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Improving Pharmacy Dispensing Performance Through Time Management

A Dissertation Submitted in Part Fulfillment of the Degree of

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Abstract

The aim of this project was to carry out a change model in one of Family Medicine Clinic's Pharmacy in Abu Dhabi. While, the objectives of the project were to improve patient satisfaction through improving patient waiting time for medications collection, improving patient's knowledge about the pharmacy services and then generalize the implemented change in all other six clinic's pharmacies. The change was happened because of current system of dispensing patient's prescription 'in turn', which created a discomfort among many patients as well as some patients were not taking a proper counseling over medications use, because of the need to finish all taken prescriptions without any delay. The change that was introduced in the pharmacy categorized the prescriptions into two categories; one for three or less medications prescription (directed to fast track window) and the second for more than three medications prescription (a ticket number was given for the patient to wait). Kotter eight step change model was used to initiate the change, which started by a crucial step in any change: creating a strong sense of urgency. This model provided the opportunity to create a vision and strategy to align people in the change process and underpin change efforts. The model ended with anchoring the new practices in the change to be as new culture to work with it. On the other hand, change evaluation was done through a variety of tools like: patient satisfaction survey (81.93% of patients were overall satisfied with the pharmacy services raised from 53%), waiting time data (average waiting time was reduced by 63% for category 1 and by 41.3% for category 2, giving the overall reduction by 50.3%), process mapping, staff interview (all staff are satisfied) and number of waiting time complaints (dropped dramatically by 67.25%). One of the most powerful impacts of the change on organization was the creation of a change committee to undertake all change projects in the department, take care of newly implemented change and generalize the change in other six pharmacies. In conclusion, robust collaborating of well defined and very important key elements in the change process can ultimately result in well managed and successful change.

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Chapter 1 Introduction

In this dissertation, I am going to initiate a change project in one of Family Medicine Clinic's pharmacy in Abu Dhabi in order to solve the issue of long waiting time that the pharmacy encounter with a lot of patients. As with many changes, I realized that it was crucial to conduct a change by using one of the famous models (Kotter, HSE, Young...). From those models, I chose Kotter eight steps model to initiate the change, because it has the essential elements (like sense of urgency, the power of team…) for any change to be successful. However, I am fully aware of the time that might be consumed in order to finish all steps to run the change. I used the stakeholder management and the TOWS strategic tool to help me in processing the change. The change was started by categorizing the prescriptions into two categories; one for 3 or less medications and the second for more than 3 medications. Then, the change introduced fast track window for those patients who had their prescription in category (1) and a ticket number for those patients who had their prescription in category (2). The change was happened because of the system of filling the prescriptions 'in turn', which created a discomfort among many patients, since some of them have been waiting long time for one or two medications and others have had left their prescription and didn't collect their medications.

Furthermore, I am going to conduct a literature review to support the change process by evidence. Then, I will be using many evaluation tools like patient satisfaction survey and waiting time data to measure the change success. More importantly, I am going to discuss the impacts of the change on the organization and give some recommendations for further improvements.

Chapter 2 The Literature Review

2.1 Introduction

Long waiting times have been one of the most serious issues revealed by majority of patients in many health care facilities, which in turn has a strong impact on patient satisfaction with the requested health care service. In the Pharmacy as well, waiting the prescription till it is filled by a pharmacist according to its turn creates long waiting time and frustration among many patients. For this reason, I conducted literature review to highlight the effect of waiting time on patient satisfaction level. Eilers (2004) states that 'waiting times are a major component of patient satisfaction'.

2.2 Search Strategy

The CINAHL, MEDLINE (PubMed) databases and ScienceDirect, Emerald, Google Scholar and Scirus engines were extensively searched using the wait(ing), patient satisfaction key words. Finally, 16 articles were selected that had focus on the effect of waiting time on patient satisfaction in the time period from year 2000 to 2010 (14 articles) and before year 2000 (2 articles). Majority of the selected articles have been done internationally in US, England, Canada, Australia, Spain, Netherlands, Belgium and one article has been done in UAE.

Inclusion and Exclusion Criteria:

There were two variables during the review; one dependent variable which was patient satisfaction (fixed) and one independent variable which changed in each research that all came under the waiting time effects. Moreover, I looked for the articles in literature that had focused only on waiting time effects on patient satisfaction, therefore, I extended the search beyond the year 2000 (past 15 years), in order to get a full picture of the waiting time effects and with quantitative, qualitative and mixed research methods. However, letters and comments were excluded from the search.

2.3 Overview of the Literature

Two main themes were identified in the review (Appendix 1): first theme was identified if the reviewed article showed direct or indirect effect of waiting time on patient satisfaction and was referred to as positive role of waiting time on patient satisfaction. This theme contains 2 subheadings as direct effect (10 articles) and indirect effect (4 articles). Then, second theme was identified if the reviewed article expressed no effect of waiting time on patient satisfaction and was referred to as negative role of waiting time on patient satisfaction (2 articles).

2.3.1 Positive Role of Waiting Time on Patient Satisfaction

Direct Effect:

Studies under direct effect reported similar findings that linked higher patient satisfaction with improved waiting time by using different and effective initiatives. Unsurprisingly, almost all reviewed articles used a quantitative approach to measure the effect of waiting

time as actual and/or perceived on patient satisfaction by using a statistical analysis to compare the results before and after the implemented initiative. However, only one article used a qualitative approach and tested a proposed framework to look for the waiting time impacts from social and psychological perspectives.

Perez-Carceles *et el*. (2010) carried out a questionnaire for 300 patients in an Emergency Department in a teaching hospital in Spain. The questionnaire asked more specifically about the information received during treatment by the patients. The results showed a statistically significant relationship between patient satisfaction and patient perceptions of received information and perceived waiting time, but not with actual waiting time. The patients who perceived the waiting time as not long (short) were more satisfied than who didn't. Additionally, Bielen and Demoulin (2007) carried out a questionnaire for 946 patients in six hospitals in Belgium to identify the determinants of waiting time satisfaction. The study results confirmed that waiting time satisfaction is not only determinant of service satisfaction, but more deeply it moderates the satisfaction-loyalty relationship. Also, the results identified the determinants as perceived waiting time, the satisfaction with information given in wait case and the satisfaction with the waiting environment. Furthermore, Harnett *et el.* (2010) conducted a questionnaire for 872 patients (administered in two time periods) in a preoperative evaluation center in US. The study planned to examine the effect of implemented education program being administered for a nurse practitioner to perform all the required assessments on a patient while waiting to see the physician (process change). This led to decreased waiting time and subsequently improved patient satisfaction.

Similarly, Anderson *et el.* (2007) conducted online survey for a total of 5030 patients to rate a US primary care physician. The study intended to examine the relationship between self reported wait times and visit time on patient satisfaction level. The results revealed that longer waiting times were associated with lower patient satisfaction and the time spent with the physician was the most predictor of patient satisfaction. Moreover, Fry *et el*. (2003) carried out a telephone survey for 144 patients selected from a tertiary hospital in Australia to look for 'did not wait' patients as their percentage increased. The study emphasized that waiting times can affect the delivery of health care to patients. The results highlighted that waiting times were linked towards increased patient dissatisfaction and 'did not wait' rates. Therefore, a rapid emergency program was implemented with the aim to reduce the waiting time and improve patient satisfaction. In consistent with same data collection tool, Thompson *et el.* (1996) conducted a telephone survey (questionnaire) to 1631 patients selected from a hospital in US. The study used the physician waiting time and total waiting time in the Emergency Department to assess patient satisfaction. The results revealed the strong effect of perceived waiting time on patient satisfaction than by physician waiting time.

Unlike, Pothier and Frosh (2006) who initiated information sheet to answer patients' questions at the time waiting and be given to one group in six clinics in UK (124 patients) and compare the results of a distributed questionnaire with the results of another group (103 patients) in six clinics too in the same country. The results revealed a significantly high satisfaction rates in the group who received the information sheet. Similar to that, Pruyn and Smidts (1998) executed an experiment in 3 hospitals polyclinics in

Netherlands for 337 patients. First group were exposed to a planned program in the waiting area (TV show...) and the other group were waiting without any program. The study intended to evaluate the effect of objective waiting time and waiting environment on satisfaction with service by testing their proposed theoretical model. The results pointed out the effect of waiting with the satisfaction with service. Moreover, the results confirmed the waiting environment effect on service satisfaction more than the objective waiting time. Additionally, Cassidy-Smith *et el.* (2007) interviewed 1118 patients in an Emergency Department of a US university hospital to complete the patient satisfaction survey. The survey intended to examine the relationship between throughput times, expectations and patient satisfaction by using the 'Disconfirmation Paradigm' (dissatisfaction arises when service expectations are not met). The study results showed that throughput time satisfaction was highly correlated with patient satisfaction. Furthermore, the study suggests focusing on perceived waiting times and expectations other than actual waiting times to improve patient satisfaction.

Finally, Nie (2000) tested a proposed conceptual framework and unlikely to others in their approach, he examined the waiting time from social and psychological perspectives. Nie (2000) found that perceived waiting time was an essential component in customer satisfaction. Several factors were identified when evaluating customer satisfaction with waiting like: perceptions of waiting time, the gab between expected and perceived waiting time, what causes the wait and social justice. Nie (2000) found that when a customer perceived long actual waiting time, it resulted in customer dissatisfaction at the end. Nie (2000) emphasized the importance of psychological side of waiting and

managing the waiting issue from the point of ‘stress management’. In summary, I found a consensus from the aforementioned studies about the obvious effect of waiting time on patient satisfaction level with the offered service from different angles.

Indirect Effect:

Studies under indirect effect reported an improved waiting time and a higher quality of services like increased patient volume with improved time access to care. Similarly to articles under direct effect, almost all reviewed articles used a quantitative approach to monitor the waiting time effect on overall service and patient satisfaction was one of the improved service outcomes. However, only one article used a qualitative approach by consulting the main stakeholders and observed the improvements after introducing a process change for a follow-up patient’s access to new established clinic. Moreover, one article used a mixed approach.

Devkaran *et el*. (2009) introduced a fast track area in an Emergency Department in a tertiary hospital in Abu Dhabi, UAE, to look for a non-urgent patient access. The design of study was before and after with control group (4779 patients) to evaluate the effectiveness of a fast track area for 5706 patients during one year. The results showed a reduction in wait times by 50% and length of stay for non-urgent patients by 30-40% and for urgent patients too as a result. The intervention improved patient flow by reducing waiting time and improved quality measures like leaving without being seen rates. As a result, patient satisfaction level was improved by the implemented change.

Additionally, Conner-Spady *et el*. (2007) conducted a questionnaire with open- and close-ended questions to 303 patients who had an operation for hip or knee replacement in three of four health regions in one province in Canada. The main focus of study was to get patients' perspectives on acceptable waiting times for the operation and patient views in relation to waiting time. The study found that the acceptability of waiting times was linked to quality of life, length of waits and also to previous expectations (experience) and fairness. Moreover, the study emphasized the need to understand patient views on waiting issue in order to facilitate waiting time management, allow better experiences and improve patient satisfaction that will be a result for overall conducted initiatives.

In contrast, Cole *et el.* (2001) in the University of Texas-Houston Health Services clinic in US, distributed 60 surveys and only 47 were returned. Although the response rate was high (78%), but it was a small sample size. In addition, waiting time data were obtained through the patient care time flow sheet. The survey was intended to measure patient satisfaction with the service and with the nurse practitioner care in a nurse practitioner managed clinic. The results demonstrated a short waiting time in the clinic compared with other clinics and statistically non significant correlations between waiting times and satisfaction with the service and nurse care, suggesting that waiting times were not related to satisfaction. However, in case that a patient had longer waiting time, then there was inverse relationship between waiting time and satisfaction with the service and nurse care.

Finally, Finamore and Turris (2009) focused in their study on less urgent patient (follow-up patient) of Emergency Department (ED) in a hospital in Canada. The aim was to create a special clinic to take care of those patients from one side, and to reduce the congestion in ED and increase its resources from the other side, since less urgent patients represent a high proportion of ED patients. Consequently, the decrease in waiting time and the increase on patient satisfaction rates were the main goals of the study initiative clinic. The study started by identifying less urgent patients, then looking to literature for support, after that identifying main stakeholders to gather sufficient information and solutions for all issues. Initial results showed improvement in care and waiting time for follow-up patients through observations. As a result, the project has been expanded in operations and resources, and overall decrease on average waiting time by 70% and ED patients increased by 20%, which indicates a high level of patient satisfaction. In summary, I found indirect effect of waiting time through initiating and implementing creative programs to improve the service and patient satisfaction with both service and waiting time.

2.3.2 Negative Role of Waiting Time on Patient Satisfaction

Studies under negative role showed no effect of waiting time on patient satisfaction. Only two reviewed articles have demonstrated this role and both articles used a quantitative approach to obtain their findings.

Luo *et el.* (2004) carried out a process change in a pizza restaurant in US by introducing an 'Express Lunch' line beside the regular lines for ordering and then compared customer perceived waiting time and their satisfaction before and after the change. Waiting time data collected by research assistants and recorded on cards with the answers to questioned customers about their perceptions of waiting (81 customers before change and 125 after change). The study didn't show any change in customer satisfaction between the two processes and the results found a correlation between actual and perceived waiting time in both processes. However, the results confirmed that the new process improved customer waiting time, but satisfaction was found negatively linked with actual and perceived waiting time in both processes. On the other hand, Oermann *et el.* (2001) distributed a questionnaire to 100 patients in an ophthalmology clinic in US. The patients were distributed into two groups, one group with the intended videotape (educational) intervention during waiting time and the other group with normal clinic care. The study results revealed no effect of such intervention on satisfaction with waiting time nor the visit overall. However, patients were satisfied with the educational intervention obtained during the visit.

In overall conclusion, I found from the reviewed articles in both effects of positive role of waiting time on patient satisfaction that there was a strong connection between the waiting time (actual or perceived) and patient satisfaction. Furthermore, I considered the two articles with negative role had no effect on overall process of intended change compared with the robust evidence supported by the positive role of waiting time.

2.4 Methods and Methodologies

2.4.1 Approaches of the Research Studies and Data Collection

Based on the reviewed articles, I identified different research designs with three approaches, a majority with quantitative method (13 articles) and a minority with qualitative method (2 articles) and one mixed method. Bryman and Bell (2007) argue that the selection of a research design usually direct the way for data collection and a research method (p.39). Almost all articles that selected a quantitative method for their study (11 articles) used a questionnaire tool to collect data accompanied by a statistical data analysis to evaluate patient satisfaction.

