivery is the continuing education of health providers. It is conceivable that a program that teaches health providers the skills of process improvement could have a major positive impact on the health and well-being of the clients within the catchment population of the Northern Region. This Northern Region program also has the potential to increase staff morale if work processes are revised in such a way as to give the health providers greater satisfaction and control of their work life.

Increasing Learner Participation

In this section, I discuss my attempts to increase participation. Merriam and Caffarella (1991) suggest the reason why adults participate in learning activities is to achieve a goal. I agree. In this study the participants'goal was to learn about process improvement in order to incorporate the skill into their site-based quality programs. The workshop I planned and implemented was consistent with meeting their goal. Actually, the main focus of this quality management concept, the subject of the workshop, is to empower the health provider with the skills necessary to analyse the way care is being delivered and to establish a different approach in order to bring about an improvement in service outcomes. By reviewing the way health-care workers are providing their services, they were participating in informal learning sessions on a regular basis.

Unfortunately, in many health-care environments, there is little opportunity for the health provider to participate in learning sessions. During the planning phase of this study I gave organizational barriers a great deal of consideration because these barriers could have a negative impact on the educational outcomes if not addressed. Similarly, Cooper

(1997), reports that heavy workloads, lack of financial resources, and manager apathy are barriers to health providers attending learning sessions in the workplace. An understanding of these problems that may impede the participation of health-care employee, is important. For this reason, I engaged the site managers as partners in the learning experience. They participated in the focus groups, reviewed and assessed the learning intents, and agreed to attend the workshop sessions themselves in order to understand and assist the participants who took part in the workshop.

I was aware also of Waddell's (1993) concern that the educational program itself can present barriers to the health providers' ability and willingness to participate in continuing learning activities. Deterrents caused by program location, cost, work schedule, or relevance of the topic all impact on health-care employees' attendance. I incorporated several questions during the focus group meetings and the site manager interviews that addressed the structure of the program. This input into the type of session they would like to participate in was intended to increase their willingness and ability to attend. Giving the participants options for the structure of their program enhanced their control of the program.

Increasing Learner Commitment

The need for an educational program to have credibility in the eyes of the learners was of utmost importance for me. Cherry (1987) identifies problems in program planning that often involve finding the appropriate expert for a particular topic. Because I was aware that it would be difficult to find presenters on the topic of continuous process improvement because it is a relatively new concept in the world of health care and quality

management, and because of our limited budget, I decided after assessing my own levels of expertise and examining the pros and cons of filling the presenter role myself, to volunteer for the task. I consulted with the Regional Quality Management Advisory Group and they agreed I was qualified to act as the presenter. After taking on the role, I began to feel the pressure of providing expert advice and guidance, the key components in the success of any educational program.

Transfer of Learning to the Workplace

Nonaka (1991) believes that organizational success is based on a personal commitment from the employer to create an environment conducive to learning and one that values the transference of knowledge. Managing change within an organization and providing support to assist employees with the change process can be an essential component in easing transition during a change. From the outset of this study I recognized the importance of being an available resource for the participants following the workshop sessions in order to answer the questions or concerns they might have when attempting their own process improvement projects.

Caffarella (1994) recommends that the program plan should integrate a method for the transfer of learning. Providing a support system or mentors can be effective strategies that can assist with the transfer of learning. For this reason I offered to act as an ongoing resource so I could help the participants apply what they learned during the workshop to the workplace. I encouraged the managers who also attended the sessions to act as coaches for the teams when problems arose. My follow-up with the team members indicated that this type of help did occur.

The Continuous Process Improvement Program

The key focus of the study was the continuous process improvement program. In this section I address three questions about its effectiveness. These questions concern changes in the health-care system, changes in the role of the health educator, and factors that affect the successful practice of process improvement in various health-care settings within the Northern Region.

