

**THE EFFECT OF PATIENT FOCUSED CARE  
ON JOB SATISFACTION OF  
RESPIRATORY CARE PRACTITIONERS**

**BY:**

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With Much Gratitude,  
Brenda

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## ABSTRACT

**The Effect of Patient Focused Care****on the Job Satisfaction of****Respiratory Care Practitioners**

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The Effects of PFC on  
ABSTRACT

## Job Satisfaction of Respiratory Care Practitioners.

Health care is in the midst of change. Changes in technology, government, insurance coverage, and in customer preferences, are only some of the reasons healthcare is changing today. Patient Focused Care (PFC) is one attempt at change that enhances both customers' and caregivers' satisfaction in healthcare.

This study evaluates the job satisfaction of Respiratory Care Practitioners (RCP's) working in the PFC environment. Patient focused care was implemented and studied in a mid-sized midwest hospital in the ICU and telemetry setting over a three month period.

Using a paired t-test, on pre (PR) training and post (PO) implementation of PFC scores, survey results were scored for department satisfaction in five areas. The survey is subsectioned into areas on 1) Job criteria, 2) Department/Unit, 3) Management, 4) Satisfaction with job choice, and 5) Hospital as a referral for new employees.

Data analysis reveals that there are some areas with significant increased satisfaction, and other areas with a decrease in department satisfaction with PFC in place. The overall department satisfaction score with PFC in place was increased by almost 3% ( $p < 0.014$ ).



Technology is not the only reason for the needed changes in our health care system. A continuous manpower shortage has been in effect on many of the allied health professionals throughout the health care system (Kovner, 1990). Shortages in all categories of human resources, especially nursing, technical, clerical and some blue collar occupations, force hospitals not only to implement imaginative strategies for attracting patients but for personnel as well.

These imaginative strategies are used for attracting new personnel, to make more effective use of existing personnel, and attempt to reduce turnover (Alpander, 1990).

For rural hospitals and health care facilities this has been a real problem, causing not only increased spending on marketing for patients but for personnel too. Most rural hospitals have felt this personnel crunch for a long time. More rural than big city hospitals are affected and a vast majority cannot afford to pay the cost to hire staff at the big city hospitals' wages. Technology and personnel are two reasons for changes in health care.

In addition, the most recent impact causing change has been the increasing costs and dissatisfaction of spending an increasing percentage of the Gross National Product (GNP) on health care (Pew Commission 1990a). These changes include the limits and spending caps placed into the system by insurance companies, other third party payers, and by the government.

As medical costs continue to outstrip other prices, and Medicare payments for hospitalizations continue to rise, the government has also placed restrictions- diagnosis related group payments (DRG's)- to attempt to cut Medicare spending. Government, insurance companies and big business have all had a common impact on how the hospital operates (Pew Commission, 1990b).

DRG's and insurance companies have created great cycles of paper pushing and regulations on pay, but they have not helped to



curb the "big business" thinking that most CEO's had become used to when hospitals were making a profit. Although some hospitals are finding that they can still make a profit, many are finding that they cannot. The restrictions imposed by DRG's and insurance regulations hit the rural and inner-city hospitals hardest where, unable to cope with these new stricter guidelines, many have had to close their doors to needy patients (Pew Commission, 1990a).

Although technology has advanced both medical practice and personnel, and government has attempted to restrict and regulate costs, it has been people who have actually been the biggest influence for changes in health care. Governmental and insurance agencies are not the only groups making demands on the costs of health care. The buyers of health care for corporate employees and individuals paying greater out of pocket expenses are also becoming more sophisticated buyers of health care (Kovner 1990).

Whether it be the board of directors, a CEO with a new vision, biomedical engineers, patients, or family members of patients, it has been people who have created the most changes in health care. Customer preferences have done more to influence changes than have the restrictions imposed by government, or insurance adjustors.

Consumer satisfaction shows that even though the U.S. spends billions of dollars on health care, the American public is increasingly less satisfied with the health care system and

frustrated with current arrangements of payments (Pew Commission, 1990a). Like consumers of any other service organization, the purchasers of health care feel they are entitled to demand quality and service. Consumer preferences have influenced hospitals care. They have reduced hospital length of stay, and have increased the "intensity mix" of hospital patients, and created Out-Patient services (Pew Commission 1990b).

Technology, personnel, and consumers have all created changes in health care, and government and insurance agencies have created some cost restrictions, but how all of these have affected the delivery of care must also be considered.

Technology has improved not only the diagnosis and the treatment of disease, but also the convenience and portability of health care. It has also caused our caregivers to increase their knowledge base and skills. This has increased significantly in the past twenty years, and is likely to do so for the next twenty years as well.

Governmental DRG's and insurance capped-item pay plans have helped to keep the cost of health care at a slower rising percentage of the GNP. They have also helped to create standard protocols for care, out patient care centers, and emergency clinics. These collars on health care are likely to continue into the future and even more likely to become stronger in the regulating of costs and reimbursement to the hospitals. Perhaps soon, they will influence the physicians' fees too (Rowland, 1991).



Consumers and personnel have had, and will probably continue to have, the greatest impact on the health care system. Customers have had a strong impact on how the insurance companies are now providing reimbursement. They have demanded the options in their health care coverage. Just as they are demanding these options they are also demanding quality.

### Quality of Service

Quality of service is no longer based on getting well and leaving the hospital. It is based on the knowledge of the practitioners, knowledge of the available services and the knowledge of how these two should come together. Customers demand not only quality of price, but also quality of service. Although they may initially select health care providers on the basis of price, they will ultimately stay on the basis of service (Colie, 1990).

