

**A Study of Relationship Between  
Emotional Intelligence and Leaders In  
the Chinese Context**

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## Abstract

Emotional intelligence has been a popular topic around the world after Goleman (1995) explained it in a new way, that is EI is as twice important as technical skills, IQ, or other skills, and effectiveness of a person is associated with the level of EI. Goleman is also the first person who connects EI with leaders in a workplace (Goleman 2004a). To have further explanation, the higher rank of a position you have in the workplace, the greater level of EI you will have. The level of EI might become a criterion when promoting an employee to the management level, as EI can predict personal success in the workplace (Goleman 1999). To investigate this it was decided to do a research in China.

Population of this research was divided into four different ranks of positions, they were the level of Executives, the level of Department Managers, the level of Supervisors and the level of non-management employees. Wong's Emotional Intelligence Scales were sent to them in order to get their EI scores. Comparison and analysis were carried out to answer the research questions through these four levels.

The structured interviews were also the strategy to investigate that whether EI could be the criterion when promoting. A number of employees who were at management level were questioned to ascertain their thoughts in what competencies would be required for promotion.

With the responses, from the questionnaires, the interviews and the related literature review the study findings revealed that the higher position you were in your workplace, the higher level of EI you had. Besides the level of EI also connected with the age, the years of working, and the educational background, and it did not have close connection with gender. The findings also revealed that as EI was still a new concept in China, managers would not tend to take it as the criterion when promoting. Performance evaluation was still the main criterion for major managers concerning promotion.

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## Chapter 1. Introduction

### 1.1 Background

Emotional Intelligence (EI) is a young concept in the academia, which was firstly put forth by Salovey and Mayer (1990) in their influential article called *Emotional Intelligence*. In this article, Salovey and Mayer (1990) put forth the definition of EI after defining the terms of emotions and intelligence separately. A hierarchical model of EI was also formulated, which comprised four distinct components: appraisal and expression of emotion in the self, appraisal and expression of emotion in others, regulation of emotions, and utilization of emotional information in thinking and motivating (Salovey & Mayer 1990).

Later Daniel Goleman (1995) popularized this topic in his prominent book called *Emotional Intelligence*, which brought attention to the worldwide audience. In this book, Goleman (1995) crafted five factors related to effective emotional intelligence including self-awareness, motivation, self-regulation, empathy, and social skills. With the emergence of his book called *Working with Emotional Intelligence*, Goleman (1999) described these five factors deeply to personal and organizational success.

Also Goleman was the first person who linked EI with successful leadership in business and demonstrated that EI was the key element to differentiate between the great leaders and average leaders (Goleman 2004a).

Daniel Goleman in his article, *What Makes a Leader?* concluded the power of the emotional intelligence.

*'when I calculated the ratio of technical skills, IQ, and emotional intelligence as ingredients of excellent performance, emotional intelligence proved to be twice as important as the others for jobs at all levels. Moreover, my analysis showed that emotional intelligence played an increasingly important role at the highest levels of the company, where differences in technical skills are of negligible importance. In other words, the higher the rank of a person considered to be a star performer, the more emotional intelligence capabilities showed up as the reason for his or her effectiveness'*

Goleman 2004a, p 2

EI has been gained the worldwide attention by the leaders of the organizations after Goleman put forward the theory of EI. There was a study done in a cigarette factory in China, which found that the EI could predict the employees' performance (Law, Wong & Song, 2004). This findings also proved that EI could predict workplace success potentially (Goleman, 1999).

There is no doubt that EI is the real measure for distinguishing the skills and capabilities of superior leaders (Pool & Cotton, 2004). In the recent years EI has become an essential topic in social and organizational science (Salovey & Mayer 1997) and the influence of EI has been increased dramatically in the academic community (Emmerling & Goleman 2003). Therefore, the study for EI has become prevalent in the academia.

The influential research implemented by Goleman, Boyatzis and McKee (2001) found that the leaders' mood and behaviors affected the moods and behaviors of everyone else and levels of leaders' emotional intelligence created a different working environment. More specifically, leaders' mood and the attendant behaviors can set off a chain reaction with the subordinates as the 'emotions are contagious' (Sutto 2002, p 5). In other words, if a leader has a good mood and this

good mood travels to bottom-line, the followers will feel this good mood and in turn they will behave the same way. As a result, the whole organization will have climates in which information sharing, mutual trust, learning, and healthy competition so that the organizational performance will be increased. In order to create a harmonious working environment, it requires 'an executive to determine, through reflective analysis, how his emotional leadership drives the moods and actions of the organization, and then, with equal discipline, to adjust his behavior accordingly' (Goleman, et al 2001, p 4). Since the EI is very important to maintain a good relationship through developing open communication and trust-building among employees and leaders, Yammarino and Atwater (1997) suggest that leaders possess their EI to create a healthy working climate, and it further can develop the EI at the subordinates' levels.

As leaders' emotions are very important for the organizational productivity, emotionally intelligent leaders have become more critical for the organizational development. A lot of researches and studies have been done on the relationship between the level of EI and executives or managers in the academic community or business setting. One of the study done by Brienza (2006) indicated that highest performing managers have higher emotional intelligence than other managers, which proved Goleman's EI theory in leadership success.

## **1.2 A Brief History of Research about Emotional Intelligence**

The earliest study on EI was conducted by Thorndike (1920) in the 1920s who theorized three types of intelligence including social, mechanic and abstract and indicated that social intelligence was a part of general intelligence, which was the ability to manage and understand people.

Wechsler (1943) continued to challenge the traditional concept on the intelligence and proposed that non-intellective factors were essential which were necessary to predict the person's ability to be successful in life. Leeper (1948) made a progress based on Wechsler's concept. He found that emotions could direct personal activities, and proposed that emotions produced organization rather than disorganization and also contributed to the logical thought.

Gardner (1983) categorized a number of different intelligence, including spatial/visual, linguistic, musical, intrapersonal, bodily/kinaesthetic, interpersonal, and logical. Among these intelligence, intrapersonal and interpersonal are considered as equally important as the intelligence measured by IQ. Intrapersonal intelligence is the ability to have self-management including achievement, optimism, controlling your own emotions and adaptability. Interpersonal intelligence is the ability to have awareness of other's emotions including empathy, influence, collaboration and managing conflict. Also Gardner (1998) added two more intelligence which were naturalist and existential intelligence.

Sternberg (1985) theorized three distinct intelligence types: componential, experiential, and contextual. He indicated that people who had high in componential intelligence could think analytically and critically. Experiential intelligence focused on the ability to formulate new ideas, which implied that people high in this area were decisive, goal-achieved, and adaptive to the new situations. Contextual intelligence emphasized on the practical and social aspects of human intelligence. Sternberg (1985, p 327) pointed that 'intelligence is not a single thing. It comprises a very wide array of cognitive and other skills'.

Salovey and Mayer (1990) coined the term Emotional Intelligence and defined it. Salovey and Mayer (1990) also emphasized that the expression of emotions were different from the content of emotional intelligence in actual life.

Bar-on (1997) coined the term of 'Emotional Quotient' (EQ) which was used to test the general intelligence. He also created the emotional intelligence inventory which was called the 'BarOn Emotional Quotient Inventory' (EQ-i) (Bar-On 1997). The EQ-i inventory shows that individual's abilities to cope with pressure can be assessed. Goleman (1995) firstly valued the EI in business and education, and indicated that EI might be the best predictor of success in life, which had a huge impact around the world. Later Goleman (1999) further described the importance of emotional intelligence to personal and organizational success and outlined a set of competences for leaders. Since then, the huge amount of different models, theories, books or tests that relate to EI have emerged all over the world.

### **1.3 The Research Aim and Questions**

The literature review in this field has showed the close connection between the level of EI and leadership, which is that 'EI can make the difference between good and poor leaders' (Carmeli 2003, p. 792). It implies that the higher level of EI you have, the more successful you will be. Most of the researches have been done on the executives or managers and their level of EI in the business setting, and few researches have been done on the bottom-line employees and their level of EI. The aim of this research is to examine and analyze the level of the EI on people with different level of positions (including bottom-line employees) in the business organizations.

Research will be carried out through three different small-medium size companies that are located in China. The level of positions of these three companies will be summarized as the level of Executives, the level of Department Managers, the level of Supervisors and the level of non-management employees. Data will be examined and analyzed the level of EI through these four levels. Therefore the research questions will be

RQ 1 How the EI scores go through these four levels and what it implies?

RQ 2 Because EI can predict the personal success in work (Goleman 1999), can level of EI be a criterion when promoting a person to management level?

#### **1.4 Structure of the Dissertation**

This dissertation consists five chapters: introduction, literature review, methodology, findings and discussion, and conclusions.

Chapter 1 introduced the area of the proposed research and proposed the research aim and questions. Chapter 2 reviews the literature on the research issues about the correlation between the level of EI and leaders, followed by the discussion of the definition of EI, the Goleman's Five Factors of EI as well as its benefits for the organizations. Chapter 3 introduces the approaches that are employed to conduct the research and discusses how subsequent data is analyzed. Chapter 4 discusses and reports the results of research, detailing the main findings and their relationship to the research questions. Chapter 5 will make conclusions from the data analysis and recommend the future consideration for the EI application in the business setting.

## **1.5 Limitations of Research**

The scope of this research is limited because of the small amount of sample of people to work with. Also, this research will be conducted in China, the knowledge level of EI and the extent of understanding of it may affect the outcome of research. Another limitation may be the content of interviews, as people would not want to talk about their real thoughts about the interview questions. Recording the interview conversation may be another issue when talking about the sensitive issues. Having a limited time to finish this dissertation may affect the quality of the study as there is no time for more deeper study.



## Chapter 2. Literature Review

### 2.1 Emotional Intelligence

As EI has become more and more important for leaders to be successful, people have begun to be interested in this topic and dig into the reason why the level of EI is associated with leaders. This chapter will introduce the works in the literature related to the objectives of this research and explain the theories on the EI, leaders and their relationship. First of all, it begins with what the emotional intelligence is.

#### 2.1.1 The Definitions of Emotional Intelligence

As to the definition of EI, there is no consensus about it in the literature due to the continuing debates or arguments over a number of years (Mayer, Salovey & Caruso 2008). Another reason may be that 'different researchers focus on different skills' (Shipley, Jackson & Segrest 2010, p. 2). For example, some researcher may focus on self-control, while others may focus on empathy. As the concept of EI is not clear, it is difficult to define it as a whole. Whilst there are an increasing number of contributors to add new comments to this field, therefore different definitions of EI have been emerged in the literature. Four major definitions of EI will be presented as followings.

##### **Definition A**

*'the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions'* (Salovey & Mayer 1990, p. 189)

What it can indicate from this definition is that emotional regulation is very important to emotionally intelligent individuals. They understand that 'there are

social rules with regard to emotional display, and regulate their actions according to those rules' (Prati, Douglas, Ferris, Ammeter & Buckley 2003, p 22), and they are self-aware. These abilities can direct them on how to 'order priorities, practice discretion in their actions' (Prati, et al 2003, p 22). This definition also implies that the emotionally intelligent individuals are able to communicate effectively and empathize with others. In turn, these characteristics can allow these individuals to develop cohesive and supportive relationships (Abraham, 1999).

### **Definition B**

*'Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion, the ability to access and/or generate feelings when they facilitate thought, the ability to understand emotion and emotional knowledge, and the ability to regulate emotions to promote emotional and intellectual growth'* (Mayer & Salovey 1997, p 10)

Mayer & Salovey (1997) revised their previous definition of EI (Salovey & Mayer 1990) in their seminal paper on the basis of that the previous definition only focused on the understanding and regulating emotions without considering the feelings. From this definition, four different branches of skills/abilities are presented from the relatively simple abilities to the highest level branch of skills, which are perception, appraisal and expression emotion, emotion's facilitation of thinking, understanding and analyzing emotions, employing emotional knowledge, and reflective regulation of emotion to promote emotional and intellectual growth (Mayer & Salovey 1997). This revised definition includes perception, understanding, and regulation of emotions, which is arguable against other definition of EI that contains the self-motivation, empathy, and interpersonal skills.

### **Definition C**

*'Emotional intelligence is an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures'* (Bar-On 1997, p 14)

This broad definition contains emotional and social competencies, skills that are built on the basis of five clusters below

- ✧ 'the ability to understand emotions as well as express our feelings and ourselves,
- ✧ the ability to understand others' feelings and relate with people,
- ✧ the ability to manage and control our emotions,
- ✧ the ability to manage change and solve problems of an intrapersonal and interpersonal nature,
- ✧ the ability to generate positive mood and be self-motivated' (Bar-on 2007, p 1)

To effectively understand and express oneself well, to have good relationship with others, and to cope with daily pressure, people need to have intrapersonal ability and interpersonal ability (Bar-On 2007) Intrapersonal ability is self-aware, knowing your strengths and weakness and expressing your thoughts smoothly Interpersonal ability is the ability to understand other's emotions, feelings and be able to establish a mutual relationship Emotionally and socially intelligent individuals can combine these two abilities to deal with different situations, solve problems and make decisions as the need arises

#### **Definition D**

*'Emotional Intelligence refers to the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationship'* (Goleman 1999, p 317)

This definition describes 'abilities distinct from, but complementary to, academic intelligence' (Goleman 1999, p 317) and combines 'traits with social behaviors and competencies' (Bratton, Dodd & Brown 2010, p 128), which broadens the definition created by Mayer and Salovey. This definition consists of five dimensions which are defined as follows (Goleman 1999)

- ❖ **Self-awareness** Knowing one's internal states, preferences, resources, and intuitions. It includes emotional awareness, self-assessment, and self-confidence.
- ❖ **Motivation** Emotional tendencies that guide or facilitate reaching goals. It includes achievement drive, commitment, initiative, and optimism.
- ❖ **Self-regulation** Managing one's internal states, impulses and resources. It includes self-control, trustworthiness, conscientiousness, adaptability, and innovation.
- ❖ **Empathy** Awareness of others' feelings, needs, and concerns. It includes understanding others, developing others, service orientation, leveraging diversity, and political awareness.
- ❖ **Social Skills** Adeptness at inducing desirable responses in others. It includes influence, communication, conflict management, leadership, change catalyst, building bonds, collaboration and cooperation, and team capabilities.

In order to test the validity of these five factors in emotional intelligence, Behbahani (2011) conducted an empirical analysis of 160 managers and employees across a range of backgrounds and sports industry positions. The findings of this survey, although relatively limited due to their purely quantitative

focus, revealed that there was a direct correlation between emotional intelligence and the capabilities of managers and employees. Further, Behbahani (2011) succeeded in validating all five categories in the Goleman (1999) model, establishing a direct correlation between these factors as a component of emotional intelligence and the capabilities of the surveyed managers and employees. Critical analysis of these findings led Behbahani (2011) to suggest that heightened emotional intelligence may have a direct influence on an individual's career path, stimulating motivation, enhancing information and feedback, and improving innovation and effectiveness. Ultimately, such findings are valuable definitive evidence that can be applied to a wide variety of exploratory research in this field, establishing a firm, validated link between key factors in emotional intelligence that will likely have a direct impact on employee performance.

This model of EI has also been criticized. Some criticisms pointed out that Goleman ignored scientific rigor by conducting empirical research in EI model development (Mayer, Roberts & Barsade 2008). Others criticized that Goleman model of EI exaggerated the regarding benefits (Grubb & McDaniel 2007). Nevertheless, Goleman's model of EI has been continued using widely in the aim of improving the organizational performance.

From above-mentioned definitions of EI, it is easy to conclude that various forms of definitions of EI have arisen in the literature because different researchers focused on the different aspects of EI. Above-mentioned definitions of EI are most influential in the academic literature in the field of EI, but there are still

some other forms of EI definitions emerged. At this point, further study should move forward to have a consensus on the definition of EI (Cote & Miners 2006)

### **2.1.2 Human Brain and Emotional Intelligence**

In order to have a better understanding of EI, it is necessary to know the relationship between human brain and emotions and what it means for EI

There are a number of 'alternative views on emotions' (Bharwaney 2007, p 28) because some psychoanalysts have defined emotions 'either from the point of view of the conditions which bring them about or from the point of view of their consequences' (Plutchik 1991, p 34). In this thesis, Leeper's definition of emotion will be adopted as he suggested that emotions can be conceived of primarily motivating forces and they are processes which 'arouse, sustain and direct activity' (Leeper 1948, p 17)

Emotion actually comes from the Latin verb 'emovare' which means constantly changing and moving (Callahan & McCollum 2002). People always have emotions if they function well. Emotions are primary motivating forces transferring information between body and mind. As a part of EI, it involves competences to control these forces. Emotions are the result of a number of chemical processes that are represented in the physical form of peptides. Emotions that carry information to connect the major system of human body, which can be seen as the 'cellular signals that are involved in the process of translating information into physical reality, literally transforming mind into matter. Emotions are at the nexus between matter and mind, going back and forth between the two and influencing both' (Pert 1999, p 189). In other words,

emotions connect our thinking and health, which work as 'messengers' carrying information for us to make decisions

Emotions happen automatically to response internal or external changing environment based on the past experiences that are stored in emotional memories' data-bank Carter (1998), based on the research, found that the exact same neural pathway in the brain would be lit up to the same event that either happened previously or is happening now This findings indicated that emotional memories of something happening could create and sustain a set of neural pathways, and these pathways could direct people's activities

The 'thinking brain plays an executive role in our emotions' (Goleman 2004b, p 28) because people have two brains rational and emotional, which can determine how people act in life by brain parts interacting to produce and regulate our emotions (Goleman 2004b)

The communication between the limbic system (or emotional brain) and rational brain is the physical source of EI Bharwaney (2007) simply described the process of how the emotional brain works In her book, she explains that when people sense the current situation, various parts of the brain will process this emotional experience First, thalamus quickly processes the event and send an alert directly to the pathway in your brain to the amygdala (the brain's major center to generate negative emotions and stress mostly, which belongs to limbic system) Amygdala will direct your behaviour towards this event according to the emotional memory At the meantime, thalamus also send information to the cortex (belonging to the rational brain) where 'a more accurate, slower, and detailed processing' (Hillis 2003, p 2) of the same situation happens Even though the thalamus sends

information to the amygdala and cortex at the same time, the cortex takes about 6 seconds longer to process the stimulation than amygdala does (LeDoux 1996) It is clear that the the function of cortex is to help people analyzing the situation and directing activities more rationally by keeping your out-of-control emotions, which means that cortex is the control area of people's emotions that can bring emotions to the conscious attention Thus EI can serve as the 'necessary bridge' (Hess & Bacigalupo 2011, p 711) between the rational and emotional brains

It is unavoidable to have automatically emotional responses, people can not do away with them However, emotions can be managed and controlled by training and learning (Goleman 2004), this is the essential part for EI

How to manage and control the emotions depends on how to train the rational brain to override the primitive responses The neurologists have created the term neuroplasticity to describe the brain's ability to change, which 'refers to the ability of neurons to forge new connections, to blaze new paths through the cortex, even to assume new roles In shorthand, neuroplasticity means rewriting of the brain' (Schwartz & Begley 2002, p 15) Goleman (2006, p 11) further explains that repeated experiences can help 'sculpt the shape, size, and number of neurons and their synaptic connections' through neuroplasticity It implies that through learning and training to increase the EI allows neurons to develop new pathways between the rational and emotional brains The new behaviour will be presented in the future by repeatedly using new EI strategies and new emotionally intelligent behaviour will become habits But the process is not easy and it is time-consuming The most important of all is commitment However, well-developed



EI can benefits for both individuals and organizations, which 'make it worth the effort' (Goleman 2004a, p 10)

### **2.1 3 The Benefits of Emotional Intelligence at Work**

In today's complex working world, in order to compete in the global market, organizations have tended to require people to work collaboratively to improve productivity and enhance innovation (Peter 1988) Thus being able to cooperate with coworkers and managers has become critical EI presents a concept that 'has a unique contribution to make a prediction of professional success' (Csikszentmihalyi & Csikszentmihalyi 2006, p 112), which implies that the level of EI can indicate success in your work The role of EI can help individuals improving performance and career advancements (Kunnanatt 2008) Besides it can increase individuals' abilities of conflict solving, negotiating, and desirable goal-achieving etc

Research shows that people who have higher level of EI can perform better and develop steadier career paths in the organizations than people with lower level of EI (Aydın, Leblebici, Arslan, Kılıc & Oktem 2005) Also EI can increase the level of individual performance through an ability to recognize and manage emotions with other team members As Goleman (1999) found, people who lacked of EI might result to the cognitive performance reduced and an inability to achieve goals

Some studies indicate that EI competencies are essential for career advancements as EI has become a critical criterion than technical and other managerial skills when promoting middle or senior managers (Langley 2000) Goleman (1999) also suggested that individuals who had high EI would have superior conflict

solutions skills because they were able to engage in greater collaboration Jordan and Troth (2002) did a study about EI and conflict resolution during the organizational change and found that there was a positive link between the level of EI and conflict resolution, which showed the empirical evidence on suggestion of Goleman (1999)

Hess and Bacigalupo (2011) link EI competencies with decision-making process, and find that EI skills can enhance individuals and group decisions and outcomes, because decision makers who have high level of EI can increase the probability of a more positive decision outcome by assessing the potential emotional outcomes of others They also can build and maintain good relationship with others so that it can generate better decision outcomes

Because of today's business environment, organizations tend to utilize project management to implement strategic initiatives through projects Therefore project manager's role is critical to the organizational success (Lewis, 2001) Leban and Zulauf (2004) did a study on 24 project managers and their projects in six organizations from different industries and found that project managers taking a transformational leadership style and EI abilities did enhance actual project performance In another word, EI abilities contribute project managers' behavior, subsequently project performance has been increased

In relation to group performance, the power structure of operational teams has implications for decision making, goal setting, and overall achievement, therefore, Cote, Lopes, Salovey and Miners (2010) conducted an empirical review of emotional intelligence and its link to the emergence of leadership and power dynamics in small groups Specifically, the authors defined leadership emergence

as the 'degree to which a person who is not in a formal position of authority influences the other members of a group' (Cote, et al 2010, p 496) Yet there is a distinction between leadership emergence and effectiveness that is important when evaluating group performance outcomes In particular, Cote, et al (2010) concluded that there was a direct correlation between leader emergence and heightened emotional intelligence, whereby leadership effectiveness was also heightened in direct relation to the degree of an employee's EI Such findings build upon the previous research of Wolff, Pescosolido and Druskat (2002) in which emotional intelligence was also associated with leadership emergence, however, the findings emphasized empathy as the primary variable due to its high importance in information processing One of the unique findings of the Cote, et al (2010) study was that the researchers revealed that emotional intelligence had a heightened influence on leadership manifestation and team performance Although the authors do not offer definitive explanation for this relationship, it is clear that an individual's EI has a measurable impact on their active engagement in group scenarios and the overall performance outcomes of the group initiative

Weiss and Cropanzano (1996) also argue that emotional factors have a great impact on team performance for a long-term, but not necessarily apparent immediately Additionally, according to the study of Jordan, Ashkansy, Hartel and Hooper (2002), there is an important finding, that is, whatever lower emotional intelligence teams or high emotional intelligence teams both have impact on team performance and lower emotional intelligence teams can perform as well as high emotional intelligence teams over time

The benefits of EI are fruitful both for individuals and organizations. As EI can help raising the individual performance and creating a healthy working climate at workplace, the overall organizational performance will be increased accordingly as a result.

## 2.2 Leadership

The importance of leadership has been studied in a number of different ways in the literature (Burke, Stagl, Klein, Goodwin, Salas & Halpin 2006). As for the definition of leadership, there are so many different leadership definitions in the literature according to different perspectives and the aspects of the phenomena. Table 2-1 shows some of representative definitions in the literature over the past a few decades.