A self administered questionnaire was used by: Perez-Carceles *et al.* (2010); in which a validated tool and the scale of tool was internally consistent and reliable, Harnett *et al.* (2010); where it was developed tool and reviewed by a group of patients for clarity and ease to use and with internal consistency too, Bielen and Demoulin (2007), Pothier and Frosh (2006); in which a small pilot study was used to assess the power and suitability of tool, Cole *et al.* (2001); where it was developed by experts and validated also with internal consistency and reliability, Oermann *et al.* (2001); where it was developed, validated (face validity) and tested in a pilot study for reliability, and Pruyn and Smidts (1998). However, Cassidy-Smith *et al.* (2007) interviewed each patient by a validated questionnaire, where it was developed using recommendations by practices and with internal consistency and reliability. On the other hand, a telephone survey was used by both Fry *et al.* (2003); where it was developed and piloted, and Thompson *et al.* (1996); in which a surveying company was used to interview patients. Moreover, Anderson *et al.*

(2007) used a developed online survey. In contrast, few articles with quantitative method used different tools. Devkaran *et al.* (2009) conducted quasi-experimental study and extracted the validated data from the hospital electronic information system to compare the performance before and after the fast track intervention. While, Luo *et al.* (2004) conducted a field study and collected data by research assistants using cards to record their observations and the answers to planned questions (views).

Unlike aforementioned studies, only two articles selected a qualitative method for their study. Finamore and Turris (2009) used both stakeholder consultations and observation tools to monitor the progress of their project. Furthermore, Nie (2000) tested a proposed conceptual framework to examine known variables from different perspectives (social and psychological). Additionally, only one article selected a mixed method in which Conner-Spady *et al.* (2007) used a pre-tested mailed questionnaire with both open- and close-ended questions for selected patients.

Research Design:

From the reviewed studies, I identified different research designs like: a cross-sectional study in Perez-Carceles *et al.* (2010), Cassidy-Smith *et al.* (2007), Anderson *et al.* (2007) and Fry *et al.* (2003), an experimental study in Pruyn and Smidts (1998), a comparative study following an intervention in Harnett *et al.* (2010) and Pothier and Frosh (2006), and a field study in Luo *et al.* (2004).

2.4.2 Sampling and Sample Size

Some of the researchers used a convenience sample like: Perez-Carceles *et al.* (2010), Devkaran *et al.* (2009), Cassidy-Smith *et al.* (2007), Anderson *et al.* (2007), Conner-Spady *et al.* (2007) and Cole *et al.* (2001), which subsequently impacted their study and considered as a weakness point, source of bias and one of study limitations. Bryman and Bell (2007) highlighted the uncertainty to generalize the findings of a convenience sample, because it is not representative to the population (p.198). In contrast, many researchers used a randomized sample like: Harnett *et al.* (2010), Bielen and Demoulin (2007), Pothier and Frosh (2006), Luo *et al.* (2004), Fry *et al.* (2003), Oermann *et al.* (2001), Pruyn and Smidts (1998) and Thompson *et al.* (1996), which considered as a strength point of the research. Again, Bryman and Bell (2007) emphasized the importance of a random sample in which the study results can be generalized (p.192).

On the other hand, some issues floated to the surface of sample size like: a sample size was too small, as in Cole *et al.* (2001) study, there were only 47 individuals in the sample (n<100) and of which 74% were female. So, it was not representative for the population and the whole sample too and was one of the study limitations. Although, Bielen and Demoulin (2007) and Pruyn and Smidts (1998) both reported high sample size (n=946, 337, respectively), but 64% and 62% respectively of the sample were female and hence was not representative for the sample population and was one of the study limitations. However, a lot of reviewed articles reported a high response rate for their sample size like: Harnett *et al.* (2010); n=872 and 79% response rate, Cassidy-Smith *et al.* (2007); n=1118 and 72% response rate, Conner-Spady *et al.* (2007); n=303 and 70% response

rate, Pothier and Frosh (2006); n=227 and > 90% response rate, and Pruyn and Smidts (1998); n=337 and > 70% response rate.

2.4.3 Hawthorne Effect

Bryman and Bell (2007) argue that Hawthorne effect has some influence on the research outcomes (p.52). None of the reviewed articles mentioned this effect, except two articles: Devkaran *et al.* (2009) talked about avoiding the effect by not informing nurses and clerical staff that entered and retrieved patients' data about the ongoing study. Also, Luo *et al.* (2004) avoided the effect by letting several weeks between old and new process to collect the relevant data.

2.4.4 Ethics

Most of the reviewed articles ethically approved by the Institutional Review Board (IRB) or Ethical Research Committee or the Committee for the Protection of Human Subjects. Only one article -Thompson *et al.* (1996) - was exempt from IRB.

2.4.5 Limitations of the Research Studies

In general, a lot of reviewed articles revealed their use of convenience sample, which in turn limited the generalizability of their results. Moreover, the demographic limitation in which a sample subjects were not representative for the sample population. Also, some articles didn't collect data during other operation hours or didn't measure other relevant variables to be included in the study. Additionally, some articles excluded different

categories of patients to be included in the study, e.g. elderly patients, severely ill patients, pregnant patients, cognitive patients…etc

2.5 Application of Findings in Organization

I defined three levels in the organization to apply the findings of the literature review. Firstly, implications to manager level; where I would strongly suggest more focus from a manager in the area of waiting time by promoting the importance of such approach to develop highly satisfied patients with the pharmacy services. Secondly, implications to educational level; where I would strongly emphasize the need for regular training sessions to staff on how to deal with the issue of waiting time and think on new ways to be implemented in the pharmacy to improve the waiting time experience for the patients. Finally, implications to practice level; where I would closely work with my colleague as one team to foster the overall initiatives to enhance and decrease waiting time and work with the team on any new idea that can be implemented successfully in the pharmacy, which in turns will contribute positively on patient satisfaction.

2.6 Summary

In summary, I found robust evidence from the literature review about waiting time role on patient satisfaction. Furthermore, I found a lot of opportunities and techniques that can effectively be applied in the pharmacy to improve waiting time experience for many patients with a high satisfaction level. Glacken and Chaney (2004) in their study highlighted the importance of using and applying research findings in a work environment area.

Chapter 3 Methods

3.1 Introduction

Based on pharmacy situation where I work, I have decided to choose John Kotter 8-step model of change. However, the first question that might pop-up in mind: why I chose this change model over other models? The core principle process in the pharmacy operation lies in filling the patients' prescription (in turn) by a pharmacist while patient is waiting to collect the medications. From this process, it's clear that many elements may play an important role in the prescription cycle; the physician is writing and issuing the prescription, the patient handles the prescription to the pharmacy, the pharmacist processes the prescription, and then dispenses the medications for the patient. Kotter model of change provides a clear pathway on how to deal with such stakeholders in more specific steps to initiate change successfully as well as works from the current situation to build up required change on it.

3.2 Change Model

Kotter model of change consists of a sequence of eight consecutive steps to initiate and implement change. Kotter (1996) argues that it is important to start change step by step and in sequence to allow a normal progress and be away from any confusion that comes while working on different steps at same time or not working in sequence (p.24). From my own experience, I found a great support from such sequence in my change project as it facilitated the change in the work place. The change was conducted in one of the Family Medicine Clinics' Pharmacy in Abu Dhabi.

3.2.1 Change Details

The change that was introduced and initiated in the pharmacy categorized the prescriptions according to number of medications into two categories; one for three or less medications prescription and the second for more than three medications prescription, which was presented by a local or non-local patient with a specific health plan depending on the insurance status. The change introduced the fast track window for the first category (three or less medications) to be dispensed and counseled directly to the patients. While, for the second category prescriptions (more than three medications), a ticket number was given for the patients to wait till their prescription filled out by a pharmacist. During their time of waiting, the pharmacy has provided a Fact Sheet describing the pharmacy services and the way the prescription was filled out by a pharmacist (Appendix 2).

3.2.2 Change Steps

Kotter eight steps are:

1- Establishing a Sense of Urgency

Working on this step took as much of discussions, meetings and analysis to create a strong sense of urgency. In an interview on October, 2008, J. Kotter pointed out that ‘a false’ sense of urgency exposed when people thought they got the required urgency for change and started to work on change steps and after a while, they failed, because they missed out true and real sense of urgency. Moreover, Robbins (1991) argues that change starts by knowing exactly what to do and going to happen if a sense of urgency well established, then moving forward to change by this (p.124-125).

In this step, I worked on different pillars to establish a strong sense of urgency. Firstly, identifying and analyzing the main stakeholders related to change in the pharmacy then based on that raise the level of urgency. Smith (2005) argues the need to reach a sense of urgency to facilitate change success. I identified physicians, patients, registration staff and pharmacy staff as stakeholders because I need to understand them as they will get on board for my change. I spoke with the Lead Physician in the clinic, explaining the importance to dispense patients' prescription with reasonable waiting time to be aligned with our overall pharmacy department and hospital efforts at the same time. I emphasized that there will be no extra work for any physician in this matter; only they will inform the patients about the pharmacy new system for dispensing the prescriptions. The Lead Physician expressed the acceptance to pharmacy change and consequently sent an email to all physicians in the clinic explaining change need and it's importance both to the clinic and the pharmacy to reflect the hospitals' centered patient care. Also, I attended one of the physicians weekly meeting to highlight about the pharmacy change and it's benefit to patient care and patient satisfaction too.

Additionally, to get patients aware of change, I issued an information sheet telling the patient about the change in dispensing the prescriptions (3 or less medications and more than 3 medications) (Appendix 3). This sheet will be available both at registration disk (when the patient first coming to the clinic to register) and at pharmacy disk. Furthermore, a fast track sign (Appendix 4) was kept at both pharmacy windows to indicate the change and another Fact Sheet was distributed to

all patients being waiting for their medications; explaining the pharmacy procedures to fill the prescription and what pharmacy services are available to the patient? On the other hand, for registration staff, I spoke with the Registration Supervisor to gain their support and to help in a survey distribution to patients before and after the change. I got a word from the Supervisor to give full support for the pharmacy change initiative. I personally followed up with the registration staff for a survey distribution to be assured that every thing was moving smoothly.

I firmly believe that the pharmacy staff are the most important part of stakeholders. At the beginning, I met the Pharmacy Supervisor and explained the benefits of such change on the pharmacy reputation and aligning with the pharmacy department commitment to dispense the prescriptions within a short period of time to satisfy patient's need and expectations. I gained the Pharmacy Supervisor full support and approval for the proposed change (Organisation Sponsorship and Permission Form signed) and then I discussed full change details with the correspondent dates (survey, fast track, ticket numbers…etc). Inside the pharmacy, where the real change will be implemented. As a team, it is a well known need by all staff to reduce patients' waiting time. I emphasized the need to move extra steps forward to meet with the target of short waiting time. With different sessions and times, I extensively explained change steps; how will it work? What are the expected results and outcomes for such change? And what are the possible threats for change? I conducted a presentation to all staff accompanied by the Pharmacy Supervisor about the whole change process. I listened carefully to every concern that had been raised by staff and I have given the

possible solution to it within the environment of one team. However, I faced a tough resistance from the pharmacy staff regarding the extra work load when one pharmacist will be responsible for fast track and other pharmacist will take care of ticket numbers beside the normal duties of filling, checking and dispensing the prescriptions. I expressed my understanding, but I emphasized that who ever responsible for fast track will help also in filling and dispensing other prescriptions (with ticket numbers) when no patients are presented at fast track. Also, I reminded all staff about the need for change to get rid of patients crowding at pharmacy window asking continuously about their medications and minimize loosing patients because of long waiting time. I strongly believe that by reminding staff regularly about change and it's benefit, in which it will change their beliefs, they will change what they do and be part of the new change. This was absolutely what happened after a reasonable period of time; I got all staff on board with change initiative. As Kotter (2007) argues that once the change started, it required enormous cooperation of people and without that energy, people won't engage.

Interestingly, I used my emotional intelligence to convince the pharmacy staff and get them on board. From my robust support to staff and my self inspiration about the need and benefit of such change in the pharmacy, I consistently keep my support to staff and tried to think with all of them about the several opportunities that change will carry to the pharmacy; from dispensing patients' prescription within a short period of time, be a unique in our initiative to be the first pharmacy who applied fast track, offer a range of high quality services for all patients and allow enough time for

patient counseling. Also, from my self-awareness and confidence of change success and it's outcomes, I personally communicate this confidence with each staff to be confident too about the possibility of change and it's success. Goleman (2004) highlights that as much as the person has emotional intelligence characters, the high performance work can be seen and achieved too.

2- Forming a Powerful Guiding Coalition

With strong support from the Pharmacy Supervisor through one meeting with the pharmacy staff, emphasizing the need for change to make it possible and get rid of any obstacles. From this meeting and after I got the pharmacy staff all on change board, I gathered all staff in one meeting, describing the next steps toward change; who will take care of fast track? What are the main responsibilities and duties of fast track pharmacist in-charge? Who will take care of ticket numbers for other patients? Who will coordinate between all staff to distribute equal duties? How to support each other and avoid any conflict? All these questions and other technical were extensively explained and written down in the pharmacy meetings book. In the same meeting, staff agreed to let me the change leader, monitor for any issues during change and complete finisher to ensure every thing in place. Parker (2006) argues that a manager can facilitate the work environment that allows all staff work efficiently and as one team (p.428). Additionally, Kotter (1996) highlights the importance of 'a strong team' in conducting change initiative; otherwise change will fail (p.57).

3- Creating a Vision and Strategy

After developing the ground rules in last step that governs the team work for change, the need for a vision that all staff share and work for it has strongly arisen to drive the team in change process. Like what mentioned in: A Users' Guide to Managing Change in the Health Service Executive (2008) in relating to HSE change model; 'build a shared vision' as the first process of 'building commitment' in the second step of change process (planning step). To do that, I asked each staff to write down an effective idea that can be a vision for the team. Shortly after that, I gathered the team and I listened carefully to each idea, then I asked each staff to outline why this idea should be a vision for the team? Covey (2004) argues that 'seek first to understand, then to be understood' (p.255). After all, I formulated a vision based on most common ideas to act as a vision for the team. Most importantly, all staff agreed on that vision to share and work to achieve it. The team vision was: The team should focus on meeting patient expectations both on demanded services and waiting time.

Furthermore, I decided to prepare a strategy to make the developed vision easy achievable. To do that, I used the TOWS strategic tool, which helps to identify the required strategy (Appendix 5). To allow the TOWS application, four steps were required to be identified: external opportunities, external threats, internal strengths and internal weaknesses. After that, I identified firstly the external opportunities in: the recognition of the pharmacy as the first in it's initiative to apply fast track, just on time medications ordering and quick supply of ordered medications. Secondly, the external threats in: patient waiting time, communication with patient and patient

counseling. Thirdly, the internal strengths in: strong team and qualified pharmacists. Fourthly, the internal weaknesses in: pharmacy electronic system outage and out of stock or unavailable medications. Then, I developed strategies to maximize the external opportunities and minimize the external threats from the internal strengths and to minimize the internal weaknesses by considering the available opportunities and avoiding the internal threats.

Strong team will work hardly till achieving the recognition of the pharmacy as the first in it's initiative as well as achieving the team vision. So, I developed strategies to underpin team work and build stronger team through inter-communication relationships (supporting each other). Qualified pharmacists will work in case of pharmacy electronic system outage under manual procedures and this will not affect their ability in dispensing nor in patient counseling. So, I developed strategies to make it clear for each pharmacist on how to work under system outage, what are the procedures and how to communicate with and counsel different patients. The overall developed strategies will result in improving patient satisfaction and waiting time. Moreover, I developed strategies to make use of both strong team and qualified pharmacists to improve patient waiting time through effective use of fast track. On the other hand, out of stock or unavailable medications can be solved by taking the advantage of just on time ordering and quick supply of ordered medications through clinic transportation. Lorenzi and Riley (2000) argue that in change management, strategies and other initiatives can promote achieving the created vision. Importantly,

all developed strategies were distributed to all staff to have a look for it, give their comments (if any) and then to practice it on daily basis.