How these two things come together and how this is reflected in the treatment of customers in the health care system is a valuable quality judgement in the patient's perspective. The patient perceives quality in the context of his or her own experience (Omachonu, 1990). As Americans have become more educated, they have acquired higher expectations for health care and for physicians (Kovner, 1990).

Judgements regarding the quality of health care have traditionally been made by those providing it (Goldfield and Nash, 1989), and customer responsiveness is often ignored within the health care system (Kovner, 1990). As practitioners, we are no



longer the judges of our own deeds.

Patients do not just buy health care, they buy expectations. Patients do not only expect to get well, they expect to be treated promptly and courteously by well-trained professionals (Omachonu, 1990). From the customers' perspective, satisfaction with the hospital experience is highly correlated with the quality of care (Steiber, 1988).

According to Vincent Omachonu, author of "Quality of Care and the Patient", quality is interdependent on two things, 1) the quality in fact and 2) the quality in perception. Quality in fact involves meeting our own needs, while quality in perception is meeting the needs of others. He states, "The single most important action hospital executives can take to maintain quality from the patient's perspective is to deliver a satisfactory experience." Patients attitudes about care and how they perceive it have been proven to be factors in the outcome of their care (Nelson, Hays, Larson, & Batelden MD, 1989).

If quality of care is currently the newest of the influences changing health care, what are the measurements, and who is making them? Patient judgement systems are currently one way of trying to measure quality of health care. They have not been used much in the past. Many people questioned whether the patients were knowledgeable enough about health care to be an accurate judge of such quality measurements. However, patient judgement systems are now being used in several health care institutions.

The recent trend of knowing more and participating more in their own care has made today's patients very knowledgeable consumers and customers. Donabedian, in a recent JAMA article, states that "patient satisfaction is now recognized as a legitimate indicator of patient outcomes" (Nelson et. al, 1989). Many organizations now define quality as a continuous improvement in meeting the needs and expectations of key customers, including patients and physicians.

As such an important measurer of our health care systems, quality is becoming one of the best indicators, not only for our patients and our physicians, but also for many insurance companies and third party buyers for large corporations. The physicians and hospitals with the best managed quality outcomes will be the preferred providers for insurance and independent buyers of health care in the future (Colie, 1990).

As institutions providing health care services are having to make serious decisions on how they are going to provide quality services to their communities, CEO's of hospitals and health care service organizations are being faced with some major decisions on how to provide quality services at a reasonable price? Quality is a hot topic among many health care industry providers, buyers, and observers, and has been a large topic of discussion throughout the literature. However, it is not the only current emphasis for change. Increased competition in the market for delivery of services and patient occupancy in hospital beds has many



CEO's looking at other approaches to health care.

### Customer Service Approach

Developing a customer service orientation for all allied health professionals who come in contact with the hospitals' customers, including both internal (physicians and other allied health professionals) and external (patients, family members, & vendors), has become increasingly important. In health care we have many types of customers. A customer is anyone to whom you or your work unit provide a service or information (Omachonu, 1990). In the hospital setting this involves many internal and external customers, and because of the multi-disciplinary structure of the health care delivery process, it is important to remember who the customer is at all times!

Every patient wants to feel that his or her experience is the best. Any variance from this expectation can leave the patient with a negative experience. An initial aspect of the (health) care delivery process is that each worker is often a salesperson as well (Omachonu, 1990). This means that allied health professionals must be good public relations people as well as specialists in their fields. These professionals must remember that they are selling not only their services, but their institution as well.

This means that health care dollars are being spent not only on the medical expertise and abilities of practitioners, but also on their attitudes (Omachonu, 1990). It is these attitudes that

will greatly influence the customers' perception of care and ultimately of satisfaction. From the customers perspective, satisfaction with the hospital experience is highly correlated with quality of care. This high correlation means that a patient's general feeling of satisfaction with the hospital experience represents more than half of his or her overall evaluation of the quality of care received while hospitalized (Steiber, 1988).

Consumer responsiveness can no longer be ignored in the health care system. Patients want professionals to listen more attentively to what they are saying (Kovner, 1990). As consumers of health care also become the greater purchasers due to larger deductibles, they are also becoming more assertive about the dissatisfaction with the current hospital and physician attitudes about health care, and how its services are provided (Bezold, 1987).

At this moment, health care is at the center of the transformation of American enterprise. Service quality is a slippery concept that has defied standardization and measurement. The essence of quality is still an elusive intangible that customers describe best when they don't get it. The challenge for the future is to create customer value through superior service (Collie, 1990). With services as the measure of quality, it is no wonder that a shift toward patient directed, service oriented care has become the latest design in health care systems.



### New Directions in Health Care

This new direction is referred to as Patient Focused Care (PFC). Patient focused care is not a new design but rather one that has been pushed to the backburner by many of the current and past trends in health care. "To be patient driven is to maintain a dynamic system of care that fosters empowerment of all personnel to respond to the needs of the patient, rather than the routine of the system." says Marriane Araujo, vice president of Mercy Hospital in Chicago (Eubanks, P. 1990b).

As health care has become such an expansion of technology, all the high-tech knowledge has created an actually very low- touch health care system. Patients have a hard time relating to all the high-tech jargon and equipment. What patients can relate to is a high-touch and high sensitivity from care givers. This high-touch, high-sensitivity response to their very personal and at times, very demanding needs is what PFC attempts to create.