### Table 2-2 Definitions of Leadership

- 
- Leadership is 'the behavior of an individual directing the activities of a group toward a shared goal' (Hemphill & Coons 1957, p. 7)
  - Leadership is 'the influential increment over and above mechanical compliance with the routine directives of the organization' (Katz & Kahn 1978, p. 528)
  - Leadership is 'exercised when persons mobilize institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers' (Burns 1978, p. 18)
  - Leadership is 'realized in the process whereby one or more individuals succeed in attempting to frame and define the reality of others' (Smircich & Morgan 1982, p. 258)
  - Leadership is 'the process of influencing the activities of an organized group toward goal achievement' (Rauch & Behling 1984, p. 46)
  - Leadership is 'about articulating visions, embodying values, and creating the environment within which things can be accomplished' (Richards & Engle 1986, p. 206)
  - Leadership is a 'process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose' (Jacobs & Jaques 1990, p. 281)
  - Leadership is 'the ability to step outside the culture to start evolutionary change processes that are more adaptive' (Schein 2004, p. 2)
  - Leadership is the 'process of making sense of what people are doing together so that people will understand and be committed' (Drath & Palus 1994, p. 4)

● Leadership is the 'ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organization ' (House Hanges, Ruiz-Quintanilla, Dorfman, Javidan Dickson, Gupta & Globe Country Co-Investigators 1999 p 184)

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(Source from Yukl 2010, p 3)

In the recent leadership literature, there are a few more definitions emerged For example, Griffin (2012) defines leadership as a process that focuses on shaping or influencing people to obtain organizational goals Hitt, Black & Porter (2009) define organizational leadership as an interpersonal process that involves attempting to influence other people to attain a goal As so many different definitions of leadership forming from different perspectives, Yukl (2010) summarizes that leadership is commonly understood as a process of using influence and motivation to encourage participation in achieving group or organizational success Leadership effectiveness, on the other hand, refers to 'the extent to which the leadership brings about group or organizational success' (Kotze & Venter 2011, p 403) Therefore, in essence, leadership is a process, whereas leadership effectiveness is a result (McCull-kennedy & Anderson 2002)

There are three fundamental components of leadership process including the leaders' personality or traits, the followers' perception of leaders and the situations that those interaction takes place (Hitt, et al 2009) Leadership is a rational process between leaders and followers, and is molded by the situation (Fiedler & Chemers 1974)

In order to explain factors affecting effective leadership process researchers have put forth some different sets of leadership approaches (Hartman 1993) One line of research focuses on the leaders' personality or traits - so-called trait approach (Sogdill 1948) Some approaches focus on leaders' behaviour (Fleishman 1953)

which is based on the perceptions of peers or subordinates. Others have employed a situational approach (Hersey & Blanchard 1977) which assumes that different situations need different leader's behaviour patterns. From a variety of perspectives of leadership study, the determinants of effective leadership has still been a focal question in the literature.

However, Antonakis, Cianciolo and Sternberg (2004) indicate that the central of the concept of leadership is the relationship, which takes place between leaders and followers. Thus, for leadership to be effective, Chemers (2002) suggests that leaders must develop a relationship with followers via identification of followers' needs, maintain their credibility and legitimacy with followers, and allocate resources reasonably for followers exerting their best to meet set goals. Additionally, McCallum and O'Connell (2009, p 153, & p 154) add that leadership effectiveness can be 'driven by relationships beyond one's immediate subordinates', and it is also based on the 'social network relationships' within and among organizations.

But in the recent leadership literature review, it is evident that there is a new stream of thinking associated with leadership effectiveness that focuses on the emotional aspects of leadership (Conner 1998), which has been running in parallel with the topic of EI (Dulewicz & Higgs 1993). From different streams of work, Dulewicz and Higgs (1993, p 194) concludes that EI is a 'critical factor in the effective leadership of twenty-first century organizations' after identifying some of the critical determinants of effective leadership, which have shown that many important aspects of leadership related broadly to emotional & social competencies.

As the globalization and continually updated technology make the world more changeable and competitive, it brings more challenges for leaders to deal with these intangible situations in order to keep in a leading position. Challenges such as attracting and retaining highly talented individuals, addressing and managing the interests of different stakeholders, implementing change programs etc. require a new leadership paradigm (Chowdhury 2002). The links between EI and leadership might provide a basis in order to develop this new paradigm (Dulewicz and Higgs 1993).

Because various factors can determine the leadership effectiveness, it makes difficult in evaluating of leaders' effectiveness. According to the literature, Hogan, Curphy, and Hogan (1994) indicate that various level of analysis can determine the leadership effectiveness such as individual level (i.e. employee output, satisfaction), team level (performance) or the organizational level (working climate, objectives achieving).

However, one certain thing is that having an effective leadership result depends on how the leadership process goes on. In another word, how leaders influence, motivate and enable followers to achieve goals has become the essential part to determine leadership effectiveness. This essential part contains almost all the aspects of EI (Dulewicz and Higgs 1993), which is reinforced by Day (2000). Therefore, it is necessary to understand how EI can benefit the leadership process so that it makes an effective leadership achievable.

### **2.3 Emotional Intelligence and Leadership**

A growing body of literature in the field of emotions suggests that emotions play a significant role in cognitive processes and behaviour (Bower 1981). People who

are in positive moods are likely to remember positive information, they are more flexible in their thinking and helpful to others (Isen 1999) Positive emotions also can enhance flexibility, creativity, and decision-making skills On the contrary, negative moods can have a strong impact on decision making and risk taking (Mann 1992) Moreover, people who are only in positive moods can use humor or tell jokes to stimulate creativity, diminish conflicts among people, build up a sense of trust, and open more constructive communication (Sutton, 2002) As emotions have a great impact on people's behaviour, it is necessary to understand that what role of leaders' emotions play in the business organizations

### **2.3 1 The Role of Leaders' Emotions in the Business Organizations**

Goleman, et al (2001) also mention that emotions of leaders play a significant role in the organizations as leaders who are in positive moods are more effective than leaders who have negative emotions Therefore, leaders' positive emotions can enhance the leadership process so that leadership effectiveness can be increased This idea can be supported by the transformational leadership literature Bass (1985) demonstrates that transformational leaders can express positive emotions such as enthusiasm which can build an emotional connection with followers In turn, followers can have positive outcomes such as increased productivity and higher level of commitment

Because the central part of leadership is the interaction between leaders and followers (Antonakis, et al 2004), followers pay particularly attention to leaders' behaviour and emotions through personal interaction with their leaders Followers take their emotional cues from their leaders' face, tone or body gesture etc , and try to gauge the emotional experience of leaders By doing this, followers can



figure out leaders' interpretation, which can help them manage relationship with leaders in the future (Elfenbem 2007) When people are in the ambiguous situation, they tend to ask why, and their subsequent attributions influence their behavior and motivation (Weiner 1985) Followers sense different pieces of information, especially the emotional expressions from leaders, in order to predict future events and make attributions Thus, emotional expressions can be a 'powerful source of information - in effect, a window into another person's inner thoughts and feelings' (Elfenbem 2007, p 54) as well as 'powerful source of influence' (Elfenbem 2007, p 61)

Totterdell (2000) argues that the influence between leaders and followers flow in directions and among peers, but leaders are particularly influential senders of emotional contagion (Sy, Cote & Saavedra 2005) As for leaders, they should increase their awareness of impact of their emotions to the followers and find 'effective way to understand and improve the way they handle their own and other people's emotions' (Goleman, Boytzis & McKee 2002, p 4) Goleman, et al (2002) also highlight that handling leader's emotions and managing their relationship with followers depend on the competencies of EI which are the vehicles of effective leadership

### **2.3 2 Emotionally Intelligent Competencies and leadership**

In this thesis, Goleman's (1999) definition of EI will be adopted, which is about the identification and management of emotions in yourself and in others It is summarized as a subset of personal competences and social competences that determine how to manage yourselves and how to manage the relationships (Goleman 2000) These capabilities involve the ability to know your own and

others emotions, to discriminate, and to use this information to guide your behavior Goleman, et al (2002) also explain the key factors of EI which compose four key capabilities self-awareness, self-management, social awareness and relationship management (social skill)

**Self-Awareness:** the ability to understand your emotions, strengths and limitations as well as values and motives, including emotional self-awareness, accurate self-assessment, and self-confidence

**Self-Management** the ability to keep disruptive emotions and ensure them under control, including emotional self-control, transparency, achievement, adaptability, initiative, and optimism

**Social Awareness.** the ability to know other's emotions and perspective, including empathy, organizational awareness, and service

**Relationship Management (Social Skill):** the ability to manage relationship with others, including inspirational leadership, influencing, developing others, communication, change catalyst, conflict management, building bonds, teamwork and collaboration

(See Appendix 1 for more details)

Also Goleman (2000) did a research on six basic leadership styles (See Appendix 2), which are the coercive style, the authoritative style, the affiliative style, the democratic style, the pacesetter style, and the coaching style, and he found that each leadership style contained different components of EI and leaders who mastered four or more leadership styles especially the authoritative, democratic, affiliative, and coaching styles had very good business performance For example, an affiliative leader has strengths in three EI competences including empathy,

building relationships and communication Empathy can allow the affiliative leader to sense people's emotions and feelings so that he/she can respond to followers in a way that is highly congruent with their emotions Therefore it can build rapport with them The affiliative leader can also bond a cultivating relationship with followers as he/she gets to know someone as a person Interpersonal communication skills make the affiliative leader persuasive by saying the right thing at the right moment Goleman (2000) also suggested that effective leaders should adjust leadership styles according to different situations

To test the determinant competencies of EI of good or bad leadership, Fowlie and Wood (2008) did a research on analyzing MBA students' actual experiences of good and bad leadership, and found that bad leadership lacked self-management and relationship management competencies However, good leadership is not the exact opposite Leaders should have highly developed relationship management competencies in order to focus on their followers They suggest that testing for EI for new or existing managers should be considered because 'these competency clusters are particularly relevant' (Fowlie & Wood 2008, p 569) From subordinates' perceptions of effective leadership, Rahim and Psenicka (1993) believed that empathy and social skills in the organizational context had a great impact on it Thus they investigated a study on the relationship between these two competencies of EI and leadership effectiveness in four different countries, and found that empathy was a mediator of the relationship between social skills and the effectiveness of leader role in the U S, Greece, and Bangladesh, but not in China In China, leaders need to use their social skills to enhance the leadership effectiveness, not empathy

As to the relationship between EI and leadership, it has not reached the consensus in the literature because there are some contrasting arguments that focus on the validity of EI and leadership link (Locks 2005) Despite all these different perceptions, Goleman, et al (2002) argue that 'there's no fixed formula for great leadership' and effective leaders typically 'demonstrate strengths in at least one competence from each of the four fundamental areas of emotional intelligence' (Goleman, et al 2002, p 39 & P 40) It implies that more competences of EI you have, the higher level of EI you will be, and the more effective you will become

George (2000) reviewed evidence that leaders influenced followers' outcomes in multiple ways, and it appeared to be mediated by followers' effect As leadership is an emotion-laden process between leaders and followers, She suggested that the future research should focus more on followers' EI and explore how interaction between leaders and followers of emotional management in a workplace

## **Chapter 3. Methodology**

### **3 1 Introduction**

This chapter will introduce the research philosophies, a variety of research strategies and research instruments for data collection and analysis in the pursuit of research objectives, which include a justification for the chosen method that is employed during this research. Discussions will also focus on the use of questionnaires, interviews, and the ethical considerations of the research.

### **3 2 Research Philosophies**

The over-arching term, research philosophy (Figure 3-1), 'relates to the development of knowledge and the nature of that knowledge' (Saunders, Lewis & Thornhill 2009, p 107), which contains 'important assumptions' (Saunders, et al 2009, p 108) that you view the world. When conducting a research, it is important to think about the different research philosophies, because these parameters can express different perceptions, beliefs, assumptions and the nature of reality, which can influence the way in which the research is undertaken, from design to conclusions. Therefore, discussing these aspects can help understanding the researcher's biases so as to minimize them. Blaikie (2009) argues that the researcher must consider these aspects and connect these choices to the research questions. Otherwise, the final result will be affected due to lacking of coherence. Further more, Easterby-Smith, Thorpe and Lowe (2002) explained three reasons on the importance of exploration of philosophy particularly related to the research methodology.

- ❖ Firstly, it can help the researcher to refine and specify the most suitable research methods, which means to clarify the overall research strategy. This includes the evidence collected, the way to interpret the evidence, and how it helps to answer the research questions.
- ❖ Secondly, it can help the researcher to save unnecessary work by choosing the most appropriate methodologies and methods in the first place.
- ❖ Thirdly, it can help the researcher to be creative and innovative in selecting and adapting different methods by opening new frontiers of exploration.

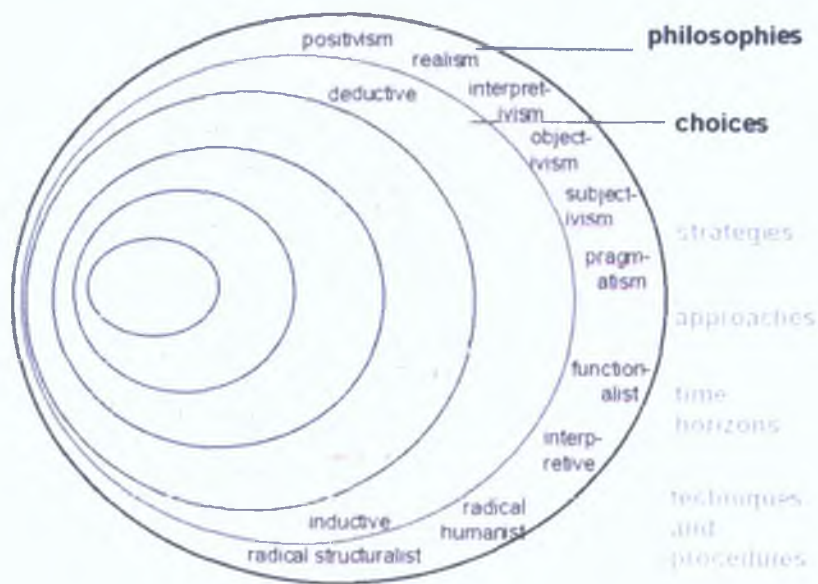


Figure 3-1 The Research 'Onion'

(Source from: Saunders, Lewis & Thornhill, 2009)

There are two main research philosophies: epistemology and ontology. Epistemology 'concerns what constitutes acceptable knowledge in a field of study' (Saunders, et al. 2009, p. 112), while ontology, on the other hand, is concerned with 'the nature of reality' (Saunders, et al. 2009, p. 110).

There are two types of researchers who adopt different philosophies under epistemology domain depending on what they are researching. They are 'feelings' researchers and 'resources' researchers. 'Feelings' researchers study objects on human feelings and attitudes which have no external reality and can not be seen, modified, and measured. This type of researcher adopts interpretivist philosophy. It is necessary for interpretivist researchers to understand differences among humans in the social activities from following reality (Fisher 2004)

- ✧ People's values and how they perceive the world shape how people understand the reality,
- ✧ Other people's understanding of the reality,
- ✧ The compromises drawing from the negotiations between the first two

The interpretivist philosophy researchers have to adopt an empathetic stance, and the big challenge for them is that they must understand the social world from research subject's point of view and interpret the world from that position (Saunders, et al 2009)

Another type of researcher is 'resources' researcher who adopts positivist philosophy views objects that exist which are independent of human behaviour, and therefore they are not the creation of human mind. Positivist researchers focus on the facts that are gathered from direct observation and experience and measured empirically using quantitative methods (Easterby-Smith, et al 2002)

The role of positivist researcher is independent and the research is undertaken in a value-free way (Saunders, et al 2009). However, there is a major criticism of the positivism approach is that it 'does not provide the means to examine human beings and their behaviour in an in-depth way' (Crossan 2003, p 51)

The second main philosophy is ontology which is concerned with the nature of reality (Saunders, et al 2009) Blaikie develops this description for the social sciences to 'make different claims about what kinds of things do or can exist, the conditions of their existence, and the ways in which they are related' (Blaikie 2007, p 13) There are two aspects of ontology, one is objectivism The second aspect is subjectivism Objectivism asserts that social phenomena and their meanings exist in reality external to social actors, whilst subjectivism purports that social phenomena and their meanings are created through the process of constant social interactions these social phenomena are revised constantly (Saunders, et al 2009)

In order to understand these two stances clearly it will be explained further by taking culture of an organization as an example Objectivists view culture as an object that a company 'has' (Smircich 1983) and it is an external reality that acts on and limits employees of a company The goal of objectivists is to identify causal explanations and fundamental laws that explain regularities in human social behaviour (Easterby-Smith, et al 2002 ) To achieve this goal, it is necessary to use deductive process to generalize the results from samples This process includes the formulation of hypotheses that the researcher obtain from the particular phenomena Therefore an objectivist is more likely to take a deductive and quantitative approach to conduct a research

On the other hand subjectivists who focus on the meaning of the social phenomena would argue that culture is a changing phenomenon which continually changes through a complex process of social interactions, physical factors, myths, and rituals and it is beyond control of management (Saunders, et al 2009) Subjectivism view that people attach to these culture phenomena that would



enable people to understand them thoroughly. The goal of subjectivists is to understand and to explain a problem in its contextual setting where individuals attach to (Easterby-Smith, et al 2002). Thus, a subjectivist is more likely to adopt an inductive and qualitative approach to do the research.

While it seems that these research philosophies and methods are in a fight for superiority, Webb (1989) argues that the distinction between them is over stretched, more than what it is in reality. Indeed researchers should choose research philosophies that can answer the research questions best, rather than opposing views or fighting for superiority (Tashakkori & Teddlie 1998). Pragmatism 'argues that the most important determinant of the epistemology, ontology, and axiology you adopt is the research questions - one may be more appropriate than the other for answering particular questions' (Saunders, et al 2009, p 109). Tashakkori and Teddlie (1998) also note that the appealing of pragmatism is partly because it avoids the researcher engaging in pointless debates about truth and reality. Hughes and Sharrock (1997) indicate that pragmatists use proper methods to deal with the particular problems in hand rather than worrying about which philosophies should be taken, then philosophical worries are irrelevant. In another word, pragmatic approach is about applying methods that suit the problem rather than methods that suit ontology or epistemology concerns.

### **3.3 Research Approaches**

It is necessary to clear about the extent to your theory that relates to your research when you commence it, because it concerns about how you design your research project. If you tend to develop a theory or hypothesis and design a research

strategy to test the hypothesis, you need to use the deductive approach, on the other hand, if you collect data and develop a theory as a result of data analysis, you need to use the inductive approach (Saunders, et al 2009) Creswell (2003) suggests a number of practical criteria about whether your research will be deductive or inductive in which the most important one is the emphasis of the research and the nature of the research topic. If there is a number of theoretical frameworks in the literature about your topic, the deduction will be the option. On the contrary, if there is little existing literature about your topic, it may work well with induction which can generalize a theory by analyzing data. After considering the research topic of this study, the author has decided to take a deductive approach for this study.

### **3.4 Research Methods**

Furthermore, in order to obtain information about the research topic, some techniques need to be considered. The options available for this issue are quantitative, qualitative or mixed, which all aim to contribute to knowledge about a particular subject. The main differences among these methods are that quantitative methods depend on acquiring data that is numerical and can be statistically interpreted, while qualitative methods focus on gathering data in a non-numeric way, which is concerned with an in-depth study of human phenomena so that individuals' nature and the meanings can be understood (Best & Kahn 2006). A mixed method employs strategies of acquiring data either simultaneously or sequentially, which involves gathering both numeric information and text information so that the final result represents both quantitative and qualitative information (Creswell 2003).

After analyzing the distinction among quantitative, qualitative, and mixed approaches, the author will choose the quantitative approach to fulfill the research aims and objectives of this study

### **3.5 Research Strategies**

According to a number of authors the research strategies alternatives are many (Creswell 2003), which can 'provide specific direction for procedures in a research design' (Creswell 2003, p 13) Some strategies are associated with the quantitative approach such as experiments and surveys, others are associated with the qualitative approach such as ethnographies, grounded theory, or case studies etc For the mixed approach, there are some general strategies and several variations within them like sequential procedures, concurrent procedures, and transformative procedures (Creswell 2003) Considering the research questions of this study, the author has decided to take survey method for this study by using questionnaires and structured interviews for data collection

#### **3.5.1 Questionnaire**

The survey strategy is a popular and common strategy in business and management research which includes questionnaires, interviews (Saunders, et al 2009) that are created for the specific investigation related to the research objectives A questionnaire is a printed lists of questions used to collect factual information, beliefs, or attitudes about an issue, a product or service (Burns & Grove 1993) The form of questions that are included in the questionnaire can be open or closed, or a combination of both (Polit & Hungler, 1991)

Because this study will take place in China, the questionnaire will be posted or email to the target population. As for the postal questionnaire, there are some strengths and weaknesses in the process of survey. The strengths include they are less expensive and more effective than other data collection methods, because the researcher is not present when respondents give the answers, they can answer the questions without considering the researcher's thoughts which can reduce bias or errors (Oppenheim 1992). Oppenheim (1992) also points out the weaknesses of using the postal questionnaire: respondents do not have a chance to ask the researcher about anything unclear, in addition, the researcher has no control over the process of how the questionnaire is answered, this may lead to the incomplete answers or some sections may be missed out, the return rate is another aspect that needs to be considered as well because answering questions takes time and efforts of respondents, they may not want to answer them or just pass them onto others. Despite the weaknesses of the questionnaire, the constraints of time, finance limitation makes it an attractive option for the author. The questionnaire will be the Wong's Emotional Intelligence Scale (WEIS) (Wong, Wong & Law 2007) which is the most suitable one that fits Chinese Culture.

### **3.5.2 Reliability and Validity of WEIS**

In order to collect data the research needs to 'use standardized measures so that the varying perspectives and experiences of people can be fit into a limited number of predetermined response categories to which number are assigned' (Patton 2001, p 14). Reliability and validity are the most common technical concepts in measurement. According to Mehrens and Lehman (1987), reliability is 'the degree to which the finding is independent of accidental circumstances of the research,

and validity is the degree to which the findings is interpreted in a correct way' (Mehrens & Lehman 1987, p 92) Therefore reliability is concerned with the consistency of the measurement, which means that whether the result is replicable Validity is concerned with the precision of measurement, which means that whether the means of measurement are accurate and whether the measurement is tend to measure what they are intended to measure

As for reliability and validity of WEIS, Wong, Wong and Law (2004) have provided the preliminary evidence that WEIS could predict the job satisfaction and sales performance of the participants successfully by using a sample of life insurance agents in Hong Kong, which showed that WEIS had acceptable reliability, convergence, and discriminant validity Furthermore, Wong, et al (2007) tested the practical utility of WEIS through three studies in Hong Kong and mainland China, and the results provided clear evidence for the practical utility of this measurement Thus it is rational decision to take WEIS as the measurement of this study

### **3 5 3 Interviews**

Kvale (1996, p 14) defines interviews as ' an interchange of views between two or more people on a topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situated-ness of research data' In another word interviewing is a way to collect data and to gain information through individuals

There are many types of interviews available to researchers, such as a structured interview, a semi-structured interview, an unstructured interview, and a non-

directive interview After considering the precision of data collection, the author has decided to take the structured interview for this study

A structured interview, according to Corbetta (2003) is offered with the same questions in the same sequence All the respondents must answer the same questions in the same manner, which is easy to regulate or standardize By doing this way data can be collected reliably and the comparisons can be made with confidence among different groups

In order to conduct a structured interview, some skills are 'important and will affect the response rate' (Saunders, et al 2009, p 401) such as listening skills, communication skills, non-judgment, keeping record precisely (A recorder will be used during interviews) etc

The researcher must prepare well for an interview (Saunders, et al 2009) The researcher must know interview questions very well and some information on the purpose of the research questions, be able to answer the questions required by the respondents about any confusion on the interview questions, control the length of the each interview and direct the interview on the right track At the same time the researcher must ensure that the respondents have a clear idea of the purpose of the interview, the basic information about the research questions, how much time the interview will take and the way to record the conversation (explaining the reason), where and when the interview will take place (Gillham 2000)

Corbetta (2003) also indicates some rigidity of the structured interview For example, probing can be a problem area for structured interviews because of some non-relevant information Respondents may not understand the questions so they may give the irrelevant answers or be unable to answer them Moreover, the

researcher's facial expression or verbal tone may influence the answer given by respondents, thus influence the outcome of the interview. The researcher must be aware that the data collection boundaries exist. The researcher should let the respondents feel free to answer the questions and not push them too hard.

