

# **The impact of interdepartmental communication on cost saving strategies in a South African private acute care hospital**

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A field study submitted to the UFS Business School in the Faculty of Economic and Management Sciences in partial fulfilment of the requirements for the degree

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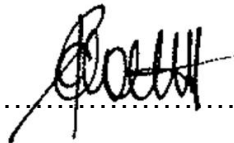
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Lorinda Cloete

Date ..... *08 November 2015*.....

## DEDICATION

To my loving partner André, and my children, Mannis, Lené and Annabelle for their warm love, support and understanding.

You are awesome.

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My deepest appreciation goes to God for granting me the strength, courage and perseverance I needed, for blessing me with good health and the grace to enable me to complete my dissertation. The successful completion of this research study could not have been possible had it not been for valuable contributions made by several persons and institutions. I would like to say thank you to all of you.

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# ABSTRACT

*The primary objective of this study was to investigate the impact of interdepartmental communication between the pharmacy and the nursing staff on the cost saving strategies implemented in a South African private acute care hospital.*

*The research was designed to investigate the impact of interdepartmental communication in an objective manner, ensuring that the data analysis and subsequent findings was based on factual data. A quantitative approach was followed; hence, a questionnaire was developed to collect the data.*

*Analysis of the data showed that there is a definite and significant positive relationship between interdepartmental communication and cost saving strategies and that more efficient communication will lead to more successes with the implementation of cost saving strategies.*

*The key issues or barriers to interdepartmental communication were identified. The barriers included the following: infrequent and not so timeous communication from the pharmacy, high ward and theatre activities, language differences, the lack of personal contact with pharmacy staff, staff attitude and the limited access staff has to computers and as a consequence to the private acute care hospital's electronic intranet.*

*The nursing staff's perception at the time of the study was that the interdepartmental communication between the pharmacy and nursing was inefficient, that meetings were the most utilised vehicle of communication and those other communication vehicles such as the private acute care hospital's intranet and communication via e-mails were not sufficiently utilised.*

*Based on these findings, two recommendations were made that might contribute to more efficient interdepartmental communication and in turn boost the success rate of cost saving strategy implementation.*

*The first recommendation was to ensure a dedicated computer was available in each ward or unit specifically for staff members to access the private acute care hospital's intranet, in doing that the staff will be able to utilise the computer during times of slower ward and theatre activities and enable them to keep up to date with formulary product changes.*

*The second recommendation was to utilise current compulsory quality based ward rounds being done by the pharmacists. This includes discussions on formulary products per ward or unit as the rounds are being done and providing clear, concise and correct information applicable to the relevant ward or unit. This will enhance interdepartmental communication, improve cost saving strategy implementation and as an added bonus improve relationships between the pharmacy and the nursing staff.*

# CHAPTER 1

## Introduction

Communication is said to be a factor influencing any business' bottom line. Retaining continuous and effective communication all the while tightening budget belts is a challenge in many businesses (Meritain Health, 2009). Private hospitals, being businesses, have similar challenges, more so because of the unique market they operate in. Within each hospital there are different departments: the pharmacy, nursing, administrative functions, human resources, credit and accounting functions, training and development functions and management to name a few. One also has to bear in mind that doctors, physiotherapists, occupational therapists, radiology, cleaning services and catering services deliver their services within this environment as outsourced entities (Agarwal & Rode, 2009).

Managerial commitment is required to keep all employees informed of the strategies, goals and objectives of a hospital. In choosing open communication structures, employees experience a sense of importance, they feel that they contribute and are inspired to work effectively (Meritain Health, 2009). Communication cannot just be a process followed from the top down, horizontal communication is equally important. Interdepartmental communication is generally a horizontal process; communication filtered down from the company's management can only be effective if the same information is available throughout the business. The only way to have that happen is to have effective vertical and horizontal communication; interdepartmental communication is the vehicle that delivers important information to all relevant stakeholders (Mishra, Boynton, & Mishra, 2014).

Interdepartmental communication as it is currently within the private acute care hospital of a South African private healthcare company is based mostly on electronic avenues. Company goals are communicated from the head office, through the different departments, which includes nursing, finance, pharmacy and procurement, to the rest of the business in order to achieve the set goals. Strategies that focus on cost savings on medicine and surgical products are mostly communicated via e-mail to the heads of departments. Once the communications with regards to the cost

saving strategies are received by the pharmacy for example, an implementation plan is drafted. One example of a cost saving strategy is the implementation of a list of preferred products; these products can include scheduled medication or certain categories of surgical products. Any envisioned changes will then have to be communicated to the end user, which in the case of the private hospital; will be the nursing staff and/or doctors. Many technical details have to be taken into account such as current stock levels of products, estimated time to depletion of current products and forecasted stock levels of the new products. Most importantly, the new products must meet the quality expectations of the end users. Historically, customer satisfaction surveys administered via the pharmacy showed that some staff members were not aware of the changes advised regarding products nor were the staff members aware that the changes were necessary to achieve the cost saving goals set by the company (Undisclosed Healthcare Company, 2010).

The study therefore seeks to identify the key issues that hinder cost-saving strategies, specifically associated with communication between nursing staff and the pharmacy at a South African private acute care hospital.

## Background

Adele Shevel had the following to say in the Business Times: “...*medicine is becoming increasingly expensive – and that is when you can get it. Some of the latest drugs on the market cost between R1.5-million and R2-million per patient, out of the grasp of most people...*” (Shevel, 2015).

The most recent global recession that started in 2009, seen by some to be the worst since the Great Depression, resulted in the world’s gross domestic profit (GDP) to reach a low of 0.5% in January 2009. Some First World countries’ GDP’s even went into negative percentages (Undisclosed Healthcare Company, 2010). The economic climate, together with the on-going public healthcare difficulties, the HIV pandemic and high numbers of patients infected with tuberculosis lead to the private healthcare system being utilised more. Many medical scheme members had to downgrade to lower option plans. This saved them money, but instigated greater risk to the healthcare providers. This meant that private facilities had to focus on providing quality healthcare while remaining cost effective and sustaining growth (Undisclosed Healthcare Company, 2010)

South African legislation (Act 101 of 1965) also changed in 2006 to state that scheduled medication is to be procured and sold at single exit prices (SEP). These SEP's are regulated by the South African Medicine's Control Council (MCC) upon registration of each scheduled medicine product and on an on-going, annual basis thereafter. Surgical products are not regulated by the MCC and do not have to adhere to the SEP, but all rebate agreements were effectively banned. Immediately the loss of profit margin on ethical products and the banned rebate system resulted in higher acquisition prices for said surgical products (Republic of South Africa, 2014).

The private healthcare company identified an area where costs could be managed and embarked on models where risks and reimbursement structures are to be shared. The models based its success on the fact that the healthcare service provider and the medical aid or funder both take responsibility for the management of risks involved with services, resulting in a win-win situation for both parties, especially if costs within the agreed upon tariffs are managed well.

Three different models were investigated:

1. A fee for service model: every item used is charged, based on procedural coding and terminology (lower risk for provider and higher risk for funder)
2. Procedural tariffs: tariffs based on daily procedures, surgical interventions and additional circumstances (high to medium risk for providers and medium to low risk for the funders)
3. Diagnosis Related Groups (DRG's): the grouping of patients into major diagnostic categories and costs incurred for treatment directly linked to the diagnosis (high to medium risk for providers and medium to low risk for the funders)

All of these models are successful and values the input of the healthcare providers as well as that of the medical aids or funders. The most favoured model in the private acute care hospital is the procedural tariffs model, increasing the focus and drive to manage costs carefully. This model benefits the hospital, the medical aid and the patient the most and ensures cost effective health care (Undisclosed Healthcare Company, 2010).

With this background in mind, it will come as no surprise that serious attention was given to develop strategies to save costs – both on overheads and cost of stock.

The pharmacies within the private acute care hospitals play a pivotal role in procuring the correct medication and surgical products to provide quality patient care at affordable prices while sustaining and growing the business it functions in. It therefore makes absolute sense to focus on procuring medicine and surgical products at cost effective prices.

The South African Private Healthcare Company developed a cost savings strategy to ensure provision of cost effective care to patients in line with the Company's vision and to support sustainability of private healthcare in South Africa while remaining competitive in a challenging economic climate. The strategy developed (and implemented) was aimed at providing all hospitals in the company with a list of products where savings could be made that would heavily influence the company's bottom line. High value items were identified; similar products were trialled and tested within their hospitals and the most cost-effective, yet high quality, products were put on the list of products that would result in cost savings. The list can be called a formulary or advised list of products to be used. The implementation of this programme grew to be an effective cost saving strategy. Compliance to the formulary or advised list has since been made measurable, with high compliance percentages being linked to more effective cost savings (Undisclosed Healthcare Company, 2010).

## **Problem statement and questions**

The link between communication and cost saving, for the purposes of this study, lies in the fact that once formulary products have been decided on by the Company's central pharmaceutical procurement department, it needs to be communicated to the business. The responsibility of communicating formulary changes rests on the pharmacy's shoulders at hospital level. If the pharmacy does not communicate the imminent formulary product changes with the nursing staff in the hospital, the possibility of resistance to change, poor formulary compliance and low savings on cost of sales can be expected.

Equally important is communication from nursing to pharmacy with regards to how the formulary products are performing when utilised within the wards, intensive care units and theatres. Practising medicine is also a business of communication, healthcare providers and hospitals have a tremendous need for effective communication both within the business and between different organisations involved in the healthcare milieu (Nelson, 2005).

The focus of this study is on communication between the pharmacy and nursing staff, specifically in order to investigate the impact of communicating changes in the formulary list of products between the pharmacy and nursing staff in the private acute care hospital on cost saving strategies. It will particularly take into account that the pharmacy handles the procurement of all medication and surgical products on behalf of the hospital.

If the interdepartmental communication issues are not identified and addressed, cost saving strategies will not be successful.

The above raises the following research questions:

- What are the key issues with regard to interdepartmental communication and its impact on cost saving strategies in the private acute care hospital?
- Are current interdepartmental communication methods sufficient to result in successful cost saving strategies?
- What are the challenges associated with the current interdepartmental communication methods?
- How will effective interdepartmental communication influence formulary compliance percentages relating to savings in cost of sales in the private acute care hospital?

## Objectives

### Primary objective:

- To investigate the impact of interdepartmental communication between the pharmacy and the nursing staff on the cost saving strategies implemented in a South African private acute care hospital.

### Secondary objectives:

- To examine the current interdepartmental communication methods in the private acute care hospital.
- To determine whether current interdepartmental communication methods are perceived to be sufficient to result in successful cost saving strategies.
- To determine the challenges associated with the current interdepartmental communication methods.
- To identify the key issues associated with interdepartmental communication methods when communicating formulary product changes to be implemented in the private acute care hospital, focusing on communication from the pharmacy to the nursing staff utilising the products.

## Research methodology

### Research design

The impact of communication between the pharmacy and nursing on cost saving strategies in the private acute care hospital will be investigated in an objective manner to ensure that the data analysis is based on facts and that the findings are derived from factual data.

The chosen method of research will be quantitative. Quantitative methods focus on data in the form of numbers and are generally collected via the use of questionnaires (Sekaran & Bougie, 2013). Communication is an inherent part of every person and investigating the impact of interdepartmental communication in the private acute care hospital might prove to be a challenge when interviews are the method of investigation. The participants in qualitative interviews might not give honest answers with regards to interdepartmental communication, for that reason the quantitative

approach (with guaranteed anonymity) will ensure better, more honest and factual data for analyses.

### **Sampling strategy**

The sampling strategy for the purposes of this research will be nonprobability sampling, all sample subjects will be hospital and nursing day staff and their data cannot be generalised to the population. Purposive sampling refers to a target group specifically chosen because they are the only ones who can provide the required information or they conform to certain criteria. The population in this case will be the day staff currently employed at a private acute care hospital utilising medication and related products from the pharmacy. The total day staff complement of the private acute care hospital is 214. For a population of 210, the sample required to execute an objective study should be 136 (Sekaran & Bougie, 2013). The sample size for the purposes of determining the impact of communication between the pharmacy and nursing staff on cost saving strategies in the private acute care hospital will thus be 136.

### **Data collection methods**

Data for analysis will be collected through questionnaires. The questionnaires will be administered personally as not all staff in the private acute care hospital has access to computers; these are limited to unit managers and stock controllers while the nursing staff only has access to a general computer on which the internal gateway can be accessed with no e-mail function.

Questionnaires will be handed out for completion during the different shifts' tea times in their respective tearooms. Upon completion, questionnaires will be collected and checked for completeness. This will ensure the required response rate can be met and since the researcher is present, any questions the participants might have can be answered and issues clarified.

A few nominal questions will initially be asked:

1. In which department do you work?
2. What is your current job description?
3. How long have you been appointed in your current role?

Following the nominal questions, closed questions will be asked. These will include negatively and positively worded questions. Closed questions will aid the respondents in making quick decisions and aid the researcher in coding and analysing the information. The closed questions will be in the form of ordinal measurement levels: strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree.

All gathered data will then be coded, tested for reliability and analysed in order to conclude what the impact of communication between the pharmacy and the nursing staff in the private acute care hospital is on cost of sales strategies.

### **Ethical considerations**

One of the primary responsibilities of the researcher is to treat all respondents' information as strictly confidential. Anonymity of each respondent must be guaranteed, all information must be given voluntarily and the respondents must be treated in such a manner that their self-esteem and self-respect are never violated (Sekaran & Bougie, 2013). None of the information volunteered by the respondents must ever be misinterpreted or distorted by the researcher; a true reflection of the information must be given. The researcher and other observers must be as objective as possible, as personal values and opinions can easily bias the data. None of the respondents must fear physical or mental harm and they must feel safe when volunteering the necessary information.