4- Communicating the Change Vision

I realized from my experience that communication is very essential element to build on different relationships between people as well as it's vital role to foster existence relationships. I strongly believe that to let the newly created team vision to grow and to be emerged in every staff daily practice, I needed to communicate this vision very well to all staff in a manner that they will not get bored of it. Jelphs (2006) argues that communication is the core of many problems related to weak performance in health care which affects the patients as a result (p.372). I prepared small cards with the team vision and gave it to every pharmacist, to allow daily reminder of the vision. Additionally, I printed out the vision sheet on A3 paper with clear written on it and stuck it on both pharmacy notice boards, to provide extra visual and cognitive supporters for each pharmacist. As Covey (2004) argues that 'when you communicate synergistically, you are simply opening your mind and heart and expressions to new possibilities, new alternatives, new options' (p.264).

The next step then, was to communicate the pharmacy vision on whole clinic level and not inside the pharmacy only. For this purpose, I printed off the pharmacy team vision and stuck it on both pharmacy windows to be obvious in front of each patient and clinic staff too. Then, I sent an email stating the team vision to Lead Physician in the clinic to forward it to all physicians in the clinic. Also, I delegated a short

presentation task to one pharmacist to present the team vision for invited clinic staff. As Kotter (1996) argues that strong communication of a vision usually carried out by a variety of tools (p.93).

5- Empowering Others to Act on the Vision

Actually at this step, I firmly believe that by keeping open mind and very well communication with all staff in the clinic and even with other clinics of Family Medicine, I can underpin change deeply into the bottom. I sent an email to Lead Physician and Charge Nurse in the clinic asked them to communicate with their staff about any idea that may support the pharmacy team vision for the intended change. Also, through clinic weekly scientific gathering for all staff, I attended the meeting and allowed face-to-face communication and just reminded the audience about the pharmacy new vision. I received some emails from clinic staff proposed to give ticket numbers for all patients not only for long prescriptions. I gave them an explanation that not all patients are thinking the same way (different cultures) and willing to wait for little more time. I explained also that the pharmacy need to meet their patients expectations about it's services and waiting time.

Moreover, I emphasized on each pharmacy staff to be aware of the vision and why the pharmacy created and it's overall benefits for all patients. For this purpose, I offered a short seminar for the pharmacy staff on how to effectively communicate the pharmacy vision, by outlining it's importance, aligning with overall hospital vision: 'strives to provide outstanding patient experience, superior clinical outcomes, and an

improved quality of life for the people it serves' and it's expected outcomes. After Pharmacy Supervisor approval, I allowed the clinic staff to come in the pharmacy and see how the pharmacy operates under the new vision and change initiative. At this level, I undoubtedly noticed that every one in the clinic talked about the pharmacy and it's vision; from physicians (they keep ask me), nurses, clerks, registration staff, and even patients. As Kotter (2004) emphasized that aligning different people rely heavily on a communication (it is a challenge) and this requires talking to different levels of staff in organization in order to immerse the vision.

6- Planning for and Creating Short-Term Wins

Actually, after I and my colleagues in the pharmacy have noticed a happy faces and more comfortable patients when presenting to the pharmacy with their prescriptions, at this stage, I realized that a tree starts to give some fruits. Moreover, Lead Physician, Charge Nurse, different physicians and nurses, and other staff in the clinic started to talked about how the pharmacy succeed in it's change and how the vision started to translate on reality through a lot of patients reported to them (feedback) and asked how they achieved that level of success.

After all, I talked with the Pharmacy Supervisor highlighting the importance to do some thing valuable for the pharmacy staff. I discussed different scenarios about how to create a short-term wins (after almost one month and half). Among those scenarios, holding a party for all Pharmacy Department staff and presenting our pharmacy staff as the initiators for change, who make it real and happen and the first pharmacy to

apply fast track and improve patient waiting time (as I will show later). Additionally, I proposed a Certificate of Appreciation for the pharmacy staff all who supported change and worked hard on the vision and make it a live. One more thing, which was a surprise for staff that the Pharmacy Supervisor has agreed to let staff get an overtime payment for the weekend duty (on Saturday) instead of one day off. This really was amazing for them, since it's a long time back insisted request. I worked hard to let the Pharmacy Supervisor agreed about this request and I emphasized the need for such action to help foster change outcomes and assure the continuity of such outcomes. I strongly believe that this action was not just a financial reward, but more deeply staff recognition for their robust work and as more supportive way for them. Mohanty and Yadav (1996) highlight the importance of 'reward and recognition structures' in a change process. Moreover, Kotter (2001) argues that it is of good practice from leaders to keep reward and recognition tool for each success to maximize people motivation and their work place belonging.

7- Consolidating Improvements

At this stage of change process, I started to plan for maintaining all achievements at the team vision level as well as change initiative level. However, it's not an easy process to do, because I have to keep every achievement in place and perfectly emerged in daily work practice. Firstly, I proposed for the Pharmacy Supervisor to create a monitoring system in order to tackle both team obliged with the vision and pharmacy benefits from implemented change. This system like a committee will work later as intended to generalize and implement change in other Family Medicine

Clinics pharmacies as one of current change outcomes. For this purpose, the Pharmacy Supervisor asked me to give in details how the current change initiative worked in the pharmacy? In a report, I explained every change step; what was good and what was not? To raise our learnt lessons from such experience and maximize the advantages and benefits from change when generalize it to other pharmacies. The Pharmacy Supervisor has delegated the responsibility of proposed committee for me to create it and choose it's members.

This step will act as the coming strategy to use it in any further change plan. Furthermore, I advised to continue support staff and building a trust relationship with them to overcome any future resistance as Kotter and Schlesinger (1979) argue that people start to resist when they do not understand intended change with it's causes and when trust was missing. Also, Prahalad and Hamel (1990) argue that its responsibility of the top management to formulates the 'strategic architecture' that will pave the way for designing the objectives to build on them its values (competencies). On the other hand, I discussed with the Pharmacy Supervisor the need to engage staff in a highly training programs (like workshops) to foster their change skills.

8- Institutionalizing New Approaches

Kotter (1996) argues that altering the way we work and behave comes last (p.157). To great extent, after the initial success results of change and staff deeply felt of it's importance and benefits as they informed me (through regular feedback from them to me as Change Leader). I started to show by example for staff how each process in pharmacy has become of great value after implemented change. I drew a comparison between each process before and after change, to illustrate the necessity of new practices to be emerged in daily work. Francesco and Gold (2005) argue that by deep clarifications of the impacts and consequences of a culture type on organization, change can be managed successfully (p.275). I firmly believe that through a continuous monitoring of pharmacy daily work and keep reporting of any concerns or issues to the Change Leader and then to recently created committee (that will discuss any problem and give a suitable solution to it) will eventually reflect on underpinning (anchoring) the new practices as a new culture for pharmacy work.

3.3 Summary

In overall summary, I found that how robust collaborating of a well defined and very important key elements in change process can ultimately result in well managed and successful change initiative.

Chapter 4 Evaluation

4.1 Introduction

In this chapter and after the implemented change has took place, I already planned to measure change outcomes by five different ways that will be discussed in detail later on. For this purpose, I used the following methods: 1) Patient Satisfaction Survey, 2) Waiting Time Data, 3) Process Mapping, 4) Staff Interview and 5) Number of Waiting Time Complaints. I strongly believe that it is a very important and vital process to evaluate the outlined outcomes to know exactly in which level we achieve that outcome (stand on a ground basis).

4.2 Evaluation Tools & Outcomes of Change

Now, I am going to describe and discuss each evaluation tool and what it intended to measure in the evaluation process?

4.2.1 Patient Satisfaction Survey

I used a Patient Satisfaction Survey (Appendix 6) that has been developed by the Quality Management Department in a governmental hospital (the Medical City that contains the main hospital campus and off-site Family Medicine Clinics) and was used as a performance indicator in different settings in a hospital to measure patient satisfaction level based on international standards provided by one consulting company and targeted the benchmark value of ≥ 80% of surveyed very or fairly satisfied patients.

I used the developed survey (Questionnaire) in one of Family Medicine Clinics (that have a pharmacy) in Abu Dhabi (UAE) to measure and compare patient satisfaction data before and after the change process. The survey was a self-administered questionnaire and was distributed by registration staff (during process of patient registration) to any willing patient to complete the questionnaire (either walk-in or on appointment patient). Both Pharmacy Department and Family Medicine Clinic's Management in aforementioned hospital gave their approval to conduct the survey in the clinic (where I work). Ford *et al.* (1997 as cited in York & McCarthy, 2011) emphasized the need to measure patient satisfaction as an 'important outcome measurement'.

In the survey, I added 3 questions to it's 11 questions asked about waiting time data and number of medications in the prescription. The questions of waiting time data (2 questions) have been used in patient cycle tool, which was used by the clinic to monitor how well it's running. The waiting time data will separately be used as planned as an evaluation tool for the change and will be discussed later. The questionnaire included two parts: one part (3 questions) for demographic characteristics of patients and the second part consisted of 8 questions and were found to measure three dimensions of satisfaction. The first dimension; treatment, was measured with 2 questions. The second dimension; care, was measured with 5 questions (all have 5 choices). The third dimension, trustworthiness, was measured with one question (yes or no).

Results:

1) First part of the survey

Of the 163 surveys distributed over a week (within both shifts of the clinic working hours) before change, 147 were returned (giving approximately 90% response rate) and of the 160 surveys distributed after implemented change over a week (within the same conditions as before change), 155 were returned (giving almost 97% response rate). Table 1 summarized the demographic characteristics of all patients before and after change. The sample of 147 before change was almost 69% female with a mean age of 32.97 and around 40% of patients were in the age group of 26-35, which in my opinion suggests why the high percentage of the prescriptions of three or less medications (n=102, 69%). While, the sample of 155 after change was 59.35% female with a mean age of 34.88 and around 40% of patients were in the age group of 26-35 (similar to the sample of before change).

In both samples, the majority of patients were nationals (69.39% before and 67.1% after change). The possible reason beside those figures for the majority of national patients might be because the clinic was designed exclusively for nationals and it was opened for all nationalities last year only. Additionally, around 68% of the prescriptions after change had three or less medications with great close to the prescriptions before change (69%).

Table 1: Demographic Characteristics of Patients

Characteristic	No. of Patients (%)	
	Before Change	***After Change***
Age (years)		
15-25	42 (28.57%)	32 (20.64%)
26-35	58 (39.46%)	61 (39.35%)
36-45	24 (16.33%)	36 (23.23%)
46-55	14 (9.52%)	14 (9.03%)
56-65	6 (4.08%)	7 (4.52%)
> 65	3 (2.04%)	5 (3.23%)
Sex		
Male	46 (31.29%)	63 (40.65%)
Female	101 (68.71%)	92 (59.35%)
Nationality		
National	102 (69.39%)	104 (67.1%)
Non-National	45 (30.61%)	51 (32.9%)
Total	147 (100%)	155 (100%)

2) Second part of the survey (Appendix 7)

a. Treatment dimension

When asked about the medications dispensed in the pharmacy relating to quality, diversity and duration time; 81 patients (79.41%) of the category 1 (3 or less medications) were satisfied and happy with the medications dispensed related to the three mentioned factors and 28 patients (62.22%) of the category 2 (more than 3 medications) were satisfied and happy too before change. While, 93 patients (88.57%) of the category 1 were satisfied and happy (giving around 9% improvement) and 41 patients (82%) of category 2 were satisfied and happy (given around 20% improvement) after change. I strongly believe that what improvements achieved after change has happened because of the developed strategy in the pharmacy to benefit from the external opportunity of just on time ordering and quick supply of orders to overcome the internal weakness in out of stock or unavailable medications (Appendix 5). However, the patient still will wait to get the ordered medications and this of course will affect their overall satisfaction about the medications dispensed in the pharmacy.

On the other hand, when asked about the explanation given by the pharmacists on required medications; 46% (n=47) as excellent with 34.3% (n=35) as very good answered from category 1 patients and 53.3% (n=24) as excellent with 26.7% (n=12) as very good answered from category 2 patients before change. While, 60% (n=63) as excellent with 20.9% (n=22) as very good answered from category 1 patients and 68% (n=34) as excellent with 14% (n=7) as very good answered from category 2 patients after change.

However, 4.9% (n=5) as fair answered from category 1 patients and 8.9% (n=4) as fair with 2.2% (n=1) as poor answered from category 2 patients before change. While after change, 4.8% (n=5) as fair answered from category 1 patients and 6% (n=3) as fair answered from category 2 patients without any considerable change from the results before change. This may suggests that some patients still did not recognize the change in the pharmacy or just to rate as fair or poor, because they might think this was the real one to rate.

b. Care dimension

Firstly, when asked if the pharmacist listen to the patient carefully; 52% (n=53) as excellent with 25.5% (n=26) as very good expressed their rate from category 1 patients and 51.1% (n=23) as excellent with 26.7% (n=12) as very good expressed their rate from category 2 patients before change. While, 62.9% (n=66) as excellent with 23.8% (n=25) as very good expressed their rate from category 1 patients and 68% (n=34) as excellent with 18% (n=9) as very good expressed their rate from category 2 patients after change, which greatly suggests a high improvement in both categories after change in terms of 'excellent' rate. However, still it needs more work and focus to raise the percentage up.

Secondly, when asked if the pharmacist respect patient's privacy; 59.8% (n=61) as excellent with 30.4% (n=31) as very good answered from category 1 patients and 55.6% (n=25) as excellent with 24.4% (n=11) as very good answered from category 2 patients before change. While, 63.8% (n=67) as excellent with 19% (n=20) as very good answered from category 1 patients and 74% (n=37) as excellent with 10% (n=5) as very

good answered from category 2 patients after change, which shows a notable improvement of category 2 patients after change when compared with category 1 patients (around 10%).

Thirdly, when asked if the pharmacist treat the patient with respect; 62.7% (n=64) as excellent with 23.5% (n=24) as very good answered from category 1 patients and 66.7% (n=30) as excellent with 20% (n=90) as very good answered from category 2 patients before change. While after change, 67.6% (n=71) as excellent with 18.1% (n=19) as very good answered from category 1 patients and 76% (n=38) as excellent with 14% (n=7) as very good answered from category 2 patients, which shows a slight improvement of category 1 patients (around 5%) and a remarkable improvement for category 2 patients (around 10%) after change in terms of ‘excellent’ rate.