The PFC delivery system demands that care givers are equipped and able to deliver satisfactory care to their patients. An organizational change towards this type of health care design will require a major change from the top down, not only in administration but also clinically in the care givers. Successful management of such change will require an approach and process that provides direction, promotes organization, wide participation, and supports participants in the change process (Allawi et al, 1991).



Most affected by restructuring in the organization will be the care givers. This is important to remember because a care giver's life is affected by what he or she does in a workday. Restructuring to a PFC environment means changing a person's daily work activities and the environment in which this work is done (Henderson & Williams, 1991a). Structural changes can cause fear, anxiety, and stress, and all of these can be reflected in how we perform our work. When a care giver is affected, it will be reflected in his or her work with the patients. When staff cares about customers (patients), it shows in the details of their attitudes and their caring (Colie, 1990).

At the time of the nursing shortage, people implied that changing how nurses did their work would relieve the shortage, however, you can't free up a nurse for patient care without looking at the support services needed (Eubanks, 1990a). Nurses have been complaining for years that they can not achieve the quality of care they desire to give in the current system. The use of nurse extenders and patient care attendants (PCA's) has been tried. It was found that they were the ones doing all the close bedside patient cares. This was a help in the way of satisfying the patients' needs, but not that of the other allied health care professionals. This has created a large dissatisfaction among not only nurses, but many other allied health practitioners as well. Many of them want it changed. They want to go back to attending to the needs of the patients themselves.

It was decided that nursing care must be structured to support the patient care of the bedside nurse (Eubanks, 1990a). This is the whole idea behind patient focused care, to bring patient needs and services to the bedside.

### Defining Health Care

Health care has been defined in several ways in the articles I have researched thus far. Health care is defined as the delivery of information on treating illness along with the various degrees of personal human care (Bezold, 1987). I feel that the second definition helps explain some individuals' extreme longevity in the profession. Health care is a humanistic profession, and the labor involved is a labor of love (Omachonu, 1990). The next definition is the one most applicable to patient focused care. It defines health care as a service industry- intimate, hands-on, person to person service (Colie, 1990).

As the deliverers of health care, nurses (and other allied health care professionals) have the greatest potential for enhancing their role in a cost-contained setting that effectively measures outcomes, and where the consumers choice favors high touch (personalized) delivery (Bezold, 1987). The problem is that even though health care practitioners want to deliver quality, high-touch service to patients, they are hindered from doing exactly that. Time, staffing, and other structural constraints that are built into the culture of these institutions and in the health care system, limit care givers from providing the care



they would like to provide to their patients.

### Restructuring the Hospital

The hospital has developed into a workplace where resources are not well aligned with demand. Hospitals will have to learn to make more intelligent use of their increasingly scarce human resources. The specialization, compartmentalization, and fragmentation of the typical hospital leads to processes that actually impede the organization from delivering quality patient care (Hanrahan, 1991).

In order to solve the problem caused by all of this compartmentalization and specialization, some major restructuring of the hospital organization needs to take place. Restructuring can and should include and involve all medical, technical, and clinical personnel. Restructuring means changing a person's daily work activities and the environment in which this work is accomplished. The values, needs, perspectives, and the buy-in of the patient care staff at every level will make or break the effectiveness of any initiative for change (Henderson and Williams, 1990a). Henderson and Williams (1991b) suggest ten steps for restructuring: a clear vision, goals and processes, adequate time allotted for the change process, open communication and discussion, reviewing, gathering and analyzing information, group feedback and participation, implementation and evaluation.

When restructuring does occur, it is important to remember that 1) the design of one's job can enhance satisfaction,

motivation, productivity, retention, and ultimately quality (Henderson and Williams, 1991a); and 2) factors in social, managerial, and physical environment can negatively influence the satisfaction, motivation, and thus the performance of patient care delivery personnel (Henderson and Williams, 1991b).

Specifically in the hospital, these factors can simultaneously affect the patients and the patient care delivery process. Hospitals that are reconfiguring their delivery systems to deliver patient focused care may also have to re-educate and train existing personnel. In this type of patient care delivery system, members in all the allied health professions are being cross-trained in multiple areas, to perform not only their routine professional duties, but also some of the duties performed by other professionals and by non-professionals too. This creation of a multi-skilled health profession (MHP) allows not only for job enlargement but also more importantly for job enrichment (Vaughn and Fottler, 1991).

Job expansion will require a more broad based educational curriculum that will create a more broad based health practitioner who will command and merit more pay (Lathrop, 1991). Job enrichment is described as an individual assuming higher level functions and responsibilities. Cherrington and England state job enrichment provides employees with authority, responsibility, and autonomy (Vaughn and Fottler, 1991). Thus job enrichment provides employees with greater intrinsic rewards. It also, according to



"appears to lower absenteeism and turnover, as well as improve job satisfaction" (Vaughn and Fottler, 1991).

Currently care givers find their work only moderately meaningful, and most are being grossly under-utilized in terms of their professional knowledge and skill (Williams, 1991). As technology keeps increasing and the demands on allied health professionals also increase to keep up with this high-tech environment, it is important to reemphasize and stress the high-touch demands of patients.

In the future it will be the hospitals with high-tech knowledgeable professionals that know how to deliver high quality, high-touch and effective care, that come out as top dogs in today's market. In respect to better health care, there is no logical reason why it cannot be efficient, reliable, high quality, and protective of the rights of its clients. Logically it is designed to do so (Freidson, 1989).