#### **3.5.4 Interview Structure**

After studying some other methods, the author has decided to use structured in-depth interviews related to WEIS in order to obtain primary research data because it can help respondents understand the research questions with the flexibility. The interviewees that the author has decided to choose are people who are at management level.

At the beginning of the interview the researcher will express the appreciation for participation in this survey, introduce basic knowledge about EI to interviewees, and explain the aim of research study and how the interview will be conducted. The interview will be conducted using the combination of open and closed questions, which are

- ❖ Do you understand your emotions/moods as well as other's, and in what extent?
- ❖ What you think is the most important competency as a supervisor, a manager or a director should have at their rank of position?
- ❖ When organizations decide to promote the prospective employees to the management level, what the criterion do organizations need to follow?
- ❖ As EI can predict the success of your work, will you ask prospective employees to have EI tests before you promote them to the management level?

- ✧ According to the literature of EI , managers who have higher level of EI will perform better Will you send employees who are at management level to attend EI training courses if you have authority to do so?

### **3.6 Sampling**

Sampling is the process by which study subjects or objects are chosen from the larger target population (Seaman 1987) The basic idea in sampling is to extrapolate from the part to the whole because it is not possible to cover the whole target population due to the difficulties like long distance, wide location, limited finances, and time etc The researcher has chosen three companies located in China randomly who were interested in the research questions and willing to take EI test and relative interviews The EI tests will be e-mailed to them initially Follow-up interviews will be conducted by the researcher after finishing collecting EI results

### **3.7 Pilot Survey**

Prior to using the survey to collect large-scale data a preliminary piece of research should be conducted, which is called pilot survey (Saunders, et al 2009) The purpose of the pilot survey is to refine the questionnaire so that respondents can answer the questions, to ensure that data collected will answer the research questions (Saunders, et al 2009)

WEIS questionnaire has already been tested, therefore there is no need to test or adjust it The pilot survey will only focus on the interview questions to ensure that all of the topics of relevance have been included for the investigation After



obtaining and analyzing the results of the pilot survey, the proper revision will be taken. The interview questions will be altered to a more suitable one.

### **3.8 Ethical Considerations**

When conducting the interview, the ethical issues are the important factors that the researcher needs to be concerned. Confidentiality must be given and the rights of respondents must be protected. If the respondent feels upset or uneasy, the interview will be canceled or postponed. The researcher also needs to realize and remember that participants have a right to privacy and should not feel pressurized into participating (Saunders, et al 2009).

Because this research is positivistic and quantifiable, the ethical issues are concerned with the interview questions and the attitude of the researcher. Interview questions must be neutral, and the researcher must show respect in terms of the various answers. In brief, the researcher must take into account the participants' involvement at all times especially in the process of interview.

## **Chapter 4. Findings and Discussion**

### **4 1 Introduction**

The aim of this chapter is to discuss findings related to the research questions by data collected through WEIS (See Appendix 3) and supported by the interviews done by employees who are at management level. By using these methods it is expected that the results will elicit the proper answers to the research questions. The researcher used tables and diagrams to present findings of survey to analyze the variables of the results. This chapter will firstly explain WEIS briefly, then analyze data from EI scores for each respondents to discuss the research question 1, which is to find out the level of EI among different positions, its variables, and its implications. As for the research question 2, it will be answered by the interview questions done by the employees positioned in the management level.

### **4 2 Explanation of WEIS**

Wong, et al (2004) have developed a short forced choice EI scale (WEIS) for Chinese respondents in Hong Kong by adopting the Mayer, Salovey and Caruso (2000) definition of EI as a particular set of abilities related to emotions, which include the following dimensions (Davies, Stankov & Roberts 1998)

- ✧ Appraisal and expression of emotion in the self (Self Emotional Appraisal SEA) This dimension is about an individual's ability to understand their deep emotions and be able to express them naturally. People who have higher ability in this dimension will sense and acknowledge their emotions better than other people.

- ✧ Appraisal and recognition of emotion in others (Other's Emotional Appraisal OEA) This dimension is about an individual's ability to perceive and understand emotions of people around them. People who have higher ability in this dimension will be sensitive to other's emotions and able to read their minds.
- ✧ Regulation of emotion in the self (Regulation of Emotion ROE) This dimension is about an individual's ability to regulate their emotions and be able to recover from emotional distress quickly. People who have high ability in this aspect can control their behaviour when they feel extremely moody.
- ✧ Use of emotion to facilitate performance (Use of Emotion UOE) This is the ability of a person to make use of their emotions by directing them to constructive activities and better personal performance. People with higher ability in this dimension will keep positive emotions most of the time and make the most use of their emotions to facilitate their performance in the workplace.

WEIS has 40 forced choices that consists two parts and each part reflects these four dimensions of EI. Part A is 20 forced choice items based on the various emotional scenarios, Part B is 20 forced choice items based on the strengths between handling emotional issues and other types of abilities. The total score is 40. In another word, the maximum score is 40.

### **4.3 Findings and Analysis**

This dissertation was contained two studies to answer research questions. Study 1 answered the first research question, and study 2 answered the second research question. The findings were given following data analysis.

### **4.3.1 Study 1**

According to the EI literature, the higher level of EI you have, the more successful you will become in your life and work (Goleman 1999). In another word, if you have high position in your workplace, it means that you are more successful. Consequently your EI level should be higher than your subordinates. This led to the first hypothesis, which focused on Study 1.

**Hypothesis 1. The higher position you are in your workplace, the higher level of EI you have**

As Study 1 tested the EI level of different rank of positions in the workplace, which were categorized into four: they are Executives, Department Managers, Supervisors, and bottom-line employees, the researcher analyzed the EI scores of four different categories after data collected. The researcher also analyzed the variables which were linked to the research question 1.

#### **4.3.1.1 Analysis of Data**

Total number of employees in these three companies are 60, and 43 people answered the questionnaire. Therefore response rate was 72 percent. Among 43 respondents, there were 12 employees at management level (including 3 employers) and the rest of them or 72 percent of the respondents were non-management employees (See Table 4-1 Respondents' Information).

In this research the highest EI score was 34, and the lowest EI score was 21. There were two people who got 34, one was a non-management employee, another one was the executive of the company. The person who got 21 was the non-management employee. The average EI score was 26.9.

Table 4-1: Respondents' Information (N=43)

		Number of people	Percentage %
Gender	Male	23	53.49
	Female	20	46.51
Educational Background	Junior cycle of Second level of Education	2	4.65
	Senior cycle of Second level of Education	8	18.60
	Third-level Education	33	76.75
Position	Non-management	31	72.10
	Supervisors	4	9.30
	Dept. Managers	5	11.62
	Executives	3	6.98
Length of Employment (Years)	Less than 3	10	23.26
	3-7	23	53.49
	7-15	9	20.93
	15 or more	1	2.32
Age (Years)	Less than 25	4	9.30
	25-29	12	27.91
	30-39	20	46.51
	40-49	6	13.95
	More than 50	1	2.33

Table 4-1 showed that male respondents were more than half of the total respondents, and 76.75 percent of employees had college certifications. 23 out of 43 respondents (53.49 percent) have been working from 3 to 7 years, and the majority participants belonged to the age group of 30-39, which almost reached to the half of the total.

The average EI scores in each position showed in the Table 4-2 collectively, which indicated clearly that executives had the highest EI scores than the rest of employees. This approved that the level of EI was connected with positions positively. This Table 4-2 also showed that there was slightly difference on EI scores between the Supervisors and Dept. Managers. As the research respondents were from three small companies, they did not have the complicated rank structures. Therefore there was no big difference between these two job positions.

The result showed that the average EI scores of Dept Managers had 0.2 higher than the Supervisors. Besides, Table 4-2 demonstrated that the bottom-line employees had the lowest EI scores. The difference of EI level between the Executives and non-management employees was significant.

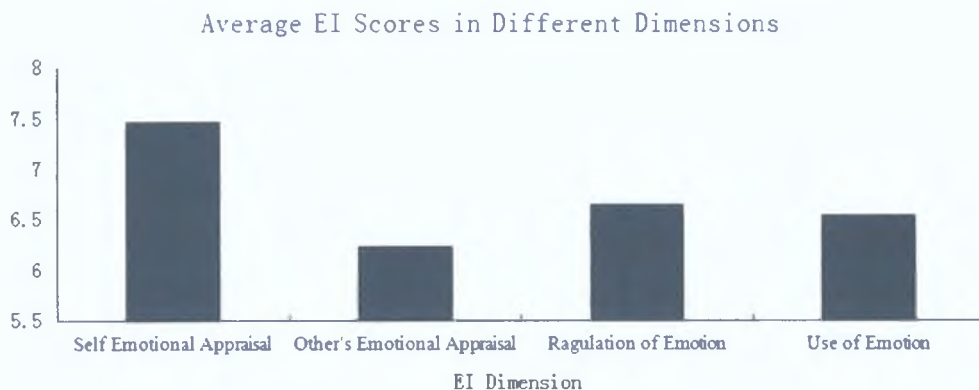
Table 4-2 EI Scores' Information in Different Positions (N=43)

Position	Number	Mean	Std Deviation
Non-management Employees	31	25.8710	3.3672
Supervisors	4	28.0000	2.2361
Dept Managers	5	28.4000	3.7736
Executives	3	33.3333	0.4714

As EI has four dimensions, each dimension represents different abilities. As Figure 4-1 demonstrated that respondents showed different levels of EI in each dimension (See Figure 4-1 Average EI Scores in Different Dimensions). Figure 4-1 indicated that respondents had highest scores in the self emotional appraisal dimension and lowest scores in the other's emotional appraisal dimension. This means that most people know their own emotions well and are able to express them naturally, but perceiving other's emotions and feelings are the weakest ability.

As for the rest another two dimensions, the level of use of emotion dimension was slightly higher than the regulation dimension. This indicates that respondents know how to make the best of use of their emotions to achieve high performance in the workplace. But when people have extreme moods or suffer from distress, they do not have high ability to control their behaviour.

Figure 4-1 Average EI Scores in Different Dimensions



As for the EI level in each dimension, different rank of positions showed differently (Table 4-3 Comparison of Different Position with EI). Executives level of positions showed much more significantly in each EI dimensions, particularly in the Use of Emotions dimension, which means that executives as leaders of the companies have higher abilities to facilitate performance through using their emotions to direct constructive activities. This positive behavior can be an example to influence followers, in turn the followers will behave the same. Therefore the organizational performance will be increased as a result. This data also supported the Hypothesis 1, that is the higher position you have, the higher level of EI you have.

Regarding to the EI level of Dept. Managers and Supervisors, the data did not show much significance between these two positions. As mentioned the limitation of this research previously, the size of these companies are relatively small. This may lead to the similar job roles for Dept. Managers and Supervisors. But there was an interesting finding: Supervisors had slightly higher level of EI than Dept. Managers in the dimensions of Self Emotional Appraisal, Other's Emotional

Appraisal, and Use of Emotion This indicated that supervisors had higher abilities to perceive other's emotions and feelings better than Dept Managers because supervisors had more opportunities to interact with bottom-line employees, so that the level of EI of supervisors had been increased by these constantly interactions

In the Regulation of Emotion dimension, Dept Managers had higher level of EI than Supervisors, which meant that Dept Managers had higher abilities to regulate their emotions, and was unlikely to lose temper But the difference between these two positions was not significant

Data from non-management employees showed that they had the lowest EI level in four dimensions compared to the Executives and Dept Managers, but in the Regulation of Emotion dimension, the EI level of bottom-line employees showed slightly higher than Supervisors

Table 4-3 Comparison of Different Position with EI

Dimensions	Position (i)	Position (j)	Mean Difference (i-j)
Self Emotional Appraisal	Non-management Employees	Supervisors	-1 0887
		Dept. Managers	-1 0387
		Executives	-1 1720
	Supervisors	Non-management Employees	1 0887
		Dept. Managers	0 0500
		Executives	-0 0833
	Dept. Managers	Non-management Employees	1 0387
		Supervisors	-0 0500
		Executives	-0 1333
	Executives	Non-management Employees	1 1720
		Supervisors	0 0833
		Dept Managers	0 1333
	Non-management	Supervisors	-1 1468



Other's Emotional Appraisal	Employees	Dept. Managers	-0.6968
		Executives	-2.4301
	Supervisors	Non-management Employees	0.8468
		Dept. Managers	0.1500
		Executives	-1.5833
	Dept. Managers	Non-management Employees	0.6968
		Supervisors	-0.1500
		Executives	-1.73333
	Executives	Non-management Employees	2.4301
		Supervisors	1.5833
		Dept. Managers	1.7333
	Regulation of Emotion	Non-management Employees	Supervisors
Dept. Managers			-0.8839
Executives			-1.1506
Supervisors		Non-management Employees	-0.5161
		Dept. Managers	-1.4000
		Executives	-1.6667
Dept. Managers		Non-management Employees	0.8839
		Supervisors	1.4000
		Executives	-0.2667
Executives		Non-management Employees	1.1506
		Supervisors	1.6667
		Dept. Managers	0.2667
Use of Emotion	Non-management Employees	Supervisors	-0.7097
		Dept. Managers	0.0903
		Executives	-2.7907
	Supervisors	Non-management Employees	0.7097
		Dept. Managers	0.8000
		Executives	-2.0000
	Dept. Managers	Non-management Employees	-0.0903
		Supervisors	-0.8000
		Executives	-2.8000
	Executives	Non-management Employees	2.7097
		Supervisors	2.0000
		Dept. Managers	2.8000

### 4.3 1 2 Variables Analysis

After analyzing data above, it generally showed that the level of EI was associated with rank of positions of the companies positively. Apart from this correlation, there must be other variables that affect the level of EI. The following parts will analyze the different variables including gender, education background, length of employment, and age.

#### 4.3 1 2 1 EI with Gender

As to the relationship between EI and gender, Ahmad, Bangash, and Khan (2009) did a study that investigated EI among males and females, and they found that males had high EI as compared to females. Khalili (2011) also found that men had a higher level of EI than women. But in this research, gender differences on EI were not significant (See Table 4-4).

Table 4-4 Comparison EI with Gender

Dimension	Gender	N	Mean	Std Deviation	Std Error
Self Emotional Appraisal	Male	23	7.6087	1.2420	0.2590
	Female	20	7.3000	1.6155	0.3612
Others Emotional Appraisal	Male	23	6.1739	1.4341	0.2990
	Female	20	6.3000	1.7059	0.3715
Regulation of Emotion	Male	23	6.8261	1.5507	0.3233
	Female	20	6.4500	1.9098	0.4270
Use of Emotion	Male	23	6.7826	1.7927	0.3738
	Female	20	6.2500	1.9203	0.4294

#### 4.3 1.2 2 EI with Academic Qualifications

Third level of Education includes diploma, degree, master, and PhD. The data shown in Table 4-5 was that the average level of EI in three out of four dimensions of third level education was significantly higher than the average level

of EI of second level education. But in the other's emotional appraisal dimension, the difference of average EI level was not significant between these two levels of education.

Table 4-5 Comparison EI with Academic Qualifications

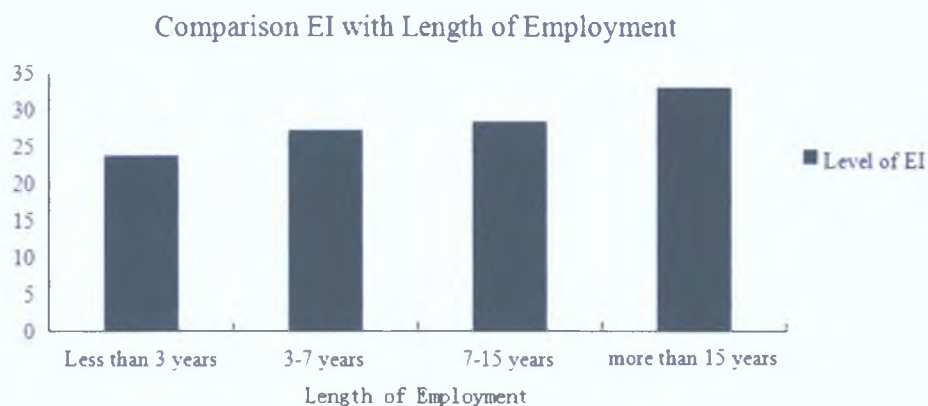
Dimension	Education	N	Mean	Std. Deviation	Std. Error
Self Emotional Appraisal	Second level or Below	10	6.4000	1.8325	0.5795
	Third Level	33	7.8182	1.1403	0.1985
Other's Emotional Appraisal	Second level or Below	10	5.7000	1.1874	0.3755
	Third Level	33	6.3939	1.6319	0.2841
Regulation of Emotion	Second level or Below	10	5.6000	1.9079	0.6033
	Third Level	33	6.9697	1.5469	0.2693
Use of Emotion	Second level or Below	10	5.6000	1.6248	0.5138
	Third Level	33	6.8182	1.8497	0.3219

#### 4.3.1.2.3 EI with Length of Employment

Length of employment affects the level of EI in the workplace because EI can be largely learned through life experience and it continues to develop through people's life (Goleman 1999). People who are in the workplace are able to know their own emotions by constantly interpersonal activities and handle emotional issues with others through longer periods of interaction. These working experiences through years will in turn improve their competences to empathize, solve workplace conflicts under pressure, motivate yourself and others, and make the most use of emotions to increase personal performance. All these skills are the contents of EI. Therefore, the length of employment is associated with the level of EI.

It showed clearly in the Figure 4-2 that people who worked less than three years had the lowest level of EI. On the contrary, the length of employment above 15 years had the highest level of EI. This implies that as the length of employment increases, EI increases as well. There were differences of EI level between 3-7 years and 7-15 years, but was not significant.

Figure 4-2 Comparison EI with Length of Employment



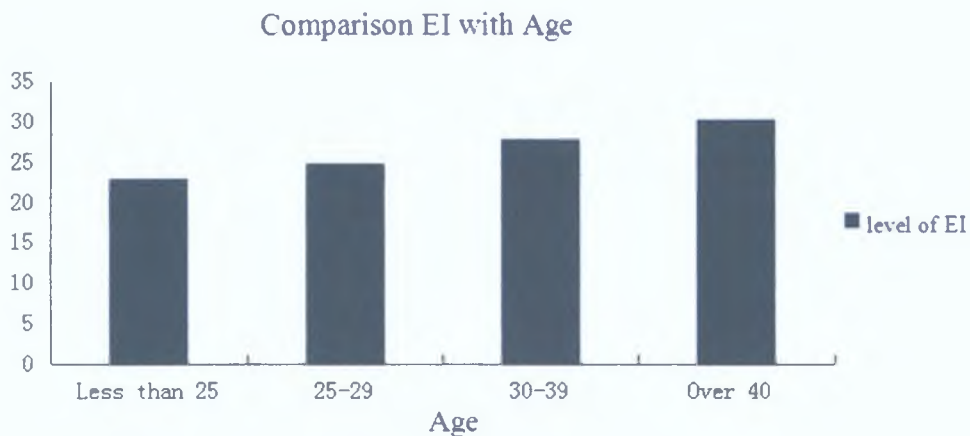
#### 4.3.1.2.4 EI with Age

Mayer, Caruso, and Salovey (1999) compared with two different age groups (adolescents and adults) about the level of EI, and the results showed that adult group had a significantly higher level of EI than the adolescent group. Thus they asserted that in order to consider EI as a standard intelligence, it should increase with age and life experience. Van Rooy, Alonso, and Viswesvaran (2005) also found that the level of EI had a positive correlation with age. Goleman (1999) also mentioned that the level of EI developed through life and competences in it could keep growing.

In this research the same finding showed in Figure 4-3, which was that the level of EI was positively connected with age. The age of research respondents ranged from 23 to 54 years old, with a mean age of 34.14 years old. Employees who were

under 25 years old had the lowest EI mean scores, and employees who were over 40 years old had the highest EI mean scores. The EI level with age ranged from 30-39 years was higher than that of age ranged from 25-29. To sum up, the level of EI will be enhanced as you become older.

Figure 4-3 Comparison EI with Age



#### 4.3.1.3 Discussion

Above data analysis that linked to the hypothesis 1 showed strongly that employees who had different rank of positions showed different level of EI, and the relationship between these two was that the higher rank of position you possessed, the higher level of EI you had. This finding proved that the hypothesis 1 was positive. It also answered the research question 1, that was EI level increased within four categories from lowest bottom-line employees' level to the highest executives' level. This finding also supported that the higher level of EI you had, the more successful you would become in your workplace (Goleman 1999).

Leader's ability in the organization is to direct employees to achieve organizational objectives through influencing and inspiring followers to increase their performance. The influencing process is an emotional process, which means that leaders must recognize followers' emotional states, try to evoke their emotions, and then manage their emotions accordingly (Humphrey 2002). This requires that leaders need to have high level of EI to know followers' feelings so as to take the proper action accordingly. The job of bottom-line employees is to do actual work. They might not have to recognize or manage other's emotions. So the level of EI is relatively lower compared to leaders. The job of Supervisors and Dept Managers is a mixed type with leaders and bottom-line employees, because supervising and managing involve some activities that are included in the leader's role such as fostering innovation and creativity, inspiring people and improving their organizational performance (Hitt, et al 2009). At the same time, they must carry out plans or goals set by leaders. Thus the level of EI is relatively higher than bottom-line employees. Therefore people in different rank of positions show different level of EI in different dimensions. More specifically the rank of positions and level of EI are directly proportional.

Regarding the factors that affecting the level of EI, the researcher analyzed some variables including gender, educational background, length of service, and age. The researcher found that the level of EI was positively associated with educational background, length of service, and age. But there was not significant relationship between EI and gender.

As for the relationship between EI and educational background, Snarey and Vaillant (1985) proposed that the most important factor to determine success is

the ability to solve problems, control emotions, and deal with people. In other words, EI can not be affected by the level of educational background. People who have higher level of qualifications do not mean that they have high level of EI. But this was not supported by the data showed in this research. The reasons that led to this result might be that majority employees (76.74%) had qualifications (Third Level) and individual variable had an important effect on EI. Therefore the result showed significant connection between EI and educational background.

The difference between length of employment and level of EI showed significantly in each EI dimension. The longer you work, the higher level of EI you have. This also proved Goleman (1999) that EI could be learned and developed through working experience.

Wong and Law (2002) pointed that EI would develop with age increasing, which was proved in this research. As emotional competences can be learned through life, people need time to learn how to require self-awareness, solve problems, show empathic behaviour (Goleman 1999). Therefore, when you go through the time gaining ample experience, you will achieve more abilities to aware, control, and regulate emotions. Hence, your level of EI enhances.

Goleman (1999) believes that the level of EI is not associated with gender. But some other authors through researches find that gender is relevant to the level of EI. But in this research, data showed that gender difference that related to EI was very subtle.

### 4.3 2 Study 2

The second research question was to find out whether EI could be one of the criterion with promotions into management level as EI could predict success in your workplace

Management roles of today require the ability to manage a team, communicate effectively, solve conflicts in the workplace, and make decisions under pressure. In order to fulfill these management roles, people need to build up interpersonal relationships with co-workers to achieve organizational objectives cooperatively. Building up interpersonal relationships requires the ability to know and manage your own emotional states, empathize with others, understand others' emotions, and be able to make the best use of emotions to enhance your performance. Therefore, emotional competency, emotional maturity, and emotional sensitivity become the essential parts for the management job, and it is all about EI.

Martin (2001) mentions that multiple intelligences (exploring the topics of EI, intelligence tests, and psychological tests) can be applied as a framework to many activities, in which promotion is included. Besides Martin (2001) also stresses that multiple intelligences which focus on EI can predict employees' promotion because people who have a higher level of EI can perform better than people who have a lower level of EI. In terms of promotion, the best performers have a greater chance to be promoted as a reward. Thus, mastering EI competencies will contribute to promotion in the workplace. Therefore, it is concluded that the level of EI can determine employees' promotion in organizations. Hence, this led to the second hypothesis, which would focus on Study 2.