Assessing Changes in Health Care

The first question I sought an answer for was, "What changes can be demonstrated in health care as a result of educating staff on process improvement programs?" In facilitating a workshop on continuous process improvement for health-care facilities within the jurisdiction of the Northern Regional Health Board, my goal was to benefit the client, the organization, and the employees. According to Dianis and Cummings (1998), quality is an essential component in health care and the clients and accrediting bodies expect quality activities to be a priority for health services. Continuous process improvement is one quality activity which Rosenstein (1998) suggests must be developed throughout health care in order for services to survive in our present social environment. Sukati (1995) refers to the concept of continuous process improvement as the foundation of quality improvement. I agree with these assertions.

During the development of the workshop, I operated on the assumption that the approach taken, and the content included, would enable the members of the on-site quality teams to embark on projects to improve the services they offered to clients. The results were not as positive as I had anticipated; only 9 of the 14 processes that the

participants had identified as needing improvement were analysed, and of these, only 5 had resulted in change. I anticipated a greater completion rate after a 6-month period although I had not established a bench-mark for determining the success ratio. That being said, the five processes that had resulted in change should in time bring about an improved service to the client. The processes that were improved included a fire response procedure, a method for registering clients through the emergency and admitting departments, a process for rotating patients through the operating room, a system for reporting laboratory and x-ray results to the family physicians, and a procedure for ordering stock and pharmacy items from a central distributing site. Although the actual benefit to the client as a result of the changes may not be realized for several months, the central issue remains that the work processes were analysed by the quality team members. The intent of changing the processes was to improve client service; the results should be enhanced services.

Some of the on-site quality teams who successfully analysed their work processes and made changes, have continued to identify other processes that are in need of improvement. I have noted a change in their approach to quality problems that arise in their facilities, as well as their ability to focus on the process and not the individual. Although this change has not occurred with all the teams who participated in the workshop, I have identified it in two of the four facilities involved. There has also been increased interest in learning and participation in process improvement activities from other services within the Northern Region. The managers of other sites and departments are beginning to see the positive results of the changes made by the team members

involved in my study, and are now identifying their needs through the formalized needs assessment process that I coordinate in my present position. Brooks (cited in Brooks and Verhey, 1994) suggests that an organization that has a commitment to quality will develop a formal training program for staff. They recommend that this program should focus on involving staff in problem solving and decision making. The added benefit of an educational program about continuous process improvement is the awareness it creates within health-care services through the sharing of knowledge on process improvement among co-workers. There has also been an improvement in staff morale in places where on-site quality teams are active because of employee involvement in the decision-making and problem-solving process within their service and because these employees feel they have greater control over their work environment.

Assessing the Role of the Health Educator

The second question I wanted to answer was: "How can health educators facilitate the implementation of continuous process improvement in their workplaces?" As a result of the evaluation questionnaires from the first two sessions, it became very clear to me that I needed to alter the workshop agenda without compromising the participants' learning objectives. In planning the educational program, I had shifted unintentionally the focus of the workshop from assisting the on-site quality team members to learn about the concept of process improvement to the development of these team members as process improvement facilitators. Consequently, the participants in the first two sessions were overwhelmed by the amount of content and suggested a series of sessions be held to accommodate all the content. Once I recognized what I had inadvertently done, I revised

the workshop agenda to reflect better the true needs of the participants and to focus their learning and practice on the skills of continuous process improvement. In this regard adult educators must be very sure they understand the desired outcome of an educational program from the participants' perspective. As Vella et al. (1998) point out, "The content should be learner focused, action oriented, and related to applications the learner will make after the training" (p. 36). My enthusiasm with continuous process improvement had resulted in my hijacking the agenda for a greater purpose. I wanted this new and exciting quality management concept to be embraced and practised at all levels of the organization, and in doing so I offered more than the participants needed or expected.