The patient is the customer. The family matters, and the patient's quality of life both in and out of the hospital is important (Eubanks, 1990a). "To be patient-driven is to maintain a dynamic system of patient care delivery that fosters improvement of all personnel to respond to the needs of the patient, rather than the routine of the system," states Marrienne Aroujo, vice president at Mercy Hospital in Chicago (Eubanks, Hagland, Hudson, & Grayson, 1990). Her hospital is one of the few that has



shown a great success using the patient focused care model to deliver health care services. There, it is believed that the

### Patient Focused Care

Patient focused care models give care givers an opportunity to accommodate the bedside needs of the patient while expanding and enriching their own professional level. As mentioned earlier this can be done by either job enlargement or job enrichment. The ideal in PFC is hopefully job enrichment.

From results of pilot patient focused care projects, experiences there have shown immense gains in quality of patient care, a renewed joy and satisfaction among those providing care, reduced costs, and a new hospital structure including both administration and practicing staff (Weber, 1991). Weber closes with the comment that "... it is easier to restructure the environment than to reshape behavior."

It is with this thought that we have taken a similar approach of PFC implementation at Clarkson Hospital, in Omaha.

To accomplish this we had to start at the foundation of the system, and the foundation of the patient focused care system

starts with people.

The Clarkson Hospital is in the midst of restructuring to implement hospital-wide patient focused care. The first people in our foundation were administration, starting with the CEO, and working down from there. Through all levels of management and clear down to the clinicians, it was important to share the

vision, to have open communication, and support, to create strength in this new foundation. From there, it is believed that the staff will carry the idea and trend to the patient's level and communicate the mission and the goal of this PFC environment. The change process has affected all, and in the process there has been some cross training, some job enhancement (both enlargement & enrichment) measures taken to inspire growth and skills sharing for a varied group of professionals and non-professionals.

The setting for this study takes place in a city with a growing population of 335,795, in a competitive area with ten other hospitals in the vicinity of this institution. The trial facility is a 318 bed acute care institution specializing in cardiac, kidney, pulmonary and oncology services. Our patient population is primarily adults, and medicare reimbursed cases.

At the time when this study was initiated, we had 28 critical care beds in 3 ICU's and a 14 bed step-down or Inter-mediate Care (IMC) unit, two floors of telemetry, and three other patient care floors, plus a 38 bed out-patient surgery area.

At the beginning of this study, Clarkson had two PFC model units up and running, the Oncology unit, and the Kidney Center. The satisfaction studies, from these two initial pilot projects, had shown good results in the patient, physician and staff areas. Clarkson decided to proceed with implementation of a third PFC model unit. This third unit was structured to accomodate and fit the needs of an intensive care unit (ICU).



There are other hospitals using the PFC model to deliver care, but none of them have tried to use it in the ICU setting. This is the first institution to do so.

### Professional Role

In the previous two PFC model units, no Respiratory Care Practitioners (RCP's) have been actively involved as team members in the patient care teams. However, in the ICU setting, the RCP's would play an important role as an actual member in a four person patient care team.

This active involvement on the RCP's part will likely enhance their current job skills and participation in bedside assessment and patient care. This involvement in the patient focused model will create a large change in the structure and performance of our current department's role within the hospital. It is these changes that will require some cross-training and skills sharing between multiple professions and is likely to cause changes in the views of these professionals within the hospital structure.

### PFC Training

In our PFC setting all professionals are cross-trained, within licensure, to do other practitioners' tasks. This allows us to provide more tasks at the bedside by fewer people. The idea is to reduce the number of persons the patient has to have contact with throughout their stay, while providing all the services the patient may need.

Before any practitioners were chosen to work in the PFC areas they had to go through training classes. Classes consisted of various pretaped instructional video's, lectures, and various hands on training sessions. Classes were attended during off- work hours, and some while working depending on workload. All practitioners were paid for time spent at training sessions.

These training sessions involve classes in critical thinking, team building, profesional leadership, creating a caring community, care of the critically-ill patient, the change process, CQI, communication & conflict management. [see table 1]

[Insert Table 1 here]

Patient care classes such as: activities of daily living, pain management, EKG, phlebotomy, patient transport, positioning of patients, range of motion, and basic respiratory procedures including: simple oxygen and aerosols. A current CPR certification card was also required. Other classes involved patient registration, computer training, cleaning, supply-order/restock, and cardiac monitor inservices and new phone/pager inservices.

Each designated professional had speciific prerequisite classess to take before PFC-ICU admission for hire was a consideration. To understand how these classes will affect the role of the RCP in the new PFC setting it is important to understand the RCP's role prior to PFC.



Role of the RCP

The role of the RCP in the PFC-ICU also affects the role of the traditional floor RCP. This will be discussed in more detail later.

The department was under the direction of 4 board certified pulmonologists, but has since July added a 5th pulmonologist. We had at the onset of this adventure approximately 49/(31) staff members within our department [(31) represents the number of RCP's that perform Respiratory Therapy (RT) on a routine basis].

Our department includes the specialty areas of Pulmonary Function Testing (PFT), In-patient and a recently started Out-patient Pulmonary Rehab program, a sleep disorders center (with the only board certified physician in polysomnography in the state), and the only Hyperbaric Oxygen (HBO) facility in the state. Our RT department also supplies the area county hospital with 3 RCP's.

Our daily staffing pattern has Day shift with 8-10 RCP's, Eve.'s: 6-7 RCP's, Noc's: 4-5 RCP's, per 24 hours. These numbers vary somewhat according to workload, and include the supervisor of each shift. The average number of treatments is 16-18/RCP for day and evening shifts, and 10-12 on nights. We also assign for coverage of Recovery Room, Emergency Room, and Code Blue team.

"Treatments" here are being defined as ventilator cares, and typical RT procedures, including aerosols, IPPBs, oxygen walks, oxygen rounds twice per shift, and routine oximetries.