**Hypothesis 2 The level of EI can be the criterion for the individuals' promotion into management level**

Using interview mode, the researcher asked employees who were at management level to answer the questions that were mentioned in the previous chapter. The researcher had a simple introduction about the basic knowledge of EI and explained the reason why the recorder was used before conducting interviews. All management level employees participated in this interview. Therefore the answering rate was 100 percent.

**4.3.2.1 Analysis of Data**

There were five interview questions concerning about EI with promotion, which were presented in the following part one by one.

**Question 1 Do you understand your emotions/moods as well as other's, and in what extent?**

There were three choices for this question: A A little, B Half, C A great deal. Half of the employees chose the answer C (50 %). 41.7 percent of respondents chose the answer B, and only 8.3 percent chose the answer A. This data showed that majority employees had self-awareness and understood other's emotions, they had higher abilities to express emotions naturally and show empathy to others.

**Question 2 What you think is the most important competency as a supervisor, a manager or a director should have at their rank of position?**

There were three choices for this question: A Marketing skills, B Technical skills, C Interpersonal skills and social skills. 50 percent of respondents thought marketing skills were the key for companies to succeed because they depended on marketing people to grow business by providing products and services to match

what customers need 33 33 percent of people considered that technical skills were important for management level employees as only people who had higher technical skills could lead their subordinates 16 67 percent of employees chose the answer C, they believed that people who had higher interpersonal and social skills could solve problems among co-workers effectively because they could handle the difficult situation through taking the emotional needs and feelings of others into consideration As a result, organizational performance would be increased, which was the collective goal of all employees in the organizations This ability reflected the level of EI for management level of employees However EI as the combination of competences for managers did not take higher percentage in this research

**Question 3 When organizations decide to promote the prospective employees to the management level, what the criterion do organizations need to follow?**

There were also four choices for this question A Advanced technical skills, B Working Experience, C EI Competencies, D Performance status Results showed that 25 percent of employees chose the answer A, which indicated that the majority employees who were at management level would take the technical skills as the promotion criterion 25 percent of respondents chose the answer B Working Experience They believed that people with more working experience could produce better outcome, which should be promoted as a reward 8 33 percent of employees chose the answer C, because they thought that the interpersonal skills and social skills were the power to lead and manage through knowing and regulating emotions, which were the potential skills for the prospective employees who were going to be prompted to the management level

41 67 percent of employees chose the answer D, which indicated that the performance status was the main determinant factor to promote employees

**Question 4 As EI can predict the success of your work, will you ask prospective employees to have EI tests before you promote them to the management level?**

There were two choices for this question A Necessary, B Unnecessary One third of respondents chose the answer A, which meant that these people believed that people who had higher level of EI could manage work, employees, and relationship between work and employees in the better outcome, rather than technical skills Two thirds of respondents chose the answer B Unnecessary This implied that the majority employees did not realize the importance and benefits of EI in the workplace related to personal and organizational performance

**Question 5 According to the literature of EI , managers who have higher level of EI will perform better Will you send employees who are at management level to attend EI training courses if you have authority to do so?**

There were two choices for this question A Yes, B No Four respondents answered Yes (33 33 %), while the rest (66 67 %) answered No It was clear that the majority employees would not send employees to attend EI training course, which implied that the level of EI was not that much important for these three companies as the promotion criterion Considering the financial ability of these small-medium size companies, it could not be feasible for sending employees for EI training courses

#### 4.3.2.2 Discussion

EI in the workplace can identify employees' EI level and its impact on employees' job performance, which 'would act as an indicator for promotion of employees in the organization' (Kulkarni, Janakiram & Kumar 2009, p 163) It clearly implied that the level of EI could be one of the determinant factor in terms of the individuals' promotion in the organizational context

However, Dulewicz and Higgs (1999) did a research on the relationship between EI and organizational advancement, and they concluded that the general construct of EI would be rejected or neglected in the promotion of the individuals for leadership roles in the organizational context Besides they suggested that the further research should focus on the interaction between individuals and organizational cultures regarding the development and valuing EI construct, which meant that the decision on promotion would be impacted by the organizational culture or the employees' working experience Therefore, EI could not be the determinant factor for the promotion of employees On the contrary, the organizational promotion cultures and individuals working experience could be the determinant factors for the promotion in the workplace This result contradicted with Marin's (2001) study

The results of this research that focused on the research question 2 revealed that the advanced technical skills and working experience were the most possible promotion criteria besides employees' performance evaluation, rather than the level of EI People who had the advanced technical skills could supervise or guide employees who had lower technical skills in the specific field Similarly, people who had more working experience were those who were highly skilled in their

jobs. Compared to people who had less working experience, they could have higher personal performance through those higher skills to fulfill their tasks. This finding contradicted with the Hypothesis 2, which indicated that the level of EI could not be the employees' promotion criterion in the organizations.

Some reasons might lead to this result. First of all, there were very small amount of research population, which limited the results of this research. Secondly, companies had their own promotion policies that needed to be followed. These policies might hinder people from thinking other possible criteria regarding to promotion. Thirdly, as EI was still a new concept, people had a weak awareness of benefits of mastering EI competencies. This was showed by results of Study 2.

Question 1 in Study 2 was testing the extent of understanding emotions including yourself and others, and there were only half of respondents knew their emotions and others' to a large extent. This implied that the level of understanding of emotional states was very low, which resulted in the poor interpersonal relationship. Therefore people could not work together smoothly, which would impact on the personal and organizational performance negatively. The consequence of these chain reactions was that promotion chances were decreased. This also implied that majority people who had little knowledge about emotions did not realize that knowing and understanding your emotions and others' was the fundamental skill in terms of EI competencies. Thus, their awareness on EI was not in the high level.

As to the competencies for the management level of employees, the majority respondents thought that marketing skills and technical skills were the essential competencies for them. They believed that people who had excellent marketing

skills could make the business developed. But they ignored that cooperation among employees was the key to succeed for the companies.

The result showed that marketing skills and technical skills were the most important competencies for management level of employees, which could decide the individuals' promotion criteria in the organizations. With regards to the promotion criteria, the result revealed that high performance was the most important determinant factor in the organizations, followed by the working experience, the advanced technical skills, and EI competencies. High performers could achieve their goals effectively and efficiently because they were highly skilled people in conducting tasks, which could help organizations gaining their objectives in a fast pace. Hence, high performers should be promoted concerning the contribution they made for the companies. Therefore, high performance was the criterion for employees' promotion.

But literature of EI shows that good performers have higher level of EI than the bad performers (Brienza 2006), it means that EI competencies you have make you become good performers. EI functions as a vehicle (Goleman, et al 2002) to help you achieve high performance. It comes to a conclusion the more EI competencies you master, the higher performance you will achieve.

But in this research, people only focused on the outcomes, that was high performance. However, they ignored the reason why they could achieve high performance. This further approved that people had a weak awareness of EI. This was the main reason that EI failed to become the individuals' promotion criterion in the organizations.

Having a weak awareness of EI determined that EI tests prior to promotion and EI training for management level of employees became unnecessary. But there were still some other reasons affecting answers of question 4 and 5, they were the size of the companies and their financial abilities.

#### **4.4 Summary of Findings**

To summarize the findings of this research concerning the Research Question 1, the findings are that the level of EI is positively associated with the rank of positions, and the higher rank of position you are in, the higher level of EI you will have. There are some variables that affect the level of EI. The level of EI increases with age, working experience, and educational background. The different gender did not affect the level of EI significantly.

As to the Research Question 2, whether EI can be the employees' promotion criterion, the findings did not show the relationship between EI and promotion in the organizational context. Performance status is still a dominant criterion concerning to the promotion, followed by the working experience and the advanced technical skills. People lacked of awareness of EI's benefits in the workplace and had very limited knowledge of EI, which determined that the promotion criterion was irrelevant to the level of EI.

## **Chapter 5. Conclusions**

The aim of this dissertation was to examine that if the ranks of position were associated with the level of EI and how it represented, and whether the level of EI could be the promotion criterion for prospective employees to the management level in the business context

To achieve the aims of the research, the researcher firstly studied the literature review about EI's development and different definitions, the relationship between human brain and EI, the importance of EI for personal and organizational success, and EI competencies with leadership, which led to the Hypothesis 1 the higher position you were in your workplace, the higher level of EI you had In order to test this hypothesis, the researcher used WEIS measurement to have scored 43 employees' level of EI from three different Chinese companies located in various cities and compared employees' EI with their corresponding positions Meanwhile, the researcher also extracted from literature review about relationship between EI and promotion criterion and hypothesized that the level of EI could be the criterion for the individuals' promotion into management level In order to testify this hypothesis, the researcher had the structured interview conducting with employees who were at management level to explore whether EI could be the promotion criterion in the organizations Therefore, the findings of this study are a representation from EI measurement results and the structured interview

### **5.1 Summary of Results**

As EI has a close correlation with leaders, leaders who have higher level of EI perform better than those who have lower level of EI This means that the level of



EI is the key determinant factor for your success in your work. Therefore, employees who are at different level of position show different level of EI, and the higher positions you are in, the higher level of EI you have. The researcher examined employees' level of EI on four EI dimensions and the findings supported that the level of EI was positively associated with the rank of positions. This research also shows some variables that affect the level of EI.

- Gender difference can not affect the leader's level of EI significantly,
- The level of EI increases with age. The maturer you become, the higher level of EI you will have,
- The level of EI increases with working experience. The more working experience you obtain, the higher level of EI you will have,
- The level of EI has a positive connection with educational background.

As for whether EI can be the employees' promotion criterion in the organizational context, the findings did not show any relevance between EI and promotion. The findings are:

- Performance status is still a dominant criterion concerning to the promotion criterion,
- The working experience and the advanced technical skills are the second dominant criteria concerning to the promotion criterion,
- People have very limited knowledge of EI and lack of awareness of EI's benefits in the workplace, which implies that the understanding and development of EI in China is just in an initial stage.

## 5.2 Limitations of the Research

This research was conducted in the Chinese cultural background to study the relationship between level of EI with leaders and the promotion criterion, and it had meaning for theory and practice. Additionally, this research has gained a significant achievement. But there were still some limitations that affected the outcome. The limitations are:

- Financial and time limited the quality of the study as there was no time and finance for more deeper and broader study.
- The scope of this research and size of sample population were in a small amount, which affected the outcome of the study. Besides, the respondents were located in different cities, their values, thoughts, and other issues might have an effect on the outcome of this research on a personal level.
- The size of the companies also had the limitations for this research. They were all small-medium size companies, and their organizational structure and human resource policies might be very flexible. Two of them even did not have human resource departments. This decided that the different job roles between rank of positions were not clear, which affected the analysis of the relationship between their level of EI with corresponding positions.
- There lacked of variety of different nature of the enterprise, because these companies were all private organizations. This also leads to the future research that state-owned enterprises and joint venture companies should be included in order to broaden the scope of sample population and make the research outcome more generalized.

- Cross-cultural generalizability of the research results may be a concern. The researcher did not find any discussion about culture difference in the EI literature. As EI was originated from western countries, the different cultural norms might have the impact on the way to understand the meaning of EI and various individual behaviors resulting from EI. Besides, EI is still a new concept in the literature, and it was introduced into China in the late 20<sup>th</sup> century. The research and study on EI in the Chinese culture context has been still in a beginning stage, which affected the understanding of EI. As a result, it affected the outcome of this research.

### **5.3 Suggestion for Leaders in the Organizations**

According to the findings of this dissertation, it is clearly showed that the level of EI is associated with individuals' success in the workplace positively, and it can predict the leadership effectiveness. Thus, increasing leaders' EI has become essential for the organizations. Therefore, the suggestion for leaders will be as following.

First of all, it is necessary to improve the knowledge and understanding of EI on leaders. By doing so, leaders' awareness on EI can be increased, which can help leaders enhancing their performance. Therefore, the organizational objectives will be achieved as a result.

Secondly, leaders need concerted effort, enthusiasm, strong determination, and the impulse of self-motivation to increase their level of EI, because building high level of EI can not achieve in a day. It is harder to change people's behavior, but it can be done. Through training programs that include the limbic system can help breaking the old behaviors and establish new ones (Goleman 2004a).

Last but not least, EI training programs should be combined with hands-on experience or practice, followed by the feedback mechanism. For example, a complicated scenario can be set. Leaders can achieve EI competencies through attaining goals, solving conflicts, communicating effectively, and getting support and trust from interpersonal activities. Feedback should be given in order to improve EI training. By doing so it can achieve training objectives.

#### **5.4 Implications of Future Research**

The limitations for this dissertation that mentioned in the previous part determine that the future research should emphasize on the following aspects:

- In this study, the findings showed differently on the relationship between gender difference, and various educational background with level of EI compared to the previous research. Therefore, the future research should address further that how these two variables affect the level of EI when studying the relationship between EI and leaders.
- As the limited research population and the restricted nature of enterprises affected the results of this dissertation, the future research should broaden the research population and scope as well as include various nature of companies so that the results will have more accurate reliability and validity.
- The relationship and how they affect each other between cross-culture and EI is another aspect that should be focused on in the future research especially in the Asian context. As the culture has an impact on the behaviors of individuals, understanding the different behaviors under different culture will benefit study and development the theory of EI greatly.

- The variables affecting the level of EI in this research was not particularly large, but it could arouse the interests of practitioners to research more variables that affect the level of EI in the future
- As the interview questions on the Study 2 were only answered by the employees who were at management level, doing this way had some drawbacks. For example, it could not identify the overall views on the promotion criteria, they might only give the thoughts according to their own strengths but ignored other important factors on the promotion criteria. The future research should take the respondents both at management level and non-management level. By doing so it can reflect the criteria of individuals' promotion from all aspects, hence, the organizations can have the right employee promoted according to the more elaborate promotion criteria.

## Bibliography

- Abraham, R. (1999) 'Emotional intelligence in organizations: A conceptualization'. *Genetic, Social, and General Psychology Monographs*, 125(2): 209-219.
- Ahmad, S., Bangash, H. & Khan, S. A. (2009) 'Emotional Intelligence And Gender Differences'. *Sarhad Journal Agriculture*, 25(11): 1-4.
- Antonakis, J., Cianciolo, A. T. & Sternberg, R. J. (2004) *The nature of Leadership*. London: Sage Publications, Inc.
- Aydin, M .D., Leblebici, D. N. Arslan, M., Kilic, M. & Oktem, M. K. (2005) 'The impact of IQ and EQ on pre-eminent achievement in organizations: implications for the hiring decisions of HRM specialists'. *The International Journal of Human Resource Management*, 16(5): 701-719.
- Bar-On, R. (1997). *The Emotional Quotient Inventory (EQ-i): Technical manual*. Toronto, Canada: Multi-Health Systems, Inc.
- Bar-On, R. (2007) 'The 5 meta-factors and 15 sub-factors of the Bar-On model' [Internet]. In: *Reuvenbaron.org*. Available from <http://reuvenbaron.org/bar-on-model/essay.php?i=3> [Accessed 10<sup>th</sup> June 2012]
- Bar-On, R. (2007) 'What is means to be emotionally and socially intelligent according to the Bar-On model' [Internet]. In: *Reuvenbaron.org* <http://reuvenbaron.org/bar-on-model/essay.php?i=4> [Accessed 10<sup>th</sup> June 2012]
- Bass, B. M. (1985) *Leadership and performance beyond expectations*. New York: Free Press.
- Behbahani, A.A. (2011) 'A Comparative Study of the Relation Between Emotional Intelligence and Employee's Performance'. *Procedia-Social and Behavioral Sciences*, Vol. 30, pp. 386-389.
- Best, J. W. & Kahn, J. V. (2006). *Research in education 10th edn*. Boston: Allyn Bacon.
- Bharwaney, G. (2007) *Emotionally Intelligent Living: Strategies for increasing your EQ*. UK: Cromwell Press, Trowbridge, Wiltshire.

Blaikie, N. (2007) *Approaches to Social Enquiry: Advancing Knowledge*. UK: Polity Press.

Blaikie, N. (2009) *Designing Social Research*, 2<sup>ed</sup>, edn. UK: Polity Press.

Bower, G. H. (1981) 'Mood and memory'. *American Psychologist*, 36(2): 129-148.

Bratton, V. K., Dodd, N. G. & Brown, F. W. (2010) 'The impact of emotional intelligence on accuracy of self-awareness and leadership performance'. *Leadership & Organization Development Journal*, 32(2): 127-149.

Brienza, D. (2006) 'Emotional Competence and Leadership Excellence at Johnson & Johnson'. *Europe's Journal of Psychology*, 2(1): 1. [Internet] Available from <http://www.ejop.org/archives/2006/02/emotional-competence-and-leadership-excellence-at-johnson-johnson.html> [Accessed 31<sup>th</sup> May 2012]

Burke, C. S., Stagl, K. C., Klein, C., Goodwin, G. F., Salas, E. & Halpin, S. M. (2006) 'What type of leadership behaviors are functional in teams? A meta-analysis'. *Leadership Quarterly*, 17: 288-307.

Burns, J. M. (1978) *Leadership*. New York: Haper & Row.

Burns, N. & Grove, S. K. (1993) *The practice of nursing research: Conduct, critique & utilization*, 2<sup>ed</sup> edn. USA: W. B. Saunders.

Callahan, J. L. & McCollum, E. E. (2002) 'Conceptualizations of Emotion Research in Organizational Contexts'. *Advances in Developing Human Resources*, 4(1): 4-21.

Carmeli, A. (2003) 'The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers'. *Journal of Managerial Psychology*, 18(8):788-813.

Carter, R. (1998) *Mapping the Mind*. London: University of California Press, Ltd.

Chowdhury, S. (2002). *Management 21C*. London: Pearson Education.

Chemers, M. M. (2002) 'Efficacy and Effectiveness: Integrating Models of Leadership and Intelligence', in : Ott, J. S., Parkes, S. J. & Simpson, R. B. Eds. *Classic Readings in Organizational Behavior*, 4<sup>th</sup> edn. USA: Wadsworth, pp. 92-106.

- Conner, D R (1998) *Leading at the Edge of Chaos How to Create the Nimble Organization* Canada John Wiley & Sons, Inc
- Corbetta, P (2003) *Social Research Theory, Methods and Techniques* London Sage Publications Inc
- Cote, S & Miners, C (2006) 'Emotional intelligence, cognitive intelligence, and job performance' *Administrative Science Quarterly*, 51(1) 1-28
- Cote, S, Lopes, P N, Salovey, P & Miners, C T H (2010) 'Emotional Intelligence and Leadership Emergence in Small Groups' *The Leadership Quarterly*, Vol 21 496-508
- Creswell, J W (2003) *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*, 2<sup>nd</sup> edn London SAGE Publications, Inc
- Crossan, F (2003) 'Research philosophy towards an understanding' *Nurse Researcher*, 11(1) 46-55
- Csikszentmihalyi, M & Csikszentmihalyi, I S (2006) *A Life Worth Living Contributions to Positive Psychology* New York Oxford University Press, Inc
- Davies, M, Stankov, L & Roberts, R D (1998) 'Emotional intelligence in search of an elusive construct' *Journal of Personality and Social Psychology*, 75(4) 989-1015
- Day, D V (2000) 'Leadership development a review in context' *The Leadership Quarterly Yearly Review of Leadership*, 11(4) 581-614
- Drath, W H & Palus, C J (1994) *Making Common Sense Leadership as Meaning-Making in a Community to Practice* USA Center for Creative Leadership
- Dulewicz, V & Higgs, M (1993) 'Leadership at the top The need of emotional intelligence in organizations' *International Journal of Organizational Analysis*, 11(3) 193-210
- Dulewicz, V & Higgs, M (1999) 'Can emotional intelligence be measured and developed?' *Leadership & Organizational Development Journal*, 20(5) 242-253
- Easterby-Smith, M, Thorpe, R & Lowe, A (2002) *Management Research An*



*Introduction*. London: SAGE Publications Ltd.

Elfenbein, H. A. (2007) 'Emotion in Organizations: A Review in Stages' [Internet]. In: *Escholarship*. Available from <http://escholarship.org/uc/item/2bn0n9mv> [Assessed 28<sup>th</sup> June 2012]

Emmerling, J. & Goleman, D. (2003) 'Emotional Intelligence: Issues and Common Misunderstandings' [Internet]. In: *Consortium for Research on Emotional Intelligence in Organizations*. Available from: [http://www.eiconsortium.org/pdf/EI\\_Issues\\_And\\_Common\\_Misunderstandings.pdf](http://www.eiconsortium.org/pdf/EI_Issues_And_Common_Misunderstandings.pdf) [Accessed 28<sup>th</sup> May 2012]

Fiedler, F. E. & Chemers, M. M. (1974) *Leadership and Effective Management*. Glenview, IL: Scott, Foresman and Co.

Fisher, C. (2004) *Researching and writing a dissertation for business students*. England: Pearson Education Ltd.

Fleishman, E. A. (1953) 'Leadership climate, human relations training, and supervisory behaviour'. *Personnel Psychology*, 6(2): 205-222.

Fowlie, J. & Wood, M. (2009) 'The emotional impact of leaders' behaviours'. *Journal of European Industrial Training*, 33(6): 559-572.

Gardner, H. (1983) *Frames of Mind: The theory of multiple intelligence*. New York: Basic Books.

Gardner, H. (1998) 'A Multiplicity of Intelligence: In tribute to Professor Luigi Vignolo' [Internet]. In: *Howardgardner.com*. Available from: <http://www.howardgardner.com/Papers/documents/T101%20A%20Multiplicity%20REVISED.pdf> [Accessed 31<sup>th</sup> May 2012]

George, J. M. (2000) 'Emotions and leadership: The role of emotional intelligence'. *Human Relations*, 53(8): 1027-1055.

Gillham, B. (2000) *Research Interview*. London: Continuum.

Goleman, D., Boyatzis, R. & McKee, A. (2001) 'Primal Leadership: The Hidden Driver of Great Performance'. *Harvard Business Review*, December: 1-16.