Permission to conduct the research must be given before any respondents are approached to complete the questionnaires. In this study upon receipt of ethical clearance from the University of the Free State's ethical committee, the private healthcare company's Research and Scientific Committee and their Research Ethics Committee must grant approval or permission.

### **Demarcation of study**

The research project will involve a quantitative questionnaire presented to a sample of 136 staff members working in the South African private acute care hospital. These subjects must be actively involved in utilising medication and related products thus giving the researcher the opportunity to study the impact of communication on formulary compliance and ultimately on cost saving.

The study will be conducted at a low cost to the hospital, but will require time and commitment from the researcher. Results from the study will benefit the hospital and the private healthcare company.

Interdepartmental communication will be investigated; this is an intrinsic part of human resource management. Utilisation of human resources to achieve organisational objectives is one of the keys to business success. When strategies developed to ensure sustainability and growth are not communicated to the business, those strategies will never mature and objectives will never be met. The South African private healthcare company developed cost saving strategies during a poor economic climate to ensure a bright future for the company, managing the processes in each hospital requires investment in human resources from the company and commitment from all its employees.

## **Conclusion**

The focus of this study is to investigate the impact of communication between the pharmacy and the nursing staff on cost saving strategies in the private acute care hospital. This is a quantitative study and will utilise questionnaires to obtain the relevant data. Chapter 1 considered the background of the study, the problem statement and, the objectives. The methodology, ethical considerations and the demarcation of the study were also discussed and provided. The next chapter will review literature on interdepartmental communication structures currently followed, the issues in the structures as well as the relationship between these methods and cost saving.

# CHAPTER 2

## Introduction

*“Nothing in this world is more difficult to understand than another, and again, without understanding him, it is even more difficult to convince him.”*

**Titu Liviu Maioresco**

(Calota, Pirvulescu, & Criotoru, 2015)

Communication is seen as a complex process of formulating, conveying and understanding messages and information. In order to have effective communication, it should be a two-way process where the sender and the receiver of the information have a shared understanding at the end of the process. In this chapter, the literature was reviewed to determine what communication entails, what interdepartmental communication structures currently look like in organisations and what the relationship between communication and organisational strategy is. Increased healthcare expenditure and cost saving strategies were investigated to determine the link between communication and cost saving strategies.

## Communication

Communication includes speaking, listening, reading, writing and body language. These communication skills can be learned behaviour but mostly comes naturally to most human beings. The process of communication includes giving and conveying meaning to one's ideas, opinions and thoughts to ultimately have a shared understanding. A vast range of skills is required for the communication process – listening, speaking, observing, evaluating, analysing and questioning the data. These skills are used in every situation where communication is necessary, be it in a family, in the workplace, in society, getting an education or elsewhere. Good communication skills can be defined as the ability to accurately send and receive messages, ideas, thoughts and opinions (Agarwal & Rode, 2009).

The art of communication is often explained by defining different variables. The seven qualities or variables for communication, according to Agarwal and Rode (2009), are:

1. Clear: There should be a definite purpose for communication.
2. Comprehensive: All the relevant facts should be included, background and support information are equally important. A little knowledge can cause plenty of damage while the informed can act responsibly.
3. Concise: Information should be conveyed taking the person's subject knowledge and time constraints that might come into play into consideration while remaining as quick and easy as possible.
4. Concrete: All information should be based on facts to avoid confusion.
5. Courteous: Different organisations have different ambiances, considering these when conveying messages will be advantageous.
6. Correct: Ensuring all communication is accurately and timeously delivered is of the utmost importance.
7. Coherent: Logical, consistent communication will ensure effectiveness and will gain future trust.

The complex process that is communication undoubtedly has a huge impact on any organisation's activities; it will influence information needed for making important decisions and in doing so ultimately influence the management of the organisation (Ciobănică & Grecu, 2014). Communication within a company is a very complex process that aligns itself with the environment and particulars connected to it; more often than not the communication is being done according to the business' strategic plan. While being complex, communication is also important in a hospital setting. Communication is the vehicle that enables people to work together.

What is true in any other business also holds true in a hospital – communication remains the vehicle through which basic managerial functions can be performed. Pharmacy staff or any other support staff, manages and coordinates their key performance indicators through communication. Various quality objectives within a

hospital require constant effective communication that can only be achieved if communication is clear, comprehensive, concise, concrete, and courteous and correct (Agarwal & Rode, 2009).

Communication within a business can also be divided into two groups: internal communication and external communication. Internal communication involves interdepartmental processes while external communication focuses on the external public which includes clients, suppliers and many other entities beyond the business' own border. All activities within an organisation are influenced by the processing, collection transmission and storage of data and/or information. The data and/or information can come from external entities, it can be internal or it can be a combination of both. Modern information systems aid in the communication process and communication vehicles beneficial to the organisation can be adopted and implemented to communicate effectively with all levels of employees, whether they are superior, equivalent or on lower levels. Investigating the internal or external communication processes can be valuable for any organisation. The idea of investigating internal or external communication processes is to analyse compliance with requests and frequency of communication critically while also analysing if the techniques that are used are relevant to all stakeholders (Ciobănică & Grecu, 2014).

Internal communication is vital when aiming to build a culture of transparency between management and relevant stakeholders or employees and it can enhance the engagement of employees in the organisations' goals and priorities. Internal communication can be seen as the "lubrication that prevents the machine" (the organisation) from self-destructing due to the friction caused by change. Internal communication also equips employees with the information needed to fulfil their jobs (Mishra et al., 2014). Effective internal communication rests on two-way communication between managers and employees and amongst employees – they have to listen to one another. An opportunity is then provided for formal and informal communication that has to take place through all levels of an organisation. Channels of communication are important factors that Mishra et al. (2014) considered in working towards effective communication. Executives interviewed in their study described the choice of communication vehicle to be used as an important task. They agreed that one must consider the "when", "why" and "what" of the communication before deciding on a communication vehicle. The intention of the

communication is just as important as the form of communication chosen. In one executive's experience, employees want to receive company benefits in writing so they can go through the information on their own time and in the comfort of their own homes. Task-focused and operation-driven communication on the other hand must be discussed in weekly meetings and must be followed up properly to ensure consistent and successful management. All of the executives believed in the value of face-to-face communication and that a distinct benefit can be seen when regular face-to-face communication takes place .

Internal communication assists in designing and growing an organisation's operational structure and the processes driving the structure. The entire process of communication amongst employees and managers exists to communicate expectations and it is made possible by interpersonal or internal communication. Many organisations currently implement an intranet as an internal vehicle of communication. This can be a very efficient tool for internal organisational communication and internal problem-solving and has been implemented globally by modern companies with great success (Shrivastava, 2012).

Another vehicle used for communication is infographics. Infographics can be seen as exactly what the word implies: information graphics. With this method, the receivers of the information are educated about an issue or topic in a visually interesting manner. A combination of graphics and words, data displays, lists and other visual elements can be used to get the sender's point across. Infographics is an easy method to convey complex quantitative or qualitative information intended to inform or persuade the receiver or audience. In addition to being a quick and easy method of communicating, it can also be utilised as a stand-alone method as the intended message can be understood and conveyed by just looking at it. Due to the visual nature of this communication vehicle it presents the illusion of trustworthiness. The impact of visually seeing the information is also believed to influence the extent of the receiver or audience's memory thereof making it an effective vehicle of communication (Toth, 2013).

Whichever communication vehicle is chosen to convey the intended message, interdepartmental communication remains the process through which professionals within different departments discuss, report, give feedback to one another regarding

matters pertaining to the business they function in. Interdepartmental communication is an important cornerstone in the healthcare industry and a lack of effective communication can result in poor service integration and poor patient care (Mothiba, Dolamo, & Lekhuleni, 2008). Communication between departments experiencing time differently also seems to be a challenge to the modern organisation. Time is multidimensional and has multiple components. Inter-subjective time or social, shared time, can be seen amongst a group or a culture and that experience of time relates to historical, cultural or geographical specifics. The way individuals experience time and their personal conceptions of time can be defined as subjective time. Objective pacers such as fiscal years, work weeks, project deadlines and product life cycles on the other hand constitute objective time. Different departments have different objective experiences of time as they have different deadlines or projects they focus on. The inter-subjective experience aligns with the objective experience until a certain departmental rhythm is set. Departments develop different 'rhythms' and communication between these different departments can become a challenge (Ballard & Seibold, 2006). Pharmacy and nursing are two departments within a hospital that definitely do not experience time in the same manner as these two departments have different cultures and objectives.

To illustrate the complexity of interdepartmental communication in a healthcare setting, Morténus, Marklund, Palm, Fridlund & Baigi (2011) tested the utilisation of interest in and knowledge of research and development within a healthcare facility among primary staff members. Their study was done in 2011 and specifically tested the strategic communication process followed. They stated that the implementation of new knowledge within the workplace required an investment in time, planning and carrying out of interventions and trials. A questionnaire was constructed by an experienced team which included a primary care communication strategist, a general practitioner, an expert in the field of strategic communication and a healthcare expert in the form of a registered nurse. In their questionnaire they allowed for open ended questions where the participants could elaborate on barriers they experienced in the communication process that minimised the opportunities to gain interest in and knowledge of research and development. The results of these questionnaires showed a positive synergy between the different channels of communication, in this case oral, written and digital channels. All three channels were inter-correlated and

contributed to the overall synergy. The identified barriers to effective interest in and knowledge of research and development focused on three categories. Firstly, that the communication only concerned some staff members, medication information and research for example was deemed important for registered nurses only and not for enrolled nurses or other ward staff members. Secondly, the research and development was seen as a low priority area, focus was directed towards day-to-day functions, and thirdly clinical patient care was seen as more important. The main author concluded that the channels of communication should be in user-friendly language, should have a user-friendly design and that the barriers can be interpreted as an outflow of organisational culture. For example in a hospital, acute patient care is of the utmost importance. The study concludes with implications for practice that includes the fact that changing attitudes and implementing models take considerable amounts of time and organisational culture could be an obstacle if not managed professionally. It is also of the utmost importance that the benefits of the strategy are integrated in the communication (Morténus et al., 2011).

A study done in Limpopo at the tertiary hospital campus pointed out three themes within interdepartmental communication that can be focused on namely interdepartmental meetings (having meetings versus not having meetings), interdepartmental communication barriers and limited communication guidelines. The interdepartmental communication barriers that were identified in this study were firstly the non-existence or limited existence of platforms for communication. Many meetings were scheduled and held by senior management members but staff in the functional levels was seldom involved. Secondly, the mode of communication was seen as a barrier. In this specific hospital, the telephone was the most often used vehicle of communication even though it was not necessarily the preferred mode of communication for all staff members. It is much easier to convey a message via telephone than investing in face-to-face communication or drafting reports or circulars. A third barrier that was found was positive versus negative feedback; the experience was that only negative feedback was given throughout the hospital while only a select few received positive feedback. The fourth and last barrier identified was the lack of awareness. Realising what is happening in one's environment and reporting or communicating to fellow healthcare professionals is vital in a hospital. Agendas for meetings were closed before all participants were even aware of a

meeting being scheduled and very few meetings' minutes were distributed to all staff members. Limited communication guidelines were not mentioned as a barrier per se, but the authors identified the lack of clear guidelines as a hindrance in an efficient communication process (Mothiba et al., 2008).

Once barriers to effective communication can be identified and dealt with, one can look at communication competence. Communication competence is defined as a person's ability to communicate effectively and appropriately in order to achieve a set goal. Employees' communication skills or competence is central to any organisation's functionality and success. Being competent in communication may be crucial when seen in the context of healthcare. Different relationships exist within the healthcare realm, for instance nurse-patient, nurse-nurse, nurse-doctor and other health care professionals such as pharmacists, radiologists etc. Medical interaction is complex; different healthcare professionals find different values in different communication actions in order to satisfy their different needs. Physicians' communication needs are associated with information regarding medical regime adherence while nurses find value in communication that can enhance collaboration and increase work relationship satisfaction whilst decreasing work conflict. Low levels of communication could lead to dissatisfaction, no or very little social support and ineffective information exchange (McKinley & Perino, 2013).

The idea of communication competence also includes workplace communication skills and communication behaviour. Communication behaviours comprise of action, interaction or a combination thereof. Behaviour starts a chain of actions or interactions that can result in progression or regression towards or from goals. Communicational behaviour is inherently a social behaviour through which one engages in relationships with members of an organisation, to link small or micro actions of individuals to large or macro patterns of the collective structure (Keyton, Caputo, Ford, Fu, Leibowitz, Liu, Polasik, Ghosh & Wu, 2013). The practice of medicine and the communication behaviour associated with healthcare focuses heavily on a tremendous need for effective, correct communication within and between organisations and reflects a desire to reduce administrative costs and to improve quality patient care and service (Nelson, 2005).

A good indicator of communication competence is feedback. Feedback can be a very difficult endeavour because it has consequences. Some managers shy away from giving and receiving feedback for this specific reason. It is quite easy to give positive feedback; it is usually accepted because people want the good news rather than the bad. Negative feedback on the other hand is often met with resistance. If negative feedback can be supported by hard data and statistics or specific examples, it carries more weight and will be accepted with greater ease. Objective feedback given by managers can be an effective tool, especially if said managers are in the upper levels of their organisation or have earned the respect of their employees (Ispas, Bacali, & El Khayat, 2011).