Our ventilator population of patients is typically in the teens, but has been as high as in the thirties (30 +/-2) for several weeks during peak times. We also have a high turnover of chronic and long term home ventilator and nasal mechanical ventilator patients, who are seen frequently in our Intermediate Care (IMC) unit. We have had as many as four Home Ventilators at one time in the IMC area, but usually average one to two a month. We also have occasional ventilator patients in the Hematology Oncology Critical Care (HOCC) unit.

The assignments of RCP's workload are dependent on the overall workload in the hospital. Coverage in the past included: five floors of patient care, an Out Patient surgery area, IMC, three ICU's (2-eight bed, and 1-twelve bed), Emergency, and Recovery Room, and Code Blue team (CB-team).

The traditional role of our RCP's in the intensive care unit has been one that involved the therapists as individuals serving a specialty function of ventilator management, and all the respiratory care of patients in that unit. The RCP's worked closely with the ICU staff members to meet the needs of the patient, but not necessarily as a cohesive team with the same identified goals. These changes really make a difference to the

The RCP assigned to a particular area/unit, whether it be ICU or floor, would be responsible for all the treatments assigned in their area, all calls received over the pager regarding changes in therapy or new start therapy, as well as miscellaneous calls



for arterial blood gases and oximetries, and new oxygen set ups. This could include call for Emergency room or to participate on the CB-team depending on the workload of this assigned unit.

The assignments could cover a complete ICU of 8 or 12 beds, and sometimes part of a floor as well; or coverage for all of one or more floors. The assignment of Emergency room, Code Blue team, or Recovery Room would be dependent on the workload initially assigned and whether or not the experience of the RCP would allow for this assignment.

Throughout the last twenty years RCP's have had many changes in their roles and duties as practitioners in healthcare. From the simple oxygen jockeys to advanced life support team members of today, respiratory care practitioners have traditionally adapted well to change.

The changes in healthcare today are many and demanding. Technology, government and people have all put demands on the practitioners' to deliver care that meets their needs, diagnosis through dismissal, but at the same time costs them less out of pocket expense. Practitioner's with all the education and skills needed to practice today have all been affected by changes in healthcare. Can these changes really make a difference in the delivery of healthcare or on those delivering it?

The PFC environment is a chance for our hospital to succeed in the future of healthcare, and also for the RCP's of our hospital to take a major step forward in advancing their role.



### Purpose of the Study

Patient Focused care will have a significant effect on how the RCP's will express satisfaction with their jobs. How these changes in job skills, performance, role, and structure of our department effects the satisfaction of these RCP's is what I wish to accomplish by this study. How patient care is affected by this change is the topic of another study. However, past research on the other units has shown an increase in both patient and staff satisfaction, and I would suspect the same for this study in our telemetry and ICU-PFC models.

**HYPOTHESIS:** It is hypothesized that PFC will increase the job satisfaction of the RCP's working in this environment.

## METHOD

Subjects

The subjects of this study include all members of the Pulmonary Medicine Department meeting the following criteria:

1) had worked at the institution for at least three months prior to the initial survey date of Nov. 18th, 1991; 2) had not previously worked on or been exposed to a similar PFC team approach of care, and 3) had a good working knowledge of the institution in its present (non-PFC) environment. This included approximately forty three RCP's, and two polysomnography technicians. We also have employed in our pulmonary department, 3 Rn's, 1 secretary, and 2 managers, who were also included in this study. [51 total].

Of the total 51 subjects, approximately 7 of the RCP's do not perform clinical respiratory care on a routine basis. Of those performing clinical procedures on a routine basis, not all of them are participating as actual team members on PFC teams in the ICU, and not all of them hold the same jobs as they held previously. All of the subjects were affected by the changes related to PFC implementation in some way, and all of them have experienced some change in the dynamics of their workload and in the methods by which they perform their daily routine.

Subjects were asked to complete a 5 page survey regarding job satisfaction. This was a voluntary service of the subjects and they were not held accountable for completing the survey. They were neither punished nor rewarded for their participation.

Information on sex, age, or origin was not collected on the survey. Overall department numbers reveal more women than men and more certificate or Associate degree employees than Bachelors degrees, and more CRTT level practitioners than RRT's.

### Procedures

The PFC model unit implementation is a major portion of this project's procedure. The concept of patient focus care is the same throughout the institution, and is therefore used as a control intervention on those being affected.

Before being hired into the PFC work areas, each employee was screened and interviewed by the manager of the particular unit in which they were being hired to work. Screening criteria was based on attitude, aptitude, the employees' previous manager's input, and experience. Individuals were hired into teams. Upon hire, each of the professionals spent some time in the "new" unit to acquaint themselves with the new equipment and environment.

Although RCP's and other professionals and non-professionals were required to take PFC training classes, not all persons were able to complete all classes prior to the implementation of PFC in the ICU's. The changes in the RCP's role is dependent on the classes that they had acquired prior to implementation and also by what is shared and expected by their team members and new management. There is a significant time for which the learning curve is expected to last. This will be monitored by procedures.



The first PFC-ICU opened 3 weeks prior to the second PFC-ICU. Although the concept in these units of PFC is ideally identical, each of these two units, because of different managers and staff, is uniquely different.

The pre and post surveys were randomly distributed, by myself, among the staff members of the Pulmonary Medicine Department that fit the criteria outlined above. Surveys were distributed over a 5 day period because not all employees in the department could be reached within a shorter period. Surveys were marked prior to distribution regarding pre (pr#) and post (po#) status and numbered for counting purposes only. This marking is located in the top left hand corner. The use of the last four digits of the social security numbers were used as a matched-tracking measure.