Communication with the facility managers was an important aspect of the planning of the workshop. I knew that the benefits of continuous process improvement needed to be clearly understood at all levels of the organization because a commitment of time and effort on the part of the quality team members is required if improved service to the client is to result. Parry (1990) explains that managers should be involved in the decision-making that deals with their employees' training in order to facilitate the transference of learning into the workplace. I found it very helpful to approach the Regional Quality Management Advisory Group from the outset of my study and to ask them to help me identify clearly the need for a process improvement approach. I wanted to ensure that the need for this program existed at the senior level of the organization. After the need was validated, I found the site managers very willing to address this need at the individual facility level, and in turn at the site quality team level. The managers needed to understand that their employees would be asked to participate in a workshop

for several hours, a fact which would result in lost productivity, decreased client service, increased cost due to staff replacement in areas whose service must continue, and a shift in the approach these teams take in addressing quality issues.

I realized that the implementation of continuous process improvement in the Northern Region was not a process that could be accomplished in a few short weeks. I was also aware of the fact that the results of the workshop, that is transfer of learning, may not be noted for many months, or even years. Change is a slow process and the health educator must recognize this fact. Although the outcome of continuous process improvement should result in changes in the workplace, the implementation of the concept also requires change. There have been many books written over the past few years on the topic of change and how it should be managed (e.g., Bridges, 1991). Health educators should recognize that implementing process improvement in a health-care setting is in itself a process of change. Vella et al. (1998) suggest that changes on-the-job that have an impact are long-term, broad, and focused on the organization. The implementation of continuous process improvement can be a lengthy one that will require a great deal of patience, commitment, and support for success to be realized.

There has been an increase in quality related activities in health care over the past decade and this surge has been noted within Nova Scotia's Northern Region where I am employed. With this increased interest in quality issues has come an increase in the resources available in the marketplace on this topic. My organization was interested in implementing the concept of continuous process improvement as an integral part of its overall quality program. Consequently, the organization had to decide if this concept

could be coordinated by the resources within the organization, or contracted out to a consultant firm or other outside resource. Bull (1998) suggests that limited resources are available in health care for quality and care management, thus making collaboration among members of the health-care team increasingly important. As the health-care educator, I assisted the organization in making this decision by throughly assessing the learning needs of the organization and finding the resource that could best provide the skill, competency, and credibility required to introduce and help integrate the continuous process improvement concept into our regional health-care system.

Raether (1998) believes the education of health-care employees should not be underestimated when it comes to the successful integration of continuous quality improvement into the workplace. As the health educator, I assessed my own competencies and concluded that I had a good working knowledge of the concept of process improvement; consequently, I recommended that I facilitate the educational program for the quality team members.

Once this decision was accepted, I attended a meeting of the Regional Quality Management Advisory Group to decide my future role as educator in charge of the implementation process. Discussions were held with this management group in order to determine my level of working involvement with the site managers of the four health-care facilities involved in the program. Georgensen (1982) suggests that the training professional should encourage the participants and the managers to articulate what actions or behaviours they expect to see at the workplace following a program. As the educator, I attempted to facilitate this answer by raising the issue with management, informing them

about the skills the employees would need to assist them in the overall implementation of process improvement. Whether the resources are found within an organization, or must be contracted, the educator's task is to coordinate the entire implementation and ensure that the integrity of the process is maintained.

Selecting a program planning model was helpful for me during the developmental phase of this study. It was important for me as a health educator to review and include various principles of adult learning and to select a program planning model that would help me in carrying out the task of coordination. I chose Caffarella's (1994) model because of its flexibility and sensitivity to adult learning principles. Even through the role of the educator may vary depending on what resources are to be used, the educator should always ensure that the basic adult education principles are incorporated into a program and that the learning needs, objectives, and evaluation phases of the process are coordinated into the plan.

The health educator may need to plan for ongoing support and assistance that the organization will need for the complete implementation of continuous process improvement. Identifying the resources that will be needed for the employees, and what the cost will be for those resources, are issues which the health educator could include in the plan. The educator can begin to assess the need for ongoing resources based on the evaluations received from participants during the educational sessions and suggestions received from follow-up interviews with the participants, managers, and other key stakeholders.