Ispas et al., (2011) suggested that managers should develop their skills in giving feedback on the back of the following six suggestions:

1. Focus on specific behaviours and do not give general feedback; employees can then amend the specific undesired behaviours.
2. Keep all feedback impersonal; any negative feedback should be descriptive and not judgemental.
3. It is counterproductive not to focus on job-related behaviours; any personal comparisons or remarks of a personal nature should be avoided.
4. Feedback should be goal orientated; the receiver must understand in which way the feedback will help him/her to achieve goals.
5. Time feedback; do not wait for long periods of time to elapse between the unwanted behaviours before giving the negative feedback.
6. Ensure the given feedback is understood well, keep the feedback concise and complete.

Finding a balance between positive and negative feedback and accepting that feedback is a tool used both ways, will improve a manager's communication competence (Ispas et al., 2011).

The ability of managers to communicate effectively and competently is reflected in the manager's success. No manager can climb the hierarchal steps of his/her

profession without practising good communication skills. Managerial communication problems can often be seen in organisations and can rightly be blamed for causing disorder. Managers' communication competence enable them to plan and coordinate activities, motivate participation of their team members and manage human resources, to achieve organisational strategic goals in the end (Calota et al., 2015).

## **Strategic communication**

Hospitals and healthcare systems have an even larger challenge than other organisations to effectively integrate evolving technologies, improve communication behaviour and competence and to maximise patient benefits, while remaining within tighter budgets. Hospitals are fast-paced entities where emergencies are common and the focus is always on critical tasks. Around-the-clock operational requirements lead to a variety of healthcare professionals with varying educational backgrounds, skill sets and responsibilities. To add to the already stressed environment, hospital staff is usually multi-national and have different cultures as well as language barriers that can negatively influence the communication processes. One of the most crucial communication requirements is to help employees understand their own roles within the organisation's strategy. Effective communication can help bring about change, can anticipate problems and uncover opportunities to enhance operational efficiencies further. To get to a point where the paradigm has ultimately shifted towards an effective long-term employee communication process, managerial commitment is required. Employees must be kept informed of the hospital's current situation, its goals and objectives and the planned strategies to achieve the goals and objective - in other words a transparent and frequently, accessible communication process (Meritain Health, 2009).

Once the word strategic is added before communication, it is a game changer; the focus is shifted from the context and the recipient of the message to the purpose of the message and the sender thereof. Strategic communication has the future in mind and has to encapsulate the sender's goal and his/her plan of action to achieve that specific goal. The mind of a strategist is always aware of the possibility of conflict and/or competition; the message should thus be delivered in such a way to not be ambiguous but rather a clearly described message of the strategic intent. The

concept of strategic intent is an important one as it emphasises the fact that the messages are driven by the organisation's purpose (Dulek & Campbell, 2015).

Thomas and Stephens (2015) place strategic communication at the intersection between management's strategies and communication. Furthermore, the stakeholders' values and the organisation's strategies and goals also intersect. Any organisation's strategic communication should be in sync with stakeholders' different value premises, be it explicit or implicit, to avoid incongruities. It is suggested that the stakeholders' variety of perspectives within an organisation are incorporated in the early stages of the planned strategic changes and that management engages in collaborative sense-giving and sense-making throughout the whole process (Thomas & Stephens, 2015).

An organisation's strategies change over time to align it with the prevailing macro-economic circumstances. At times of serious economic downturns, news coverage often covers all the ills of the world, leaders of organisations often make the same mistake. Performance reviews, shareholder meetings and quarterly financial reviews are used as opportunities to focus on areas of improvement rather than positively discussing actionable strategies and uncovering valuable information that can help improve the business. Positive actions can only be created when a realistic assessment of challenges are done while still maintaining a strong belief that success will be possible. What one chooses to communicate or broadcast, predicts one's success. Everyone constantly broadcasts information to their peers, subordinates or leaders even when not saying a single word and as a manager or leader; one's message can move people from paralysis to activity. Re-orientating employees' minds toward the positives can give them the push needed to achieve their (and the organisation's) goals and objectives quicker (Gielan, 2015).

In order to change negative influences on an organisation's economic success into positive, actionable strategies, one must first understand one's environment. Economic growth rates for three of the world's largest economies, the United States, the European Union and Japan declined during 2009. Sub-Saharan Africa had the same picture with a low GDP in 2009 – below 4% for 2009 versus just below 6% during 2008. This meant that even though companies had appropriate buffers, they had to function in survival mode in order to see the global crisis through and remain

standing at the end of it. All businesses, including those functioning in healthcare, had to plan meticulously in order to survive and grow in less than optimal circumstances (Baxter, 2008).

The global economic picture was one of doom and gloom but healthcare businesses and their related medical consumables cannot be seen in the same light as other businesses. Why does the economics of healthcare differ so much from that of other goods? A reasonable start-off point would be the inherent human concern with the suffering and pain of other human beings. A wide variety of factors could have caused the rapid increase in healthcare costs over the past few decades, healthcare insurance expanded alongside the increased growth in the aged within the population and technology development and advancement also causing longevity. The far-reaching technological advancements come with a price – it is the largest contributor to higher healthcare associated costs (Chandra & Skinner, 2012).

Technology cannot be the only reason for increased healthcare associated costs, the most basic and main resources required within a hospital is said to be men, material, money, machines and methodology. The expenditure on materials can amount to 30 to 35% of a hospital's operating budget. The hospital administrator cannot help but focus on reducing the expenditure on these materials which includes a variety of goods from medicine to surgical consumables. The inventory control system of any hospital is thus an important tool in managing storage, distribution and costs associated with medical consumable goods (Chandra, Rinkoo, Verma, Verma, Kapoor & Sharma, 2013).

## **Cost-saving strategies**

South Africa, as an emerging market, also has to focus on technological advancement while containing healthcare expenditure. As a measure of cost containment the Medicines and Related Substances Act, Act 101 of 1965, stated that the Minister of Health should appoint a pricing committee every five years, who will be responsible for the regulation of a transparent pricing system applicable to all medicines and scheduled substances sold in South Africa. The transparent pricing system includes a single exit price that is defined as a published, prescribed price at which manufacturers must sell their medicines or scheduled substances to any

person or entity other than to the government itself (Republic of South Africa, 2014). The pricing committee was established in 2003 as an advisory committee to the Minister of Health and has been responsible for implementing all single exit prices as it is today since 2006 (South African Government, 2015).

Other countries have started controlling healthcare expenditure much earlier. As early as in 1992, Germany started controlling costs. One initiative was to put a cap on fees physicians could charge. This measure was extremely successful and was followed soon after with restructuring in the cost of hospital structures. Risk sharing models were implemented with per diem fees as well as diagnosis related fees per group, this led to a significant decrease in expenditure on statutory health insurance. Another significant impact could be seen when a positive list, containing a limited number of drugs, was drafted for reimbursement by health insurance funders (Dietrich, 2006). The United States implemented similar funder payment structures, referring to fee-for-service models opposing global or capped payment models where costs are fixed. Fee-for-service payments allows the service provider to choose higher intensity treatment and in some instances higher quality care but this model can unfortunately also lead to over- or under-provision of care and disconnect between multiple providers (doctors, pharmacy, physiotherapists etc.) that in turn can increase costs (McClellan, 2011). Furthermore, fee-for-service models creates a space where neither the patient nor the service provider have any incentives to weigh the health benefits received against the costs incurred to provide said services (Baicker & Goldman, 2011).

It is clear from the literature that moving towards risk sharing models, where the service provider, funder and patient are equally responsible for managing the healthcare programmes, is optimal when concentrating on costs and sustainability. Sweden launched a cost saving programme in early 2010, with a completely different approach. Their answer to the economic difficulties was to have a balanced budget by the end of 2011, which meant that a rapid plan of action was needed. The plan in short was to downsize. They achieved their goal through staff layoffs primarily, with a little portion of restructuring of operating procedures added to the plan (Kardakis, Tomson, Brommels, & Hansson, 2015).

Continuing along the path of cost saving strategies that can positively impact healthcare, formulary products or a list of preferred products making a decrease in costs possible are encountered in the literature. In the United States, hospitals are required to enforce formulary products in order to comply with regulatory standards. Formulary products are defined as a list of medication and related products that represent the clinical judgement of pharmacists, physicians and other experts in the treatment options for disease as well as for the overall promotion of health. Formularies are seen as important tools that guide prescribers in selecting the safest, most cost-effective medication and products for treating their patients. A well-designed and maintained formulary is associated with increased efficiency and better medication safety profiles. It is also stated that the higher the quantity of non-formulary products used, the higher the expenditure and the higher the probability of delayed patient treatment due to the unavailability of medication and/or products (Helmons & Kosterink, 2014). Continuous monitoring of formulary product utilisation is essential. St. Jandal Hospital in Harderwijk, in the Netherlands developed a compliance dashboard with monitoring metrics as a first step towards a formulary management system (Helmons & Kosterink, 2014). It is also necessary to investigate practical problems that may be encountered while aligning with a formulary. A survey done in 2011 evaluated formulary management practices and revealed that maintaining a formulary is a challenge, only 88% of the respondents actually tracked their compliance (Anagnostis, Wordell, Guharoy, Beckett, & Price, 2011). Additional challenges surfacing were the need for improved leadership from key physicians and clinicians when adding medication and related products to a formulary and more importantly improved communication with nursing and other medical staff, which can be a severe challenge taking into account that medical staff complements are usually large and frequently changing (Anagnostis et al., 2011).

Once a formulary or preferred list of medical consumables is implemented, it is vital to also consider reimbursement models. In a study done on reimbursement structures for an emergency department in 2014 by Downey, Zun, Burke and Jefferson (2014), it was shown that an increasing number of patients (insured and uninsured) visited the emergency department and that only 42% of these patient's accounts were settled or reimbursed in full. The reimbursement ratio is an indicator of the financial pressures the emergency department within a hospital faces and

although medical consumables or goods are not the only contributor to costs, it does have a negative impact on costs (Downey et al., 2014).

Blank and Eggink (2014) also confirmed earlier statements of the increasing degree of pressure on the healthcare industry, due to the ageing population and advanced, expensive medical technologies, but also included a shrinking labour force as a contributing factor. The increase of budget cuts on the back of financial and economic crisis put even more pressure on hospitals. The replacement of fee-for-service (FFS) payment programmes with prospective payment systems (PPS) were developed to create an incentivised reimbursement system where hospitals are rewarded for containing costs. Establishing adequate fixed payments for procedures had to take all the products, with their correct prices, used by the hospitals into consideration. Similar financing reform studies were done in Europe, OECD countries and in Austria, Norway and Japan as well. Policy reforms such as the FFS vs. PPS were built on that background of increasing financial expenditure. In the 1980s medical care was delivered without considering the financial implications, but containment of systems to ensure productivity became a political issue. All budgeting systems attempted to use limited resources to attain productivity. Healthcare professionals had to meet the growing demand in combination with a decreased financial impact and increased productivity. In the 1990s the previous focus on cost saving and productivity lead to a situation in which quality healthcare was at stake. Policy makers then embraced the idea of competitive healthcare markets and the incentive system was developed (Blank & Eggink, 2014).

A hospital's incentives are influenced by how much of the costs involved to provide healthcare are shared between the provider (hospital) and the purchaser (insurance/government). In most OECD countries, the hospitals are remunerated on the activities performed. The measurement of activities is based on diagnosis related groups or DRG's. DRG's is a sub-category of prospective payment systems and every DRG has a special assigned tariff that reflects the mean cost of treating a patient with that particular DRG. The hospital is then reimbursed according to the DRG of each patient but the same amount is paid for every patient with the same diagnosis regardless of what the hospital spent on treating the individual patients. A fully prospective payment system where hospitals receive an identical but fixed fee for each patient treated actually involves no cost sharing on behalf of the purchaser

but rather places the responsibility of managing costs solely on the healthcare provider (Hafsteindóttir & Siciliani, 2012).

An international perspective on financing healthcare examines the role of governments outside the United States. A number of OECD countries focus on four strategies to finance healthcare, namely tax revenues, risk sharing or pooling, managing purchasing services and making coverage decisions. Nations perform differently when looking at efficiencies, expenditures and quality services, all of them grappling to avoid having to finance the increasing costs of healthcare. Each different strategy has its own unique attributes, be it positive or negative but with the same end goal in mind: cost-effective, quality healthcare for all (Stabile & Thomson, 2014).

## Conclusion

Public health seeks a balance between quality patient care and fair distribution of medical goods and medication. The priority remains the patient while controlling healthcare expenditure. Many strategies are being followed and designed to control costs and for all strategies to be implemented successfully, a good communication process is the cornerstone. Chapter 2 considered publications in current and historical literature to determine and investigate the current communication structures used by organisations, the issues that are experienced and the relationship between communication methods and cost saving strategies in the healthcare environment. The next chapter will review the research methodology, which includes the research design, the sampling strategy, the data collection methods, the ethical considerations and the statistical procedures followed.

# CHAPTER 3

## Introduction

The impact that interdepartmental communication has on cost saving strategies in a private acute care hospital was investigated in an objective manner, data analysis was based on facts and the findings were derived from the collected data. In this chapter, the research design, sampling strategy, data collection methods, ethical considerations and statistical procedures were considered in more detail.

## Research design

Business research is defined as a process through which solutions are found or questions are answered that have an impact on the business, be it accounting, finance, management or marketing related. It is a systematic, organised, factual, data-based, objective, critical investigation or inquiry into an identified and specific problem. The information required can be collected first-hand or may be available within the business or industry (Sekaran & Bougie, 2013). The data collection method can be qualitative or quantitative. For the purposes of this study, the quantitative method was used.