Fourthly, when asked if patients were comfortable with the pharmacist service; 52.9% (n=54) as excellent with 28.4% (n=29) as very good answered from category 1 patients and 48.9% (n=22) as excellent with 33.3% (n=15) as very good answered from category 2 patients before change. While, 62.9% (n=66) as excellent with 18.1% (n=19) as very good answered from category 1 patients and 72% (n=36) as excellent with 14% (n=7) as very good answered from category 2 patients after change, which shows a high improvements in both categories in terms of ‘excellent’, especially with category 2 patients (around 23%) when compared with category 1 patients (around 10%).

Finally, when asked the patients about their satisfaction with overall pharmacy services; 51.96% (n=53) were very satisfied with 41.18% (n=42) were fairly satisfied expressed their rate from category 1 patients and 55.6% (n=25) were very satisfied with 37.8% (n=17) were fairly satisfied expressed their rate from category 2 patients before change. On the other hand, 82.9% (n=87) were very satisfied with 15.2% (n=16) were fairly satisfied answered from category 1 patients and 80% (n=40) were very satisfied with 18% (n=9) were fairly satisfied answered from category 2 patients after change, which indicates a huge shift of overall satisfaction with pharmacy services in both categories (>25%). In contrast, fair and poor rates for both categories did not change and stay nearly on their range, which suggests that change still needs more time to be recognized by all patients visiting the clinic.

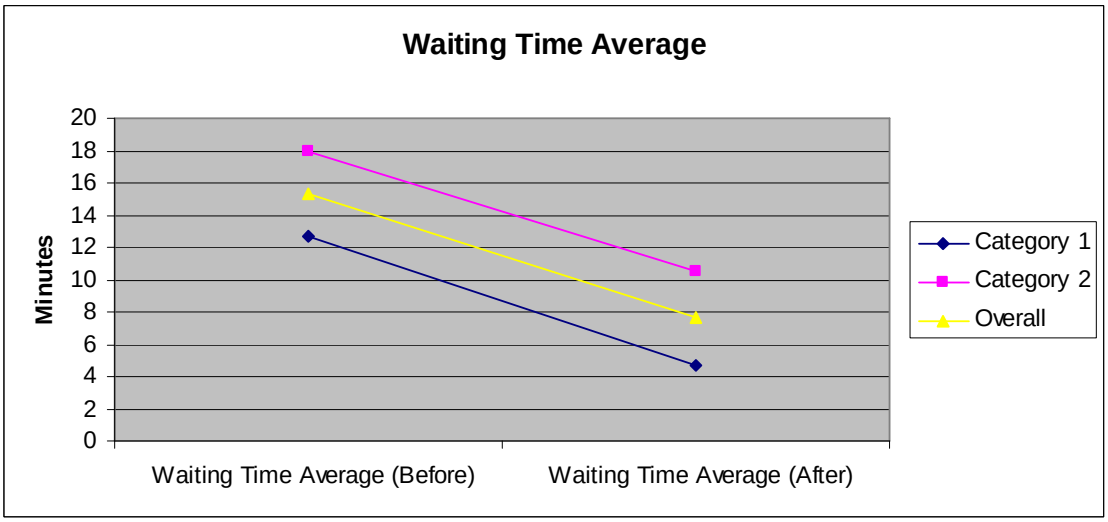
c. Trustworthiness dimension

When asked if the patient will recommend the pharmacy to family and friends; 90.2% of category 1 patients and 97.8% of category 2 patients answered ‘yes’ before change. However, 97.1% of category 1 patients and 96% of category 2 patients answered ‘yes’ after change, with more improvements in category 1 patients and almost no change with category 2 patients for their recommendation. This suggests that despite long waiting time and other factors related to patient satisfaction, the patient still likely would recommend the pharmacy for others and this reflects the loyalty of patients and their trust with the pharmacy.

4.2.2 Waiting Time Data

The two questions that had been asked with relation to waiting time; first one for waiting time recording to calculate patient's waiting time and the second asked how reasonable was the time to fill the prescription. The results showed that the average waiting time for category 1 patients was 12.71 minutes and 17.96 minutes for category 2 patients before change. However, after change the results showed that the average waiting time was dropped to 4.7 minutes for category 1 patients and 10.54 minutes for category 2 patients, which showed a reduction in average waiting time by 63.02% for category 1 patients and by 41.31% for category 2 patients, and overall reduction by 50.31% for all patients in both categories (Figure 1). These achievements firmly suggest change success and confirm the effectiveness of introduced fast track and a ticket numbering tools to help initiating change.

Figure 1: Average Waiting Time Improvement

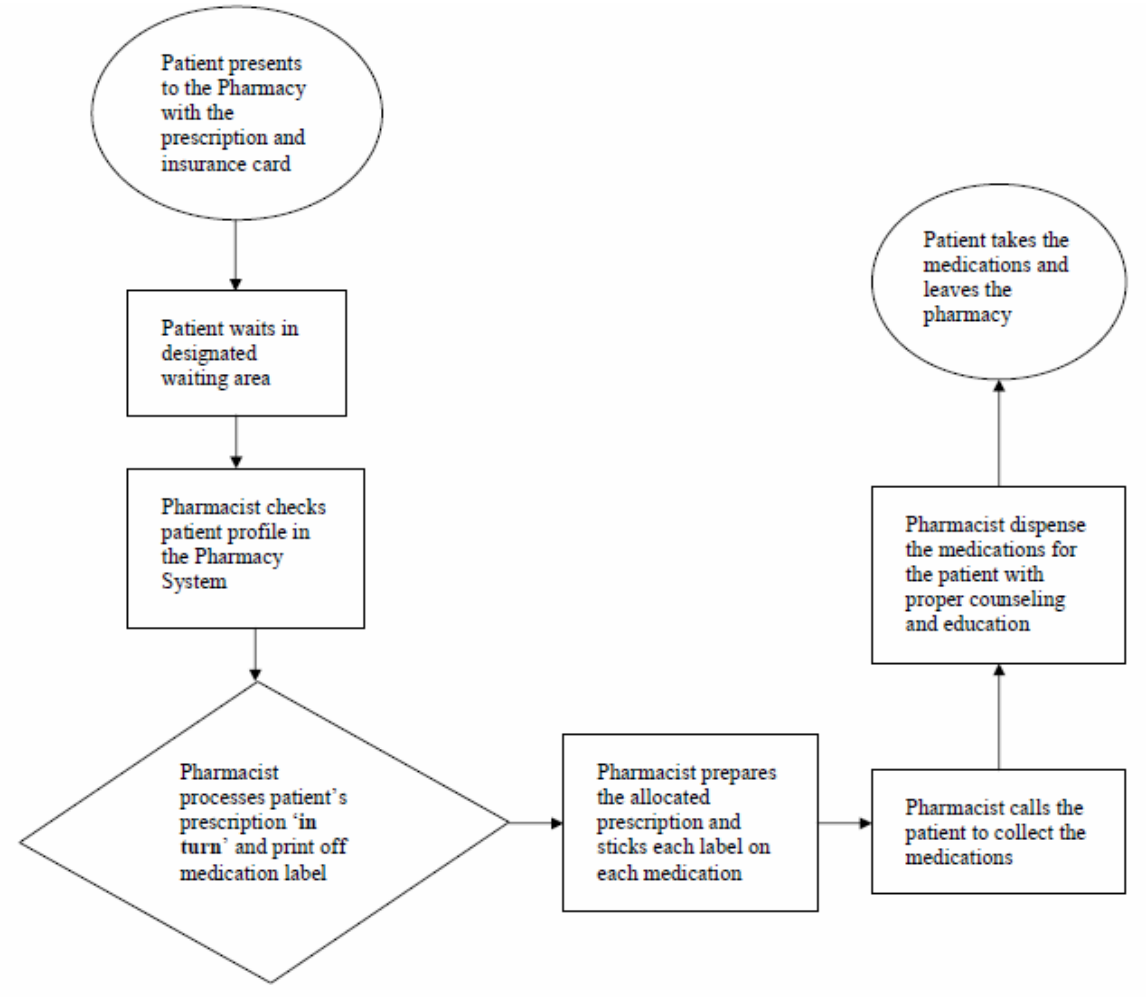


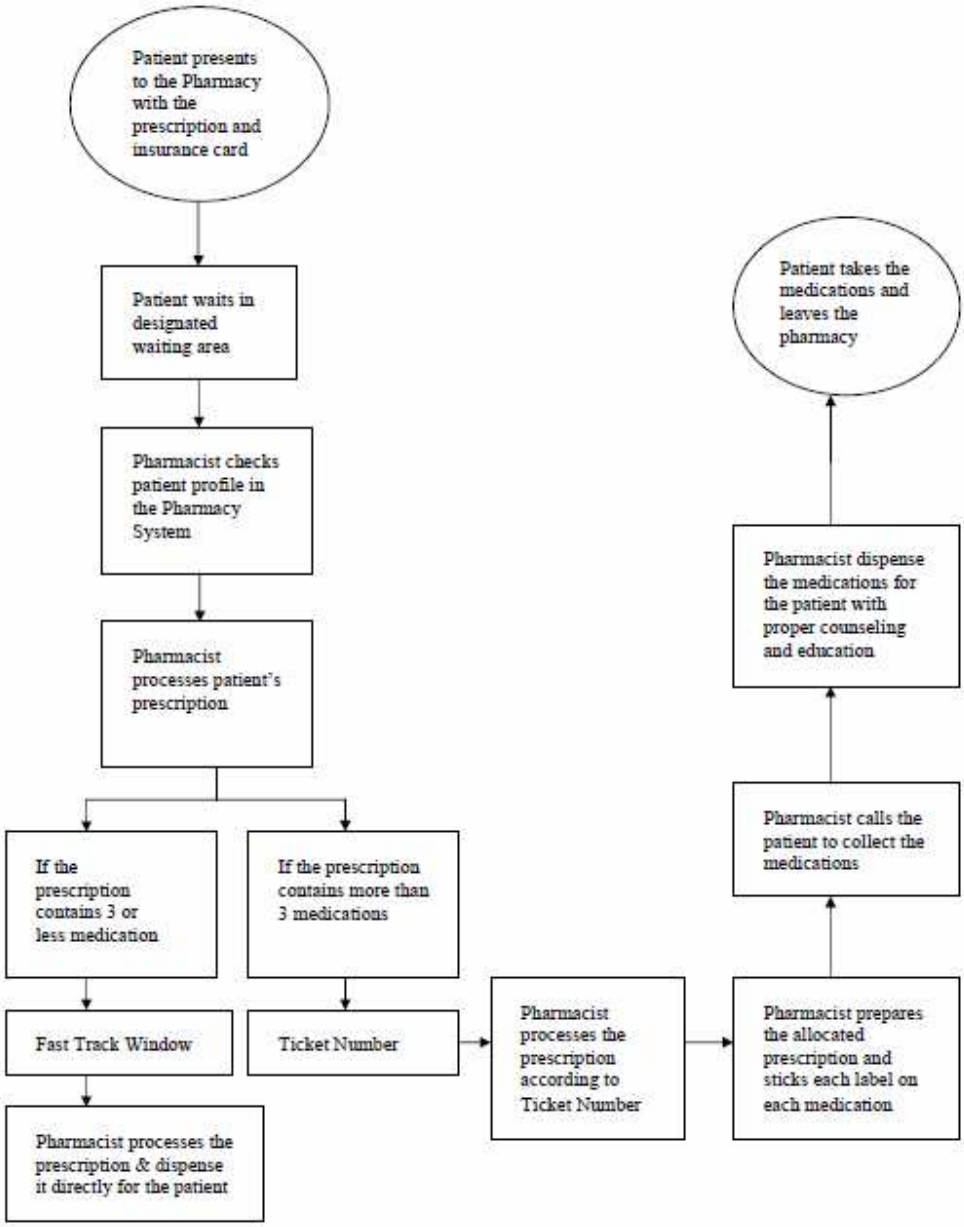
Furthermore, when asked how the patient viewed the time to fill the prescription; 73.5% (n=75) of category 1 patients viewed the time as reasonable, 20.6% (n=21) as reasonable to some extent and 5.9% (n=6) as unreasonable with 60% (n=27) of category 2 patients viewed the time as reasonable, 33.3% (n=15) as reasonable to some extent and 6.7% (n=3) as unreasonable and this was before change. But, after change, 88.6% (n=93) of category 1 patients viewed the time as reasonable, 9.5% (n=10) as reasonable to some extent and 1.9% (n=2) as unreasonable with 84% (n=42) of category 2 patients viewed the time as reasonable and 16% (n=8) as reasonable to some extent (Appendix 8). Although, category 2 patients showed more improvements in patient's view for the time to fill the prescription than for category 1 patients, but still it needs more configuration to exactly know the effect of overall average waiting time reduction by more than 50% on all patients by other means beside waiting time data like patient interview and more specific questions on waiting time, e.g. Was waiting time as expected?

4.2.3 Process Mapping

Foremost, what is a process map? Anjard (1998) defines the process as 'a visual aid for picturing work processes which shows how inputs, outputs and tasks are linked'. However, Matsumoto *et al.* (2005 as cited in Fenton, 2007) defines the process as 'more than just a tool for change as it can lead to a more holistic understanding of how an organization works'. Then, I conducted a process mapping for patient's prescription in the pharmacy (Figure 2) in order to understand the current situation, redesign the process in efficient way to satisfy patient's needs and expectations by knowing exactly which step needs to be improved and then evaluate the redesign.

Figure 2: Process Mapping (Before & After)




Patient presents to the Pharmacy with the prescription and insurance card
Patient waits in designated waiting area
Pharmacist checks patient profile in the Pharmacy System
Pharmacist processes patient's prescription
If the prescription contains 3 or less medication
If the prescription contains more than 3 medications
Fast Track Window
Ticket Number
Pharmacist processes the prescription & dispense it directly for the patient
Pharmacist processes the prescription according to Ticket Number
Pharmacist prepares the allocated prescription and sticks each label on each medication
Pharmacist calls the patient to collect the medications
Pharmacist dispense the medications for the patient with proper counseling and education
Patient takes the medications and leaves the pharmacy

According to the created process mapping, I identified the step that should be changed when the pharmacist processes patient's prescription 'in turn' and print off medication label. I noticed that all patients were waiting in turn to collect their medications; even their prescription contains one or two medications. So, I changed this step by introducing fast track window and a ticket numbering. By this step, average waiting time for patients who had three or less medications prescription was dropped by 63% and for patients who had more than three medications prescription was dropped by 41.3%.

4.2.4 Staff Interview

In order to get a full image of change consequences from different angles, I conducted semi-structured interviews with the pharmacy staff (5 pharmacists and 2 technicians) as one to one interview. In the interview, I asked two main questions with regard to change:

1) Are you satisfied with the implemented change?
2) Are you going to continue to cooperate with the team and support change?

Each interview was conducted in English, last around five minutes and took place outside the pharmacy in separate area (staff resting room in the clinic). All pharmacists and technicians expressed their satisfaction with the implemented change in clear manner, e.g. 'yes of course', 'yes, sure', 'yes'. Then, when I asked them about the second question, again all pharmacists and technicians positively responded in a firm tone that they will continue to cooperate with the team (some of them described the team as 'family') and will strongly support the implemented change.