- Goleman, D (1995) *Emotional intelligence Why it can matter than IQ* New York Bantam
- Goleman, D (1999) *Working With Emotional Intelligence* Great Britain Clays Ltd, St Ives plc
- Goleman, D (2000) 'Leadership That Gets Results' *Harvard Business Review*, March-April 1-15
- Goleman, D , Boyatzis, R & McKee, A (2002) *The New Leaders Transforming The Art of Leadership into the Science of Results* Great Britain Clays Ltd, St Ives plc
- Goleman, D (2004a) 'What Makes a Leader?' *Harvard Business Review*, January 1-11
- Goleman, D (2004b) *Emotional Intelligence & Working With Emotional Intelligence* London Bloomsbury Publishing Plc
- Goleman, D (2006) *Social Intelligence The New Science of Human Relationships* New York Bantam Dell
- Griffin, R W (2012) *Management Fundamentals*, 6th edn UK Melissa Acuna
- Grubb, W L & McDaniel, M A (2007) 'The Fakability of Bar-On's Emotional Quotient Inventory Short Form Catch Me if You Can' *Human performance* 20(1) 43-59
- Hartman, L (1993) 'A psychological analysis of leadership effectiveness' *Strategy & leadership*, 27(6) 30-32
- Hemphill, J K , & Coons, A E (1957) 'Development of the leader behavior description questionnaire', in Stogdill, R M & Coons, A E Eds *Leader behavior Its description and measurement* Columbus Ohio State University, Bureau of Business Research
- Hersey, P , & Blanchard, K H (1977) *Management of organization behavior utilizing human resources*, 3<sup>rd</sup> edn New Jersey Prentice-Hall
- Hess, J D & Bacigalupo, A C (2011) 'Enhancing decisions and decision-making processes through the application of emotional intelligence skills' *Management Decision*, 49(5) 710-721

- Hillis, L. (2003) 'The Emotional Intelligence: The brain science behind EQ' [Internet]. In: *The Banff Centre*. Available from: [http://www.banffcentre.ca/departments/leadership/library/pdf/emotional\\_intelligence.pdf](http://www.banffcentre.ca/departments/leadership/library/pdf/emotional_intelligence.pdf) [Accessed 17<sup>th</sup> June 2012]
- Hitt, M. A., Black, J. S. & Porter, L. W. (2009) *Management*, 2nd edn. London: Pearson Education, Inc.
- Hogan, R., Curphy, G. J. & Hogan, J. (1994) 'What We Know About Leadership: Effectiveness and Personality'. *American Psychologist*, 49(6): 493-504.
- House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., Gupta, V. & Globe Country Co-Investigators (1999). 'Cultural influences on leadership and organizations: Project GLOBE', in Mobley, W., Gressner, M. J. and Arnold V. Eds. *Advances in Global Leadership* (pp. 171-233). Stamford, CT: JAI Press.
- Hughes, J. A. & Sharrock, W. W. (1997) *The Philosophy of Social Research*, 3<sup>th</sup> edn. New York: Longman Publishing Group.
- Humphrey, R. H. (2002) 'The many faces of emotional leadership'. *The Leadership Quarterly*, 13(5): 493-504.
- Isen, A. M. (1999) 'Positive affect', in Dalglish, T. & Power, M. J. Eds. *Handbook of cognition and emotion*, New York: Wiley & Sons, pp. 521-539.
- Jacobs, T. O. & Jacques, E. (1990) 'Military executive leadership', in Clark, K. E. & Clark, B. B. Eds. *Measures of Leadership*. New Jersey: Leadership Library of America, pp. 281-295.
- Jordan, P. J., Ashkanasy, N. M., Härtel, C. E. J. & Hooper, G. S. (2002) 'Workgroup emotional intelligence scale development and relationship to team process effectiveness and goal focus'. *Human Resource Management Review*, 12(2):195-214.
- Jordan, P. J. & Troth, A. C. (2002) 'Emotional Intelligence and Conflict Resolution: Implications for Human Resource Development'. *Advances in Developing Human Resource*, 4(1): 62-79.
- Katz, D. & Kahn, R. L. (1978) *The social psychology of organizations*, 2<sup>nd</sup> edn. New Jersey: John Wiley & Sons, Inc.

- Khalili, A (2011) 'Gender Difference in Emotional Intelligence Among Employees of Small and Medium Enterprise An Empirical Study' *Journal of International Management Studies*, 6(2) 1-10
- Kulkarni, P M , Janakiram, B & Kumar, D N S (2009) 'Emotional Intelligence and Employee Performance as an Indicator for Promotion, a Study of Automobile Industry in the City of Belgaum, Karnataka, India' *International Journal of Business and Management*, 4(4) 161-170
- Kunnanatt, J T (2008) 'Emotional intelligence theory and description' *Career Development International*, 13(7) 614-629
- Kvale, S (1996) *Interviews An Introduction of Qualitative Research Interviewing* London SAGE Publications, Inc
- Langley, A (2000) 'Emotional intelligence - a new evaluation tool for management development?' *Career Development International*, 15(3) 177-183
- Law, K S , Wong, C & Song, L J (2004) 'The construct and criterion validity of emotional intelligence and its potential utility for management studies' *Journal of Applied Psychology*, 89 483-496
- Leban, W & Zulauf, C (2004) 'Linking emotional intelligence abilities and transformational leadership styles' *Leadership & Organization Development Journal*, 25(7) 554-564
- LeDoux, J (1996) *The emotional brain The mysterious underpinnings of emotional life* New York Touchstone
- Leeper, R W (1948) 'A motivational theory of emotion to replace emotion as disorganized response' *Psychological Review*, 55(1) 5-21
- Lewis, J P (2001) *Mastering Project Management* New York McGraw-Hill
- Mann, L (1992) 'Stress affect and risk-taking', in Yates, J F Eds *Risk-taking behavior* New York Wiley, pp 201-230
- Mayer, J D , Salovey, P & Caruso, D (1999) 'Emotional intelligence meets traditional standards for an intelligence' *Intelligence*, 27(4) 267-298

- Mayer, J D , Salovey, P & Caruso, D (2000) 'Models of Emotional Intelligence', in Sternberg, R J Eds *Handbook of Intelligence* UK Cambridge University Press, pp 396-422
- Locke, E A (2005) 'Why emotional intelligence is an invalid concept' *Journal of Organizational Behaviour*, 26(4) 425-431
- Martin, J (2001) *Profiting from Multiple Intelligences in the Workplace* UK Crown House Publishing Ltd
- Mayer, J , Roberts, R & Barsade, S (2008) 'Human abilities emotional intelligence' *Annual Review of Psychology*, 59(1) 507-539
- Mayer, J D , Salovey, P & Caruso, D R (2008) 'Emotional intelligence new ability or eclectic traits' *American Psychologist*, 63(6) 503-517
- McCallum, S & O'Connell, D (2009) 'Social capital and leadership development Building stronger leadership through enhanced relational skills' *Leadership & Organization Development Journal*, 30(2) 152-166
- McColl-kennedy, J R & Anderson, R D (2002) 'Impact of leadership style and emotions on subordinate performance' *Leadership Quarterly*, 13(5) 545-559
- Oppenheim, A N (1992) *Questionnaire Design, Interviewing and Attitude Measurement* London Pinter Publishers
- Patton, M Q (2001) *Qualitative Research & Evaluation Methods*, 3<sup>rd</sup> edn London SAGE Publications, Inc
- Pert, C B (1999) *Molecules of Emotion The Science Behind Mind-Body Medicine* New York Touchstone Rockefeller Center
- Peters, T J (1988) *Thriving on chaos* New York Alfred A Knopf Inc
- Plutchik, R (1991) *The Emotions* USA University Press of America, Inc
- Polit, D F & Hungler, B P (1991) *Nursing research Principles and methods*, 4<sup>th</sup> edn New York Lippincott
- Pool, P & Cotton, C W (2004) *Emotional Intelligence Improving the Odds of Leader Success*, 1-8

- Prati, L M , Douglas, C , Ferris, G R , Ammeter, A P & Buckley, M R (2003) 'Emotional Intelligence, Leadership Effectiveness, And Team Outcomes' *The International Journal of organizational Analysis*, 11(1) 21-40
- Rahim, M A & Psenicka, C (1993) 'Relationship between emotional intelligence and effectiveness of leader role A dyadic study in four countries' *International Journal of Organizational Analysis*, 13(4) 327-342
- Rauch, C F , & Behling, O (1984) 'Functionalism Basis for alternate approach to the study of leadership', in Hunt, J G & Hosking, D M , Schriesheim, C A & Stewart, R Eds *Leaders and managers International perspectives on managerial behavior and leadership* New York Pergamon Press, pp 45-62
- Richards, D & Engle, S (1986) 'After the vision Suggestion to corporate visionaries and vision champions', in Adams, J D Eds *Transforming leadership* Alexandria Miles River Press, pp 199-215
- Salovey, P & Mayer, J D (1990) 'Emotional intelligence' *Imagination, Cognition, and Personality*, 9(3) 185-211
- Salovey, P & Mayer, J D (1997) 'What is emotional intelligence?' *Emotional development and emotional intelligence implications for educators* 3-31
- Saunders, M , Lewis, P & Thornhill, A (2009) *Research Methods for Business Students*, 5<sup>th</sup> edn England Pearson Education
- Seaman, H C (1987) *Research methods Principles, practice and theory for nursing*, 3<sup>rd</sup> edn Norwalk Appleton & Lange
- Schem, E H (2004) *Organizational Culture and Leadership* USA Jossey-Bass
- Schwartz, J M & Begley (2002) *The Mind & The Brain Neuroplasticity ans the Power of Mental Force* New York HarperCollins Publishers Inc
- Shiple, N L , Jackson, N & Segrest, S L (2010) 'The effects of emotional intelligence, age, work experience, and academic performance' *Research in Higher Education Journal*, vol 9, 1-18
- Smircich, L , & Morgan, G (1982) 'Leadership The Management of Meaning' *Journal of Applied Behavioral Science*, 18(3) 257-273

- Smircich, L (1983) 'Concepts of culture and organizational analysis' *Administrative Science Quarterly*, 28(3) 339-358
- Snarey, J R & Vaillant, G E (1985) 'How Lower- and Working-Class Youth Become Middle-Class Adults The Association between Ego Defense Mechanisms and Upward Social Mobility' *Child Development*, 56(4) 899-910
- Stogdill, R M, (1948) 'Personal factors associated with leadership A survey of the literature' *Journal of Psychology*, 25, 35-71
- Sternberg, R J (1985) *Beyond IQ A Triarchic Theory of Human Intelligence* New York Cambridge University Press
- Sutto, R I (2002) 'Why innovation happens when happy people fight' *Ivey Business Journal*, 67(2) 1-6
- Sy, T, Cote S & Saavedra, R (2005) 'The contagious leader Impact of the leader's mood on the mood of group members, group affective tone, and group processes' *Journal of Applied Psychology*, 90(2) 295-305
- Tashakkori, A & Teddlie, C (1998) *Mixed methodology Combining qualitative and quantitative approaches* London SAGE Publications, Inc
- Thorndike, E L (1920) 'Intelligence and its uses' *Harper's Magazine*, January, pp 227-235
- Totterdell, P (2000) 'Catching moods and hitting runs Mood linkage and subjective performance in professional sport teams' *Journal of Applied Psychology*, 85(6) 848-859
- Van Rooy, D L, Alonso, A & Viswesvaran, C (2005) 'Group differences in emotional intelligence scores Theoretical and practical implications' *Personality and Individual Differences*, 38(3) 689-700
- Wechsler, D (1943) 'Non-intellective factors in general intelligence' *The Journal of Abnormal and Social Psychology*, 38(1) 101-103
- Weiss, H, & Cropanzano, R (1996) 'Affective events theory a theoretical discussion of the structure, causes and consequences of affective experiences at work' *Research in Organizational Behavior*, 18, 1-79

Wolff, S B , Pescosolido, A T & Druskat, V D (2002) 'Emotional Intelligence as the Basis of Leadership Emergence in Self-Managing Teams' *The Leadership Quarterly*, Vol 13, pp 505-522

Wong, C S & Law, K S (2002) 'The effects of leader and follower emotional intelligence on performance and attitude An exploratory study' *The Leadership Quarterly*, 13 (3) 243-274

Wong, C S , Law, K S & Song, L , J (2004) 'The Construct and Criterion Validity of Emotional Intelligence and Its Potential Utility for Management Studies' *Journal of Applied Psychology*, 89(3) 483-496

Wong, C S , Wong, P N & Law, K S (2004) 'Development and Validation of a Forced Choice Emotional Intelligence Measure for Chinese Respondents in Hong kong' *Asia Pacific Journal Of Management*, 21(4) 535-557

Wong, C S , Wong, P N & Law, K S (2007) 'Evidence of the practical utility of Wong's emotional intelligence scale in Hong Kong and mainland China' *Asia Pacific Journal Of Management*, 24(1) 43-60

Yammarino, F J & Atwater, L E (1997) 'Do managers see themselves as other see them? Implications of self-other rating agreement for human resources management' *Organizational Dynamics*, 25(4) 35-44

Yukl, G (2010) *Leadership in Organizations* New Jersey Pearson Education, Inc



## **Appendix 1: Emotional Intelligence-Leadership Competencies**

### **SELF-AWARENESS**

*Emotional self-awareness* Leaders high in emotional self-awareness are attuned to their inner signals, recognizing how their feelings affect them and their job performance. They are attuned to their guiding values and can often intuit the best course of action, seeing the big picture in a complex situation. Emotionally self-aware leaders can be candid and authentic, able to speak openly about their emotions or with conviction about their guiding vision.

*Accurate self-assessment* Leaders with high self-awareness typically know their limitations and strengths, and exhibit a sense of humor about themselves. They exhibit a gracefulness in learning where they need to improve, and welcome constructive criticism and feedback. Accurate self-assessment lets a leader know when to ask for help and where to focus in cultivating new leadership strength.

*Self-confidence* Knowing their abilities with accuracy allows leaders to play to their strengths. Self-confident leaders can welcome a difficult assignment. Such leaders often have a sense of presence, a self-assurance that lets them stand out in a group.

### **SELF-MANAGEMENT**

*Self-control* Leaders with emotional self-control find ways to manage their disturbing emotions and impulses, and even to channel them in useful ways. A hallmark of self-control is the leader who stays calm and clear-headed under high stress or during a crisis - or who remains unflappable even when confronted by a trying situation.

*Transparency* Leaders who are transparent live their values. Transparency - an authentic openness to others about one's feelings, beliefs, and actions - allows integrity. Such leaders openly admit mistakes or faults, and confront unethical behavior in others rather than turn a blind eye.

*Adaptability* Leaders who are adaptable can juggle multiple demands without losing their focus or energy, and are comfortable with the inevitable ambiguities of organizational life. Such leaders can be flexible in adapting to new challenges, nimble in adjusting to fluid change, and limber in their thinking in the face of new data or realities.

*Achievement* Leaders with strength in achievement have high personal standards that drive them to constantly seek performance improvements - both for themselves and those they lead. They are pragmatic, setting measurable but challenging goals, and are able to calculate risk so that their goals are worthy but attainable. A hallmark of achievement is in continually learning - and teaching - ways to do better.

*Initiative* Leaders who have a sense of efficacy - that they have what it takes to control their own destiny - excel in initiative. They seize opportunities - or create them - rather than simply waiting. Such a leader does not hesitate to cut through red tape, or even bend the rules, when necessary to create better possibilities for the future.

*Optimism* A leader who is optimistic can roll with the punches, seeing an opportunity rather than a threat in a setback. Such leaders see others positively, expecting the best of them. And their "glass half-full" outlook leads them to expect that changes in the future will be for the better.

## **SOCIAL AWARENESS**

*Empathy* Leaders with empathy are able to attune to a wide range of emotional signals, letting them sense the felt, but unspoken, emotions in a person or group. Such leaders listen attentively and can grasp the other person's perspective. Empathy makes a leader able to get along well with people of diverse backgrounds or from other cultures.

*Organizational awareness* A leader with a keen social awareness can be politically astute, able to detect crucial social networks and read key power relationships. Such leaders can understand the political forces at work in an organization, as well as the guiding values and unspoken rules that operate among people there.

*Service* Leaders high in the service competence foster an emotional climate so that people directly in touch with the customer or client will keep the relationship on the right track. Such leaders monitor customer or client satisfaction carefully to ensure they are getting what they need. They also make themselves available as needed.

## **RELATIONSHIP MANAGEMENT**

*Inspiration* Leaders who inspire both create resonance and move people with a compelling vision or shared mission. Such leaders embody what they ask of others, and are able to articulate a shared mission in a way that inspires others to follow. They offer a sense of common purpose beyond the day-to-day tasks, making work exciting.

*Influence* Indicators of a leader's powers of influence range from finding just the right appeal for a given listener to knowing how to build buy-in from key people and a network of support for an initiative. Leaders adept in influence are persuasive and engaging when they address a group.

*Developing others* Leaders who are adept at cultivating people's abilities show a genuine interest in those they are helping along, understanding their goals, strengths, and weaknesses. Such leaders can give timely and constructive feedback and are natural mentors or coaches.

*Change catalyst* Leaders who can catalyze change are able to recognize the need for the change, challenge the status quo, and champion the new order. They can be strong advocates for the change even in the face of opposition, making the argument for it compellingly. They also find practical ways to overcome barriers to change.

*Conflict management* Leaders who manage conflicts best are able to draw out all parties, understand the differing perspectives, and then find a common ideal that everyone can endorse. They surface the conflict, acknowledge the feelings and views of all sides, and then redirect the energy toward a shared ideal.

*Teamwork and collaboration* Leaders who are able team players generate an atmosphere of friendly collegiality and are themselves models of respect,

helpfulness, and cooperation. They draw others into active, enthusiastic commitment to the collective effort, and build spirit and identity. They spend time forging and cementing close relationships beyond mere work obligations.

Source: *The New Leaders: Transforming The Art of Leadership into the Science of Results* (2002)

## Appendix 2: Six Leadership Styles

	Coercive	Authoritative	Affiliative	Democratic	Pacesetter	Coaching
<b>Leader's Modus Operandi</b>	<b>Demands immediate compliance</b>	<b>Mobilizes people toward a vision</b>	<b>Creates harmony and builds Emotional bonds</b>	<b>Forges consensus through participation</b>	<b>Sets high standards for performance</b>	<b>Develops people for the future</b>
<b>The style in a phrase</b>	"Do what I tell you"	"Come with me"	"People come first"	"What do you think?"	"Do as I do, now!"	"Try this"
<b>Underlying emotional Intelligence competencies</b>	Drive to achieve; initiate; self control	Self-confidence; empathy; change catalyst	Empathy; building relationship s; communication	Collaboration; team leadership; communication	Conscientiousness, drive to achieve; initiate	Developing others; empathy; self awareness
<b>When the style works best</b>	In a crisis, to kick start a turnaround, or with problem employees	When changes require a new vision, or when a clear direction is needed	To heal rifts in a team or to motivate people during stressful circumstances	To build buy-in or consensus or to get input from valuable employees	To get quick results from a highly motivated and competent team	To help an employee improve performance or develop long term strengths
<b>Overall impact on climate</b>	Negative	Most strongly positive	Positive	Positive	Negative	Positive

Source: Leadership That Gets Results, Harvard Business Review (2000)

### **Appendix 3: Wong's Emotional Intelligence Scales (WEIS)**

Thank you for your participation in this survey! The aim of this survey is to understand the Emotional Intelligence and its characteristics. This survey contains two parts: Part A and Part B. Please circle the answer that most close to your action.

**Your basic information:**

1 Gender A Male B Female

2 Your Position

A Non-management employees

B Supervisors

C Department Managers

D Executives

3 Educational background

A Junior cycle of Second level of Education

B Senior cycle of Second level of Education

C Third Level Education (colleges, universities, or technological sector etc )

4 Length of employment

A Less than 3 years

B 3-7 years

C 7-15 years

D 15 years or above

5 Age

A Less than 25

B 25-29

C 30-39

D 40-49

E 50 or above

## The Selected 40 Forced Choice Items

### Part I Reactions to Various Scenarios

For each of the following 20 situations, there are two possible reactions. Please circle the alphabet of the action (i.e., either A or B) that you will have a greater chance of taking.

(1) When you are very down, you will

A Try to do something to make yourself feel better

B Just ignore it because you know your emotion will be back to normal naturally

(2) When you are upset, you will

A Talk to someone who is close to you about your feeling

B Concentrate on some matters (e.g., work, study, or hobby) so that you can get away from your bad feelings

(3) Your supervisor assigns a task that is not included in your job responsibility and you do not have any interest in doing it. You will

A Persuade yourself that the task is not that bad and perform the task

B Tell your boss that you don't like the task and ask him to find some other suitable person to do the task

(4) Johnny was working in Hotline Department and his job was to handle complaint and answered customer enquiry. However, he did not like his job and so he found another job in a hotel, serving walk-in customers. He again found that he was sick and tired in handling unreasonable customers. If you were Johnny, you will

A Try to get more training and education in customer service skills

B Talk to some experienced people in customer service and seek their advice

(5) Two managers in your company were hostile and very competitive with each other. You were the head of a department. You were caught at the middle of these two managers because both of them wanted to gain control of your department. This made your department difficult to function normally because there was a lot of confusion in rules and regulations for your department. You will

A Pretend that you do not know about the competition between the two managers because politics is always unavoidable. You will lead them to fight and follow the finalized rules and regulations.

B Try your best to make the rules and regulations clearer so that your department can function normally.

(6) When a friend comes to you because s/he is not happy, you will

A Share his/her feeling.

B Take him/her to do something s/he likes.

(7) When someone keeps on arguing with you on some unimportant topics, you will

A Do not respond to him/her and wait for him/her to stop.

B Pretend to agree with his/her views and switch the discussion to other topics.

(8) Your friend has a rough relationship with his/her boy/girl friend because your friend has a bad temper. When your friend talks to you about the rough relationship, you will

A Pretend to agree with him/her that his/her boy/girl friend is not good enough.

B Point out that it is your friend's own fault and hope that s/he will improve.

(9) Joyce is the only daughter of her parents. She is very close to her parents and is a very responsible person. Her job performance is excellent and colleagues like her. Recently her mother had a very serious traffic accident and is in coma. Although Joyce worries a lot, she does not take her leave and tries to do her best at work. If you were Joyce's supervisor, you will

A Let her come to work as usual because she can have her work to distract her worries.

B Assign less work to her so that she can go to the hospital in a more flexible way.

(10) One of your subordinates has just come back to work after giving birth to her first baby girl for one month. You know that her baby girl's health condition is not very good. Thus, you found out that in this month she had been making careless mistakes and took sick leave frequently. She had good performance before the



baby was born. However, you are certainly not satisfied with her performance in this month. You will

A Tell her directly that you did not satisfy with her work and discussed with her how she could improve the situation

B Assign less work to her or transfer her to other position with lighter work load

(11) Suppose you get an important award, you will

A Tell everyone and share your happiness with them

B Tell and celebrate only with your family and closest friends

(12) When you have to do something you don't like, you will

A Try to find some interesting stuff from it

B Try to finish it as soon as possible and forget about it

(13) Your boy/girl friend is a fan of a particular pop music star. You spend two hours to buy two tickets for this star's concert. You asked him/her to meet you at 7:30 p.m. After one hour s/he did not show up. You therefore went to the concert yourself. After the concert, you found your boy/girl friend. Before you said anything, s/he kept on scolding you seriously. You will

A Let him/her continue. After s/he finished, tell him/her that you have already waited for him/her for one hour.

B Stop him/her immediately. Tell him/her that s/he should consider his/her lateness before scolding others.

(14) Today you go to work as usual. After getting off the MTR, you found out that you lost your wallet. Soon after arriving the office, your boss complained about your work. When you started to work, your computer was broken. It is clear that today is very unlucky for you and you are not happy about it. You will

A Never mind, try to find another computer to start your work.

B Talk to a colleague or friend to release the bad feeling before starting your work.

(15) Your colleague, Peter, is a very smart person and seems to know a lot. He is able to respond effectively and sensitively towards the people who are in high

positions Your boss asked you to work with him in a project Peter has many flashing ideas but he leaves you to handle all the dirty and donkey tasks You will

A Discuss with Peter and insist to share your tasks with him

B Tell your boss about the situation and see if s/he can offer any advice and/or help

(16) When you face problems regarding your career or study, you will

A Talk to your friends to seek advice

B Handle the problem yourself because everyone should deal with his/her own life

(17) You have very little chance to get the offer of a job which you like very much You will

A Still apply for this job and try to prepare well for it

B Concentrate your efforts on jobs that you have better chances to get offer

(18) One day, you represent your company to welcome two important investors from Russia According to Russian custom, people will kiss each other the first time they meet However, you feel very uncomfortable to kiss unknown people, especially for those with the same gender as yours You will

A Take the initiative to shake hand with them immediately when they appear to avoid the kissing

B Kiss them to show your respect

(19) One Sunday in summer, you and your boy/girl friend drove to the beach to enjoy the sunshine On the way you had a minor accident The door of your car was damaged and it would cost some money to repair it You will

A Drive the car to a familiar mechanic and take the bus to the beach

B Go to the beach as planned and fix the car later

(20) You have an important examination tomorrow and you are studying hard in your room Your family is watching a television program which you like very much as well Since your house is small and so the noise of the television annoys you You will

A Ask your family to turn off the television but videotape the program so that you and your family can watch it together tomorrow after your examination

B Although a little bit uncomfortable, you put a headphone on (to reduce the noise) so that you can concentrate on your study

## **Part II: Relative Strength of Abilities**

The following are 20 pairs of abilities. In each pair, please judge which ability is stronger for you. Then circle the alphabet (i.e., either (a) or (b) that represents this ability (note you may be strong or weak on both abilities. However, what you need to choose is the relatively stronger one)

- 1 (a) Comprehend the reasons of being happy or unhappy  
(b) learn how to repair a new electric appliance
- 2 (a) mental arithmetic  
(b) control one's emotions
- 3 (a) learn how to sing a new song  
(b) concentrate on achieving one's goal
- 4 (a) understand others' true feelings by observing their behaviors  
(b) tolerate physical pain when compared to others
- 5 (a) Comprehend one's changes in emotions  
(b) learn how to dance some new steps
- 6 (a) run faster than others  
(b) calm down faster than others from angry feeling
- 7 (a) encourage oneself to work hard in unfavorable situations  
(b) learn how to draw or paint
- 8 (a) observe details of things  
(b) observe others' emotions
- 9 (a) having a better ability in sport activities than other people  
(b) having a better ability in understanding one's own feeling than other people
- 10 (a) use mechanical instruments  
(b) control one's temper
- 11 (a) Comprehend the rhythm of a song  
(b) set objectives and work hard towards them

- 12 (a) understand others' emotions from their behaviors and language  
(b) having better physical endurance than other people
- 13 (a) physically more energetic than others  
(b) understand one's emotions better than others
- 14 (a) memorize new phone numbers quickly  
(b) not losing temper when angry
- 15 (a) motivate oneself to face failure (a) positively  
(b) learn to create an artistic object (e g , china, painting)
- 16 (a) Comprehend the rationale of complicated problems  
(b) understand others' emotions
- 17 (a) evaluate one's own bad emotions  
(b) evaluate others' singing abilities
- 18 (a) keep emotionally calm when facing disguised people or situations  
(b) memorize strangers' names
- 19 (a) encourage oneself to do the best  
(b) learn a new sport activities (e g , soccer)
- 20 (a) Comprehend others' emotions quickly and accurately  
(b) appreciate the creativity of a movie or a dram

(Source from Wong, et al 2007)

## **Appendix 4: Interview 1**

Do you understand your emotions/moods as well as other's, and in what extent?