The quantitative method of data collection generally uses structured questions to collect data in the form of numbers. Researchers using quantitative methods aim to measure something specific, such as the number of households owning a television set or the percentage of people getting vaccinated against flu. The quality of the raw data gathered is of utmost importance, as inferior data may result in incorrect statistical calculations. McCusker and Gunaydin (2015) describes quantitative research as a process aiming to classify features, counting them and deriving statistical models from the data in order to explain what was observed.

The features of quantitative research were identified as follows (McCusker & Gunaydin, 2015):

- research where the researcher knows exactly what s/he is looking for in advance;
- tools, such as a questionnaire or equipment are used to collect the raw data;
- data is in the form of statistics and/or numbers; and
- quantitative data is more effective when compared to other data but can lead to a lack of contextual detail.

In management and behavioural areas, it can be difficult to conduct investigations or inquiries that are 100% scientific whereas, physical sciences' results are exact and mostly error-free. In a positivist view of the world, the truth is the destination in mind when embarking on science and scientific research. Positivists believe in an objective truth, which once understood, enables us to predict and control the world. A positivist believes that a scientific approach to research can assist in distinguishing the laws of cause and effect by which the world operates. Their research should be replicable, their observations reliable and their findings generalisable. The theories they put forward come from deductive reasoning and can be tested with predetermined, fixed research designs and objective measures. The most important aspect of a positivist's approach is the experiment, allowing them to discern which cause-and-effect relationships are present. The general goal of their research is to describe findings or phenomena that can be objectively measured and directly observed (Sekaran & Bougie, 2013).

For the purposes of this field study, a positivistic point of view was taken as the cause-and-effect relationship between interdepartmental communication and the successes of cost-saving strategies were observed and measured objectively.

## Sampling strategy

Two major types of sampling designs are probability sampling and non-probability sampling. This study used non-probability sampling as a method. Non-probability sampling methods use elements in the population that have no probabilities attached to their being chosen as sample subjects. The findings of a study using non-probability sampling can thus not be generalised to the population with confidence (Sekaran & Bougie, 2013).

Non-probability sampling can be further categorised into convenience or purposive sampling. The study of interdepartmental communication's impact on cost saving strategies could only be useful if the sample used were purposive. Purposive sampling refers to sample subjects belonging to specific target groups – in the case of this study, the sample subjects had to be nursing staff working the day shift and who were involved in utilising medication and/or medical consumables, any other sample subjects would not have had any valuable contributions. Purposive sampling is thus confined to subjects or specific types of people who have the desired information required or who conform to certain criteria as set by the researcher (Sekaran & Bougie, 2013).

Purposive sampling can either be judgemental or based on quotas. Judgemental sampling has subjects chosen specifically due to the required information they possess and they are most advantageously placed. According to this definition of judgemental, purposive sampling, it is evident that the sample selected for this study was definitely judgemental and purposive, as the focus was on nursing staff working day shifts and who are involved in medication and/or medical consumables (Sekaran & Bougie, 2013).

Sample size determination is an important issue when planning any research (Luh & Guo, 2011). In order to determine the sample size the whole population was considered. The total nursing staff working day shift and involved in medication and/or medical consumables during their shifts was 214 - the total population for this study.

The following table shows the sample sizes for any given population:

**Table 1** Sample size for a given population size (Sekaran & Bougie, 2013)

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	175	2000	322
55	48	320	181	2200	327
60	52	340	191	2400	331
65	56	360	196	2600	335
70	59	380	205	2800	338
75	63	400	210	3000	341
80	66	420	217	3500	346
85	70	440	226	4000	351
90	73	460	242	4500	354
95	76	480	248	5000	357
100	80	500	260	6000	361
110	86	550	265	7000	364
120	92	600	274	8000	367
130	97	650	278	9000	368
140	103	700	169	10000	370
150	108	750	186	15000	375
160	113	800	201	20000	377
170	118	850	214	30000	379
180	123	900	234	40000	380
190	127	950	254	50000	381
200	132	1000	269	75000	382
210	136	1100	285	100000	384

The population of 214 was rounded to 210 and in lieu of the table; the sample size required for the study to be objective and meaningful was determined to be 136. This sample size of 136 was appropriate since a sample larger than 30 and smaller than 500 is said to be appropriate for most research (Sekaran & Bougie, 2013).

One hundred and thirty-six questionnaires were distributed amongst the purposive sample determined in a private acute care hospital to obtain the relevant information for evaluating the impact of interdepartmental communication on cost saving strategies within the hospital. The respondents were randomly picked out of the ones indicating that they were willing to participate.

## Data collection methods

Information can be collected from sample subjects or individuals via interviews, observation or questionnaires. This study was a quantitative study, which involved a large amount of data that needed to be collected. The data was thus collected via a well-designed, logical questionnaire to test the respondents' views on interdepartmental communication related to cost saving strategies; in particular formulary product compliance as a strategy, within a South African private acute care hospital.

The researcher personally administered the questionnaires within each department in a private acute care hospital to ensure a quick data collection process with a high rate of questionnaire completion. The respondents were not allowed to discuss the questionnaire amongst each other, the researcher clarified any doubts or unclear questions and the objectives of the study could be introduced, explained and motivated. Another advantage of self-administrations was the fact that the different departments do not have computers available for each staff member; if the questionnaires were e-mailed, the response rate would have been considerably less. A high response rate was expected since the questionnaires were personally administered. These advantages outweighed the disadvantage of the researcher possibly explaining questions differently to different respondents. A lot of effort was put into administering the questionnaires personally but the response rate made the effort and time spent well worthwhile.

The questionnaire (Addendum 1) was developed with all the literature reviewed in chapter 2 as a reference.

The questionnaire had three nominal questions for classification purposes:

- In which department do you work?
- What is your current job description?
- How long have you been in your current role?

The name of the respondent, age or sex was not part of the nominal questions as it was not necessary for the purposes of this study to elicit such information.

The questionnaire started with questions testing the subject's perception of their knowledge and understanding on current cost saving strategies and why cost saving strategies was implemented in the private acute care hospital. Question 2 referred to Dietrich (2006) while question 3 was based on Helmons and Kosterink's (2014) article. Question 1, 5, 10 and 19 sprouted from the in-depth article discussing the expanded role of internal communications in the Internal Journal of Business Communications (Mishra et al., 2014). Question 1 discussed awareness of a company's goal and strategies (Meritain Health, 2009). In question 9 the respondent's perceived knowledge of the inventory system importance was tested (Chandra et al., 2013). Questions 6, 11, 12, 18 and 20 referred to the importance of user-friendly communication and the benefits of communicating the strategies to all stakeholders to reach envisioned company goals (Morténus et al., 2011). The utilisation of an intranet platform as an internal communication tool was the framework for question 7, since such a platform was available in this private acute care hospital it could add value in determining the effectiveness of current interdepartmental communication avenues (Shrivastava, 2012). Questions 13 and 14 emphasised the importance of feedback (Mothiba et al., 2008). Further to the importance of feedback, question 15 entertained the link between effective feedback and achieving goals (Ispas et al., 2011). Toth (2013) focused on infographics as a vehicle of communication, in question 8, 16 and 17 the respondent's preferred vehicle of communication was tested (Toth, 2013). The questionnaire concluded with questions 21 through 23 where the respondent's view or perception of current interdepartmental communication between nursing and pharmacy in the private acute care hospital could be given, preferred methods of communication could be mentioned and perceived barriers to communication could be discussed (Agarwal & Rode, 2009).

## **Ethical considerations**

The primary responsibility of the researcher was to treat all the information gathered from the sample subjects by the administration of questionnaires as strictly confidential. The purpose of the study was explained in an objective manner to all respondents, no misrepresentation of the nature of the study was done. The self-esteem and self-respect of all the respondents were never violated in the data collection process and none of the respondents was forced to disclose any

information. The questionnaires were administered in the relevant department's tearooms within a private acute care hospital where observers not involved in the study were not deemed as intrusive. The tearooms in the relevant departments are all comfortable and could not cause the respondents to experience physical or mental harm. The data collected was not misrepresented or distorted once reported. None of the data collected were used to influence the respondents' managers' view of them or their performances (Sekaran & Bougie, 2013).

The South African private acute care hospital had an ethical advisory committee meeting where the details of this study were discussed and permission was granted to commence with the study (Addendum 2) after the University of the Free State's ethical committee granted ethical clearance (Addendum 3).

### **Statistical procedures**

All questionnaires were coded and data was captured on an Excel worksheet. Statistical tests were administered using a Statistical Software Program (SSPS) to calculate descriptive statistics. Descriptive statistics such as averages (means), standard deviation and the frequency of distribution were examined. Additional statistical analysis included binominal statistical analysis (Pearson's Chi-Square) to ascertain the statistical significance of the population. The Cronbach's alpha test was also done to determine how reliable the questionnaire was. These descriptive statistics provided the relevant data needed to answer the research questions.

### **Conclusion**

Chapter 3 focused on the relevant research design, sampling strategy, data collection methods and statistical procedures required to gather data effectively and ethically. This was in order to answer the stated research questions. Chapter 4 will observe the outcomes of the collected and processed data.

# CHAPTER 4

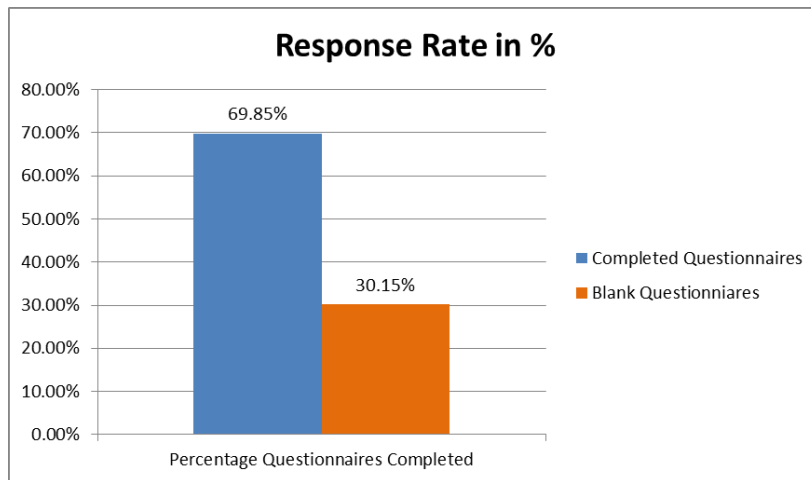
## Introduction

The impact that interdepartmental communication has on cost saving strategies in a private acute care hospital was investigated in an objective manner by means of a questionnaire. The data analysis was based on facts and the findings were derived from the collected data. In this chapter the results of the collected data and its analysis will be discussed.

## Response rate

Response rate is defined as the number of respondents responding to a survey, in this case the number of questionnaires completed by sample subjects. The response rate is important and should therefore not be left to chance. High response rates ensure that the results obtained are useful and an accurate representation of the target population. A researcher must typically aim to have the largest number possible of sample subjects respond.

The response rate can be obtained by dividing the number of completed questionnaires (80% or more of the questions answered) by the number of questionnaires sent out (University of Texas, 2014). For this study, the identified sample size for a population of 210 was 136 and a total of 95 questionnaires were completed, resulting in a response rate of 69.85%.



**Figure 4.1** Response rate

The completed questionnaire rate of 69.85% is indicative of a good response rate. The reason for the high response rate is the fact that the respondents were asked to complete the questionnaires in the comfort of their own unit’s tearooms during their tea breaks. In addition, the employees in the acute private healthcare hospital are a close-knit community who will participate in endeavours that might enhance the quality of the patient care they deliver. Participation was also requested in advance and information (which included the way the data would be used, the anonymity and confidentiality terms) regarding the survey was given beforehand.

The percentage of questionnaires that was not completed was calculated to be 30.15%. This is an acceptable percentage for non-response (University of Texas, 2014).

Health services researchers are advised to standardise strategies on reporting response rates, especially when using random, digital dial surveys, as editors and reviewers regularly accept a high response rate as an indication of the survey’s representation and validity (Martsolf, Schofield, Johnson, & Scanlon, 2012).

## Data presentation and analysis

The developed questionnaire was intended to identify the key issues associated with interdepartmental methods when communicating formulary product changes to be implemented in a South African private acute care hospital, focusing on communication from the pharmacy to the nursing staff utilising the products.

A reliability test determined whether or not the developed questions actually measured the variables. A Cronbach alpha reliability coefficient was calculated to determine how well the variables pertaining to communication correlated to the variables pertaining to cost saving strategies. The closer the Cronbach's alpha value is to one, the higher the consistency reliability (Sekaran & Bougie, 2013).

The Cronbach's alpha values were calculated and are shown in the following table.