4.2.5 Number of Waiting Time Complaints

Another method that I looked for evaluating the change was the number of complaints received against pharmacy waiting time. Charge Nurse in the clinic is responsible to receive and then report patient's complaints to Pharmacy Supervisor to take proper action. For this purpose, I collected the complaints for more than the half of the month of February (1/2-19/2) and the last three months directly prior to change month that took place on 20/2/2011. I found that number of complaints for the first 19 days of February were 12, for the month of January were 16, for the month of December were 20 and for the month of November were 15. After that, I collected the complaints after implemented change and I found that number of complaints for the rest of February were 3, for the month of March were 7 and for the month of April were 3. When I calculated the average number of complaints before change, it was 17.1 and after change, it was 5.6. So, according to these data, the average number of complaints was dropped dramatically by 67.25%.

4.3 Summary

In summary, I firmly found that how change outcomes like improving patient satisfaction by reducing patient waiting time for medications collection (fast track & ticket numbers) and improving patient knowledge about the pharmacy services were strongly connected with the change success and demonstrated well by using a variety of evaluation tools.

Chapter 5 Discussion & Conclusions

5.1 Introduction

In this chapter, I am going to explore what worked well for the change project and what didn't work? Then, I am going to monitor the impacts of the change on both levels of the organization and the management and after that giving some further recommendations.

5.2 Strengths and Limitations of the Project

5.2.1 Project Strengths (What Worked Well?)

When starting the project, I explained the change details for the Pharmacy Supervisor and after several meetings, I won the full support of the Supervisor to initiate the change in the pharmacy with main focus to satisfy patients and comply with the organizational efforts in this line. This support was one of the essential ways that helped me to large extent overcome the change resistance in the pharmacy. Additionally, when the time of change and the start of change resistance, this highly provoked my emotional intelligence to deal efficiently with the resistance by keep informing my colleagues about the change details, progress and it's important benefits both to the pharmacy and patients.

Also, I emphasized on the methods that supported and fostered the relationships between each other in the pharmacy, which helped me also after all to gain strong team with robust enthusiasm to conduct the change and make it success. Moreover, I undoubtedly believe that by managing and controlling the main pharmacy stakeholders through effective communication with all staff in the clinic, this also helped me to underpin the change process.

Furthermore, categorizing prescriptions into two categories according to number of medications and subsequently creation of fast track window and a ticket numbering has greatly helped as I can see, pharmacy operations and work flow as many patients now can get their prescription filled out and dispensed directly at the window without any delay. As a result, recognition of the pharmacy to be the first in it's initiative and further to generalize the successful change by it's results in other Family Medicine Clinics Pharmacies. This change absolutely fostered by listening to patients earlier before change and later after change through patient satisfaction survey (high response rates before and after).

For the first time in the pharmacy history, fresh data about patient views on different aspects of the pharmacy (services, waiting time, pharmacists…) are available now to be taken in consideration at the department level and hospital level too. Importantly, I firmly believe that using a lot of evaluation tools to figure change outcomes from different angles was one of the powerful points in the project as well as a sign for successful change.

5.2.2 Project Limitations (What Didn't Work Well)

One of the project limitation is that no questions (close or open ended) in patient satisfaction survey were used to understand patient views on waiting time expectations or any other expectations relating to pharmacy services or pharmacists. Additionally, the study sample was not representative for the whole population, since high percentage of the sample was female (68.7%, 59.3% respectively) in addition to majority of the sample

were nationals (reduces generalizability of results). Also, not all patients returned the questionnaire regardless of high response rates. Furthermore, I think for the purpose to allow all visiting patients to the clinic (walk-in or appointment) get an idea about the pharmacy change, more time is needed to allow more patients view the change. Moreover, randomization of patients and the registration staff involvement in the survey distribution were also part of project limitations.

5.3 Implications of the Change for Management

As a result of the implemented change, different parts in patient care cycle have been affected. Firstly, on the organizational level; as the change results revealed it's success in terms of planned outcomes, the organization benefits from such change to meet and foster it's mission, vision and values, which are all focus on patient (i.e. 'Patient First'). Consequently, the organization through it's different settings continues to provide a high quality services to it's patients and underpins it's reputation among other organizations in the region by these initiatives. Secondly, on the pharmacy level; a change committee was created to look for further change projects in the pharmacy department and be responsible to generalize the successful change in other six pharmacies as previously outlined. More importantly, the newly established committee will take care of any issues or concerns that might appear later on in the pharmacy (where the implemented change has been applied firstly). Smith (2000) argues that 'successful planning is ultimately dependent on a solid base of factual information' (p.50).

Moreover, as the pharmacy now is the recognized center for change projects, a highly specialized training courses related to change topics and communication for both pharmacy staff and other staff in other clinics and departments in a hospital were initiated under pharmacy department supervision with highly qualified and senior pharmacists leading the training (leadership role).

5.4 Recommendations for Future Improvements

I greatly believe that in order to maximize the implemented change benefits to the pharmacy, a regular developed patient satisfaction survey should be taken with more focus on patient views about different pharmacy aspects like medication safety, waiting time expectations, patient education and counseling. Also, waiting time recording should be considered continuously to compare the results with previous data and know the reasons behind long waiting time. Additionally, patient interview should be considered to get face-to-face information about feelings, ideas, concerns and suggestions, which will help the pharmacy in addition to other views to develop guidelines to be used by the pharmacists on best professional practices and effective communication skills in order to deliver high quality services.

As with some reviewed articles in the literature review (Perez-Carceles *et al*. (2010), Bielen and Demoulin (2007), Pothier and Frosh (2006)) suggested a relationship between patient satisfaction and information received while waiting and perceived waiting time, I strongly would recommend to focus on providing information for patients while waiting, like what already given during the change project (Fact Sheet), and also by providing

information regarding approximate waiting time for prescription processing and medications collection, this will actually help to fill the gab between patient expectations and what the patient perceived about waiting time. However, I don't think that other interventions (educational or environmental) that can be applied in waiting area as suggested by some reviewed articles in the literature review (Harnett *et al.* (2010), Pruyn and Smidts (1998)) can be beneficial or of value to patients in the clinic, because many patients didn't use the designated waiting area and instead they stand up and rounding in the clinic for other work like taking appointment or in laboratory or in x-ray or even in cafeteria and already the television is there in waiting area. Furthermore, I undoubtedly believe of the importance of the pharmacy stock management in order to maximize the benefits of received prescriptions (fill all medications) and raise patient satisfaction about the available medications and it's diversity in the pharmacy.

More importantly, the pharmacy needs to develop more strategies that can be applied to improve patient waiting time and satisfaction too like consider providing medication leaflet with the dispensed medications; describing the main effects, how to use and the side effects. This as I think will help to answer many questions by the patient during the counseling process and subsequently will reduce this amount of time.

5.5 Reflections on the Project

As I expected, this project has added a lot of experiences to me through taking the responsibility and the lead for change in the pharmacy. I have learned to treat my colleagues with respect regardless of their views and listen to them carefully about their feelings, concerns and suggestions. More greatly, I have learned to deal with the change resistance that has occurred in the pharmacy with confidence that I can overcome this resistance. Additionally, I have learned to use my emotional intelligence in this case by continuing to support my colleagues in all circumstances and then immerse the change confidence by keep reminding them about change advantages and how the pharmacy will be recognized as the first in this initiative among all pharmacies and the first who applied fast track window and a ticket numbering for medications collection.

Throughout the change process, I have firmly learned that by having strong team, change can go ahead. As outlined by Schein (1993 as cited in Hennerby and Joyce, 2011) a team is needed in building a change environment at work place. Also, 'a supportive environment' is among many factors that lead to successful team as highlighted by Holtzman and Anderberg (2011). Moreover, I have learned to celebrate after each win and success, because this positively assisted me to keep the team together, motivated, dynamic and working hard to achieve the created vision and implement the change.

Furthermore, I have learned to establish a robust and effective communication with my colleagues and other staff in the clinic. This ultimately helped me to facilitate the change, specifically, when I needed to distribute patient satisfaction survey through registration

staff. So, without this relationship and communication well established, the survey process can't be completed. Greatly, I have learned to think strategically, because I strongly believe that by having a strategy, this significantly will clear the way and help to focus on completing the change process.

After all, I confidently and interestingly have applied some of leadership rules (like emotional intelligence and influencing others), because in my opinion this was crucial to the pharmacy team to direct and align them in the change process, which required some one to put things together rather than give an orders, some one to inspire and motivate them instead of be isolated from them. As a result, I have gained another skill to be added to my experience, which was emergent leadership. Northouse (2007) argues that whenever people move and agree with the person's characters that is 'emergent leadership' (p.5).

5.6 Conclusion

In conclusion, I undoubtedly and strongly believe that the change model (Kotter framework) that was used in the project has greatly helped to carry out the planned change and demonstrate it's success. Moreover, I clearly found that how the change findings were connected with the conducted literature review in terms of patient satisfaction and improving waiting time. More specifically, the change project has improved patient waiting time and consequently has improved patient satisfaction.

Furthermore, I found how it was crucial to carry out a lot of evaluation tools in the project in order to gather the required data for evaluation from different angles. More importantly, the change results confirmed it's success as expected and desired. The change project has significant impacts on the organization as the change committee was created for specific developmental purposes. Additionally, the change project revealed the need to develop a strategy to maintain all efforts together in order to keep ongoing successful change.

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Appendices

Appendix 1: Literature Review Grid

Source	Methodology	Population/ Sampling	Data Collection	Data Collection Tool	Data Analysis	Validity/ Reliability	Ethics	Theme 1	Theme 1	Theme 2
Perez-Carceles *et al.*(2010)	Cross-Sectional Study	Convenience Sample		Questionnaire	Statistical Analysis Approach	Validity tested	Approved by the Ethical Research Committee	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Harnett *et al.* (2010)	Quantitative Approach	Random Sample		Questionnaire	Statistical Analysis Approach	Internal Consistency	Approved by the Hospital's Committee for the Protection of Human Subjects	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Devkaran *et al.* (2009)	Quasi-Experimental Study (Quantitative Approach)	Convenience Sample	Before & After Intervention Design		Retrospective Data Analysis Approach		Approved by Institutional Review Board (IRB) Ethics		Indirect Effect of Positive Role of Waiting Time on Patient Satisfaction	
Finamore and Turris (2009)	Qualitative Approach		Surge Times measures before & after the project	Stakeholder Consultations & Observation			Not Mentioned		Indirect Effect of Positive Role of Waiting Time on Patient Satisfaction	
Cassidy-Smith *et al.* (2007)	Prospective, Cross-Sectional Study	Convenience Sample		Questionnaire	Statistical Analyses Approach	Validity tested, Internal Consistency & Reliability	Approved by IRB of the hospital	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Anderson *et el.* (2007)	Cross-Sectional Study (Quantitative Approach)	Convenience Sample		Questionnaire	Statistical Analysis Approach		Approved by IRB	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		

Source	Methodology	Population/ Sampling	Data Collection	Data Collection Tool	Data Analysis	Validity/ Reliability	Ethics	Theme 1	Theme 1	Theme 2
Conner-Spady *et al.* (2007)	Mixed Approach	Convenience Sample		Questionnaire with open- & close- ended questions	Content & Statistical Analysis Approach	Pre-tested Questionnaire	Approved by the University of Saskatchewan Research Ethics Board		Indirect Effect of Positive Role of Waiting Time on Patient Satisfaction	
Bielen and Demoulin (2007)	Quantitative Approach	Random Sample		Questionnaire	Regression Analysis Approach		Not Mentioned	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Pothier and Frosh (2006)	Pilot Study (Quantitative Approach)	Random Sample		Questionnaire	Statistical Analysis Approach	Calculate power & assess suitability of questionnaire & information sheet	Not Mentioned	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Luo *et al.* (2004)	Field Study (Quantitative Approach)	Random Sample		Observation & Views	Statistical Analysis Approach		Not Mentioned			Negative Role of Waiting Time on Patient Satisfaction
Fry *et al.* (2003)	Cross-Sectional Descriptive Study (Quantitative Approach)	Random Sample		Questionnaire	Statistical Analysis Approach	Tool was developed and piloted	Approved by Ethics	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Cole *et al.* (2001)	Quantitative Approach	Convenience Sample		Questionnaire	Descriptive Statistics Approach	Developed & validated by experts, Internal Consistency & Reliability	Approved by the Committee for the Protection of Human subjects		Indirect Effect of Positive Role of Waiting Time on Patient Satisfaction	

Source	Methodology	Population/ Sampling	Data Collection	Data Collection Tool	Data Analysis	Validity/ Reliability	Ethics	Theme 1	Theme 1	Theme 2
Oermann *et al.* (2001)	Quantitative Approach	Random Sample		Questionnaire	Statistical Analysis Approach	Developed, validated (Face Validity) & tested in pilot study	Approved by the Clinical Investigation Committee			Negative Role of Waiting Time on Patient Satisfaction
Nie (2000)	Qualitative Approach		Tested a proposed conceptual framework					Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Pruyn and Smidts (1998)	Experimental Study (Quantitative Approach)	Random Sample		Questionnaire & Observation	Statistical Analysis Approach		Not Mentioned	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		
Thompson *et al.* (1996)	Quantitative Approach	Random Sample		Questionnaire	Statistical Analysis Approach		Exempt from IRB approval	Direct Effect of Positive Role of Waiting Time on Patient Satisfaction		

Appendix 2: Fact Sheet

وثيقة تعريف

عزيزي المريض.....
عند استلام وصفة الأدوية و بطاقة التأمين:
- يقوم الصيدلي بالتدقيق على بيانات المريض الموجودة في بطاقة التأمين مع البيانات الموجودة في نظام الصيدلية لصرف الأدوية.
- يقوم الصيدلي بفتح ملف المريض في نظام الصيدلية و عمل وصفة الأدوية.
- أثناء عمل الوصفة، يقوم الصيدلي بالتدقيق على الأدوية و جرعاتها لتكون صحيحة للصرف، و في حالة وجود أي تعارض بين الأدوية أو أي أخطاء فيها، يقوم الصيدلي بالاتصال بالطبيب لتصحيحها مباشرة على نظام الصيدلية.
- يقوم الصيدلي بتحضير الوصفة ووضع ملصق على كل دواء يبين كيفية استخدام الدواء الصحيحة.
- يقوم الصيدلي بالنداء على المريض و صرف الأدوية له و شرح كيفية استخدام الدواء السليمة و الاجابة عن أي استفسار من المريض.
- **خدمات الصيدلية: الإستشارة الدوائية، التأكد من عدم وجود تعارض بين الأدوية، صرف الأدوية و بجرعات صحيحة و سليمة و بالأخص للأطفال، أخذ الموافقة اللازمة لصرف الأدوية الخاصة بضمان.**

Fact Sheet

Dear Patient…..
Upon prescription & insurance card reception:
- Pharmacist checks the correct information on the insurance card with the patient information in the pharmacy system to fill the prescription.
- Pharmacist opens patient file to fill the prescription.
- During the process of filling, the Pharmacist checks the correct doses of medications & any interactions, to prepare the prescription for dispensing. If any mistakes or interactions, the Pharmacist calls the Physician to correct directly in the pharmacy system.
- Pharmacist prepares the prescription and put the label on each medication explaining the correct & safe use of that medication.
- Pharmacist calls the patient, dispense the medications and explain how to use the medications safely & answer any enquiry by the patient.
- **Pharmacy Services: patient counseling, assure no interactions between medications, dispense correct & safe medications especially for children, get approval for Daman prescriptions.**

Appendix 3: Information Sheet

المرضى الأعزاء.....