A cover letter accompanying the surveys explained the purpose of the survey and how and when to return them. [see appendix A]. It also explained that this was strictly a voluntary exercise for employees and not mandatory.

### Instrument

Measures of satisfaction were derived from the survey responses. The survey tool used was developed by using a combination of original questions, as well as many questions (adapted with permission) from a hospital wide satisfaction survey used approximately 3 years prior to this survey date. Questions used in this survey were in part a response to management's request

and that of others not directly involved in the survey study population.

The survey is subdivided into five categories. Survey questions include a sample of questions relating to specific areas of application to the department. These areas included a section on job criteria, the department itself, management, administration, and the referral of the hospital [see appendix ].

Section A is used as a reflection on workload and actual job criteria. It has twelve questions relating to time, patient, and physician contacts as well as other job related functions. Some of these questions are 2 part questions and the total number of responses for this section is sixteen. The best overall score for this section is a high of 36 points, and a low score of 4 points. Yes answers are scored point value of 1, no answers are scored a point value of 0.

Section B is subheaded "department/unit". Since the focus of PFC is to decentralize and many departments will ultimately reduce staff size, this is one area with a great potential for change. This section asks fourteen questions that relate to the immediate supervision, problem solving, processes of work, and work relationships with other departments. In this section questions 2, 4 & 6 are reverse point scored to achieve a positive scoring sequence with these negatively written questions .

Section B has a possible high score value of 98 points, and a possible low score of 14 points.



Section C is specifically subheaded regarding management and is related to management's relationship with staff and their performance as rated by staff. For many of the RCP's, a direct change in their supervising manager has occurred. In addition, the director of our department (our department manager) also has had changes. This is significant to all those areas reporting to this position including the respiratory care staff members, PFT lab, HBO staff, Sleep lab staff, and our Pulmonary Rehabilitation personnel. This section has a total of thirteen questions, with a possible high score of 91 points, and a low score of 13 points.

Section D is subheaded satisfaction measures at work. It reflects questions specifically regarding satisfaction with the career, immediate supervisor, administration, and 3 questions dealing with the support system of the department. In this section there are six questions. A high score of 42 points and a low score of 7 points is possible.

The last section of this survey, section E, is subheaded as a referral to our department and our hospital as an institution. A positive score in this section would suggest that employees are proud enough to recommend others to come and work at Clarkson. High score possible is 35 points, low is 5 points.

Several areas were set up for collection of these surveys. For reasons of confidentiality, boxes in designated areas were located in several accessible areas for RCP's to return surveys anonymously once completed.



Surveys of self reported job satisfaction, and their comparison will be discussed, and are included in this study. These 'likert scale' surveys were administered in mid November, one month before any training of the PFC-unit started. [The Medical Director, the department head, and administration of the institution were aware that this survey was being administered and gave approval for it.]

There is one page for comments and demographic information. The demographic information was an optional section only. It gave information regarding shift worked, length of employment, and number of years in respiratory therapy.

After completing the PFC-training and after working in the PFC-Unit environment for 3 months, this same 50 question survey was repeated for all Pulmonary Medicine staff, and again, tabulated and scored. Department scores were based on the total of individual scores in each of the 5 sections and one total score.

### Measures

The individual high score of job satisfaction is 295 total possible points, and the possible low total score of 43 points. An increase in the total score percentage between the PR and the PO shall be considered positive for satisfaction. A decrease in total score percentage will be considered as nonsatisfactory or negative. Group average scores will be used in this study.

Measurements were initially taken at 1 month prior to PFC training, and 3 months post implementation of PFC for this unit.

Measures of satisfaction will be based on a comparison of the pre (PR) PFC training survey scores and post (PO) PFC implementation and three months involvement survey scores. Scores will be calculated in point values. The total number of points in the section multiplied by the number of returned surveys will equal the total possible department score.

In this research, patient focused care is the independent variable. It will affect the five dependent variables of job satisfaction discussed as separate sections in the description of the survey. These five dependent variables are: 1.) job criteria- actual physical constraints that affect what one does to perform their job. 2.) department/unit- which reflects staff and department participation related issues. 3.) Management- reflecting the management, including supervisors and unit managers, and their communication and relationship with employees. 4.) Satisfaction with work- relating to department, supervisors, administration, training and support services, and career choice, 5.) Referral source- the relationship of employees with the institution and whether or not they would recommend it as a good place to work. How likely the employees are to stay on as an employee at the institution is also asked in this section.

Section A has multiple time related and Yes/No items. Each section B-E of the survey was scaled independently using a likert scale response. Each section had non-identical scales, to avoid the chance response that answers would become idle or stagnant.



## Data Analysis

Measures of satisfaction were compared based on a pre PFC training satisfaction score compared and evaluated against the post involvement and implementation scores, using a paired t-test from the student edition of Minitab by Addison-Wesley Publishing Company, Inc.

Although multiple t-tests are described, only the t-test comparing the overall total scores proves or disproves the hypothesis and there is therefore no reason to multi-factor or change the significance of " $p <$ " values for the t-tests describing sections A-E of the survey.

Pre-survey scores (PR#) were numerically sorted from PR1 through PR51. There were 26 PR surveys or 51% returned. The post surveys (PO#) were matched according to the social security digits listed on the surveys from the PR surveys. There were 18 or 38% PO surveys returned.