- Yes, I understand my moods and others in a large extent Because I have been working in this company for almost 7 years and I know my colleagues very well through constant interaction due to working issues As a manager, a part of my job is to motivate my subordinates when they feel frustrated or have trouble because of work I must know why they are so moody Then I will comfort them meanwhile motivate them The aim is to let them focus on working and get the job done For myself emotions, I am 42 years-old and my life and working experience made me grown up So I know myself and my emotions

What you think is the most important competencies as a supervisor, a manager, or a director should have at their level of position?

- Management level of employees should have a lot of competencies But the most important thing is that they must be professional at their job role Marketing ability is still the key skill, because the company needs people with the marketing skill to expand business The more business the company gets, the more opportunities the company will have to develop

When organizations decide to promote the prospective employees to the management level, what the criterion do organizations need to follow?

- Our company has a promotion policy, which focus on the performance evaluation Employees who have high performance should be rewarded in the form of promotion I believe that they will work better after getting promoted Besides they are professional and they have high performance appraisal, which can convince other employees who are not promoted

As EI can predict the success of your work, will you ask prospective employees to have EI tests before you promote them to the management level?

- **Not necessary** First of all, EI is not promotion criterion and it is not necessary to put effort on it. Second, EI is soft skill, it can be gained through working experience and constant interaction with people. EI tests do not represent your real level of EI.

According to the literature of EI, managers who have higher level of EI will perform better. Will you send employees who are at management level to attend EI training courses if you have authority to do so?

- **No** Like I said, EI can be gained through working experience and constant interaction with people. It is not necessary to send them to have training course. Additionally, as the company is quite small, and training course is a little bit expensive. Considering the finance problem, I will not send them going to the course. People get promoted because they have a very good performance, rather than having high level of EI. To achieve the targets and have the job done is the main job for the managers.

**AN EXPLORATIVE STUDY INTO WORK-RELATED  
STRESS AMONG COMMUNITY PHARMACISTS IN  
IRELAND**

**Thomas Michael Doody**

**MSc in Management 2012**

**School of Business**

**National College of Ireland**

**2012**

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## ABSTRACT

The community pharmacy profession in Ireland has undergone dramatic changes in recent years. Research on stress among community pharmacists in Northern Ireland has shown that work-related stress is an important issue. The aim of this study was to explore the level of work-related stress among community pharmacists in Ireland.

A questionnaire was adapted from one used in the Northern Ireland study. The questionnaire was amended, piloted and distributed. Four semi-structured interviews were carried out to allow triangulation of data. 73 valid questionnaire responses were returned. Data was analysed using SPSS and content analysis.

Work-related stress was found to exist among the community pharmacists sampled. Interruptions due to phone calls or staff members, uncertainty regarding HSE fees and drug prices, increasing workloads and level of patient responsibility were some of the most stressful aspects of the work environment.

Business management duties appear to cause considerable stress with supervising and superintendent pharmacists experiencing more stress than support pharmacists. Pharmacists working in single pharmacies appear to experience more stress than those in pharmacy groups.

Methodology limitations mean that no inferences can be made regarding the total population of community pharmacists in Ireland however results indicate this phenomenon is worthy of further research.

## **ACKNOWLEDGEMENTS**

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## 1: INTRODUCTION

This thesis addresses the issue of occupational stress among community pharmacists in Ireland. Occupational stress has been of increasing concern to employees, employers and governments for many years (Le Fevre, Matheny & Kolt, 2003) and is now recognised as representing a real threat to quality of life for employees (Kompier, Cooper & Geurts, 2000). According to Park (2007) stressed workers are more likely to be unhealthy, poorly motivated, less productive and less safe at work. Furthermore, the organizations they work for are less likely to succeed in a competitive market. In a recent European Working Conditions Survey (EWCS), work-related stress was found to be the second most common work-related health problem across the EU (Parent-Thirion, Macias, Hurley & Vermeulen, 2007). The authors also found that work-related stress is most likely to occur in health and social services jobs as well as education jobs.

### 1.1 Impact of Work-Related Stress

Work-related stress can cost national economies huge sums of money in sick pay, lost productivity, health care and litigation costs (Palmer, Cooper & Thomas, 2004). In the UK, the Health and Safety Executive has estimated that half of the absenteeism which occurs is due to work stress (Cooper & Cartwright, 1994). Stress related symptoms can range from mild medical unfitness, through general unhappiness and anxiety, to more serious impairments including drug dependency, excessive drinking, increased smoking, divorce, psychiatric problems and suicide (Makin, Rout & Cooper, 1988). According to McGowan, Gardner & Fletcher (2006), the prevalence of occupational stress is increasing and the *negative consequences of stress on employee's health and wellbeing* are increasing also.

Despite much disagreement among researchers regarding the terminology and research methodology of stress, there is clear consensus on the importance of this issue and its potential consequences for individuals, organizations and society (Kahn & Byosiere, 1990)

## **1.2 Community Pharmacy in Ireland**

Community pharmacists are among the most accessible healthcare providers in Ireland. There are 1,800 pharmacies in Ireland and the sector has experienced huge growth in the last fifteen years as a result of deregulation of the industry. There is wide variety in the business model of community pharmacies in Ireland. Many pharmacies are independently owned single pharmacies, some are part of a group and others are part of a larger chain. Each different business will have different management structures and organisational designs. New legislation, the Pharmacy Act 2007, requires that each pharmacy have a 'Supervising Pharmacist,' who works on a full-time basis in the pharmacy, and also a 'Superintendent Pharmacist' who takes overall responsibility for the pharmacy business. Both these roles can be filled by the same person however one can only act as supervising pharmacist for a single pharmacy, whereas one can act as superintendent pharmacist for multiple pharmacies. This change has forced many organisations to adopt more formalised management structures.

The typical community pharmacy in Ireland is now open 56 hours per week (PRICEWATERHOUSECOOPERS (PWC) Report, 2011) with opening hours extending in response to patient demands and increased competition in the sector. The role of the community pharmacist includes

- providing detailed advice on medicine use and management
- promoting medical compliance, with favourable implications for patient care
- cross-checking prescriptions to minimise the risk of adverse drug reaction

- reviewing prescriptions to ensure correct dosage and frequency and identify any potential omissions
- providing advisory services on minor health problems

(PWC, 2011)

Frequently, community pharmacies operate with a single pharmacist on duty. This effectively means that many pharmacists must work excessive hours without sufficient breaks as, in accordance with legislation, a pharmacist must be present on the pharmacy premises at all times during which the pharmacy is open for business. New guidelines also dictate that the pharmacist on duty must be in a position to supervise all sales of over-the-counter medication carried out by all pharmacy staff. Consequently, it is often impractical and costly to provide a pharmacist with a break or allow them to leave the premises during opening hours as this requires employing a second pharmacist for this period or else closing the pharmacy.

### **1.3 Balancing Roles**

The duties of a community pharmacist are rarely restricted to the roles outlined in the PWC Report. The huge variety in possible roles within the pharmacy necessitates significant skills aside from the expertise required to dispense medication and counsel patients on its use. Many pharmacists must also fulfil all the duties of the manager of a small business. This may involve dealing with financial, legal and human resource issues on a daily basis. Ottewill, Jennings and Magirr (2000) outline key operational and strategic management competencies which are necessary to operate a professional service successfully. The research of Ottewill et al (2000) had a direct focus on community pharmacists in the U.K. and highlights the fact that management skills can be as important as medical skills in community pharmacy. Anecdotal evidence would suggest that many pharmacists in Ireland have little or no formal

training in how to deal with management issues thus it can be much more time-consuming and problematic than it should be. These tasks must be done in addition to the duties already outlined. This can mean that the process of dispensing medication is very often interrupted and mistakes can easily occur.

Managing a busy community pharmacy can be difficult however, when combined with the task of safely and accurately dispensing medicines, this can understandably lead to high stress levels for those involved. The fact that the working day is often nine or more hours in duration, during which time the pharmacist cannot leave the premises for a break, further serves to create a potentially stressful environment. Life stress events such as financial or family problems are also highly documented causes of stress which can affect pharmacists (Wine, 1971) and can lead to distraction of attention to thinking about these issues at the expense of work-related information.

Due to the nature of products a pharmacy will have in stock they can be targets for criminals seeking drugs or for shoplifters. The frequency of incidences of a criminal nature in community pharmacies has been increasing (Linehan, 2012) and this can be a major worry for pharmacists as their own safety and the safety of other staff can be put at risk.

#### **1.4 Deregulation**

Schmidt and Pioch (2004) describe how protective measures at the macro level meant a high level of regulation existed in the U.K. pharmacy sector until the late nineties. Recent deregulation has made the climate much more competitive and this has led to increasing pressure on small and medium sized businesses. The Irish situation is very similar to this. Major deregulation in the last ten years has led to a much more open marketplace and increased competition. In Northern Ireland, a similar situation exists as regulatory changes

have had a significant impact on the community pharmacy sector McCann, Hughes, Adair & Cardwell (2009) (a) discovered that 30% of pharmacists experienced stress due to changing organisational arrangements which can be attributed, in part, to regulatory changes In Germany, increasing competition has meant that professional self-perception among pharmacists is being put under pressure (Schmidt & Pioch, 2001) This has been attributed to the increasing focus on commercial aspects of the job at the expense of the healthcare aspects

### **1.5 Research Rationale**

Mild, moderate and severe stress levels, and even burnout, have been documented in pharmacists (Marshall, Allison, Nykamp & Lanke, 2008) The quantitative and qualitative studies conducted by McCann et al (2009) (a) and McCann, Adair and Hughes (2009) (b) in the area of work-related stress among pharmacists in Northern Ireland indicated that a moderate level of stress exists among community pharmacists in this region A recent British study of pharmacists also found that 15% of pharmacists are so stressed that they considered leaving their job (Seston, Hassell, Ferguson & Hann, 2009)

This research highlights the existence of stress among this sector of healthcare workers and indicates that further research is warranted in this area The position held by the author for the past two years is as support pharmacist in Rathmines Pharmacy in Rathmines, Dublin For the year prior to this the position held was that of locum pharmacist across several pharmacies throughout Munster This area of research was chosen for this thesis as both personal experiences and the experiences of colleagues suggest that work-related stress is becoming an increasingly important issue for community pharmacists in Ireland

## **1 6 Research Questions**

- 1 Do community pharmacists in Ireland experience work-related stress?
- 2 What is the nature of the work-related stress experienced?
- 3 To what extent is this stress experienced among community pharmacists in Ireland?
- 4 How has community pharmacy in Ireland changed in recent years in relation to legislation, regulation and competition and what impact, if any, has this had on stress levels of community pharmacists?
- 5 What best practice interventions exist for prevention and reduction of harmful stress among community pharmacists?

## **1 7 Research Objectives**

- 1 Establish suitable criteria for measuring stress levels of community pharmacists
- 2 Ascertain how the stress experienced compares to that detailed in other studies on pharmacists and other professions
- 3
  - (i) Discover the aspects of the daily duties of the pharmacist that can lead to stressful situations and determine if some stressors are more common than others
  - (ii) Discover if factors aside from daily duties such as age, gender or level of seniority are contributing to stress levels
- 4 Estimate the degree to which external factors such as legislation changes are impacting on the role of the pharmacist and discover if this is a causative factor for high stress levels
- 5 Examine employer's legal responsibilities in relation to work-related stress

6 Develop a set of recommendations for creating and maintaining a low stress environment in the community pharmacy setting

## **2 LITERATURE REVIEW**

### **2.1 Introduction**

Stress has a major influence on both individual health and organisational health Park (2007) found that stressed workers are likely to be less productive and their organizations are less likely to be successful Stress can evoke feelings of frustration, fear, conflict, pressure, hurt, anger, sadness, inadequacy, guilt, loneliness, or confusion (Cavanagh, 1988) In a recent study on stress among both hospital and community pharmacists in Northern Ireland, McCann et al (2009) (a) reported moderate levels of stress among their subjects amidst a backdrop of changes in the profession The authors also emphasised the need for further research in this area

### **2.2 What is Stress?**

Stress can be defined in several ways due to its highly subjective nature Stress is related to an inability to concentrate and can lead to a multitude of physical and emotional symptoms Harris and Arendt (1998) describe both a response-based view and situational-based view The response-based view defines stress in terms of response to a specific stressor however the situational-based view identifies stress as an intrinsic characteristic of an event or situation which produces a strain in the individual Deadlines, unsupportive co-workers and bad-tempered customers are examples of such stressors and sources of strain Harris and Arendt (1998) conclude that if a disharmony exists between the individual and the environment then the person experiences stress Michie (2002) describes stress as the psychological and physical state that results when the resources of the individual are not sufficient to cope with



the demands and pressures of the situation. There is however a growing consensus on the definition of occupational stress as a negative psychological state with both cognitive and emotional components which affects the health of both individual employees and their organisations (Cox, Griffiths & Rial-Gonzalez, 2000)

### **2.3 Stress Classification**

The negative outcomes of stress are well documented however some research suggests stress can be beneficial as well as destructive. Selye (1956) described stress as being useful when it helps protect a person in times of danger and helps a person adapt during times of change. This type of 'good stress' is referred to by Selye as 'eustress'. Selye postulates that eustress enables a person to perform tasks more efficiently. Benson and Allen (1980) found that, among managers, a certain level of stress can be quite productive allowing for improved efficiency and concentration levels. Nelson and Simmons (2003) agree with this view, asserting that stress can produce positive outcomes and processes. This research would suggest that a certain level of stress is a good thing in a community pharmacy environment where high concentration levels are required and efficiency is demanded. This research supports the research of Yerkes and Dodson (1908) whose work led to the adoption of the Yerkes-Dodson Law as a basis for developing work environments and shaping work practices. The Yerkes-Dodson Law dictates that increasing levels of stress improve performance up to a point, beyond which further stress causes performance to diminish (Yerkes & Dodson, 1908). The application of this law means that managers are encouraged to attempt to maintain stress at optimal levels for performance rather than endeavouring to minimise stress.

Le Fevre et al (2003) contend that the concept that some stress is good and enhances performance should be rejected in favour of more useful and accurate concepts. The idea that there is a recognised 'acceptable' level of stress that can be placed on a group of workers is strongly rejected by the authors. This suggests that the so-called 'positive outcomes of stress' may not be positive for everyone and that perhaps what is 'positive stress' for one person may be 'negative stress' for another. The Yerkes-Dodson Law can be seen to imply that a certain level of stress is beneficial however this would have to be tailored for each employee. Since this is unlikely to happen for large numbers of employees in an organisation, one obvious possible outcome is a positive response for some and a negative for others. The work of Selye (1956) supports this view as he notes that it is the individual which determines whether the stressor is to be good stress (eustress) or bad stress depending on their reaction to it. This is a strong indication of the highly subjective and personal nature of stress. Organisations that adopted the Yerkes-Dodson Law as a means of designing work environments may have adopted a flawed system since employees will all react differently to stressful situations. According to Le Fevre et al (2003) three major reviews of occupational stress and management interventions were undertaken in 1987, 1997 and 2001 and none of these reviews referred to any possible positive aspects of effects of stress. It appears that literature does not consider eustress to be of significance which gives credence to the notion that there is no 'optimal' level of work stress.

The question remains as to whether stress is actually bad for one's health. Common assumption appears to be that experiencing stress has undesirable consequences and can impair health. Despite this, however, the evidence suggests that experiencing stress does not necessarily have pathological consequences (Cox et al 2000). While a person may find a

particular environment difficult to deal with, it is unlikely to lead to future health issues. Cox et al (2000) also explore the impact that stress can have on a person who is already in a state of ill health. The authors conclude that a state of illness can reduce one's ability to cope with stress and this provides support for the view that there is indeed a link between stress and poor health.

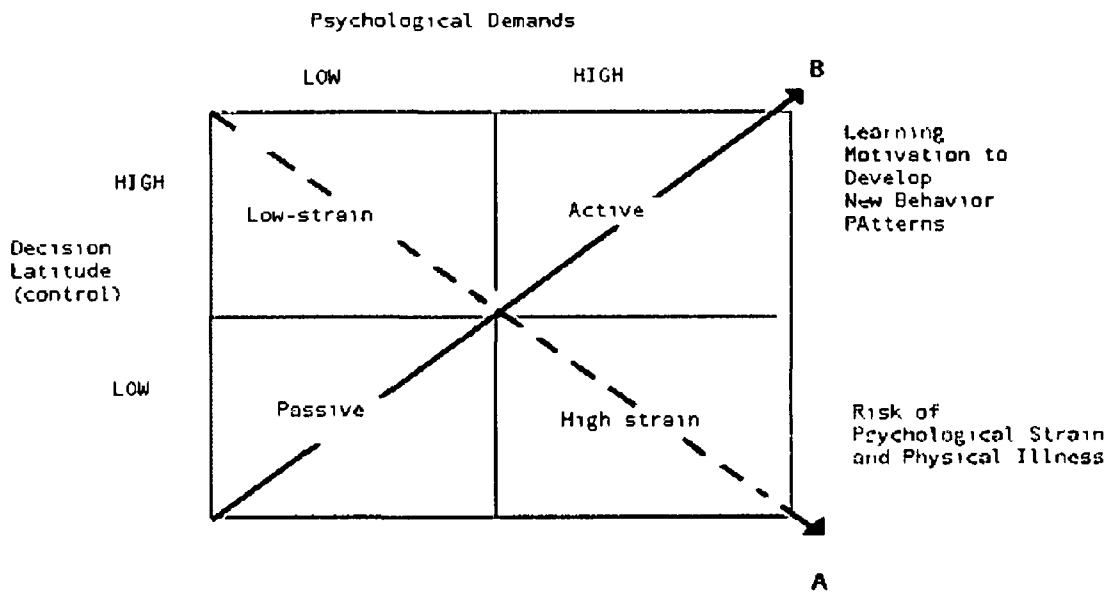
## **2.4 Models of Occupational Stress**

Contemporary stress theory is psychological in its approach in that it either implicitly or explicitly recognises the part played by psychological processes such as perception and emotion (Cox & Griffiths, 2010). This approach is very useful as it means that individual differences in response to stress are taken into account. Two distinct variations of this psychological approach can be identified: interactional and transactional. Interactional theory focuses on the structural features of the person's interaction with their work environment, while transactional theory refers to the psychological mechanisms underpinning that interaction (Dunleavy-Larkin, 2004). Two significant Interactional theories are the Demand-Control Model (Karasek, 1979) and the Person-Environment Fit Theory (French, Caplan & Harrison, 1982).

### **2.4.1 Interactional Theory**

The Demand-Control Model (Karasek, 1979) has had a major influence on the research of occupational stress (Van der Doef & Maes, 1999). In Karasek's model, workplace stress is a function of how demanding a person's job is and how much control (decision latitude) the person has over their own duties and responsibilities. Demands consist of psychological stressors such as interruption rate, time pressures, conflicting demands, pace of work, amount

of work performed under pressure and degree of concentration required (Karasek 1979)



**Diagram 1 Demand-Control Model (Adapted from Karasek (1979))**

Using this model, a community pharmacist could be identified as having either an ‘active’ or a ‘high-strain job’ Anecdotal evidence suggests that demands can be very high as high levels of concentration are required, time pressures can be significant and the interruption rate can be high also e.g a pharmacist being required to answer telephones or deal with patients while also dispensing medication correctly Decision latitude can vary greatly as a pharmacist who also manages or owns the pharmacy may have more decision latitude compared to an employee pharmacist Clinical decisions do rest with the pharmacist, however, which gives the pharmacist, whether owner/manager or employee, control regarding dispensing of prescriptions

Person-Environment Fit Theory (P-E Fit Theory) examines the degree of ‘misfit’ between the person and their environment (Edwards, Caplan & Van Harrison, 1998) This theory is widely recognised as one of the most dominant conceptual forces in the field of organisational

psychology (Saks & Ashforth 1997, Schneider, 2001) The P-E Fit theory involves two major distinctions, as outlined by Le Fevre, Kolt and Matheny (2006)

- the distinction between the person, their abilities and needs, their environment and the demands it makes on them and that which their environment supplies to them
- the distinction between the subjective (person's perception of themselves and the environment) and objective (or 'real') representations of the person and their environment

The first of these distinctions can be broken down into two parts, the first of which relates to the misfit between the job demands and the person's ability to fulfil those demands in terms of skill or ability. The second part relates to the misfit between the psychological needs of the individual e.g. the need to achieve certain goals, and the ability of the environment to meet these needs. It is postulated that when there is a lack of 'fit' then physiological stress, psychological stress, or both, are likely to occur.

#### **2.4.2 Transactional Theory**

The transactional theory of stress (Lazarus, 1966) appears to be less valued than the P-E fit theory however it is still used in a significant amount of stress research (Perrewe & Zellars, 1999). The transactional theory is focused on the emotional reactions of the person and how they cope with the stress rather than attributing the existence of stress to certain factors. According to Lazarus (1991), stress arises when there is a conjunction between a certain person and a certain environment which leads to a threat appraisal. Two types of appraisal, primary and secondary, are central to Lazarus' theory. Primary appraisal concerns whether a transaction facilitates or impedes a person's goals. If undesirable conditions exist then the

transactional model proposes that the person will engage in a secondary appraisal in order to change the undesirable conditions to more favourable ones. The transactional model depicts coping as a choice that is affected by the primary and secondary appraisals and coping is expected to be consistent with a determination of whether anything can be done to change the situation (Perrewe & Zellars, 1999). The key tenet of Lazarus' theory suggests that it is the way people evaluate what is happening with respect to their well-being, and the way they cope with it that influences whether psychological stress will result, and its intensity (Lazarus, 1993).

## **2.5 Coping**

Coping is an important part of the overall stress process. Perrewe and Zellars (1999) describe two forms of coping, problem-solving coping and emotion-solving coping. The authors propose that problem-solving coping occurs when an individual perceives that they have control over their situation and can act to change their environment to improve their situation. The emotion-solving coping occurs when the person realises they do not have the resources or ability to change their situation. This can be interpreted as a lack of control and can lead to frustration, anger, shame or withdrawal from the situation. Sparks, Faragher and Cooper (2001) reported that, since the nineties, many employees have perceived a gradual loss of control over their work lives and careers. The authors have attributed this to increased job insecurity, increased pace of work and constant advances in technology. This can potentially lead to work stress for these employees. Currently, in the Irish community pharmacy sector, anecdotal evidence suggests that similar factors may be leading to a degree of work-related stress among community pharmacists as employment in the sector has fallen despite the workload increasing (PWC, 2011).