ستقوم الصيدلية في اطار حرصها المستمر على تطوير خدماتها للمرضى، باستحداث شباك صرف وصفات الأدوية القصيرة (**ثلاث أدوية أو أقل**) ليتم صرفها مباشرة، في حين سيتم اعطاء رقم للانتظار للوصفات الأخرى (**أكثر من ثلاث أدوية**).

للاستفسار، يرجى سؤال الصيدلي.

شكرا لتعاونكم معنا

Dear Patients….

As part of Pharmacy continuing efforts to develop it's services, the Pharmacy establish Fast Track Window to dispense short prescriptions (**3 medications or less**) directly, while for other prescriptions (**more than 3 medications**) a number will be given to wait.

For any enquiry, please ask the Pharmacist.

Thank you for your cooperation

Appendix 4: Fast Track Sign and a Ticket Numbering Photos

شباك صرف الوصفات القصيرة

(3 أدوية أو أقل)

Fast Track Window

(3 Medicines or less)

↓

شباك صرف الوصفات القصيرة
(3 أدوية أو أقل)
Fast Track Window
(3 Medicines or less)

Bateen Pharmacy
Working Hours:
شباك صرف الوصفات القصيرة
(3 أدوية أو أقل)
(3 Medicines or less)

استلام الدواء
Pick Up Medicine
1

2
استلام الدواء
Pick Up Medicine

Appendix 5: The TOWS
Table 2: The TOWS Strategic Matrix

	External Opportunities 1- The recognition of the Pharmacy as the first in its initiative to apply Fast Track. 2- Just on time ordering and quick supply of ordered medications.	**External Threats** 1- Patient waiting time. 2- Communication with patient. 3- Patient counseling.
Internal Strengths 1- Strong team. 2- Qualified pharmacists.	**SO** 1- Strong team will work hardly till achieving the recognition as well as achieving the team vision. So, strategies that focus on underpinning team work and build stronger team through inter-communication relationships (support each other). 2- Qualified pharmacists will work in case of pharmacy system outage under manual procedures. So, strategies to clarify how to work under system outage.	**ST** Strategies to make use of both strong team and qualified pharmacists to improve waiting time through effective use of Fast Track.
Internal Weaknesses 1- Pharmacy electronic system outage. 2- Out of stock or unavailable medications.	**WO** Out of stock or unavailable medications can be minimized by just on time ordering and quick supply of ordered medications through clinic transportation.	**WT** Strategies to focus on communication with different patients and effective patient counseling.

Appendix 6: Patient Satisfaction Survey

Patient Satisfaction Survey استبيان رضا المرضى

يطيب لنا أن نعرف شعوركم تجاه خدمات الصيدلية المقدمة لكم في اطار حرصنا الدائم على تطوير خدماتنا، و بذلك نتأكد من خدماتنا المتفقة مع احتياجاتكم. رجاء خذ بضع لحظات لاكمال الاستبيان و نؤكد لكم بأن جميع الاجابات سوف تبقى سرية. شكرا لحسن تعاونكم معنا.

We would like to know how you feel about the pharmacy services we provide, so we can make sure we are meeting your needs. Kindly take a few minutes to complete this survey and all responses will be kept CONFIDENTIAL. Thank you for your time.

1- الجنس: ☐ذكر ☐ أنثى 3- الجنسية: ☐مواطن ☐غير مواطن

2- العمر: ☐☐ سنة

1- Gender: ☐ Male ☐ Female 3- Nationality: ☐ National ☐ Non-National

2- Age: ☐☐ Years

4- الوقت الذي سلمت فيه وصفة الدواء للصيدلية ..... الوقت الذي تسلمت فيه الدواء من الصيدلية .....

4- Time you dropped off your prescription to the pharmacy……..

Time the pharmacy gave you the medications……

5- هل الوقت الذي تأخذه عملية صرف الدواء من الصيدلية

☐ مناسب ☐ غير مناسب الى حد ما ☐ غير مناسب أبدا

5- Was the time to fill the prescription

☐ Reasonable ☐ Reasonable to some extent ☐ Unreasonable

6- هل أنت راض عن الأدوية التي تصرف من الصيدلية من حيث

الجودة: ☐ نعم ☐ لا

التنوع: ☐ نعم ☐ لا

مدة العلاج: ☐ نعم ☐ لا

6- Are you happy with the medications dispensed in the pharmacy relating to

Quality: ☐ Yes ☐ No

Diversity: ☐ Yes ☐ No

Medication duration time: ☐ Yes ☐ No

7- هل كانت وصفة الدواء تحتوي على ثلاث أدوية أو أكثر؟

☐ ثلاث أدوية أو أقل ☐ أكثر من ثلاث أدوية

7- How many medications were in your prescription?

☐ Three medications or less ☐ More than three medications

8-ما هو مستوى الشرح المقدم من الصيادلة حول الأدوية اللازمة لك

☐ ممتاز ☐ جيدجدا ☐ جيد ☐ مقبول ☐ ضعيف

8- How was the explanation given by the pharmacists on required medications?

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

9- هل قام الصيدلي بالاستماع اليك بعناية؟

☐ ممتاز ☐ جيدجدا ☐ جيد ☐ مقبول ☐ ضعيف

9- Did the pharmacist listen to you carefully?

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

10- هل لمست من الصيدلي احتراما لخصوصيتك؟

☐ ممتاز ☐ جيدجدا ☐ جيد ☐ مقبول ☐ ضعيف

10- Did the pharmacist respect your privacy?

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

11- هل عاملك الصيدلي باحترام؟

☐ ممتاز ☐ جيدجدا ☐ جيد ☐ مقبول ☐ ضعيف

11- Did the pharmacist treat you with respect?

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

12- ماهو مستوى ارتياحك للخدمة المقدمة من الصيدلي؟

☐ ممتاز ☐ جيدجدا ☐ جيد ☐ مقبول ☐ ضعيف

12- How comfortable were you with the pharmacist service?

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

13- بصورة شاملة، مدى رضاك عن كل الخدمات المقدمة من الصيدلية

☐ راضيا تماما ☐ راضيا بشكل مقبول ☐ لست راضيا كثيرا ☐ لست راضيا أبدا ☐ غير متأكد

13- Overall, how satisfied are you on all services given by the pharmacy?

☐Very Satisfied☐Fairly Satisfied☐Not too Satisfied ☐Not Satisfied at all ☐Not Sure

14- هل توصي بأن تقوم عائلتك أو أصدقاؤك بالتعامل وصرف الأدوية من الصيدلية؟

☐ **نعم** ☐ **لا**

14- Would you recommend this pharmacy to your family and friends?

☐ **Yes** ☐ **No**

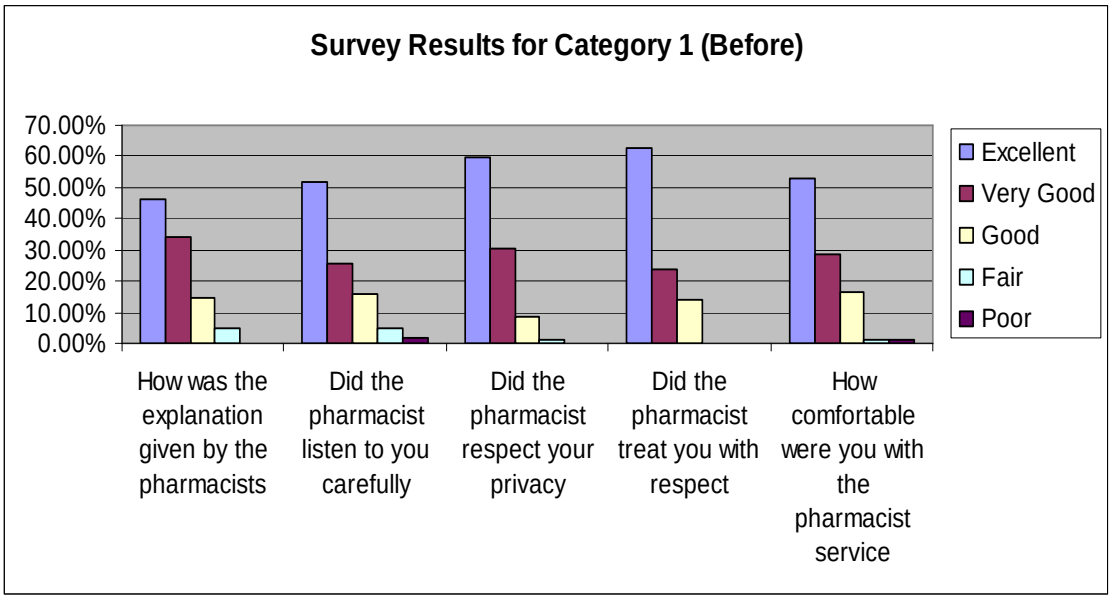
ملاحظات

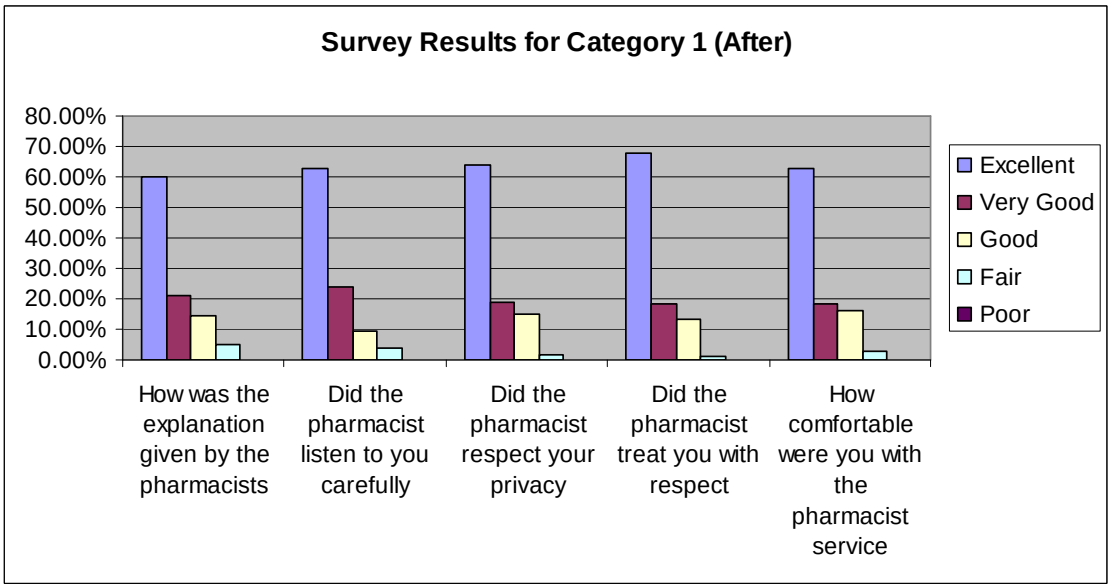
Your Comments

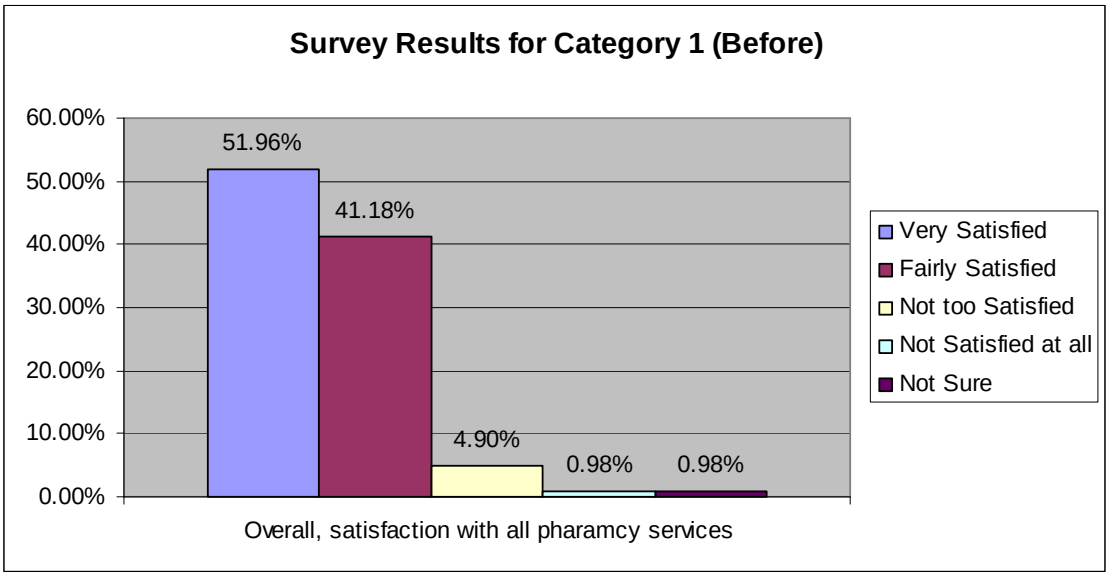
Thank you for completing our Survey! نشكركم على تعبئة الاستبيان