Survey scores were tabulated by totaling individual points in each of the response sections A-E on the survey using the numbers from the likert scale surveys to calculate total points. These point values were added together to achieve a total group score. There were four questions, mentioned above, that were reverse scored to achieve a positive score congruent with the survey. The 18 matched surveys in the pre and post piles were totaled for group PR and PO scores that were compared using a paired t-test.



## RESULTS

All of the following results are reported based on a one month pre implementation and a three month interval post implementation study of PFC. The totaled department scores for pre-PFC and post implementation-PFC reveal that the hypothesis of an increased level of overall job satisfaction among RCP's working in PFC has been confirmed.

Individual sections, (A-E) of the survey, will be discussed to reveal either an overall positive (satisfied) or a negative (not satisfied) total department score for each section. These will be related in pre (PR) scores and post (PO) scores. The total department score was calculated by the addition of the point value of individuals scores of each section (A-E) for the number of paired completed surveys (18).

Section A is subtitled "job criteria", and the actual number of possible points for this section is 648 maximum, and 72 points minimum. Section A revealed a total PR department score of 383.5 points versus a PO= 332.5. A t score value of 14.04 is noted. The standard deviation (STDEV) for this sections mean score is 36.06 points. A probability value of  $p < 0.045$  is calculated via t-test of the PR and the PO values and is considered significant.

The PR satisfaction score is 59.2 % of total point value and the PO satisfaction score is 51.3%; an overall drop of 8% post implementation of PFC in this section.

For this section, the overall value of a 55% average satisfaction score, is negative for overall satisfaction of RCP's, post the implementation of PFC. An increase of 9.4% , for an overall 54% positive department satisfaction score in section C.

[Insert Figure 1 here]

[Insert Figure 3 here]

Section B, the section on department/unit and staff participation, the highest possible total point value for the department score is 1764 points, the lowest possible total point value is 42 points. The department PR score was calculated at 1083.0 points and the PO score at 1152.0 points. In this section,  $t = 32.39$ , with a STDEV of 48.79 and asignificant  $p < 0.020$  via t-test on PR and PO values. The PR satisfaction score is 61.4% of total point value and the PO satisfaction score is 65.3% for an increase of 3.9% for this section after implementation of PFC. A 63% overall positive department satisfaction score is found in section B.

values, versus a PO satisfaction score of 64.4% . This is a drop in overall satisfaction [Insert Figure 2 here] C implementation. This a department satisfaction score of 67% is found, but it is negative

for Section C, the management section, has a possible total maximum score of 1512 points, and low score of 234 points. The actual calculated value for this section was a PR score of 758 points and a PO score of 900 points. The department t value is 11.68 with a STDEV of 100.41 with  $p < 0.054$  via t-test of the PR and PO values. This is not significant.

For section C the satisfaction score was 50.1% of the pre PFC point value versus a satisfaction score of 59.5% after implementation of PFC. This is an increase of 9.4% , for an overall 55% positive department satisfaction score in section C. [Insert Figure 3 here]

In section D, the section on actual satisfaction with work, the highest score possible is 756 points, and the lowest possible score can not be less than 126 points. Actual calculated values for this section reveal the following data, the PR total score is 529 points, versus a 490 point total score post PFC implementation. The department t-value for this section is 26.13 with a STDEV of 27.6 and a  $p < 0.024$  via t-test of the PR and PO values. This is a significant value in the negative direction.

The total PR satisfaction scores are 69.9% of total point values, versus a PO satisfaction score of 64.8% . This is a drop in overall satisfaction by 5.1% after PFC implementation. Thus a department satisfaction score of 67% is found, but it is negative for overall satisfaction.

[Insert Figure 4 here]

Section E, the section that reflects the referrability of the institution by current employees, had a possible total high



score of 630 points, and a possible low score of 90 points. The actual calculated points for this section reveal a PR value of 390 points versus a PO value of 414 points. The t score value for section E, is 33.50 with a STDEV of 16.97 and a  $p < 0.019$  via t-test of the PR and PO values. This is significant in a positive direction post PFC implementation.

The average total scores for this section revealed a PR score of 61.9% of the total point value and a PO score of 65.7%. The difference between PR and PO scores in this section is a 3.8% increase after the implementation of PFC. The overall department satisfaction score is positive at 64% for this section.

[Insert Figure 5 here]

Total scores for all five sections are valued at a possible low score of 774 points and a possible high score of 5310 points. Actual total calculated points for PR were 3143.5 points and PO of 3288.5 points. The department total t-score is 44.36 with a STDEV of 102.5 and a  $p < 0.014$  via t-test of the PR and PO values. This is a significant change in a positive direction post PFC implementation.

The total department satisfaction scores are thus reported as a PR value of 59.2% of total point value and a PO score value of 61.9%. For an increase in the overall total satisfaction score by 2.7% after implementation of PFC. The overall department score

is 61% for a positive department total satisfaction.

A comparison of mean score results  $t$ , STDEV and  $p$  values for all of the sections is provided on Table 2.

to attempt to make changes to improve not only quality of care but also quality of [Insert Table 2 here] in the research. That

## DISCUSSION

There are many reasons in this current state of health care to attempt to make changes to improve not only quality of care but also quality of service. It is evident in the research, that something must be done to curb the costs and increased spending on health care.

It has been attempted here to make one example a reasonable choice for this change. Patient focused care is a reasonable option because it does in the long run save money for the institution and increase the satisfaction of patients, and care givers involved this type of care (Weber, 1991).

There are many environmental and training considerations used to prepare persons for work in these areas that may need to have been more appropriately addressed in this study. Furthermore the differences between personnel in each of the individual units were not taken into consideration in this study. This is perhaps one of the reasons only a small percentage of change in satisfaction was seen.