Identifying Influential Factors

The third question I wanted to answer was, "What factors affect the successful practice of process improvement in various health-care settings?" Several factors should be considered in order to implement successfully a continuous process program into a health-care setting. These include: culture, timing, expectations, and resources. Each of these factors can have a major impact on the implementation of continuous process improvement. I discuss each of these individually.

The workplace culture. I was aware that the goal of a continuous process improvement activity is to examine a problem in the workplace and make changes to the process. I also knew that there are several steps necessary to complete before changes to a process can be made. These include: the identification and review in detail of all the elements of a work process, the identification of the steps in the work process that are creating the problem, discussion and recommendation for changing the process to eliminate the problem, implementation of the recommended changes, and evaluation of these changes based on the outcomes. This is consistent with Smeltzer and Pfeiffer's (1998) assertion that the ability to select and implement planned change strategies is integral to a quality improvement program. Because the anticipated change will be the result of process analysis, the organizational environment or culture must embrace change as a integral part of its existence. Any history of resistance to change needs to be discussed at all levels of the organization before the implementation of continuous process improvement is attempted. Change needs to be a managed process, and the

progression of the changes needs to be communicated regularly to the employees affected by the change.

Meisenheimer (1998) points out that one of the challenges of continuous quality improvement is cultural. This cultural dimension includes the beliefs and values that are displayed in the workplace to meet a shared purpose. The Northern Regional Health Board has included a commitment to quality care and service in its value statements. Because I knew this organization had a strong quality management program in place, I was sure the concept of continuous process improvement would be welcomed as a means of expanding the existing quality approach. My sensitivity to the culture of the health-care region aided me greatly in the implementation. Knowing that the members of the Regional Quality Management Advisory Group endorsed the introduction of an educational program on continuous process improvement into the Northern Region, I felt sure that the organizational culture was ready to have this quality concept made available to them.

The timing of implementation. Although it is difficult to imagine a stable environment in the health-care system of today, the less chaos there is in the workplace, the more likely the focus can be on process improvement. In my study, timing may have negatively affected the transfer of learning. As one site manager explained to me during a follow-up interview, "I think the lack of practice time, and the lapse of time between the workshop and the projects starting were factors why the staff did not analyse their work processes and make changes." Another manager noted, "The internal problems we have been facing for the past several months may have contributed to the teams not meeting

their goals." Consideration also needs to be given to the calender months in which the educational program is introduced to health providers. There may be too great a time lapse between the workshops and the participants' ability to begin their process analysis if the sessions are held near vacation times when attention is focused on the upcoming holidays.

The expectation. During the several years I have been employed in health care I have observed that most employees want to do a good job. Personally, I find it much easier to perform my work-related duties and to do a good job when I am given clear direction and the expectations are well defined by my immediate manager. This is consistent with Vella, Berardinelli, and Burrow's (1998) statement that "the accountability process begins with a clear identification of the purpose or results expected from the education program" (p. 20). The lack of clear managerial expectations before the workshop on continuous process improvement began may have contributed to the lack of change in two of the health-care sites participating in the program.

My study showed that clear direction must be given to the purpose of the process improvement project. It would be helpful also to formulate a short terms of reference to help the participants remain focused on the expected outcome. Participants needed to have an understanding to whom they are accountable and what authority they have for implementing any recommended changes to the work processes. As a site manager stated, "The lack of clear expectations from management led to the unsuccessful completion of the proposed process improvement projects at our facility."