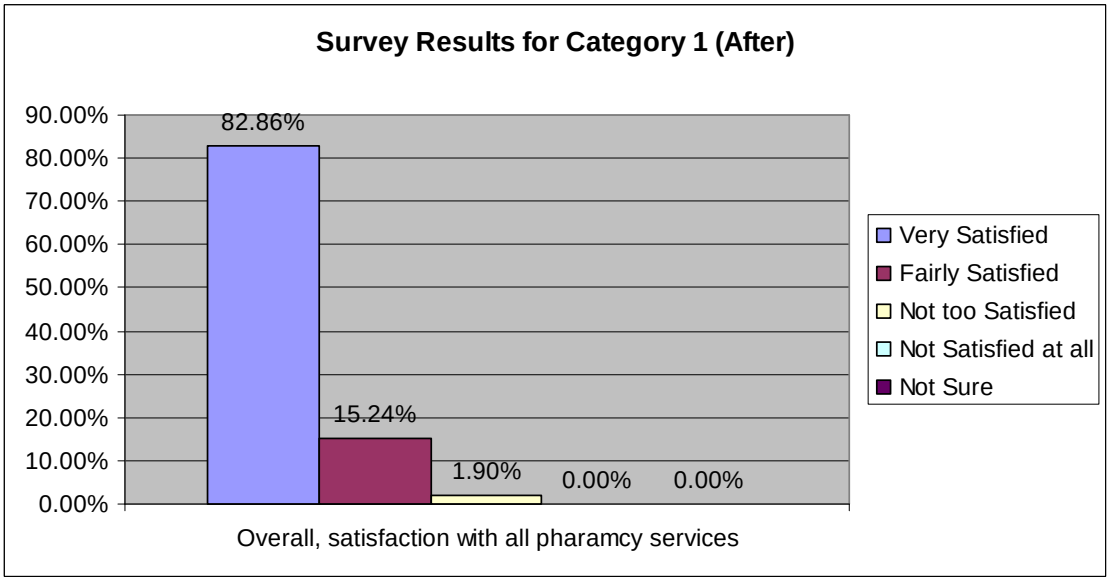
Appendix 7: Second Part of the Survey

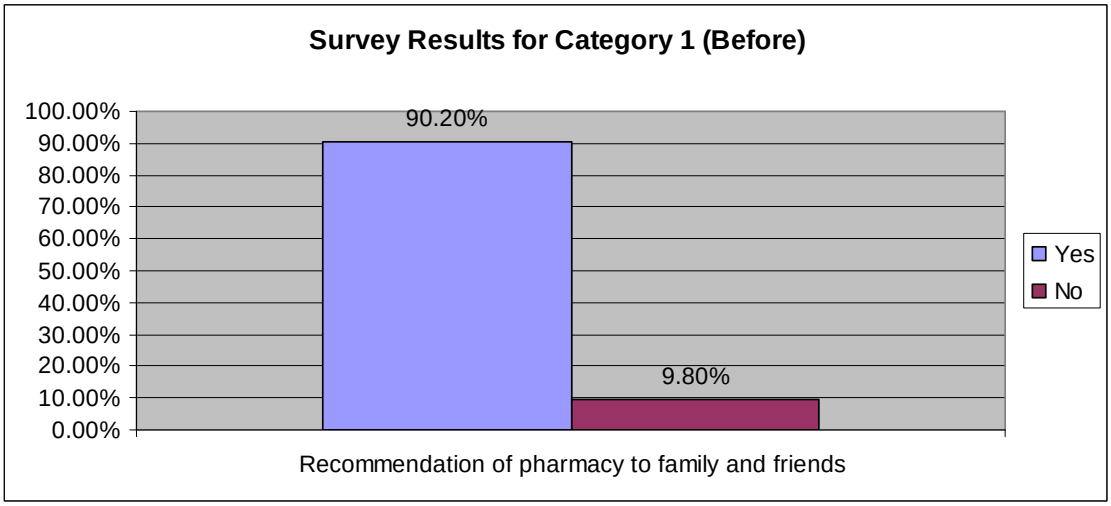
Figure 3: Survey Results

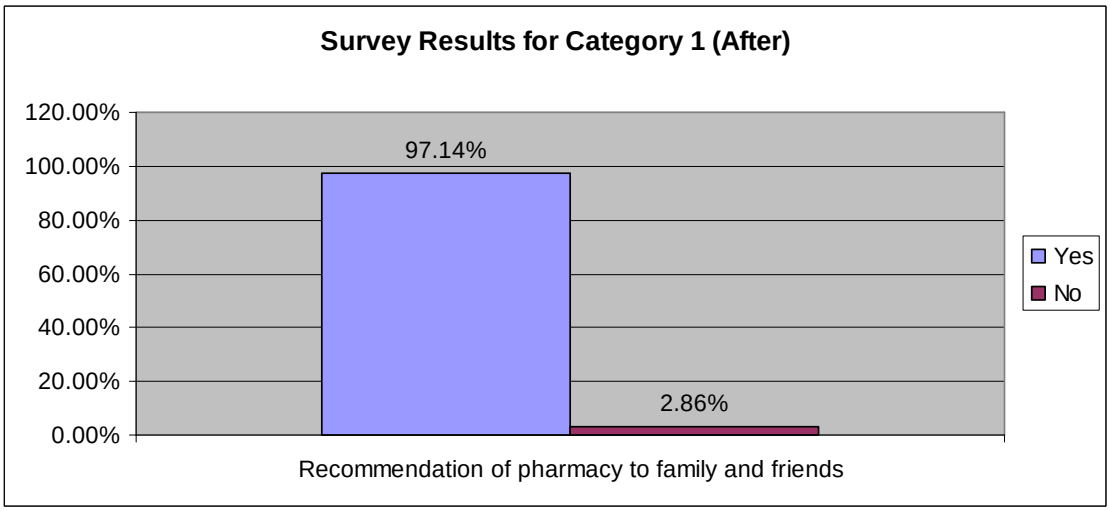


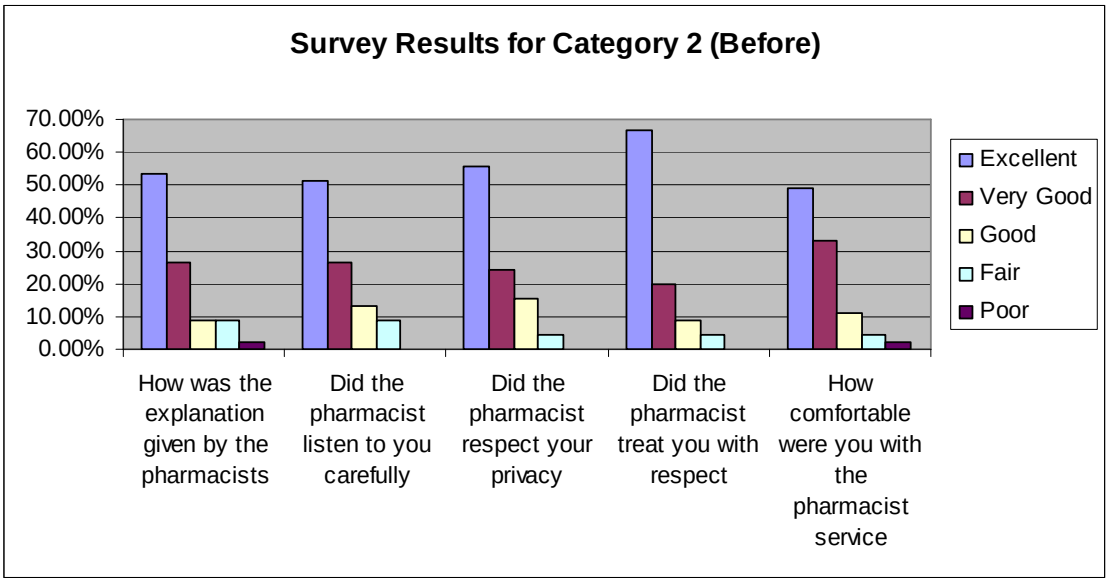


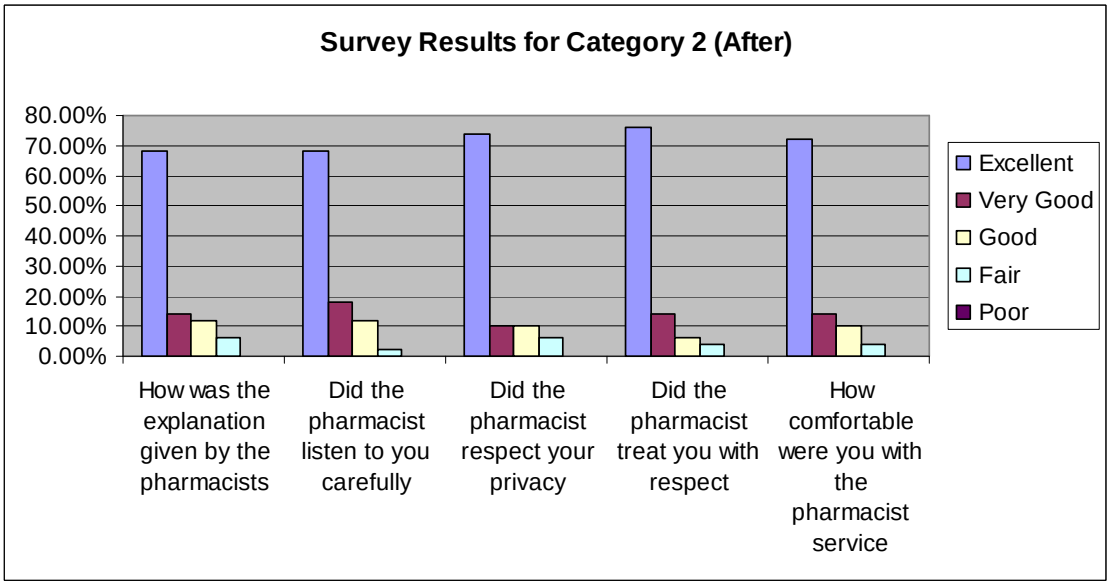

Survey Results for Category 1 (Before)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
51.96%
41.18%
4.90%
0.98%
0.98%
Very Satisfied
Fairly Satisfied
Not too Satisfied
Not Satisfied at all
Not Sure
Overall, satisfaction with all pharamcy services

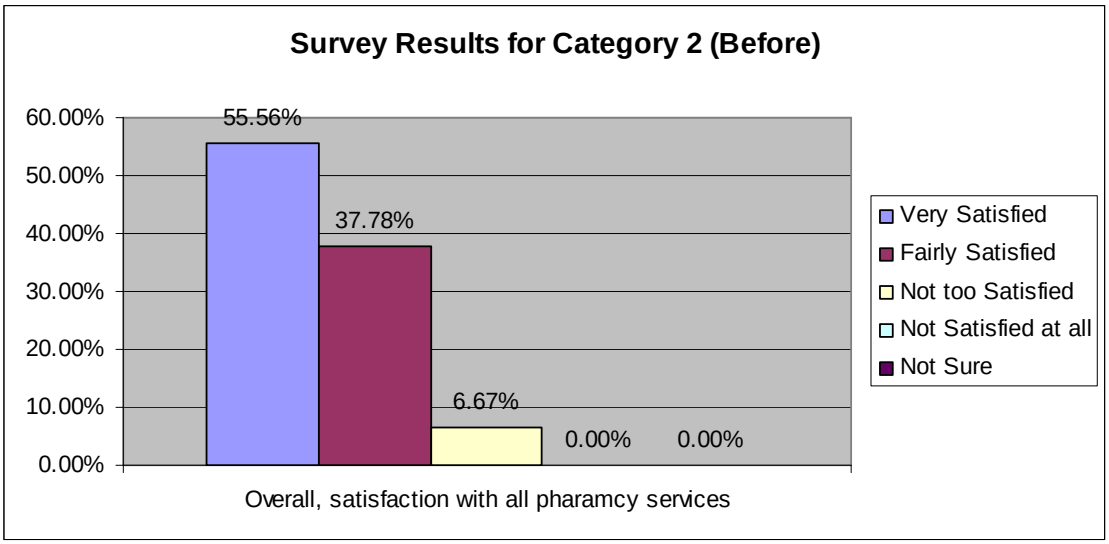

Survey Results for Category 1 (After)
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
82.86%
15.24%
1.90%
0.00%
0.00%
Very Satisfied
Fairly Satisfied
Not too Satisfied
Not Satisfied at all
Not Sure
Overall, satisfaction with all pharamcy services

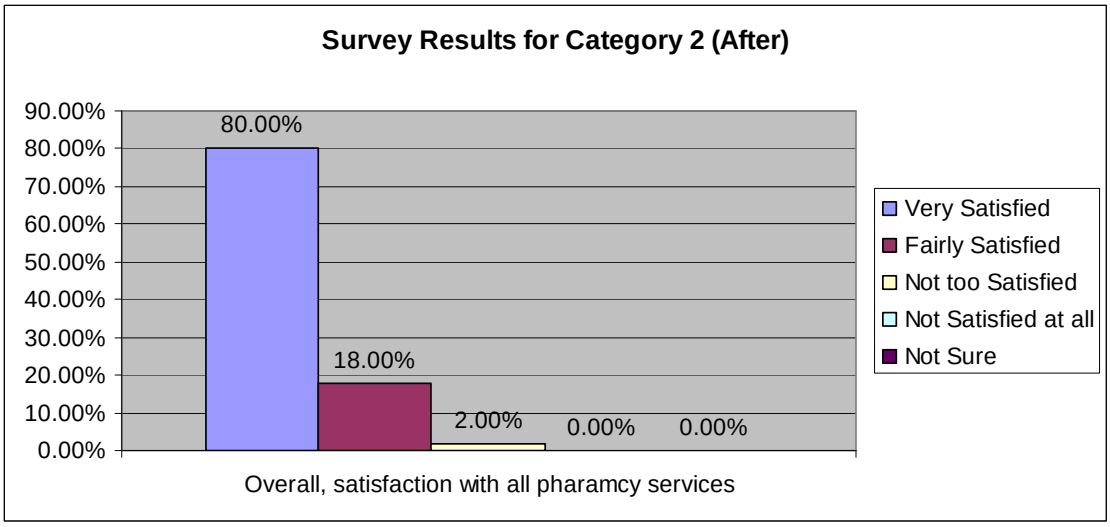

Survey Results for Category 1 (Before)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
90.20%
9.80%
Yes
No
Recommendation of pharmacy to family and friends

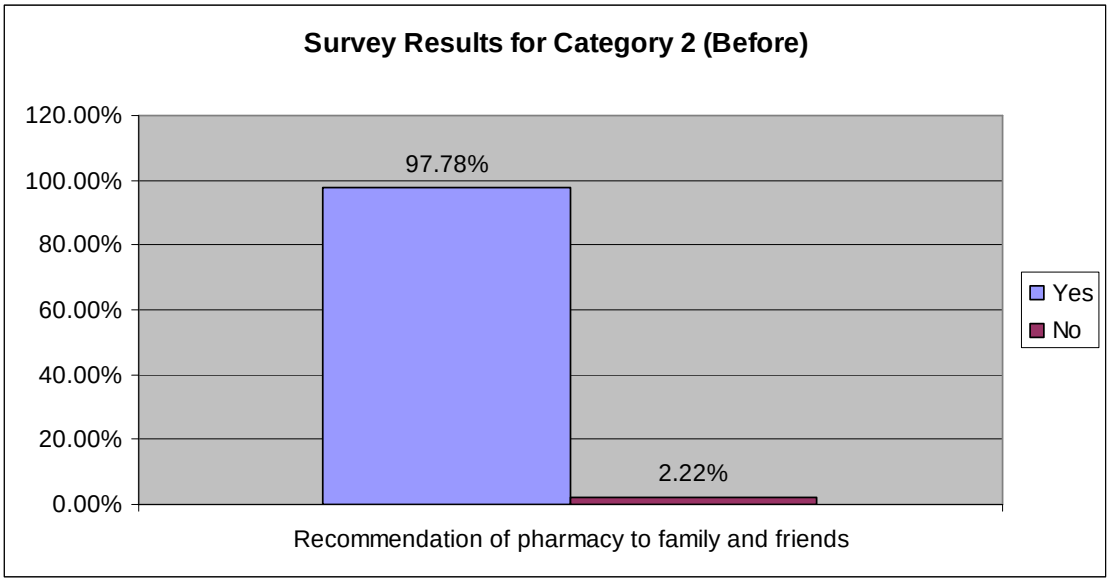

Survey Results for Category 1 (After)
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
97.14%
2.86%
Yes
No
Recommendation of pharmacy to family and friends