**Table 2** Cronbach's alpha values

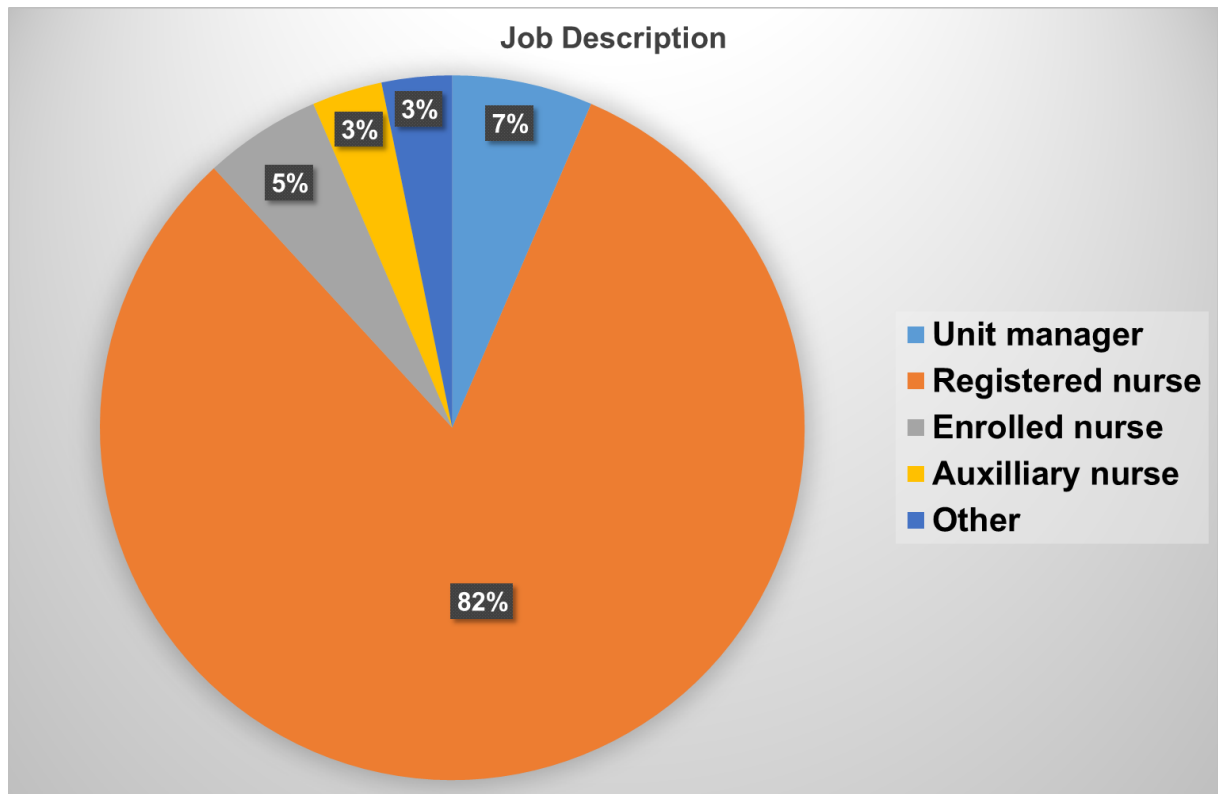
<b>Variables</b>	<b>Cronbach's Alpha</b>
Communication	0.710
Cost saving strategies	0.641

Both of the variables' Cronbach's alpha coefficients were greater than 0.5 indicating that the scale was reliable and indicative of the variables' correlation to one another.

The following nominal questions were asked to respondents:

- What is your job description?
- How long have you been appointed in your current role?

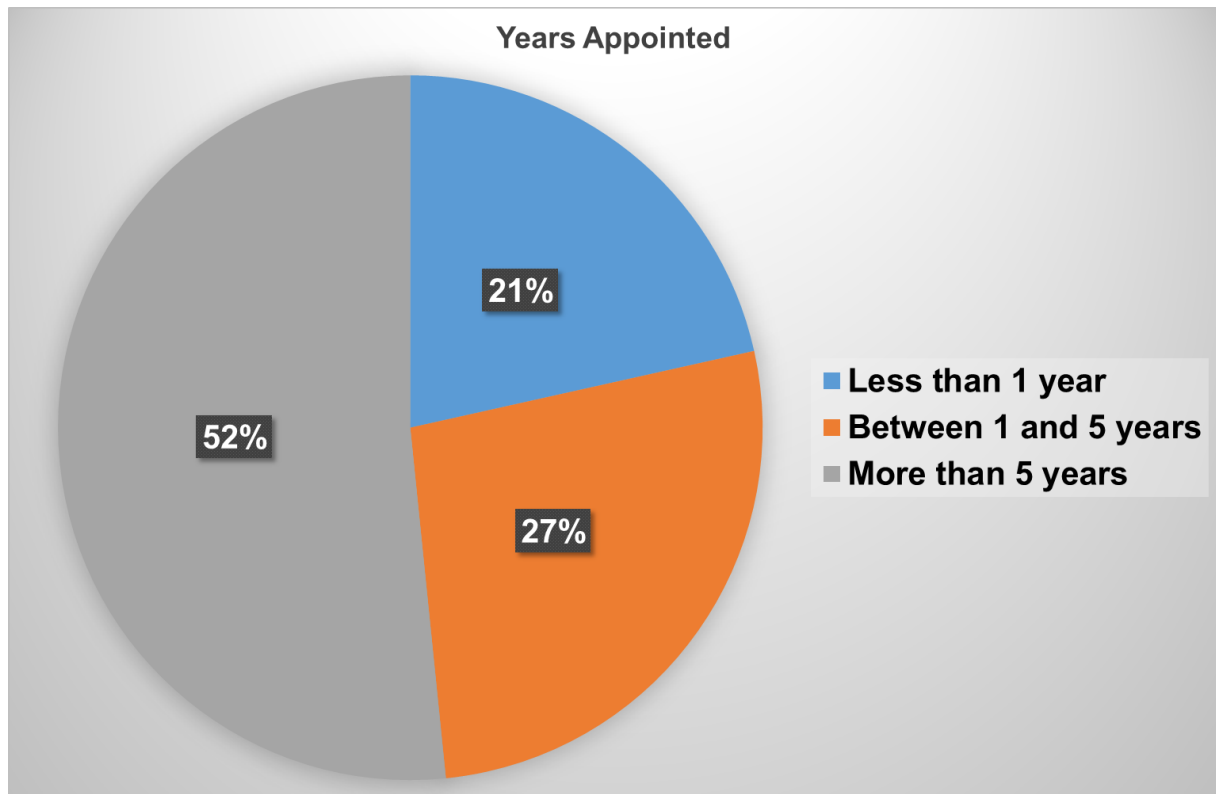
The job description question was included to ensure that the respondents participating in the research were indeed nursing staff and involved in the utilisation of formulary products and thus indicating that they were part of the communication and cost saving strategies.



**Figure 4.2** Job description

The data indicated that the respondents were mainly registered nurses. The unit managers included in the sample are also registered nurses, increasing the percentage of registered nurses responding to 88%.

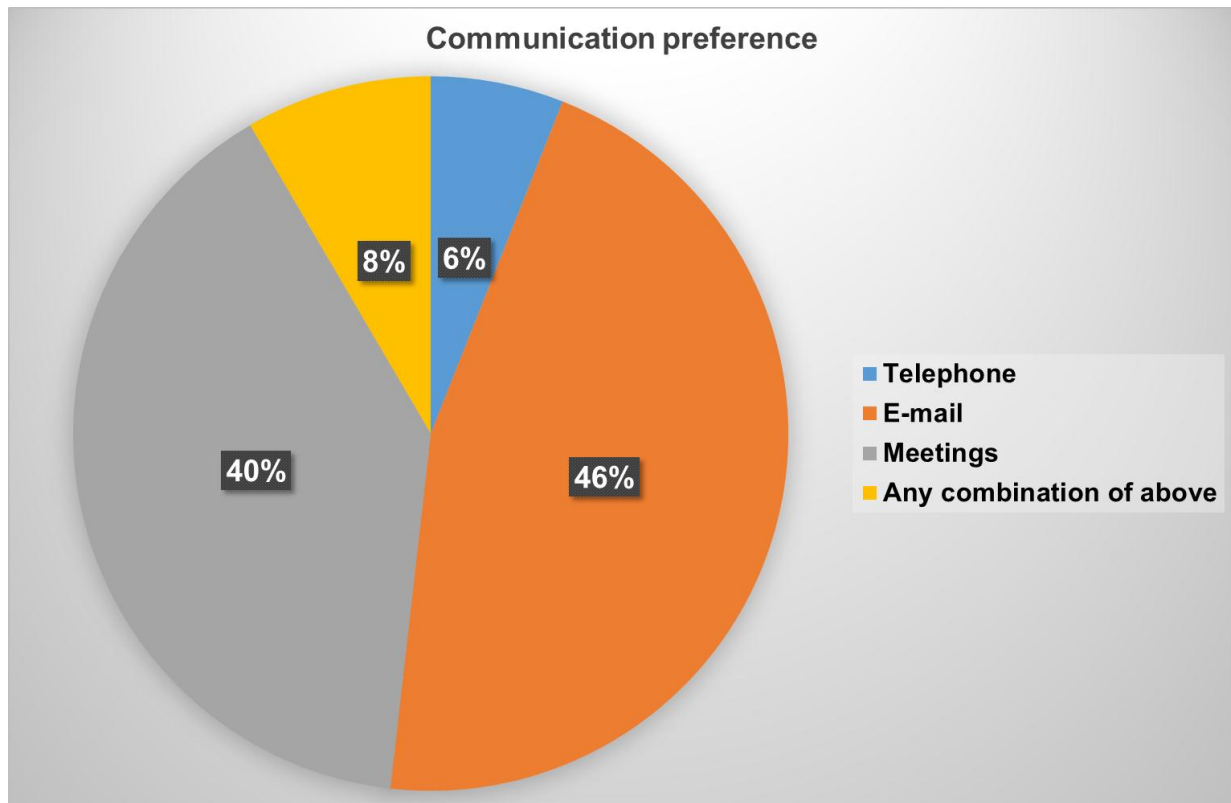
The primary objective of the study was to investigate the impact of interdepartmental communication between the pharmacy and the nursing staff on the cost saving strategies implemented in a South African private acute care hospital. One of the secondary objectives was to identify the key issues associated with interdepartmental communication methods when communicating formulary product changes to be implemented, in a South African private acute care hospital. The study focused specifically on communication from the pharmacy to the nursing staff utilising the products and with 88% of the respondents being registered nurses, most of the respondents were linked to nursing. The other job categories that responded are also involved in nursing practises and their responses can be deemed valid since they also utilise formulary products with the private acute care hospital.



**Figure 4.3** Years appointed in current role

The number of years the respondents have been in their current roles, were on average more than one year, since 76 of the 95 respondents have been in their current roles for longer than a year. A large number of the respondents indicated that they have been in their current roles for many years, some as long as 25 years. The figure shows that 52% of the respondents were in their current roles for longer than 5 years and only 21% were appointed in their roles less than 1 year.

An investment of time is required to implement new knowledge into an organisation (Morténus et al., 2011). Longer-term employees have had more exposure over time to the organisation’s strategies and changes in strategies and can understand their own roles within the organisation’s strategy better (Meritain Health, 2009).



**Figure 4.4** Communication preferences

The respondents showed a preference for communicating via e-mail with 46% indicating e-mail would be the best way for them to receive communication from the pharmacy. Meetings as a platform to get communication was the preferred choice for 40% of the respondents with 6% and 8% choosing telephone conversations and combinations of the communication methods given respectively.

Business communication can be classified as either internal or external, where internal processes involve interdepartmental communication. Many different communication vehicles are available and modern information systems enhances the communication processes within an organisation and help the organisation to communicate effectively with all levels of employees, superior, equivalent or lower levels (Ciobănică & Grecu, 2014). Internal communication is vital and identifying the most suitable vehicle of communication for your organisation will help build a culture of transparency between management and the relevant stakeholders or employees (Mishra, *et al.*, 2014).

The impact of interdepartmental communication on the private acute care hospital's cost saving strategies lead to the identification of two variables: communication and cost saving strategies.

### Communication questions

The following table shows the questions relating to communication and the resulting mean and standard deviation thereof:

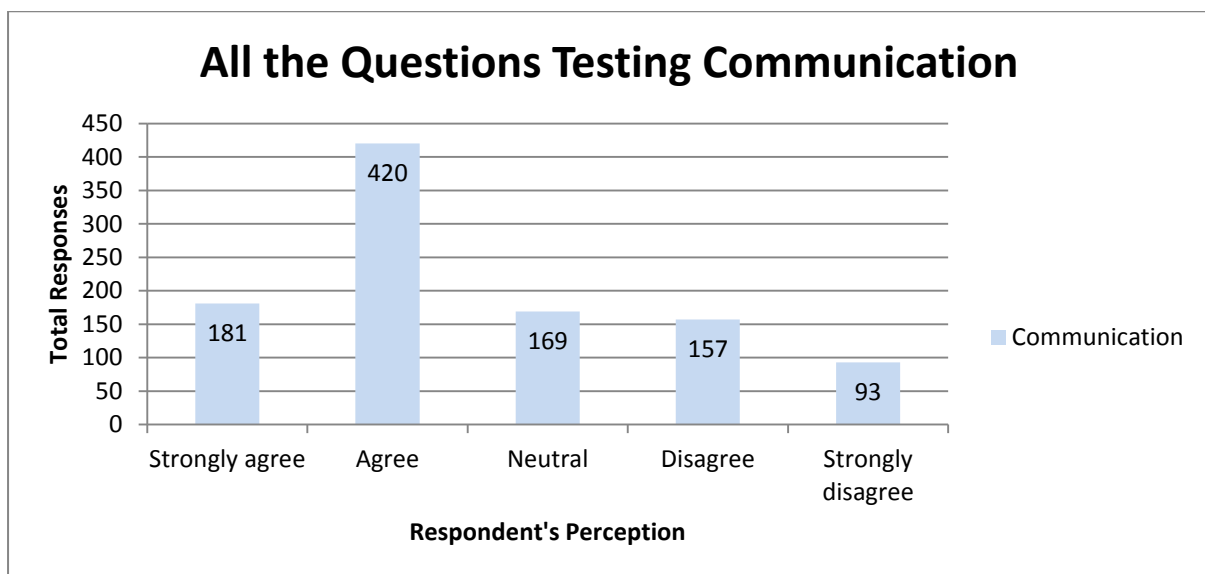
**Table 3** Questions and variables relating to communication