The resources. Resources may be the most important factor in the successful implementation of continuous process improvement into health-care settings. Raether (1998) stresses the importance of an organizational commitment to quality improvement. She suggests that organizations need to invest both human and financial resources into an educational program for employees, if an organization wants to implement successfully a quality improvement approach in the workplace. Because I knew resources were important, I included a number of material and financial resources in the workshop. The material resources included videos demonstrating examples of continuous process improvement project teams actively analysing work process. I also included workbooks outlining the details of establishing and conducting process improvement project meetings that could be very helpful for teams participating in this initiative for the first time. The other material resources were examples of process improvement projects in health care that have resulted in changes and an improved outcome for the client.

Financial resources must be available if changes to work processes are to result. In my region there are some financial resources available but not a great number. These financial resources were used to compensate employees who are expected to participate in process analysis during their non-working time or to provide replacement staff for the members of the process improvement groups. Financial resources were also used to purchase textbooks and workbooks about quality management techniques.

Another resource necessary to successfully implement process improvement into health care is adequate information systems to gather, collate, and interpret data. The information gleaned from this data could be used by the process improvement project

members to identify trends in their service and to help recognize areas where problems are occurring. In my region we have an information system that can produce reports that are helpful in the analysis of statistical data. During the workshop, I suggested that these quality team members monitor their quality indicators as a means of deciding what work processes may be in need of analysis. The financial resources allocated to implement the quality management concept into health care could be used to purchase information systems and software that the project groups deem necessary to provide a clear picture of the issues and trends developing in their service.

During my study, it became obvious that the most important resource for the successful implementation of process improvement into health settings is the human resource. As a site manager explained to me during a follow-up interview,

> The lack of trained facilitators to assist the teams, the team members' feeling of being overwhelmed with the amount of work they were expected to accomplish with their present manpower, and the lack of an on-site resource person to supply team support were the factors which resulted in the process improvement changes not occurring.

The members of the site-based quality management teams required help following the workshop to assist them in their process analysis. Even though they had an opportunity to practice the techniques of process improvement during the workshops, there was a lapse in time between the workshop and the workplace team meetings for some team members. The time lapse resulted in difficulty in re-grouping and revisiting the basic steps in the concept. Also, not all members of the on-site quality teams could attend the workshops. Therefore, they had to rely on the other team members that had attended to teach them the skills. This did not occur. Although I had offered to assist the

teams with their process analysis, not all the teams asked for help. The teams that did ask for assistance were within the building where my office is located, so I was easily accessible to them. My availability may have been a contributing factor to the teams calling me. One on-site quality management team that was able to implement changes in their work processes also had additional assistance from internal resources within the facility. These added resources proved to be a great asset.

Conclusions

The implementation of a continuous process improvement approach into health care has the potential to influence positively the entire organization. It is conceivable that all work processes within the organization could be analysed, resulting in massive change, depending upon the extent to which this quality management concept is practised. I am excited that some of the problems that have plagued health-care providers for years can be resolved through the detailed analysis of work processes, identification of the problem process steps, recommendation for change to the process steps, implementation of the recommended changes, and evaluation of the results. This method of problem-solving and decision-making is based on careful analysis and the involvement from all levels of the organization that have a stake in the process. This approach helps to eliminate the quick-fix methodology sometimes used by managers to resolve ongoing challenges in the workplace.

Over the course of this study, I observed many changes at Site 2 which was involved with the workshop on continuous quality improvement. I believe that the

participants' ability to make significant changes to various work processes is directly related to three factors: (a) the participants' past experience and ongoing commitment to their quality program; (b) the additional resources within the facility assisting the participants with their projects; and (c) the ability of participants to contact me directly on-site with any questions they may have about work process analysis.

Site 1 was able to make several changes to their work processes with very little assistance following the workshops. This facility also has a keen interest in quality management issues, the site manager is an active member in their quality program, and integrated team work is practised at this site. Also interesting to note is that the participants from Sites 1 and 2 had the greatest resistance to the action contract presented to them at the completion of the workshops, and that these two sites had participated in Phase 1 of the study prior to the changes made to the content of the workshop.