Consideration of individuals hired since the implementation of PFC, and those positions that have changed or have been eliminated because of the implementation have not been included in this study. The changes in management within the Pulmonary Medicine department itself and the change in job duties for RCP's working in PFC were only briefly mentioned in this study. Perhaps a closer look



at these two areas will be studied at six months.

The increased skill level of RCP's practicing in the PFC environment has increased some, however many of the RCP's think that they are still limited in their skills usage. Some of the caregivers in the PFC environment are less willing to share knowledge to help others learn, or to broaden their own duties.

The time allowed for training prior to the implementation of the PFC environment was limited. This may have caused an uneven distribution or even a stiffling of the sharing of duties upon entering the new environment. Using some of these skills prior to the opening of the PFC environment may also have allowed for an enhanced learning curve to be seen during this implementation trial time.

The impact of the change in management could probably be detected more significantly if individual scores were used instead of department scores. Many of the RCP's who were used to working under Respiratory Care's management are now working under a Nursing manager. For other RCP's still working in the Pulmonary Medicine Department, they no longer have supervisors to report to. In both cases a more self-directed work environment is being promoted. Perhaps this is one reason for seeing an increase in the scores in section C.

The section revealing the department as a unit had an increased satisfaction score. This is suprising because in the comments of several surveys the RCP's mentioned feeling isolated

by the lack of camaraderie they felt now versus when working as a Pulmonary Medicine Department RCP. This has also been the general opinion gathered by casual conversation with multiple RCP's working in the PFC environment. As more decentralization of the Pulmonary Medicine department occurs, this will be a valuable measurement.

Other comments made contrary to the results included those on management. Complaints of never seeing their current managers and fears of impartial judgements being made due to a lack of or non-respiratory background of new managers are not seen by the results of this survey. Does this indicate that the less contact practitioners have with management the better they like it? Perhaps having a Nursing manager in a non-nursing area is less stressfull because the managers are less likely to know the "little things" a department manager might look at as more important.

Individual scores and the significance in changes in individual's positions could also be factors that need to be looked at further in this study. As the learning curve in this setting steadies it will be interesting to see if the satisfaction of those who are able to perform more tasks has improved. In theory, those that are used more to their full potential have a greater satisfaction level within their job (Henderson & Williams, 1991a; Allpander, 1990; and Williams 1991). This can be measured in by seperate sections of the survey, by section A and by section B.



Pulmonary Medicine had several changes other than those of management and new roles. The loss of supervisors and the decentralization of a majority of the staff to designated work areas were also changes that affected the RCP's of our department.

As far as the actual job duties, new roles, and accepting changes, "the RCP's have done an exceptional job of taking the ball and rolling with it", says George Dungan, manager of the Pulmonary Medicine Department. "They have really been key players in the new team concept." For the RCP's not working in the ICU environment, the team concept is a little harder to coordinate, but the RCP's have been assigned to specific areas and are adjusting well to working with team Rn's and Lpn's in taking care of all their patients' needs.

Department assigned therapist's (approximately 15 persons) workload has been somewhat decreased. The number of floors for them to cover been decreased. There are only 3-4 therapists scheduled on day shift, and usually 3 on evenings and nights. This is considerably less than before PFC implementation.

The number of surveys returned in the second half of this study was substantially less than in the first half. A difference of 51% returned PR surveys versus 37% of the PO surveys. This means that only 18 individual scores were added for the group total score. The diminished number of surveys from the PR study to PO study may be the result of a fear of repercussion or due to lack of department camaraderie once PFC assignments had been made



and implemented. The communications link had previously

Some concerns expressed in casual conversation with involved RCP's is a fear of repercussion if they speak out about the PFC environment or design. Fears of creating problems between teams and designated or assigned job roles is also perplexing to some RCP's. There have been several comments and are still some unresolved feelings about certain professionals' and non-professionals roles in the ICU-PFC areas.

So called "turf wars" are not uncommon in the set up or initiation of PFC areas, but once an area is opened the roles of most individuals becomes more delineated. This seems not to have been the case in the ICU areas at this three month survey. Although not really "turf wars", some further delineation of some specific roles is currently being challenged by some of the ICU-teams' members. Unclear licensure issues are also a concern.

Other comments received on surveys reveal a dissatisfaction or a feeling of isolation from other therapists, and a lack of the comradeship that they were used to before. They feel left out of the department goings on and the information network. Others have made comments about never seeing their managers, and of an uneven or impartial judgement due to a non-respiratory background by the new managers.

There were also comments about a lack of communications, not only between managers and staff within the PFC environment, but between both the nursing managers, the pulmonary manager, and

all of the staff. The communications link had previously included "council meetings" with the supervisors.

Who will do performance evaluation and reviews is also a concern due to the knowledge deficit of new and non-respiratory managers. Peer review is a concept hard for some to adjust to.

At this three month post implementation trial, there is significant evidence to say there is an increased satisfaction in RCP's working in the PFC environment. There was an overall improvement in the combined total satisfaction scores. It is possible that at the six month interval there may be a larger evidence of significance, or none at all. This will have to be seen.

Currently the hospital is still planning on opening the other two PFC critical care units and continuing to implement PFC on the other patient care floors. The overall success at our institution is still not fully known. Based on the success of the two previous units, the PFC-ICU's were opened this summer. It is still too soon to tell if it is a true success in this ICU environment, but at the time of this preliminary study results look promising.



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## Authors Notes

References have been made to a sixth month study. This study will be undertaken in January of 1993. The hospital will decide if the data from a sixth month study would be beneficial at that time.