Variables		Mean	Std. Deviation
Communication	Communication with regards to formulary compliance enables me to save costs.	3.678	1.115
	New formulary products and formulary compliance statistics are communicated in a clear and easy to understand manner.	3.184	1.177
	I utilise and visit the hospital's intranet or electronic gateway on many occasions.	2.575	1.216
	I prefer to receive communication from pharmacy regarding formulary products via e-mail.	3.414	1.253
	There are enough opportunities provided for communicating with and related to pharmacy.	3.322	1.280
	I understand the purpose of communication from pharmacy involving formulary product utilisation.	4.000	0.964
	Communication between pharmacy and nursing staff is challenging.	2.172	1.183
	I would prefer communication from pharmacy to be written in the form of communiques, reports or e-mails.	4.207	0.749
	I would prefer communication from pharmacy via graphic or visual elements like tables, graphs and/or picture posters.	3.678	0.970
	Current communication from pharmacy is effective and sufficient.	3.000	1.161
	I would prefer to receive formulary product changes during departmental meetings only.	3.011	1.084

The mean is a general picture of the collected data and measures the central tendency of the observations within the data set. It was calculated by adding the individual observations and dividing the total obtained by the total number of observations (respondents). The dispersion of the data was measured by calculating the standard deviation for each variable. The standard deviation is a measurement useful in indicating whether the distribution seen can be classified as normal; it shows how tightly the various observations are clustered around the mean or average in the set of data. One standard deviation away from the mean accounts for approximately 68 percent of the respondents, two standard deviations away from the mean account for approximately 95 percent of the respondents and three standard

deviations away from the mean account for approximately 99 percent of the respondents. The data collected during this research study was classified as being normal since most of the standard deviations fall within three standard deviations of the mean, upwards of 90% of the observations fall within two standard deviations of the mean and upwards of 50% of the observations fall within one standard deviation of the mean (Sekaran & Bougie, 2013).

All the data pertaining to communication were collated to get an idea of the respondents' perception of the communication process between pharmacy and nursing.



**Figure 4.5** All the responses in total for questions testing communication perceptions

The statements in the questions relating to communication were in most cases agreed on by the respondents, except for the statement about the utilisation of the private acute care hospital's intranet or electronic gateway. The latter question revealed that 29% of the respondents disagreed with the statement and 23.7% strongly disagreed.

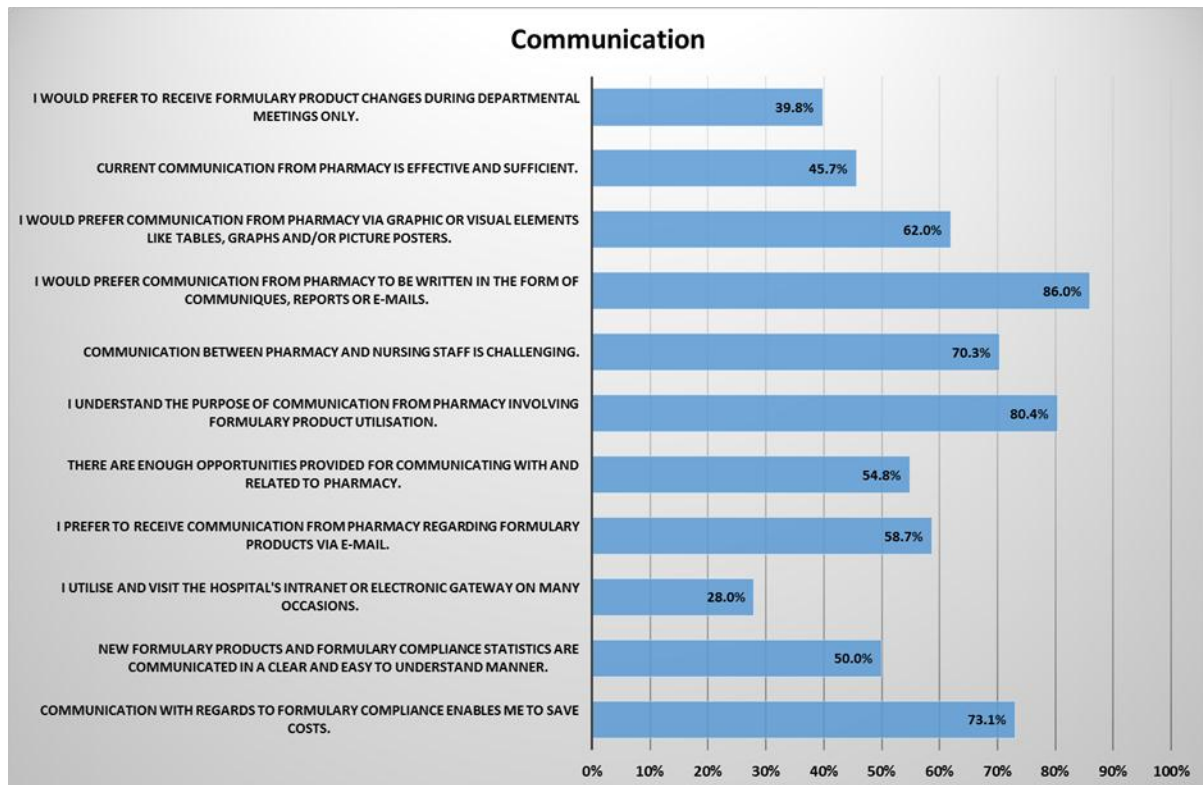


Figure 4.6 Communication: agree and strongly agree

The figure depicting the percentages of the respondents who agreed and strongly agreed with the statements in the questions relating to communication shows that the nursing staff understand the purpose of communication from the pharmacy involving formulary products utilization. They understand that the communication between the pharmacy and nursing is challenging and that the preferred method of communication is written communication in the form of e-mails, communiqués or reports. Only 45.7% of the respondents agreed that the current communication between the pharmacy and nursing is effective and sufficient.

### Cost saving strategy questions

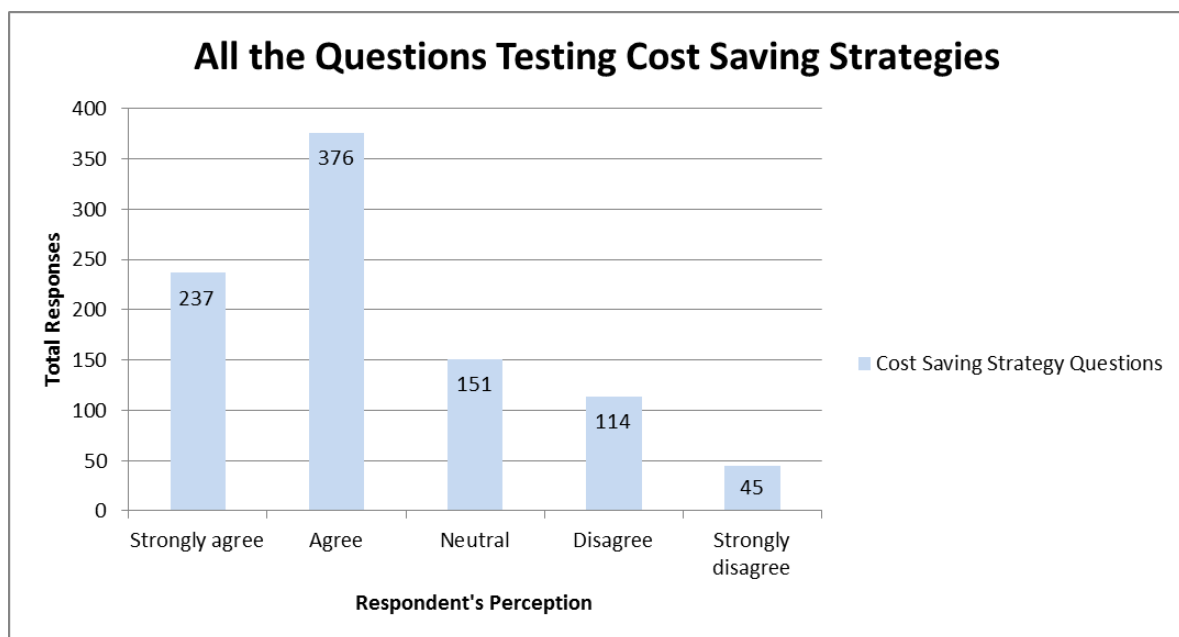
The mean as a general picture of the data collected and a measure of the central tendency of the observations within the data set were also calculated for the collected data to determine cost saving strategy perceptions. This data was also classified as being normal since most of the standard deviations fall within three standard deviations of the mean, upwards of 90% of the observations fall within two standard deviations of the mean and upwards of 50% of the observations fall within one standard deviation of the mean (Sekaran & Bougie, 2013).

The following table shows the questions relating to cost saving strategies and the resulting mean and standard deviation thereof:

**Table 4** Questions and variables relating to cost saving strategies

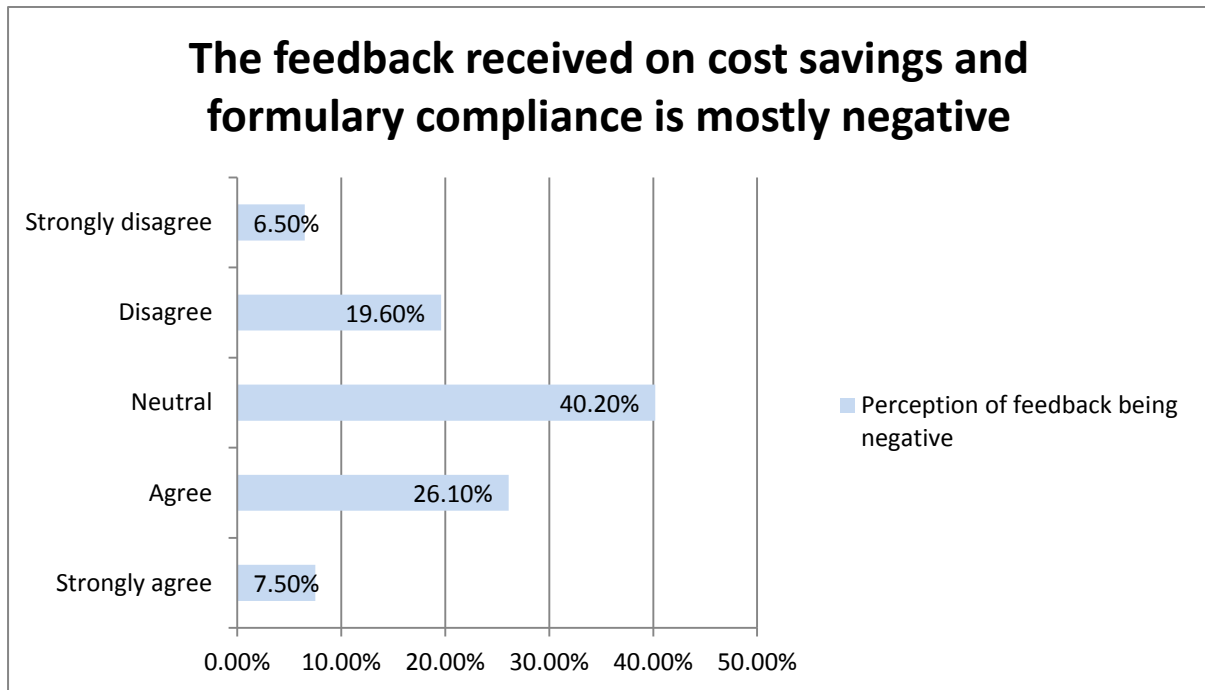
Variables		Mean	Std. Deviation
Cost saving strategies	I understand that cost saving is part of the hospital's strategy to achieve its goal of operating within an environment where medical services are very expensive.	4.635	0.484
	I have knowledge of risk sharing models for example per diem payment structures and/or diagnosis related groupings.	3.588	1.237
	I know what formulary products are and the reason why they are necessary.	4.082	0.916
	Formulary compliance and possible formulary conversion opportunities are discussed at weekly departmental meetings.	3.165	1.194
	I deem the hospital inventory control system and my responsibility to cost items I used on/for patients important.	4.494	0.629
	Communication from pharmacy related to formulary compliance is not applicable to all staff members.	2.929	1.142
	I receive feedback on cost savings and formulary compliance on a regular basis.	3.094	1.098
	The feedback received on cost savings and formulary compliance is mostly negative.	2.906	0.971
	The feedback received on cost savings and formulary compliance helps me to achieve my department's goals.	3.753	0.925
	I am responsible for cost savings in the form of formulary product conversions.	3.953	0.858

All the data pertaining to formulary compliance as a cost saving strategy, were collated to get an idea of the respondents' perception of communication of the formulary products and formulary product changes implemented within the private acute care hospital and to determine whether the respondents understood the reason for and their role in the cost saving strategy.



**Figure 4.7** All the questions testing cost saving strategies

The bulk of respondents agreed or strongly agreed with all the questions about cost saving strategies, except the question stating: “The feedback received on cost savings and formulary compliance is mostly negative”. This question revealed that 40.2% of the respondents perceived the feedback on cost saving strategies and formulary compliance as neutral. It could also indicate that the respondents would rather not state whether they experience the communication as negative.