Sites 3 and 4 have fewer resources to draw on than those of the other two sites. There are fewer human resources to complete the tasks and therefore fewer participants to perform work process analysis. These two sites did not successfully recommend or implement any changes to their present processes; this may be linked to the fact these sites received the revised and shortened workshop agenda. Another observation worth noting is the different response the participants from these sites had to the action contract presented at the workshop. These participants did not have concerns or ask as many questions about the relevance of the contract, as did the participants at Site 1 and Site 2. I have not been able to determine if there is a connection between the participants' reaction to the action contract and the ability for changes to be made to the work processes.

As an adult educator employed in health care, I was well prepared to assume roles that proved effective in the promotion, facilitation, and implementation of continuous process improvement into various health-care settings. My knowledge, experience, and understanding of continuous process improvement as a component of a quality management program were valuable assets. I was aided by my understanding of the principles of adult learning, knowledge of the barriers to participation in educational activities in the workplace, and appreciation for the impact that culture, timing, resources, and management expectation have on the implementation of change.

The implementation of a continuous process improvement program into health care can be a very long and complicated endeavour, which sometimes requires an entire shift in the problem-solving and decision-making style of an organization. It is important for health educators to fully appreciate the sensitivities, factors affecting success, and the impact this concept of quality management can have on an organization. Once the health educator is aware of the factors involved in facilitating a continuous process improvement approach, the greater the chances are that the implementation of this program will result in improved service to the client and greater job satisfaction for the health-care provider at all levels of the organization.

Recommendations

Based on the conclusions of this study, I offer some recommendations to health educators interested in facilitating process improvement in health-care settings. These recommendations may also be of interest to quality managers and senior health-care

executives considering an expansion of their organizational total quality management program.

1. Health educators have the opportunity to be major contributors to the successful implementation of process improvement in health care. They must demonstrate excellence in communication, organization, facilitation, and interpersonal skills. The ability to view the organization from the macro perspective is essential. Therefore, I recommend that health educators build strength in all of these areas.

2. Health educators must demonstrate excellence in assessing organizational culture and the ability for the organization's health providers to change their style of problem-solving and decision-making. They must also be sensitive to the barriers facing the health providers, the degree of change an organization is experiencing, and its receptiveness to accept a new continuous change process. Quality indicators must be well established and monitored within these facilities. Therefore, I recommend that health educators ensure that the quality teams establish quality indicators that are monitored on a regular basis. It is difficult to implement process improvement into health care unless the indicators are in place.

3. The health educator must ensure the learning needs of the health-care providers are congruent with the mission, vision, and values established by the organization. Once the learning needs are identified, the educator must incorporate the principles of adult education and use a program planning model in the development of any educational program offered to the employees. Therefore, I recommend that health educators become

familiar with and practice adult learning skills and use a program planning model to develop employee programs.

4. The health educator must ensure there are sufficient financial and human resources available for health-care providers who require ongoing support for the successful integration of continuous process improvement into their quality management program. This can be accomplished through the development of a detailed implementation plan containing an explanation of the need for these resources and presented to the senior management group of the organization. The ability to lobby may be an asset. Therefore, I recommend that health educators develop detailed implementation plans and share these plans with management prior to the educational intervention.

5. The health educator needs to act as an ambassador for continuous process improvement by constantly practising the skills of process analysis with his or her own work processes. By demonstrating the steps in process improvement, other health providers may notice the benefits of learning detailed process analysis and note its ability to positively influence their work environment and the service offered to their clients. Therefore, I recommend that health educators model the use of continuous process improvement in their everyday practice.

6. Health educators should clearly communicate with the managers and discuss the need for them to establish clear performance expectations for their employees to follow. This direction will be the foundation for the ongoing implementation and integration of continuous process improvement practices in the workplace. Therefore, I

recommend that health educators encourage managers to establish clear performance expectations for their employees to follow.

Further Research Possibilities

This study has left me with two unanswered questions that I believe need to be studied further. They are:

1. Is there any connection between the health-care facilities that were able to change their work process, and the length and content of the educational program offered to them?