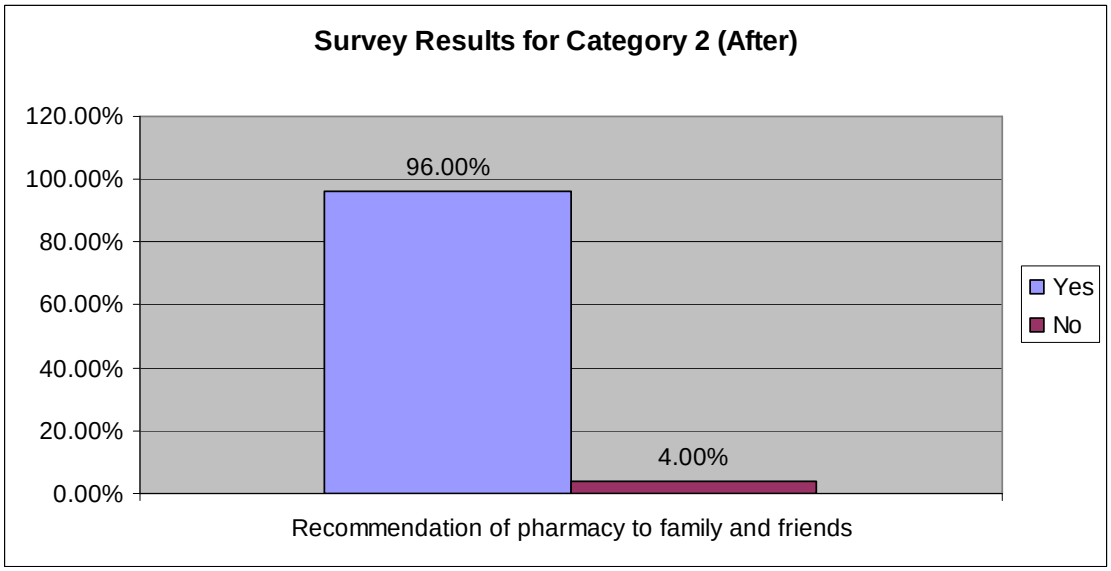

Survey Results for Category 2 (Before)
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
How was the explanation given by the pharmacists
Did the pharmacist listen to you carefully
Did the pharmacist respect your privacy
Did the pharmacist treat you with respect
How comfortable were you with the pharmacist service
Excellent
Very Good
Good
Fair
Poor


Survey Results for Category 2 (After)
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
How was the explanation given by the pharmacists
Did the pharmacist listen to you carefully
Did the pharmacist respect your privacy
Did the pharmacist treat you with respect
How comfortable were you with the pharmacist service
Excellent
Very Good
Good
Fair
Poor


Survey Results for Category 2 (Before)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
55.56%
37.78%
6.67%
0.00%
0.00%
Very Satisfied
Fairly Satisfied
Not too Satisfied
Not Satisfied at all
Not Sure
Overall, satisfaction with all pharamcy services

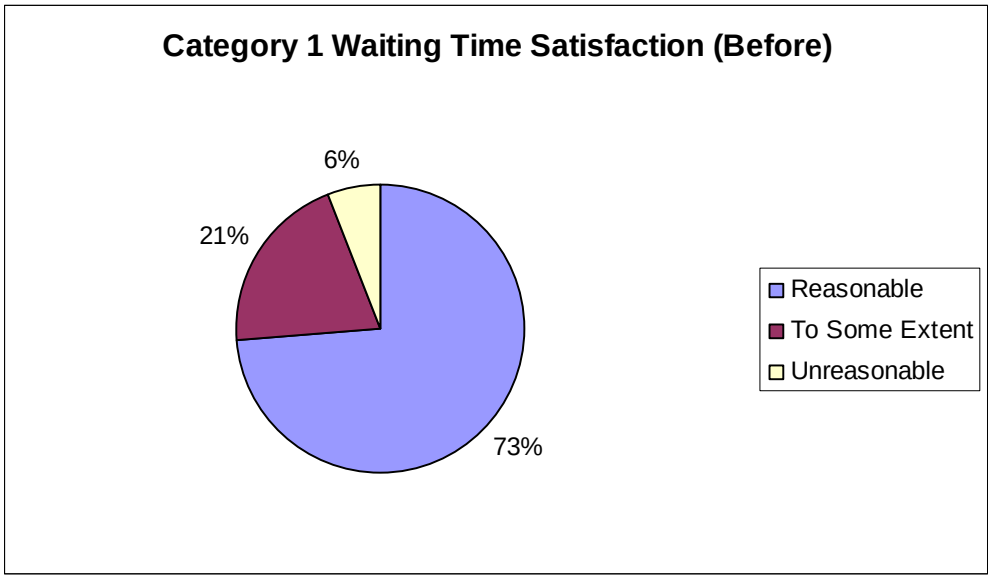

Survey Results for Category 2 (After)
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
80.00%
18.00%
2.00%
0.00%
0.00%
Very Satisfied
Fairly Satisfied
Not too Satisfied
Not Satisfied at all
Not Sure
Overall, satisfaction with all pharamcy services

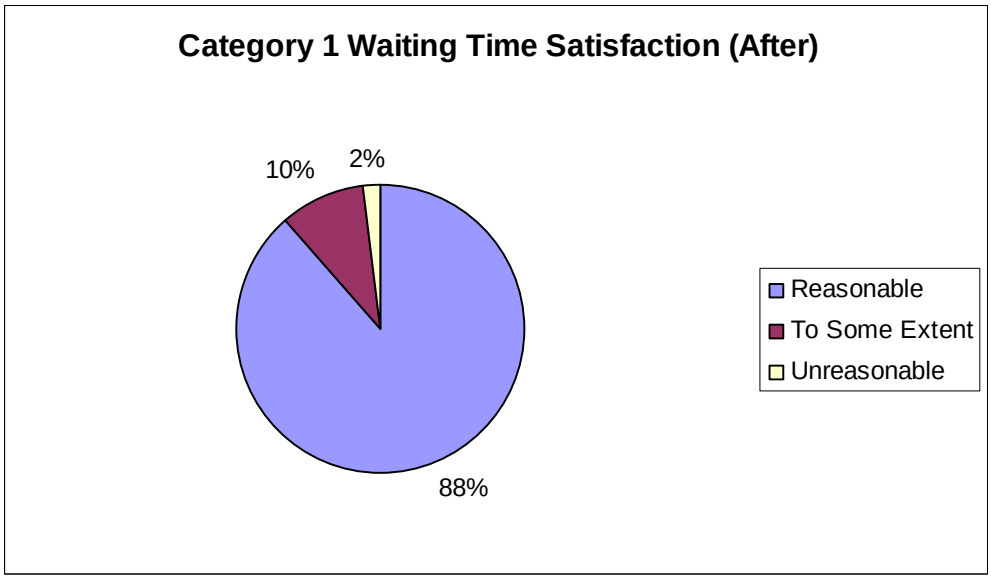

Survey Results for Category 2 (Before)
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
97.78%
2.22%
Yes
No
Recommendation of pharmacy to family and friends

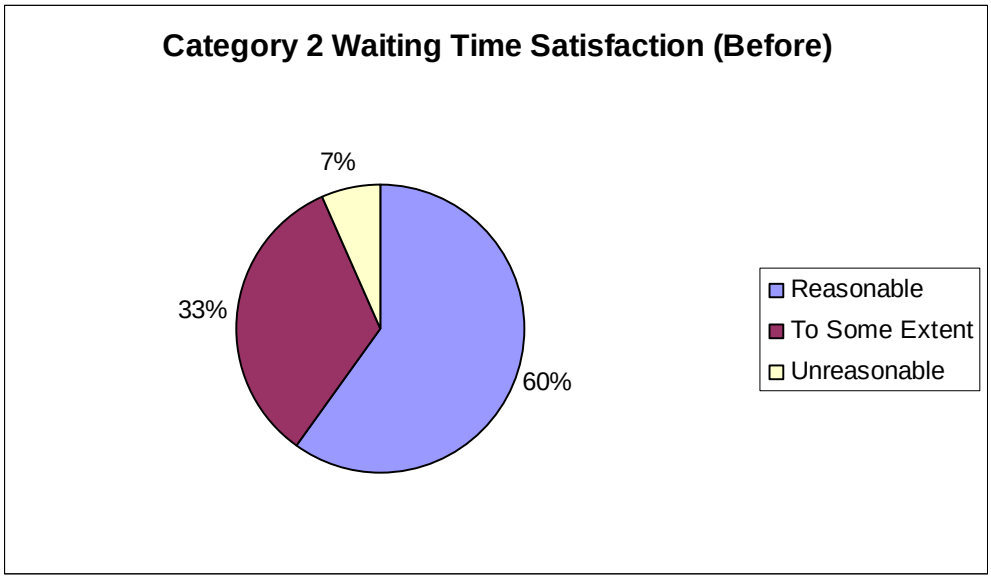

Survey Results for Category 2 (After)
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
96.00%
4.00%
Yes
No
Recommendation of pharmacy to family and friends

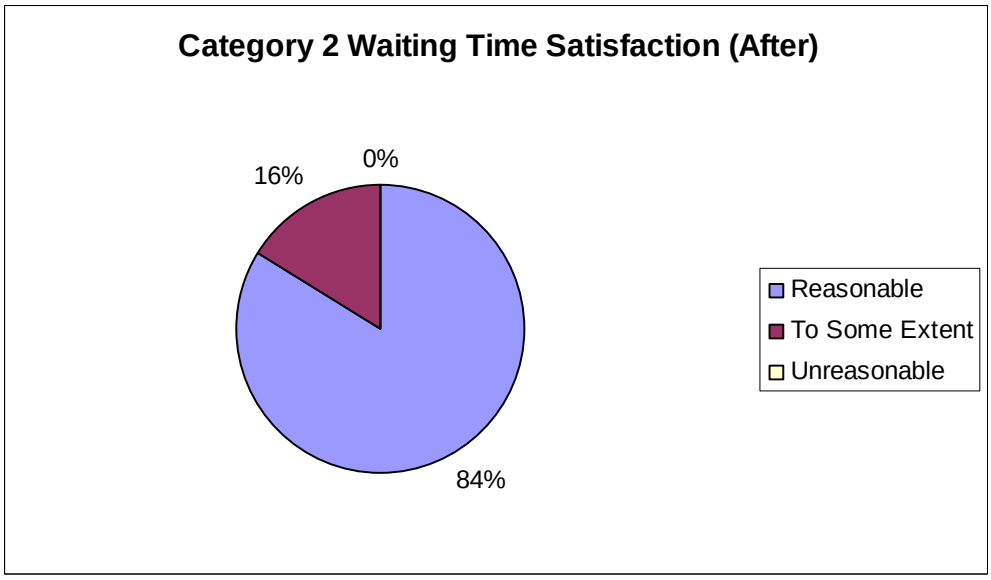
Appendix 8: Waiting Time Satisfaction

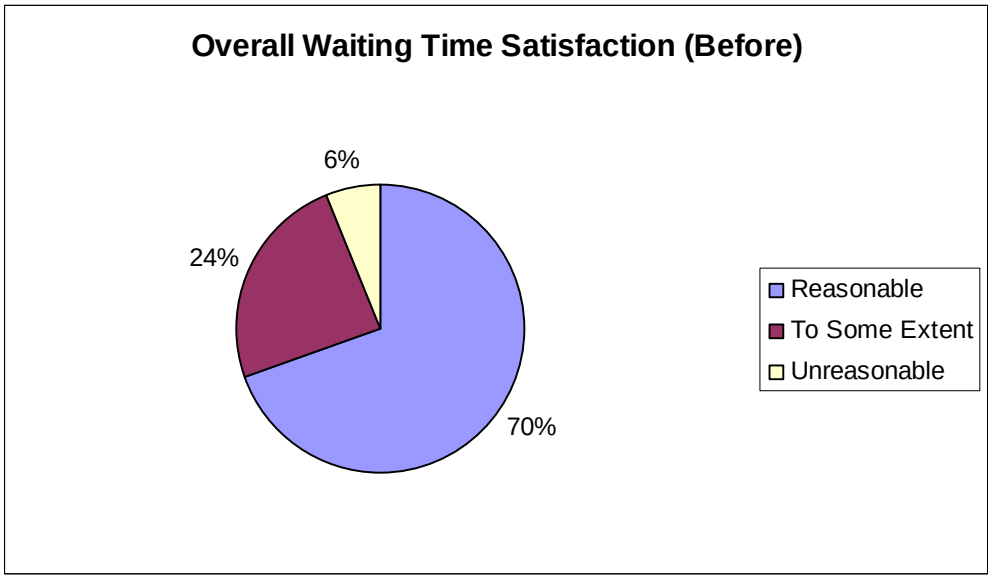
Figure 4: Waiting Time Satisfaction Results

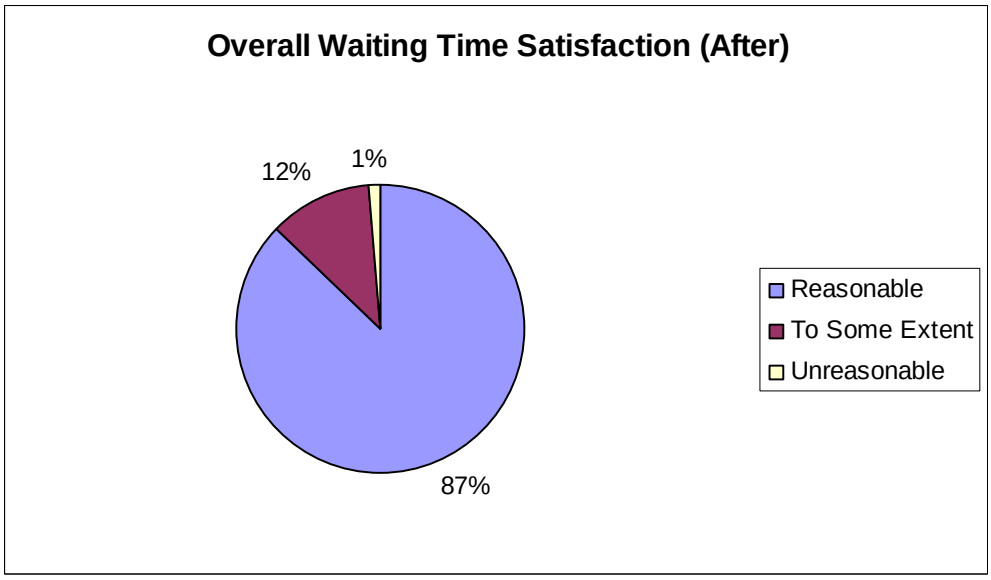





Category 2 Waiting Time Satisfaction (Before)
7%
33%
60%
Reasonable
To Some Extent
Unreasonable


Category 2 Waiting Time Satisfaction (After)
16%
0%
84%
Reasonable
To Some Extent
Unreasonable


Overall Waiting Time Satisfaction (Before)
6%
24%
70%
Reasonable
To Some Extent
Unreasonable


Overall Waiting Time Satisfaction (After)
12%
1%
87%
Reasonable
To Some Extent
Unreasonable