**Figure 4.8** The feedback received on cost savings and formulary compliance is mostly negative

The figure below shows the percentages of respondents who agreed or strongly agreed with each of the statements in the questions:

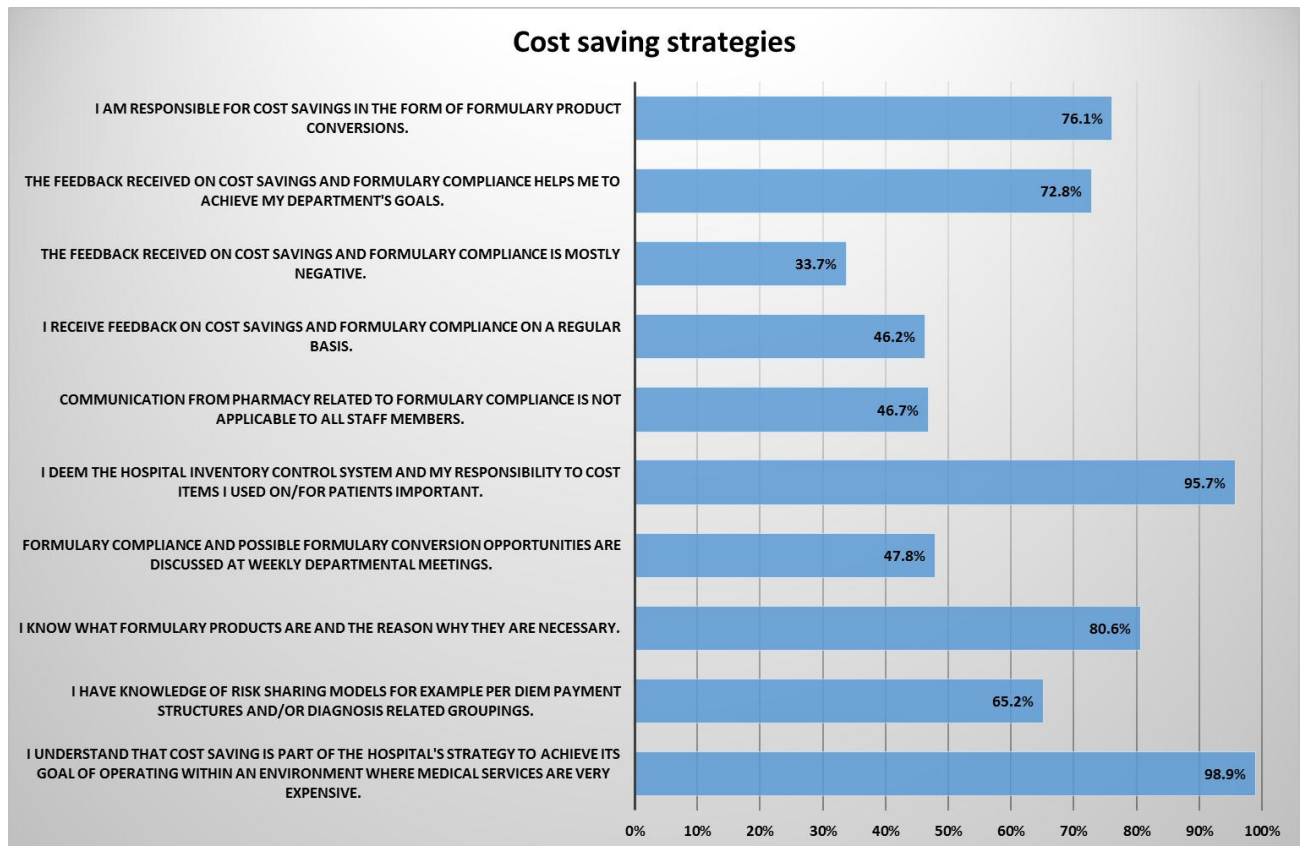


Figure 4.9 Cost saving strategies: agree and strongly agree

On average 87% of the respondents agreed that cost saving strategies are necessary to ensure sustainability, they understand that they are responsible for the success of the strategies and they understand the importance of inventory control and formulary products in achieving the private acute care hospital's cost saving strategies. The data also reveals that the feedback given to the nursing staff by the pharmacy with regards to the cost saving strategies are not always regular, applicable to all staff members or discussed at weekly departmental meetings since only 53% on average agreed on these questions.

## Analysis of data

In order to determine the significant differences, if any, amongst the years the respondents have been appointed in their current roles, an analysis of variance (ANOVA) was done.

The following table shows the categories for years appointed in current roles for each of the two variables:

**Table 5** Categories relating to variables and the corresponding mean and standard deviation values

Variables	Categories	N	Mean	Std. Deviation
Communication	Less than 1 year	20	37.50	5.23
	Between 1 and 5 years	25	38.20	4.48
	More than 5 years	48	34.02	7.13
Cost Saving Strategies	Less than 1 year	20	35.55	3.83
	Between 1 and 5 years	25	37.24	4.64
	More than 5 years	48	35.98	5.38

It can be deduced that the data distribution is normal according to the calculated standard deviations.

**Table 6** ANOVA's F-statistics and p-values for each variable

Variables	F statistic	p-value
Communication	5.81	0.00
Cost Saving Strategies	0.79	0.46

A p-value of 0.05/0.1 or less indicates that there is a significant difference between the categories. The p-value for communication is 0.00 and thus less than 0.1. This indicates that there is a significant difference in communication perceptions by the number of years that the respondents are appointed in their current roles.

The average or mean for respondents who were appointed in their roles for longer than 5 years was less than the mean of respondents who were appointed for a period of up to 5 years (see table 5). This shows that the longer the respondents were appointed in their current roles, the better their perception of communication was.

The p-value for cost saving strategies is 0.46 and greater than 0.1. This indicates that there is no significant difference in the knowledge or perception of cost saving strategies by the number of years that the respondents are appointed in their current roles.

Since the ANOVA results showed that a significant difference in communication perceptions exists, a post-hoc test Turkey HSD was done to determine just how significant the differences were.

**Table 7** P-values calculate with Turkey HSD

Dependent Variable	Years Appointed		Mean Difference	p-value
Communication	Less than 1 year	More than 5 years	3.479	0.090
	Between 1 and 5 years	More than 5 years	4.179	0.019

There is a significant variance between the respondents who have been appointed for less than one year compared to those who were appointed for more than five years as well as a significant difference between respondents who were appointed between one and five years and those appointed longer than five years.

The next step was to test whether or not a relationship exists between communication and cost saving strategies. A correlation analysis was done to determine the existence of a relationship between communication and cost saving strategies. Looking at the p-value (which is less than 0.1 and indicative of an existing relationship) and comparing it to the correlation coefficient, will clarify if the relationship is positive or negative. A positive relationship between two variables will have a positive correlation coefficient ranging between 0 and 1, with a value closer to 1 showing a stronger relationship. On the other hand, a negative correlation coefficient ranging between -1 and 0 can be associated with a negative relationship (the stronger negative relationship leaning towards -1).

The following table shows the correlation coefficient and p-value used to determine the type of relationship:

**Table 8** Correlation coefficient and p-value determining the type of relationship between variables

Variables		Correlation Coefficient	p-value
Communication	Cost saving strategies	0.487	0.000

The p-value of 0.00 confirms a relationship exists. The correlation coefficient value of 0.487 is greater than 0 and thus shows that a positive relationship exists between the two variables. This means that positive communication can be associated with positive cost saving strategies.

After determining that a significant positive relationship exists between communication and cost saving strategies, a regression equation was estimated with communication being the independent variable and cost saving strategies being the dependent variable. The regression was necessary to determine the impact of communication on cost saving strategies. The p-values of each coefficient were compared with a significance level of 0.1. With the p-value less than 0.1, it was concluded that communication has an effect on cost saving strategies.

**Table 9** Regression analysis

DV: Cost saving	Coefficients	t statistic	p-value
Intercept	22.021	8.793	0.000
Communication	0.396	5.760	0.000
R Square	0.267		

The p-value for the coefficient of communication is less than 0.1, meaning that communication has a significant impact on cost saving strategies. The coefficient of communication is 0.396 meaning that communication has a positive impact on cost saving strategies. As a result, these values show that an improvement in the interdepartmental communication will lead to an improvement in cost saving strategies.

The R-square measures the variation of the dependant variable, cost saving strategies, which is explained by the variation in the independent variable, communication. The closer the R-square value is to one, the better. Interpreting R-square requires changing it to a percentage by multiplying it with a hundred. In this case the R-square has a value of 0.267 meaning that 26.7% of the variation in cost saving strategies is explained by the variation in interdepartmental communication.

## Open-ended questions

Three open-ended questions were included in the questionnaire:

- I perceive the following as barriers to communication between the pharmacy and my department;
- The current methods of communication between the pharmacy and my department are;
- Any other comments that you would like to add about the issues raised in this questionnaire?

Barriers to effective communication once identified and dealt with can increase communication competence. Communication competence is defined as the ability to communicate effectively and appropriately (McKinley & Perino, 2013).

The first open-ended question related to the perceived barriers between pharmacy and the respondent's department.

The following answers were observed:

- The perceived barrier that was mentioned the most was that communication is not done frequently and timeously. The respondent's experience that information only reaches them after it was actually needed. Internal communication should equip employees with the information needed to fulfil their jobs (Mishra et al., 2014). The fact that nursing staff work different shifts and have days on which they are not scheduled to work at all was also seen as a barrier, information does not reach all the staff members of a department simultaneously and takes time to filter through to all.
- High ward activities and high theatre case volumes was also perceived as a barrier. For nursing staff their patients and patient care comes first, one respondent stated that the pharmacy has a disregard for patient care since the communication methods and frequency does not consider their situation. The pharmacy and nursing experience time differently, pharmacy has many financial outputs to manage as part of the private acute care hospital's strategy and these outputs require adherence to deadlines and fiscal year requirements which is not necessarily part of nursing's outputs (Ballard & Seibold, 2006).

- Language was also mentioned as a barrier to communication. If any communication is unclear or incoherent, some of the qualities of the art of communication are lost (Agarwal & Rode, 2009). Further to this, the perception that the pharmacy does not explain the reasons behind some of the strategies to be implemented adds to the negativity associated with communication between pharmacy and nursing.
- Respondents' prefer meetings as a communication vehicle and experience the lack of personal interaction with the pharmacy staff members as a barrier. Even though the nursing staff have departmental meetings, no pharmacy staff members attend those meetings. The wording one respondent used was "we function in silos" and they hardly ever have someone from the pharmacy visit their department for specifically discussing cost saving strategies.
- Attitude was also identified as a barrier to communication. Since none of the respondents who replied with 'attitude' as a barrier gave detailed explanations of what they meant with attitude, it can go either way. The nursing staff might have a negative attitude towards cost saving strategies or the pharmacy might not communicate clearly, comprehensively, concisely, concretely, courteously, correctly or coherently and that can be perceived as an attitude barrier (Agarwal & Rode, 2009).
- The last barrier the nursing staff perceived was that not all of them have access to a computer. This means that they cannot receive and read communication via e-mails and they cannot access the private hospital's electronic intranet site or gateway as a means of communication.

The second open-ended question was meant to test the respondents' perception of current communication vehicles used between the pharmacy and the nursing staff in the private acute care hospital.

The respondents' answers indicated that they mostly receive information during their departmental meetings, a few of the nursing staff members indicated that they have access to e-mails and receive communication electronically. Interestingly, none of the staff members answered that they use the private acute care hospital's intranet facility. What was also mentioned was the fact that communication is between the

pharmacy and the unit managers (and sometimes the departments' stock controllers) only, disregarding the rest of the nursing staff in the different departments.

The final question entertaining any other comments included suggestions specifically with regards to current formulary products as well as a few suggestions on how the pharmacy can communicate cost saving strategies better. These suggestions included newsletters, in-service training on cost saving strategies and departmental visits to be scheduled and done by the pharmacy staff.

## **Discussion of results**

The response rate for the completion of the questionnaire was 69.85% - a very good response rate supporting the validity and representation of the questionnaire. Reliability tests confirmed the validity of the data.

Nominal questions determined that the respondents were mainly registered nurses (88%) and that all the respondents who completed the questionnaires were involved in nursing practises. Furthermore, the number of years the respondents have been appointed in their current roles were investigated in addition to the respondents' communication preferences.

Analysis of the data showed that respondents on average agreed that communication between the pharmacy and nursing is purposeful but that the communication process has some challenges. At 45.7%, less than half of the respondents agreed that communication between the pharmacy and nursing is effective and sufficient.

Cost saving strategies, particularly the use of a formulary list of products, as part of the private acute care hospital's strategy to achieve sustainability was implemented after 2006 and had been communicated throughout the business since its birth. Analysis of the data confirmed that the nursing staff are aware of the cost saving strategies, that they understand the reason for the cost saving strategies' implementation and that they too are responsible for the successful implementation of the cost saving strategies.

An analysis of variance revealed that there is a significant difference between the perceptions of communication for nursing staff appointed less than 5 years versus nursing staff appointed longer than 5 years. Nursing staff who have been in their current roles for longer than 5 years perceive communication to be better. The perception of cost saving strategies however does not significantly differ between nursing staff appointed for less than 5 years versus nursing staff appointed for longer than 5 years.

A correlation analysis determined that a significant positive relationship exists between the two variables; communication and cost saving strategies. A regression equation was estimated with communication flagged as the independent variable and cost saving strategies flagged as the dependant variable. This confirmed the existence of a significant positive relationship and indicated that communication has a positive impact on cost saving strategies. Effective and sufficient communication will result in an improvement of the implementation and success of cost saving strategies within the private acute care hospital.