2. Is there a relationship between the degree of resistance the participants had to the action contracts presented and the transfer of learning back to the workplace?

An outcome of engaging in this study is the improved appreciation it gave me for the principles of adult learning and program planning and how these are essential components of any educational program being developed for health-care providers. Another significant learning is the importance of assessing factors that may act as deterrents to the successful implementation of continuous process improvement into health-care settings. A third learning is the recognition that material, financial, and human resources must be established as part of the implementation plan. This is essential for the ongoing support required by the quality team members charged with improving their client service through detailed work process analysis. A fourth learning, and very possibly the most important one, is my recognition that an organization must embrace the concept of process improvement and integrate this approach to quality management into the daily

practice of problem-solving and decision-making. The practice of continuous process improvement can influence greatly a health organizations' culture, employee morale, service delivery, and client satisfaction and can result in a healthier and happier environment for both the client who is seeking service and the employee who is searching for job gratification.

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APPENDIX A

FOCUS GROUP QUESTIONNAIRE

1. How important is implementing a Quality Management program for your facility?

2. What format would you like to use to learn about process improvement? Please prioritise the following according to your preference, with 1 being your first choice.
   a. A book on the concept
   b. Take home self-learning modules with video examples
   c. Attend a workshop with an instructor 6-8 hours
   d. Use a combination of self-study and instructor-4 hours
   e. Do not want to learn about process improvement at this time
   f. Other suggestions not mentioned. Specify.

3. Describe what you think a system is.

4. How would you describe the 85/15 rule.

5. Which of the following strategies does the group presently use for improving things at work: brainstorming sessions, cause and effect diagrams, histograms, pareto analysis, scatter diagrams, or data entry and collection?

6. Please rate the skill level the team presently has for the following work processes, using a rating scale of 1-5 (1 being the lowest).

   a. Develop work policies and procedures
   b. Revise the work policies and procedures
   c. Dealing with client and staff complaints
   d. Reviewing work processes
   e. Improving client relations
   f. Improving the way you do things at work

7. Please rate the importance of the following processes as they relate to your workplace, using a rating scale of 1-5 (1 being the lowest).

   a. Develop work policies and procedures
   b. Revise the work policies and procedures
   c. Dealing with client and staff complaints
   d. Reviewing work processes
   e. Improving client relations
   f. Improving the work you do things at work

8. As it takes approximately 6-8 hours to review and practice the skills of process improvement, please indicate your preference for a workshop format, with 1 being your first choice:

a. Full day workshop from 0830-1600 hours
b. 2 half day sessions 2-3 days apart
c. 3 sessions 2 hours each over a 2-week period
d. Another format not mentioned above. Specify.

APPENDIX B

ACTION CONTRACT

The process I will work be_____.

I will begin working on this process project on_____.

I will have this process project completed by_____.

I will report progress with this process project to_____.

I will be accountable to_____for completion of the process improvement project.

Signature_____

Date_____

APPENDIX C
POST-SESSION EVALUATION QUESTIONNAIRE

Please complete the following, as your feedback is important in helping plan future sessions to meet learners' needs.

Using the scale of 1-5 with 1 being strongly disagree and 5 being strongly agree to rate the session:

The session:

Met its objectives	1	2	3	4	5
Met my expectations	1	2	3	4	5
Contributed to my knowledge	1	2	3	4	5
Raised my awareness of the issue	1	2	3	4	5
Provided me with useful resources	1	2	3	4	5

Comments_____

_____

Please rate the overall session:

1. Needs major improvement
2. Needs minor improvement
3. Satisfactory
4. Below average

Please comment on those aspects of the session you found most worthwhile._____

_____

How could the presentation be improved?_____

_____

Overall I found the presentation to be:

Excellent Very Good Good Fair Poor

Do you have any suggestions for future sessions?_____

_____

Thank you for your input!