## **2.6 Potential Sources of Stress in Community Pharmacy**

Terantanavat and Kleiner (2001) present five major sources of stress in small businesses

- Overload
- Understaffing
- Lack of experience
- Uncertainty
- Personal problems

Each of these factors could be considered relevant for community pharmacy in Ireland however overload, understaffing and lack of experience are the focus of this review as they are the most relevant factors

### **2.6.1 Overload**

In a recent study on workforce planning among pharmacists in Britain, it was found that stress levels are rising significantly and role overload is the main factor involved (Guest, 2009). Owing to the unique characteristics of a small business, where one employee may be required to perform many different roles, pharmacists are often placed in overload situations. According to Cramton, Hodge, Mishra and Price (1995), employees dealing with multiple tasks and roles will likely perceive unusually high levels of demand and experience high levels of stress. Oates and Oates (1995) found that work overload was the most significant cause of stress for healthcare workers in the hospital setting. High stress levels in community pharmacies are often the result of work overload, unreasonable objectives and the promotion of 'long hours' culture (Hassell, 2009). Anecdotal evidence suggests that this 'long hours' culture is evident in the Irish community pharmacy sector also. Average opening hours of

fifty six hours per week (PWC, 2011) combined with falling pharmacist employment would suggest this is the case

Smith, Golin and Reif (2004) suggest that patient care is reduced as workload increases. Gidman (2011) agrees with these findings, concluding that increased workload is likely to have a negative impact on pharmacists and the services they provide. Gidman (2011) contends that sufficient support staff, supportive management and appropriate resources are required to maintain high quality standards. McCann et al (2009) (a) found that work overload was one of the most stressful aspects of a pharmacist's employment among community pharmacists in Northern Ireland. In a recent study, Lea, Corlett and Rodgers (2012) found evidence to suggest that stress levels are increasing among community pharmacists in the U.K. as the nature of the work changes and workloads increase. The research of Hassell, Seston, Schafheutle, Wagner, and Eden (2011) contradicts some of these views however. There is evidence to suggest a link between heavy workload and aspects of pharmacists' well-being however. Hassell et al (2011) contend that there is no robust evidence indicating threats to patient safety caused by their having too much work to do. Hassell et al (2011) conclude that more research is needed in this area in order to more accurately determine what constitutes too much work and also the impact of work overload.

## **2.6.2 Multi-Tasking**

Adler and Benbunan-Fich (2012) explored the relationship between multi-tasking and performance. The results proved very interesting as the authors found that increased levels of multi-tasking led to significant loss of accuracy in the tasks performed. Community pharmacists must often perform important checks on prescriptions whilst simultaneously



attending to other matters. While the research of Adler and Benbunan-Fich does not relate specifically to dispensing in a community pharmacy, it is significant for the sector as patient safety may be compromised by the level of multi-tasking in pharmacies.

### **2.6.3 Overload and Error**

Central to the activities of the community pharmacist is the screening of prescriptions to ensure that prescribed medication is safe and appropriate. Currently, there is a growing interest in the international literature, about increasing workload pressures on community pharmacists and the impact this may be having on patient safety (Jacobs, Ashcroft and Hassel (2011)). The positive impact pharmacist interventions have on patient outcomes is well documented. Research carried out by Rupp, Deyoung and Schlondelmeyer (1992) found that pharmacist interventions took place in 1.9% of new prescriptions and 28% of these prescription errors could have caused patient harm. This illustrates the positive impact which pharmacists have on patient outcomes.

Rupp et al (1992) also discovered that the rate at which pharmacists identified prescribing problems was negatively related to the number of prescriptions they dispensed per hour. This suggests that, while striving for efficiency, pharmacists may be exceeding their safe dispensing threshold. It appears that pharmacists working in busy pharmacies who are under increased work stress will identify fewer prescription errors. This could potentially result in an increase in negative patient outcomes.

Work overload can occur when a pharmacy becomes very busy as the number of prescription items dispensed increases. It is at these times that mistakes are likely to occur. Each pharmacy

or pharmacist may have a unique process for dispensing and checking of medicines and prescriptions for errors. A slip can occur while there is a break in routine while attention is diverted e.g. having to deal with an urgent phone call. A variety of factors can divert attention and make slips more likely. Physiological factors include fatigue, sleep loss, alcohol, drugs and illness while psychological factors include workload and emotional states such as fear, anxiety and anger. Such psychological factors may be caused by many external factors such as overwork, interpersonal relations and other forms of stress (Leape, 1994). Willis and Elvey (2011) concur with the views of Gidman (2011) and Leape (1994) indicating that increased pharmacist workload leads to more medication errors.

Schafheutle, Seston, and Hassell (2011) found that factors relating to workload and work environment were associated with performance problems, particularly in relation to errors. This further strengthens the view that workload and a stressful working environment can be detrimental to pharmacist performance. The findings suggest that pharmacist performance may be affected by multiple factors, including personal characteristics such as age and gender, factors associated with the workplace and mental and physical health problems. The evidence is not unequivocal and gaps in the literature exist, suggesting that pharmacist performance is an under-researched area (Schafheutle et al. 2011).

In all aspects of human performance, errors are a frequent occurrence. According to Reason (1997), human error is the main cause of up to 90% of incidents involving complex systems such as process control. Errors in the healthcare setting occur frequently. Doctors and nurses in one intensive care unit were estimated to make an average of 1.7 errors per patient per day (Gopher, Olin, Badhik, Cohen, Donchin, Bieski & Cotev, 1989). Wine (1971) described how

high stress levels have been shown to lead to a loss of concentration and distraction from job-related information. In light of these findings, analysis of the levels of stress experienced by community pharmacists may prove useful in developing error prevention strategies used in dispensing medication.

#### **2.6.4 Understaffing**

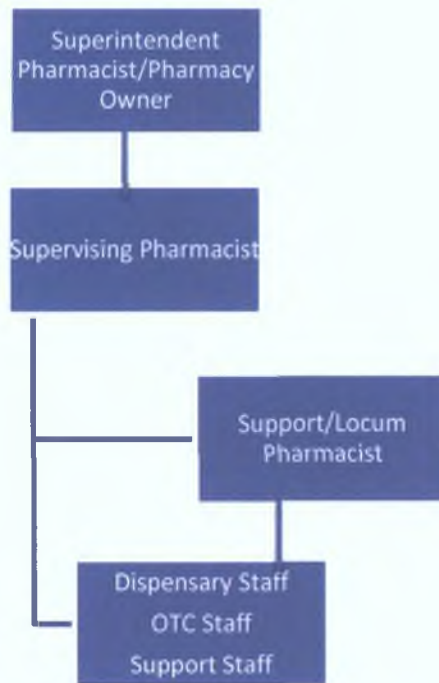
Understaffing is becoming a more important issue in recent years in community pharmacies. In Ireland, community pharmacist employment fell by 4% between 2009 and 2011 (PWC, 2011) while overall employment in the sector has fallen by 10%. Employment in the sector is due to fall further in 2012 with one in four pharmacists expecting more redundancies before the end of this year (Irish Pharmaceutical Union (IPU) Report, 2012). This is most likely a result of cost cutting measures by pharmacy owners/managers in response to both the economic downturn and reductions in payments to pharmacies by the Health Service Executive (HSE). This effectively means that the workload of pharmacists still employed has increased as more pharmacists are now working longer hours.

Understaffing places employees in task and role overload situations on a daily basis, thereby increasing levels of perceived demand and levels of stress (Teratanavat & Kleiner, 2001). Lapane and Hughes (2004) discovered that the most frequently reported source of stress among the pharmacists was short staffing which affects their ability to perform their duties. A report commissioned by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) in 2007 highlighted several important areas which may be causing increased stress at work. The report outlines factors at sociological, demographic and national level including ageing workforce, increased diversity in the workplace, developments

in information technology and changing organisational structures and patterns (Parent-Thirion et al 2007) Time pressures due to reduced staffing levels, increased productivity targets and higher customer demands have also been identified as possible contributors to increased stress levels Since community pharmacies in Ireland have been impacted significantly by the recession through reduced staffing levels this lends credence to the view that reduced staffing levels in Irish pharmacies may be leading to increased stress for community pharmacists in Ireland

### **2.6.5 Lack of Experience**

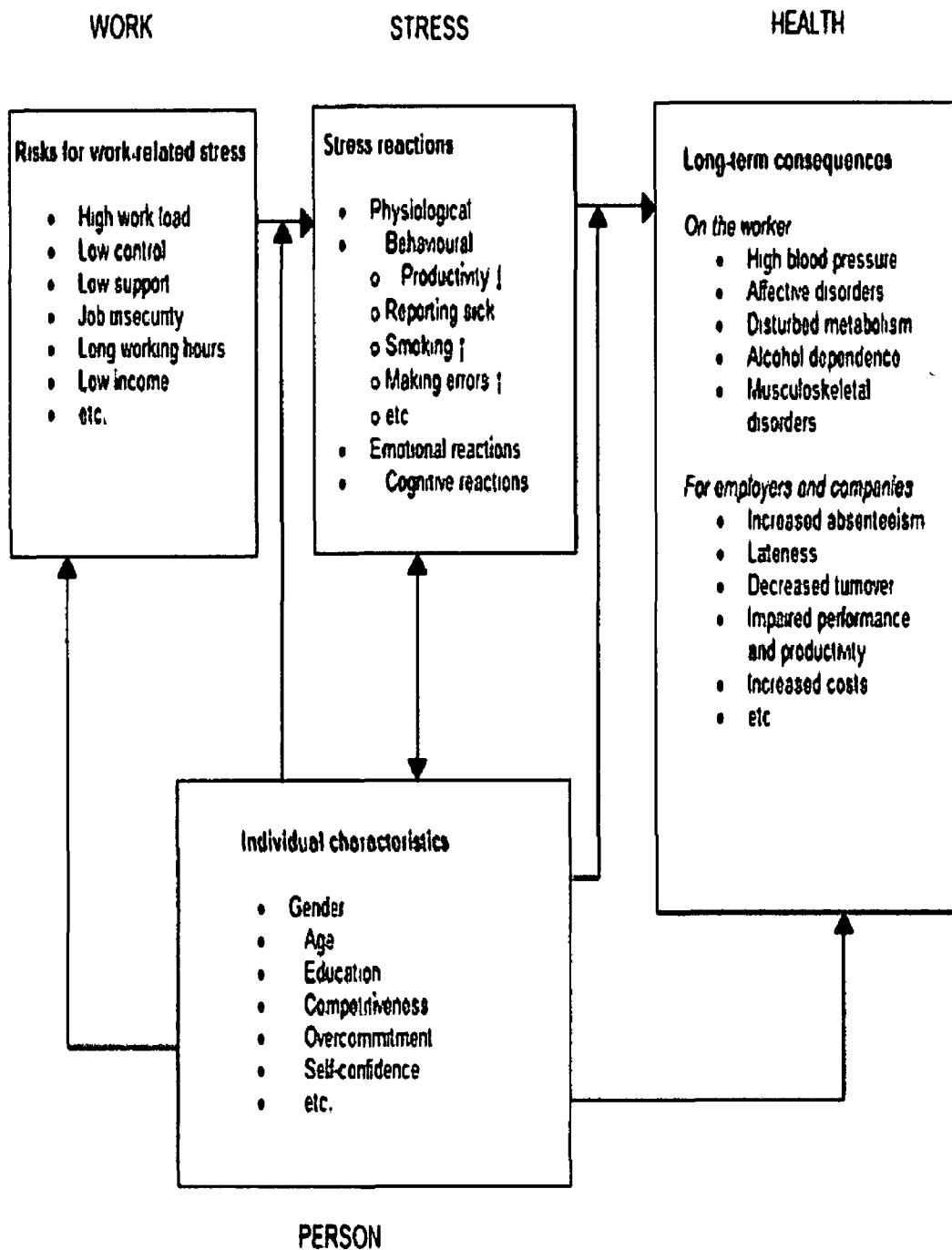
Within a community pharmacy the organisational structure is usually hierarchical with two to three layers of management The superintendent pharmacist has full legal responsibility for the pharmacy and is therefore at the top level of the structure A pharmacy manager/owner may sometimes be above the superintendent pharmacist from a managerial perspective Independently owned pharmacies tend to have a centralised decision making process with the pharmacist at the top of the organisational structure The span of control of the pharmacist often extends to the entire staff whose number may vary depending on pharmacy size



**Diagram 2: Typical organisational structure of a community pharmacy in Ireland**

One of the areas in which organisational structure can pose a problem is when a newly qualified or young pharmacist begins work in a pharmacy. They often find themselves at the top of the chain of command and responsible for the majority of decisions made on a day-to-day basis in the pharmacy. Terantanavat and Kleiner (2001) pointed out that lack of experience is one of the five main sources of stress in small business. While clinical knowledge may be similar to other pharmacists, more recently qualified pharmacists will have less business management experience. Pharmacy business management is a significant part of the role of the pharmacist in many pharmacies. This may be an important factor for stress experienced by newly qualified pharmacists.

Diagram 3 illustrates the wide variety of work-related risk factors, individual characteristics, reactions and long-term consequences associated with work-related stress. The overall health of the worker suffers as both psychological and physiological effects from stress are manifest. The incidence of errors can be seen to increase due to stress which is important for the community pharmacy sector as mistakes can have negative patient outcomes.



**Diagram 3 Model of causes and consequences of work-related stress (Kompier & Marcelissen, 1990)**

## **2 7 Stress and Gender**

According to Lundberg and Frankenhaeuser (1999) females working in high ranking positions were more stressed than their male counterparts. This mirrors the findings of Gardiner and Tiggemann (1999) who noted that females reported more pressure in their jobs than males. These findings suggest that gender can influence the level of stress experienced. The findings of Miller, Greyling, Cooper, Lu, Sparks and Spector (2000) contradicted these views however as the results of their study found that no gender differences in work stress existed. McCann et al (2009) (a) found that female pharmacists experienced more stress than their male colleagues however possible reasons for this difference were not established. More research is required in order to determine the precise reasons for these findings.

## **2 8 Financial Outcomes of Stress**

Community pharmacies are businesses as well as healthcare providers. The relationship between a pharmacist and their patients is crucial for the success of the business. Community pharmacies are both a product and service provider and customers now expect much more than from their pharmacy than just dispensing of medication. As Kotler (1977, p8) pointed out, the importance of physical products 'lies not so much in owning them as in obtaining the services they render'. The service rendered is high quality healthcare which must be tailored to individual customer requirements. Research into customer relationship economics has indicated that a marketing model based on relationship building may be more effective than traditional approaches (Gronroos, 1997). The level of trust between customers and their pharmacist is vital for a successful pharmacy business therefore a focus on building stronger relationships with customers, through improving services, is essential. According to Evans and Lindsay (1996), dissatisfied customers will leave and go to competitors whereas loyal customers spend more and refer new clients.



A study conducted by Reid, Wanh, Young and Awiphan (1999) supports the notion that relationships with patients are vitally important in community pharmacies. The study found that while patients may be less able to judge the technical quality of the care they receive, they do judge their social interaction with the pharmacist. Personal attention from the pharmacist was found to be the most influential factor in creating patient satisfaction. If the care and attention given to patients by the pharmacist is adversely affected by stressful working conditions, this may have detrimental effects on the business. Research carried out by Smith et al (2004) suggests that work overload has led to a decrease in the time spent by pharmacists counselling patients which can have a direct negative impact on the business. Harris and Arendt (1998), state that employees under stress can affect the financial performance of small businesses because such workers become ineffective in performing their duties causing loss of customer confidence. Michie (2002) agrees with this view, claiming that stress is likely to lead to reduced client satisfaction. In addition, Cooper and Cartwright (1994) also contend that healthy organizations are likely to be those which are successful in maintaining and retaining a workforce characterized by good physical, psychological, and mental health.

A substantial amount of administrative duties may be required of a community pharmacist in the course of their daily duties. According to Pines (1993), such administrative tasks are inconsistent with professional activities and take human service professionals away from their primary focus which, for pharmacists, is working with and helping patients. High levels of stress may result in employee dissatisfaction, illness, absenteeism, staff turnover, low productivity and subsequent difficulty in providing high-quality service to customers (Organ & Bateman, 1989). This mirrors the views of Gibson, Ivancevich, and Donnelly (1994) who

found that burnout, caused by prolonged periods of unrelieved stress is closely related to decreased employee performance. This research indicates that poor employee performance resulting from stress can damage business-client relationships thereby affecting the financial success of the business. Insufficient training in communication and management skills is also a major factor which can lead to burnout (Ramirez, Graham, Richards, Gregory & Cull, 1996). This is important as anecdotal evidence suggests that community pharmacists educated in Ireland receive little in the way of training for this aspect of the job.

## **2.9 External Sources of Stress**

The research outlined thus far has indicated that stress can lead to mistakes, erode patient trust and decrease patient satisfaction. This demonstrates the importance of further research in this area. Community pharmacies, like many small businesses, suffer during a recession as credit can become difficult to obtain from lenders. Many pharmacists who are also owners and managers of community pharmacies may now have to contend with increased pressure from banks and other lenders. Small firms are also vulnerable because of their dependency on financial institutions for external funding. Shocks to the banking system can have a significant impact on the supply of credit to small businesses (Berger and Udell, 2002). Brock and Evans (1989) support this view, asserting that liquidity dries up faster for smaller firms than larger firms when the economy goes into a recession. In the current economic downturn, the increased difficulty obtaining credit coupled with the radically decreased payments from the HSE mean that many pharmacies are now in an uncertain financial position. Therefore the external environment, as well as internal community pharmacy factors, can lead to increased stress for community pharmacists, especially those who are also business owners and managers.

## **2 10 Continuing Professional Development**

The need to keep up with new healthcare developments to maintain professional competence is cited as a major source of stress (Lapane & Hughes, 2006) In Ireland, continuing professional development (CPD) has recently been incorporated into the good practice guidelines for pharmacy in Ireland This makes CPD compulsory for all pharmacists in Ireland Anecdotal evidence would suggest that this may be causing increased stress as normal working hours can be very long therefore this acts as a further time pressure on pharmacists since this can involve attending classes in evenings outside of normal working hours

## **2 11 Criminal Activity**

Theft and hold-ups occur in many businesses and community pharmacies are no different Fichera, Sartori and Costa (2009) found that workplace robbery in the community pharmacy sector can have a mild but long-lasting effect on an employee's ability to work Fichera et al (2009) reported that exposure to a robbery is associated with the onset of post-traumatic stress and impairment of emotional well-being and quality of life This research supports the findings of Leeman-Conley (1990) who found that following staff hold-ups, 30% of staff reported experiencing stress reactions that last from several weeks to several months Miller-Burke, Attridge and Fass (1999) also reported that traumatic events in the workplace such as robberies can affect employee physical and mental health and work performance and lead to post-traumatic stress Since community pharmacies stock medication which has the potential to be abused it makes them a target for hold-ups and theft Recent figures from the Central Statistics Office (CSO) indicate that incidences of theft in community pharmacies has increased by 25% since 2007 while incidences of assault causing harm have also increased

(Linehan, 2012) Consequently, this is may be a significant source of stress among community pharmacists in Ireland given the increasing number, and also the possibly violent nature, of theft or hold-up incidences

## **2 12 Management Style**

Management style can have a significant impact on employee stress In a study on the effect of management style on stress levels, Friedman, Tidd, Currall and Tsai (2000) discovered that those who use a more integrative style experience lower levels of task conflict and therefore lower stress In contrast, those who use a more dominating style experience more task conflict, more relationship conflict and, subsequently, more stress This is very interesting from a community pharmacist perspective Many community pharmacists act as managers in the pharmacy in which they work Since there may be a lack of formal training in the area of management and conflict resolution among many community pharmacists, a proportion of the stress experienced by many pharmacists may be due to lack of management knowledge Sparks et al (2001) also noted that good communication and direction from supervisors had a significant influence on job satisfaction which suggests that supervisory style may be a precursor of other job characteristics linked with increased stress levels This is significant for community pharmacists as they must supervise all activities and transactions taking place in the pharmacy on a daily basis therefore their attitude towards other staff members can have a substantial impact on their stress levels and also on the stress levels of the staff under their supervision

## **2 13 Management of Occupational Stress**

The management of work-related stress is a topic that has received attention at both national and EU level for some time In the early nineties Eurofound began publishing booklets on

how to identify and prevent stress particularly in small and medium sized enterprises (Kompier & Levi, 1994) Lehrer, Carr, Sargunary and Woolfolk (1994) also reported that many industries are becoming increasingly aware of the deleterious effects of stress and are turning to stress management educators to train their employees to reduce stress levels. As the work environment evolves, stress reduction strategies must also evolve. Research has shown some stress reduction strategies to be effective (van der Klink, Blonk, Schene & van Dijk, 2001)

Occupational stress management approaches can be classified into primary approaches (those that focus on the organisations structures and processes) and secondary approaches (those which focus on the individual within the organisation) (Le Fevre et al 2006). In this instance the authors are strong advocates of employing the secondary, more personalised, approach. In relation to a community pharmacy, managers could likely use a combination of both approaches since the number of pharmacists employed in any one pharmacy is likely to be small which makes the personalised approach very manageable. A combination of a process change with a focus on the needs of the employee pharmacist could prove hugely beneficial in improving working conditions for pharmacists experiencing occupational stress. The authors also note that one of the key functions of management is to help workers to experience occupational stress as eustress. This may also be the case in Irish community pharmacies where a 'long hours' culture exists and managers or owners may view stress as a necessary part of the working day. The notion that an optimal level of stress exists is also strongly rejected by the authors. When a worker experiences stress this should not be classed as eustress or distress but rather it is the nature of the stressor (causative factor) that should be examined in order to improve the workers experience (Le Fevre et al 2006)

## **2 14 Employer's Perspective**

Recently, work stress has assumed greater importance for employers as their risk of being held legally liable for damages to stressed staff has increased, and the pace of organisational change has accelerated (Rees, 1997) There are no employment laws in the Irish justice system that relate specifically to stress Indeed, the issue of stress is not dealt with succinctly in any statutory instrument In 2005 however, the case of McGrath versus Trimtech Ltd set a new precedent for cases pertaining to occupational stress The ruling underlined the grounds for a stress claim and the court decided that psychiatric harm suffered by an employee due to stress at work had to be reasonably foreseeable by an employer for a breach of statutory duty to give rise to liability To be liable for such injury, the employer also had to have fallen below the standards of a 'reasonable and prudent employer' (O'Dea, 2005) This case illustrates the changing perceptions towards work-related stress and the reality that it is vitally important for employers to be aware of strategies for reducing stress in the workplace

## **2 15 Stress Reduction Strategies**

Elkin and Rosch (1990) provide a useful range of strategies to reduce stress in the workplace

- Redesign the task
- Redesign the work environment
- Introduce flexible work schedules
- Encourage participative management
- Include the employee in career development
- Analyse work roles and establish goals
- Provide social support and feedback
- Establish fair employment policies

- Share the rewards

These strategies could have a significant impact on the stress levels of employees in small businesses. The first three strategies would be particularly useful in a community pharmacy setting. Some of these strategies are impractical in a community pharmacy setting and due to financial constraints, some of these strategies may be beyond the scope of many community pharmacies. However, task and work environment redesign are potentially useful strategies which may not require significant financial investment such as taking on extra staff.

Parent-Thirion et al (2007) have drawn up a list of the top ten factors for success. It has drawn on research from Kompier and Cooper (1999) and Kompier and Kristensen (2001) among others. The list is as follows:

- involve employees in the intervention
- acknowledge them as experts
- management must commit to the process
- include everybody in matters of organisational change, and ensure compliance
- approach the issue step by step
- establish a clear structure of tasks and responsibilities
- keep to a tight schedule
- use different types of measures
- treat work-related stress as a normal issue
- after-care

When comparing both lists, a shift in emphasis can be seen between the 1994 list and the Eurofound list drawn up in 2007. The Eurofound list has a much greater focus on the employee (secondary approach) as opposed to the organisation. This is significant and is a

positive step as research now points towards the use of secondary approaches as having a greater impact on employee welfare.