The answers observed for the perceived barriers to communication between the pharmacy and nursing indicated the following possible barriers:

- Communication is perceived to be infrequent and not being done timeously
- High ward activities and high theatre case volumes impede communication
- Language differences can hinder communication
- A lack of personal interaction with pharmacy staff
- Attitude of either the pharmacy staff or the nursing staff
- The lack of computer access

The current communication vehicles used by the pharmacy to communicate with the nursing staff was perceived to be mostly meetings and to a lesser degree (depending on computer access) electronic communication by means of e-mails. A few of the respondents commented that the pharmacy communicates with the unit managers only thus not taking the rest of the nursing staff into consideration.

As a concluding question, the respondents were asked to comment or give suggestions on how to improve communication of cost saving strategies between the pharmacy and nursing. They indicated that newsletters, in-service training on cost

saving strategies and scheduled pharmacy staff visits to the different nursing departments might enhance the current communication process between the pharmacy and nursing.

## **Conclusion**

In this chapter the results of the collected data and its analysis was discussed. The results showed that interdepartmental communication does have an impact on cost saving strategies and that a positive relationship exists between interdepartmental communication and cost saving strategies.

Key issues associated with interdepartmental communication methods between the pharmacy and nursing were identified, exciting discoveries were made that can enhance interdepartmental communication and in turn can surpass the current success rate of cost saving strategies within the South African private acute care hospital.

# CHAPTER 5

## Introduction

Interdepartmental communication between the pharmacy and nursing within the South African private acute care hospital is the main avenue being used to communicate cost saving strategies as part of the business' strategies, goals and objectives. The adequacy of current communication vehicles used and the effect of said communication vehicles on cost saving strategies were investigated in order to determine what key issues hinder the success of cost saving strategies. In this chapter, conclusions will be made and based on these conclusions; some recommendations will be made in order to positively contribute to the successful implementation of cost saving strategies within the private acute care hospital.

## Conclusion to the study

The objectives of the study were as follows:

- The primary objective:–
  - To investigate the impact of interdepartmental communication between the pharmacy and the nursing staff on the cost saving strategies implemented in a South African private acute care hospital.
- The Secondary objectives:–
  - To examine the current interdepartmental communication methods in the private acute care hospital.
  - To determine whether current interdepartmental communication methods are perceived to be sufficient to result in successful cost saving strategies.
  - To determine the challenges associated with the current interdepartmental communication methods.
  - To identify the key issues associated with interdepartmental communication methods when communicating formulary product changes to be implemented

in the private acute care hospital, focusing on communication from the pharmacy to the nursing staff utilising the products

1. To achieve the primary objective, the impact of communication between the pharmacy and nursing on cost saving strategies were investigated in an objective manner. A questionnaire was developed, the data obtained was analysed and findings were derived from the analysis.
2. The outcome of the investigation was that interdepartmental communication has a significant impact on the success of cost saving strategies. Furthermore, the relationship between interdepartmental communication and cost saving strategies proved to be positive. Better interdepartmental communication (between the pharmacy and nursing) of formulary products and formulary changes will result in better formulary compliance and cost savings for the private acute care hospital.
3. Current interdepartmental communication methods within the South African private acute care hospital upon investigation included discussions during departmental meetings, electronic communication sent via e-mails and direct communication from the pharmacy with the relevant unit managers only, thereby excluding some of the nursing staff. Given the availability of an electronic intranet or gateway where information and communication can be uploaded, it was surprising to find that none of the nursing staff mentioned the intranet as a communication vehicle or process.
4. Less than half of the nursing staff indicated that they perceive the communication between the pharmacy and nursing as sufficient to result in successful cost saving strategy implementation.

The challenges or barriers associated with the current interdepartmental processes were identified. Communication was perceived as infrequent and not timeous; nursing staff experience high ward and theatre activities, which impedes the communication processes, language differences play a role in communication processes and a lack of personal interaction between the pharmacy and nursing affects communication. The attitude of pharmacy staff and/or nursing staff and the fact that not all of the nursing staff has computer access also negatively influences interdepartmental communication.

Overconfidence refers to a prejudiced way of evaluating a situation. Overconfidence results in the misjudgement of values, opinions, beliefs or abilities. Given the objective parameters of this study, the effect of overconfidence may be present and there will always be room for improvement (Moore & Healy, 2008).

The inclusion of hospital administration staff or night duty staff may result in different conclusions, while simplifying the questionnaire to also include lower levels of nursing staff may result in different conclusions.

## **Recommendations**

The data analysis proved that a positive relationship exists between interdepartmental communication and the successful implementation of cost saving strategies, recommending possible ways to enhance interdepartmental communication will inadvertently lead to more success with cost saving strategies and its implementation.

### **Computer access**

The South African private acute care hospital developed and implemented an electronic intranet or gateway where all the relevant information with regards to policies, procedures and protocols are published; where information with regard to human resource processes are available and where the strategies, goals and objectives of the business can be viewed. Currently only some of the staff members have access to a computer, resulting in plenty of information being unavailable. Whilst the business procured information screens for the public areas the staff members frequently visit, it is not an option to display cost saving strategies and formulary product choices on these screens as it is sensitive information.

The recommendation is to have one computer per unit in a cubicle or small office area where the staff members can access the intranet during their tea breaks, lunch breaks or quieter times in their units. With access to the intranet, cost saving strategies can be communicated in a confidential manner and all the other information that will enable staff members to fulfil their duties optimally will be available at the press of a button. Staff members are already issued with a personnel number upon employment which can be used as a login with the option to create a

user password. This will guarantee that only staff members working for the private acute care hospital have access to the sensitive and confidential information. This solution will speak to 2 of the perceived barriers – access to computers and utilising quiet times between times of high activities, hence improving communication.

### **Pharmacy ward rounds**

Pharmacists are required by South African law to balance and check all schedule 5 and 6 medication within the pharmacy or facility they work in every 3 months (Republic of South Africa, 2014). In addition to these compulsory ward rounds, the private acute care hospital includes monthly ward rounds throughout the hospital as part of their quality management systems.

These audit-based ward rounds are excellent opportunities to discuss cost saving strategies with each ward. In doing so, the relationship between the pharmacy and the nursing staff will also grow, attitudes will most likely improve and cost saving strategies will develop as the communication process progresses.

However, the pharmacists must take care not to provide too much information at any one time; they must focus on one or two formulary items per ward or unit and rather give clear, concise and correct information. In-service training can also be incorporated into these ward rounds. When the nursing staff better understand the reasoning behind the cost saving strategies and know how they can positively influence the successful implementation of the cost saving strategies, better results will be seen.

### **Limitations of the study**

Gender was not included in the nominal questions. Nursing staff are predominantly female and irrespective of the nursing staff's gender, the results would not have differed since the job descriptions of male and female nursing staff is exactly the same and they have the same exposure to interdepartmental communication processes with regards to cost saving strategies.

The fact that the respondents were all day shift workers might be identified as a limitation but one can argue that night nursing staff does not administer nearly as

much medication as their counterparts on the day shift and most of the procedures done within the private acute care hospital are done during the day shift.

The study was conducted in one South African private acute care hospital. Different hospitals might have different outcomes for the same study.

## Conclusion

This research study aimed to identify the issues that impede interdepartmental communication between the pharmacy and nursing staff and in turn cause cost saving strategies to fail or not be optimally successful. These issues were identified and created a better understanding of the perceived challenges in communication the nursing staff experience in the private acute care hospital.

The recommendations, once implemented, will contribute to better communication of cost saving strategies between the pharmacy and nursing and better communication will result in better cost saving strategy implementation.

Future research can focus on the private acute care hospital's administration staff and/or night duty staff to determine their perceptions of challenges in interdepartmental communication.

I am concluding with the following thought:-

*“Forget the cost saving strategies for a minute and consider the impact better interdepartmental communication might have on other areas within the private acute care hospital...think better patient care, optimal antibiotic usage and antimicrobial stewardship...the possibilities are endless.” (Cloete, 2016).*

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# ADDENDUM 1

## Questionnaire

**Dear Participant,**

This questionnaire is designed to examine the impact of interdepartmental communication on cost saving strategies within a South African private acute care hospital. The information you will provide will greatly assist me in better understanding the interdepartmental communication structures and barriers you experience. This questionnaire will reflect your opinion and I request you to respond honestly and frankly. All your responses will be kept strictly confidential. The questionnaires will not be made available to anyone other than the researcher and the team involved in the statistical analysis. Thank you very much for your time and cooperation. I appreciate and value your contribution.

**Cordially,**

**Lorinda Cloete (B Pharm);** Cell Phone: +27 72 832 1936; E-mail: [lorinda.cloete@lifehealthcare.co.za](mailto:lorinda.cloete@lifehealthcare.co.za)

QUESTIONNAIRE NUMBER _____						
<b>a</b>	In which department do you work?					
<b>b</b>	What is your current job description?					
<b>c</b>	How long have you been appointed in your current role?					
Question Number	Question	Strongly agree	Agree	Neither Disagree nor Agree	Disagree	Strongly Disagree
1	I understand that cost saving is part of the hospital's strategy to achieve its goal of operating within an environment where medical services are very expensive.					
2	I have knowledge of risk sharing models for example per diem payment structures and/or diagnosis related groupings.					
3	I know what formulary products are and the reason why they are necessary.					
4	Formulary compliance and possible formulary conversion opportunities are discussed at weekly departmental meetings.					
5	Communication with regards to formulary compliance enables me to save costs.					
6	New formulary products and formulary compliance statistics are communicated in a clear and easy to understand manner.					
7	I utilise and visit the hospital's intranet or electronic gateway on many occasions.					
8	I prefer to receive communication from pharmacy regarding formulary products via e-mail.					
9	I deem the hospital inventory control system and my responsibility to cost items I used on/for patients important.					
10	There are enough opportunities provided for communicating with and related to pharmacy.					
11	I understand the purpose of communication from pharmacy involving formulary product utilisation.					
12	Communication between pharmacy and nursing staff is challenging.					
13	Communication from pharmacy related to formulary compliance is not applicable to all staff members.					
14	I receive feedback on cost savings and formulary compliance on a regular basis.					
15	The feedback received on cost savings and formulary compliance is mostly negative.					
16	The feedback received on cost savings and formulary compliance helps me to achieve my department's goals.					
17	I would prefer communication from pharmacy to be written in the form of communiques, reports or e-mails.					
18	I would prefer communication from pharmacy via graphic or visual elements like tables, graphs and/or picture posters.					
19	Current communication from pharmacy is effective and sufficient.					

20	I would prefer to receive formulary product changes during departmental meetings only.					
21	I am responsible for cost savings in the form of formulary product conversions.					
22	I prefer communication regarding formulary conversions via the following method (mark only one):	Telephone				
E-mail						
Meetings						
23	I perceive the following as barriers to communication between pharmacy and my department:					
24	The current methods of communication between pharmacy and my department are:					
25	Any other comments that you would like to add about the issues raised in this questionnaire?					

# ADDENDUM 2

## Ethical Clearance – South African Private Healthcare Company

!R!PSRC100;EXIT;!R!MTYP99;EXIT;!R!spsz8;stm0;exit;



05 September 2016

**ATTENTION:** Lorinda Cloete

**SUBJECT:** APPLICATION TO CONDUCT RESEARCH

**TITLE:** The impact of interdepartmental communication on cost saving strategies in a South African private acute care hospital

Our previous correspondence refers.

The Research Ethics Committee hereby conditionally approves your request.  
Approval number: 20160905-01. Valid until 2017/09/30.

The approval is conditional to your agreement on the following provisos:

1. You must request permission (in writing) from the Hospital Manager of the [redacted] facility in which you intend conducting your research, accompanied by this letter.
2. [redacted] will not be liable for any costs incurred during or related to this study.
3. Should patient or institutional confidentiality be compromised, [redacted] has the right to withdraw the permission and take legal action.
4. The researcher will provide the Research Ethics Committee with an update on the progress of the study every four months.
5. An electronic copy of the final research report is submitted to the [redacted] Research Ethics Committee *prior* to publication.
6. No direct reference is made to [redacted] or its various facilities in the research report or any publications thereafter.
7. The Company and its facilities are not in any way identifiable in the study.
8. On completion of the degree, an electronic (pdf) copy of the research report will be provided to [redacted]. This copy will be uploaded to the institutional repository.
9. Kindly clear copy-right issues with your supervisor and/or Higher Education Institution prior to accepting these terms and conditions.

Please sign this letter as indicated below and return to the sender within 5 working days:

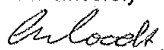
I, L Cloete, hereby agree to the provisos (points 1-9) as listed above.

Signature: 

Date: 6/9/2016

We wish you the best in your studies and look forward to the final results.

Yours sincerely



**Anna Roodt**  
on behalf of the Research Ethics Committee.



# ADDENDUM 3

## Ethical Clearance – University of the Free State



Faculty of Economic and Management Sciences

01-Sep-2016

Dear Mrs Lorinda Cloete

**Ethics Clearance: The impact of interdepartmental communication on cost saving strategies in a South African private acute care hospital.**

Principal Investigator: Mrs Lorinda Cloete

Department: Business Management (Bloemfontein Campus)

### APPLICATION APPROVED

With reference to your application for ethical clearance with the Faculty of Economic & Management Sciences, I am pleased to inform you on behalf of the Ethics Committee of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence is: **UFS-HSD2016/0724**

This ethical clearance number is valid from **31-Aug-2016** to **31-Aug-2019**. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours Sincerely

Dr. Petrus Nel

Chairperson: Ethics Committee Faculty of Economic & Management Sciences

Economics Ethics Committee

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