The community pharmacy sector has experienced great change in recent years in terms of organisational structure. Taking this into account, taking a primary as well as secondary approach may be the best way to manage stress among community pharmacists. Biron, Ivers and Brun and Cooper (2006) contend that secondary approaches alone are likely to be insufficient to fully deal with the issue of occupational stress and analysis of the organisational environment must be part of the solution. This gives support to the view that multiple strategies are likely to be better than single interventions.

The constant change that is now a feature of community pharmacy in Ireland means that stress reduction techniques may now be more important than ever. As pharmacists assume new roles and regulatory and legislation changes are implemented, the need for stress management techniques will become increasingly important.

## **2.16 Summary**

Work-related stress is becoming a more important issue for employees, employers and governments as research into the area highlights the negative impact that work-related stress can have. The findings of the literature review suggest that work-related stress among community pharmacists in Ireland is an under-researched area. The research published concerning pharmacists in other countries suggests that work-related stress does exist among community pharmacists therefore it is possible that Irish pharmacists experience some degree of work-related stress also.

Work-related stress among community pharmacists can lead to negative patient outcomes as well as negatively impacting the pharmacist. Pharmacist-patient relationships can also be



damaged by pharmacist stress The negative impact that work-related stress among community pharmacists can have illustrates the importance of further research in this area among community pharmacists in Ireland

## **3 METHODOLOGY**

### **3.1 Introduction**

The purpose of this study was to explore the level of work-related stress among community pharmacists in Ireland. As discussed in the literature review, this can be an emotive topic and interest in the area is increasing. This chapter will outline all aspects of the research positioning, paradigm and approach. The limitations of the chosen methodology will also be discussed.

### **3.2 Research Positioning**

The data collected for this study was concerned with work-related negative stress among community pharmacists. The epistemology has both interpretivist and positivist characteristics. The interpretivist approach comes from phenomenology which examines how people interact with their environment, which is important for occupational stress, whereas the positivist approach uses existing theory to develop a hypothesis. A hypothesis was developed following an extensive literature review. The hypothesis developed was that community pharmacists in Ireland are likely to experience stress in their working environment. This review involved analysis of the recent studies by McCann et al (2009) (a) and McCann et al (2009) (b). These publications were important in developing a hypothesis as the data within concerned work-related stress among pharmacists in Northern Ireland.

According to Saunders, Lewis and Thornhill (2007), an integral part of interpretivist epistemology is that the researcher must enter the world of the research subjects and view the world from their perspective. This can be interpreted as adopting an empathetic viewpoint. In

this instance, the author is a community pharmacist and could therefore empathise with their experiences

The ontology of this study involves a subjective approach. This research involves examining occupational stress which, as was discussed in the literature review, is a highly subjective experience. Consequently, subjectivism is the most appropriate ontology for this thesis. Each individual subject will interpret stress and stressful situations differently. It was the intention of the author to develop an understanding of the subjective reality of community pharmacists in relation to stress at work and to use this new understanding to address the research questions of the thesis.

### **3.3 Research Approach**

There are two major approaches to theory development: deductive theory testing and inductive theory building (Bonoma, 1985 & Romano, 1989). The inductive approach involves developing an understanding of the situation and then developing a theory (Saunders, Lewis & Thornhill, 2009). Therefore, induction can be classed as an interpretivist approach. Deduction involves developing a theoretical position prior to data collection (Saunders et al 2009). This can be interpreted as a positivist approach.

The research approach in this study involved a combination of inductive and deductive approaches. Use of both approaches also allowed for triangulation of the data. The deductive aspect involved quantitative data which was collected through questionnaires and for which researcher independence was important. This allowed statistical data to be generated and conclusions drawn from this. The inductive part of the research involved conducting interviews which allowed the researcher to develop a deeper understanding of the experiences of the research subjects. For this inductive approach to be successful, a close understanding of

the context of the research was required. As discussed, the author is a community pharmacist with an in-depth knowledge of the industry thus allowing this approach to be effective. Another important consideration for the inductive approach is that it is much more subjective than the deductive, more fact-based, approach. The issue of work-related stress can be quite emotive and, as such, the inductive approach allowed the author to engage with the interviewees on a more personal level than could be achieved with questionnaires. Hill and Wright (2001) believe the interpretivist approach to be more appropriate when researching small or medium sized enterprises (SME's) however for the reasons outlined, a combined interpretivist and positivist approach was deemed suitable.

### **3.4 Questionnaire**

Questionnaires were a source of primary data collection for this thesis. The questionnaires involved a process where each person was asked to respond to the same set of questions which were presented in the same order each time. The questionnaire gathered information relating to whether community pharmacists in Ireland experience stress in the workplace. The information collected from these questionnaires contained qualitative and quantitative components as each questionnaire allowed the participant to enter any thoughts or comments into a free-text section.

There are drawbacks to the use of questionnaires however. Labaw (1980) claimed that the greatest weakness of questionnaire design is lack of theory. Questionnaires can be very useful however as they allow a large quantity of data to be collected relatively quickly and at a relatively low cost. It can also be easier to gather information relating to sensitive subjects through questionnaires if they are anonymous as this one was. The downsides can be that information received can be false and also the level of completion of questionnaires can be

low The literature review that was carried out was extensive and the core themes that emerged from this were incorporated into the questionnaire design process

As already discussed, McCann et al (2009) (a) have recently published data on a study of job stress and job satisfaction among community pharmacists in Northern Ireland The authors of this study were contacted and gave their consent for their questionnaire to be adapted as part of the new questionnaire to be used in this study The questionnaire used by McCann et al (2009) (a) was made up of four sections These include (1) socio-demographic data, (2) items relating to job satisfaction, (3) questions adapted from the Health Professions Stress Inventory (HPSI) developed by Wolfgang (1988) (a) and (4) a section for individual free-text responses The themes that emerged from the literature review were incorporated into the questionnaire that was sent to participants The main themes investigated by the questionnaire were classified into five key areas

- Patient Care Responsibility
- Work Conflicts
- Professional Recognition
- Managing Workload
- Professional Uncertainty

In order to examine these themes, a five point Likert scale was used which was consistent with previous studies Participants were asked to rate the frequency of stress experienced in difficult situations (35 in total) by selecting one of the options provided These options were 'Never', 'Rarely', 'Sometimes', 'Often' and 'Frequently' An example of the type of question asked was Managing Workload Q5 'How often do you feel stressed because you have no control over your workload?' The scales used were those developed by McCann et al (2009)

(a) hence they were already established and validated. Since some modifications of the questionnaire were carried out, Cronbach's alpha values was used to re-test its internal reliability. Cronbach's Alpha is frequently used in research to determine the reliability of an instrument and is an important concept in the evaluation of assessments and questionnaires (Tavakol & Dennick, 2011). The Cronbach's alpha values for the questionnaire used in this study are given in Table 1. Since the values are all above 0.7 this means the scales used are reliable and should give accurate results.

Scale	Patient Care	Job Conflicts	Professional Recognition	Managing Workload	Professional Uncertainty
<b>Cronbach's alpha</b>	0.813	0.738	0.828	0.845	0.704

**Table 1: Cronbach's alpha values for scales used in questionnaire**

Construction of the questionnaire to be used in this study involved modifying the McCann et al. (2009) (a) questionnaire to suit community pharmacists in Ireland. The McCann et al. (2009) (a) questionnaire involved questions relating to job satisfaction. These questions were removed when designing the new questionnaire as they were beyond the remit of this study. Pharmacy regulators in Northern Ireland have recently implemented major changes in pharmacy practice (McCann et al. 2009) (a). A new piece of legislation, the Pharmacy Act 2007 has changed the way community pharmacies in Ireland are structured and are regulated. From a management perspective, the recent the Financial Emergency Measures in the Public Interest Act (FEMPI) 2009 has also led to huge change as state payments to pharmacies have been cut significantly. The questionnaire was developed with these changes in mind in order to fully address these and other issues from an Irish perspective. A 'Personal Data' section designed to gather demographical data preceded the questions on the themes outlined.

A pilot questionnaire was designed and created using the online survey website 'surveymonkey.com'. This was distributed to five pharmacists with community pharmacy experience in Ireland. They completed the questionnaire and gave feedback on all aspects of the questionnaire and also gave suggestions regarding any other issues that needed to be addressed by the questions. Once the questionnaire was finalised, the self-administered questionnaires (Appendix 4) were distributed by email (through surveymonkey.com), post and in person to community pharmacists across Ireland. Both hard and soft copies of the questionnaire were accompanied by a cover letter (Appendix 1) which provided a brief introduction of the author and the rationale behind the research. The distribution process involved non-random sampling or convenience sampling as a random sampling approach was not possible due to time constraints and logistical difficulties. This was taken into account when analysing and interpreting the results.

In order to maximise the response to the questionnaire the number of questions was kept to a minimum while still allowing for all issues to be addressed. Research indicates that short questionnaires receive higher response rates (Nakash, Hutton, Jorasd-Stein Gates, & Lamb, 2006). From the experience of the author and through feedback from those that completed the pilot questionnaire, a short questionnaire was deemed more appropriate in order to encourage completion as community pharmacists are often very busy throughout the day. The questionnaire was designed to fit this parameter while still gathering all necessary information. Those receiving questionnaires were also advised that responses were anonymous and would be treated with the utmost confidentiality. Where questionnaires were delivered in person or by post a follow up phone call was made in order to explain the rationale behind the research and also to encourage the target respondents to complete the questionnaire.

The IPU is the representative body for community pharmacists in Ireland. They have a wide network of pharmacy contacts and strong membership. This body was contacted in the hope that they may give their backing to this research by means of placement of a notice or an article in the monthly magazine issued to all member pharmacists. The IPU refused this request however. Repeat emails were sent two weeks after the initial email as a means of increasing the response rate. A study by Nakash et al (2006) found that telephone reminders and repeat mailing strategies can help to increase questionnaire response rates.

To ensure that subject/participant error (Robson, 2002) was minimised, participants were asked to complete the questionnaire at a neutral time. It was the opinion of the author that the most suitable time for completing the questionnaires was on Tuesday or Wednesday and preferably between 10am and 11am. Ensuring as many questionnaires as possible were completed at this time meant that the data collected was uniform and also was collected early in the day and not at the end of a difficult working day / week as this could lead to participant error thereby damaging the reliability of the results. The questionnaire also included the following definition of stress:

‘Stress is the psychological and physical state that results when the resources of the individual are not sufficient to cope with the demands and pressures of the situation. Stress can come from any situation or thought that makes you feel frustrated, angry, nervous, or anxious.’

This definition was included in order to overcome some of the limitations involved in stress research. Due to the subjective nature of stress, there are several definitions of what constitutes stress and through use of this definition it was hoped that some of these limitations might be mitigated.



### 3.5 Semi-Structured Interviews

Qualitative interviewing is a flexible and powerful tool (Britten, 1995). According to Keen and Packwood (1995), qualitative methods are useful in addressing both practical and policy questions that can impinge on the lives of health professionals. Through intense dialogue during an interview, both the participant and the interviewer may reach deeper insights (Ponterotto, 2005). The feelings and perceptions of the participants were crucial for this study, making this type of qualitative data invaluable.

There are three main types of interviews: structured, semi-structured and in-depth interviews (Britten, 1995). The research involved semi-structured interviews. This type of interview was used as it allows for a greater level of flexibility during the interview. Such interviews have also been linked to a high response rate (Bailey, 1982). Additional support for the use of this type of interview has been provided by Layder (1995) who argues that semi-structured interviews give the individual an opportunity to informally develop their own interpretation and meaning to the questions asked.

As discussed, stress is a highly subjective experience and the personal feelings and attitudes of the interviewees were a vital part of the research. The data collected was used for triangulating the questionnaire responses. Completed questionnaires could not convey personal experiences and emotions in the same way an interview could. The interviews gave participants a more open platform to think about any stress experienced and its causes. Stressors can be quite complex and allowing the participant to discuss them in detail allowed for a much better understanding of the root causes of any stress experienced. This rationale is supported by Holloway and Jefferson (2000), who state that interviews are the most regularly used qualitative research method to determine people's experience.

In total, four interviews were conducted. The results of the statistical analysis of the questionnaires, the free-text questionnaire responses and the core themes that emerged from the literature review were used to create the questions for the semi-structured interviews.

The themes covered in the interviews were broadly similar to those of the questionnaires. The free text responses from the questionnaires were also used as they provided an outlet for the questionnaire respondents to express their opinions. The author felt that these written responses, as well as the themes covered in the questionnaire, warranted further investigation.

The themes investigated in the interviews included

- The role of the pharmacist/ Balancing roles
- Workload
- Work schedule / Long hours culture
- Patient Responsibility
- Impact of the Pharmacy Act 2007
- Impact of the recession on work environment
- The future of community pharmacy

It's vital that the questions asked in any interview are well thought out as if the wrong questions are asked the responses may not address the research questions. Patton (1987) states that good questions in qualitative interviews are open ended, neutral, sensitive and clear to the interviewee. The interview schedule (Appendix 2) involved fourteen open-ended questions designed to allow the researcher to determine the presence, extent and possible causes of stress among community pharmacists. The interviews were productive and proved to be a rich source of information. The questions asked during the interviews were not asked in any

particular order and the full fourteen questions were not asked in every interview due to time constraints

Participants were advised that no personal details would be recorded and any reference made to their comments in the course of the research would be fully anonymous. Interviews were conducted on a one-to-one, face-to-face basis and, in order to ensure best results, the environment was quiet and free from distractions such as telephones ringing. Each interview was recorded to allow the interview to be re-examined so that all the qualitative data could be extracted from it. The interviews were conducted outside of working hours which allowed for more complete data to be gathered as the participant had time to consider the interview questions fully and give more detailed responses. These interviews are available to examiners should they be required.

**3 5.1 Background Information on Interviewees**

Table 2 provides background information on the four interviewees

<p><b>Interviewee 1</b></p> <p>Support Pharmacist  Male aged 34 years  Twelve years experience as a community pharmacist  Has previously acted as Superintendent Pharmacist</p>	<p><b>Interviewee 2</b></p> <p>Support Pharmacist  Female aged 25 years  Two years experience as a community pharmacist</p>
<p><b>Interviewee 3</b></p> <p>Supervising Pharmacist  Male aged 34 years  Eleven years experience as a community pharmacist</p>	<p><b>Interviewee 4</b></p> <p>Superintendent Pharmacist  Male aged 28 years  Four years experience as a community pharmacist</p>

**Table 2. Interviewee background data**

### **3.6 Mixed Methods Research Paradigm**

Quantitative research can be described as an investigation into how many people have similar characteristics and views (Wright & Crimp, 2000). This involves gathering information which can be analysed statistically. This study involved significant numerical information in the form of questionnaires. Questionnaires were chosen for quantitative research as they allow for the analysis and measurement of causal or correlational relationships between variables (Denzin & Lincoln, 2000).

Qualitative tools were also utilised to lend further credence to the quantitative findings. According to Birn (2004) qualitative research is carried out after quantitative research as it offers more validity to the findings. For the purposes of this research, the real thoughts and feelings of the participants were needed to provide a more in depth level of understanding. This data was collected through semi-structured interviews.

Mixed methods research involves using both qualitative and quantitative techniques to conduct investigations around a topic. This research model can help to bridge the gap between qualitative and quantitative techniques (Johnson & Onwuegbuzie, 2004). Johnson & Onwuegbuzie (2004) assert that using a mixed research approach gives the researcher the best chance of answering their research questions. Tashakkori & Teddlie (2003) agree with this view as they contend that mixed method research is hugely advantageous and allows the researcher to answer both confirmatory and exploratory questions at the same time.

The questionnaires posed a problem as the author felt that they did not adequately allow for the participants' emotional responses. Since stress is a very personal issue, such emotional responses would be important for fully addressing the research questions. The interviews were also problematic as the element of bias had to be considered. The author had a previous

working relationship with one of the interviewees which was felt could lead to biased and unreliable results. The questionnaire addressed this issue somewhat as these questionnaires were completed anonymously by the participants. The notion of bias is dealt with more fully in Chapter 3.9. Once the questionnaires were returned and analysed, the interviews were used to elaborate further on the main issues raised. As the interviews involved fewer questions than the questionnaires, more in-depth and personal responses were elicited from the interviewees. The mixed research methods paradigm was, therefore, useful in overcoming potential research difficulties as it allowed a more holistic approach to the research topic.

Following a review of the literature published in the area of stress research, the author found that researchers frequently employ both qualitative and quantitative approaches to the methodology. Dunleavy-Larkin (2004) used both questionnaires and interviews in a thesis on work-related stress in a small organisation. McCann et al (2009) (a) conducted quantitative research on stress and job satisfaction among community pharmacists in Northern Ireland. This study was followed up with a qualitative study on work-related stress (McCann et al 2009) (b). This provided the authors with a means of comparing the two studies and giving a more accurate overall picture of stress levels among community pharmacists in Northern Ireland. The rationale behind these approaches was used when designing the methodology for this study.

### **3.7 Research Paradigm Justification**

Saunders et al (2007) outline two advantages of a mixed method paradigm. The first is that different methods can be used for different purposes and, secondly, mixed methods theory allows for triangulation. For the purposes of this study, the data collected from the interviews was used to triangulate the results of the questionnaire data. This provided a means for validating the data gathered from the questionnaires and also reduced the method effect.

(Saunders et al 2007) The method effect refers to the fact that all data collection techniques are imperfect therefore using multiple techniques mitigates these imperfections thus providing more reliable data Jick (1979) supports this view as he describes how the use of multiple measures provide a more certain representation of a phenomenon

Since this research involved both inductive and deductive approaches to it is best described as a 'grounded theory' (Glaser & Strauss, 1967) Saunders et al (2007) assert that a grounded theory strategy is very useful for exploring people's behaviour Since this study involves examining people's behaviour in terms of occupational stress in the workplace this type of strategy was appropriate

Triangulation is a key part of the research design According to Hurrell Jr , Nelson and Simmons (1998), many of the problems associated with researching work-related stress can be overcome through increased use of triangulation This provides further justification for the research design

### **3.8 Triangulation**

One of the goals of a researcher is to design a study that has strong internal and external validity and reliability and a comprehensive multi-perspective view (Boyd, 2000) According to Denzin (1970), triangulation strategy is the best way of achieving this Triangulation involves the use of different kinds of data or different sources relating to the same issue (Gillham, 2000) Triangulation was used in this thesis in order to provide this multi-perspective view Bryman (2008) also encourages the use of both interviews and questionnaires as this permits cross-checking of data which ensures results are more reliable

There are some drawbacks to triangulation as Jick (1979) points out. Disadvantages include difficulty in replicating the study and, secondly, if research questions are not clearly focused then triangulation of data will be impossible. Difficulty in replicating studies may indicate why McCann et al (2009) (a) and McCann et al (2009) (b) carried out two separate studies, one based on qualitative research and the other based on quantitative research.

### **3.9 Limitations of Research**

Research in the area of stress poses several potential difficulties. Cooper (1998) describes the basic problem of lack of agreement regarding much of the terminology surrounding stress. For the purposes of this research, this issue was dealt with by providing a definition of stress for the participants in the questionnaire as discussed in Chapter 3.4.

Comparing different stress concepts for the purpose of stress research can also be problematic since stress research can involve many distinct areas such as psychology, sociology, medicine and management (Cummings & Cooper, 1998). The intensely personal and subjective nature of stress can also make analysis of stress problematic. Taking these issues into account, the methodology used in this thesis was developed to ensure the data collected was as reliable as possible and the research questions were fully addressed.

Random sampling in both the quantitative and qualitative analysis was not used due to logistical and access difficulties. In order to conduct a random sampling, the contact details for every registered pharmacist were required. Accessing these large numbers of contact details was not possible due to time constraints and privacy issues. This sampling bias must be recognised as a limitation and means that the results cannot be used to describe the entire population as the external validity of the study is put in question. Marshall (1996) asserts that a non-random convenience sample, such as this, may result in poor quality data and a lack of

intellectual credibility Catts, Fey, Tomblin and Zhang (2002) concur with this view proposing that convenience sampling is associated with numerous forms of bias This is an area where further studies might improve on this research

Systemic bias is another limitation of this type of sampling technique This is a result of sampling bias and refers to a difference between the results from the sample and the theoretical results from the population as a whole

The response rate was low at 33% This must be acknowledged as a limitation and may affect the reliability of the findings The intrinsic motivation of the respondent must also be considered The nature of the questionnaire meant that pharmacists who had strong feelings on the issue of stress may have been more likely to complete the questionnaire than those who were not concerned by stress This must also be recognised as a limitation

### **3 9 1 Error and Bias**

Robson (2002) outlines four threats to reliability of research All of these potential threats to reliability are relevant for this study The first is subject error This is important for the questionnaires Subjects were asked to complete the questionnaires at a specified time Unfortunately there was no way of controlling when the participants actually completed the questionnaire therefore some may have been completed at the specified time and some may not Having the questionnaires filled at a neutral time meant that it avoided possible subject error as a subject may be more stressed on a Friday evening than e.g. mid-morning on a Tuesday Subject error was avoided in the interview process as the interviews were conducted on a weekend day that the subjects were not working and at a location separate from the subjects work environment



Subject bias is the second threat to reliability and is important regarding the interview process as some interviewees may in fact have provided answers that they thought the interviewer wanted rather than what they actually felt. Since the author had a previous working relationship with one of the interviewees it is possible that an element of bias may exist. This was unlikely to be an issue for the questionnaires as they were entirely anonymous.

Observer error is the third threat to reliability. This was significant as semi-structured interviews were used which increased the likelihood of observer error. The rationale for using this style of interview is discussed in Chapter 3.5. Since the author is a community pharmacist the tendency to ask leading questions was recognised. To avoid this, efforts were made by the interviewer to ensure the interview questions did not deviate significantly from the interview schedule. Use of a second interviewer was used to good effect by Peel (2006) in a study examining culture in SMEs. This further reduced any possible bias affecting the results, however, due to time constraints and logistical reasons this was not possible in this study.

Observer bias, the fourth threat, was recognised as a potential problem. The interview involved interpreting and analysing responses that were in some cases quite personal therefore the potential for observer bias must be recognised.

### **3.9.2 Subjectivity and Objectivity**

Research projects are influenced by both external factors such as level of access or funding and also internal factors such as the researcher's desires, interests and preoccupations (Drapeau, 2002). Ratner (2002) supports this view as he describes how subjectivity guides all aspects of research including subject, hypothesis formulation, methodologies, and data interpretation. Understanding and recognising subjectivity is critical when conducting

research and interpreting the results of data analysis. In order to ensure valid subjectivity, Drapeau (2002) outlines five mechanisms that may be used:

- Submitting the research results to peers and to other experts in the field or comparing the results with what other studies have given
- Doing the data analysis in groups in order to obtain consensus
- Triangulation and other validity and reliability precautions
- Presenting the results of a more objective, that is text-based, analysis before proceeding with subjective analysis
- Making use of a "discussant" during the research process

In this study, triangulation was used to ensure any lack of subjectivity was minimised as quantitative data was cross referenced with qualitative data. This research was also compared to the McCann et al (2009) (a) and (b) studies in so far as the data allowed which also helped to ensure subjectivity.

Ratner (2002) describes how the researcher's subjectivity is said to negate the possibility of objectively knowing a social psychological world. The author goes on to suggest that objectivity negates subjectivity since it makes the observer a passive recipient of external information. This illustrates the complexity and potential difficulty in maintaining objectivity and subjectivity during research. It is important that this difficulty is recognised when analysing and interpreting the results of the research. This view is supported by Ratner (2002) who explains that one of the advantages of recognising subjectivity is to reflect on whether or it facilitates or impedes objective understanding.

### 3 10 Method of Questionnaire Data Analysis

On the 4th of August the questionnaire data files were downloaded from the surveymonkey.com website. These files were in Excel format. The files were formatted and edited in order to enable them to be analysed using the SPSS data analysis tool. Once the data was uploaded to the SPSS program, an SPSS file was generated. Using this data, frequency analysis and cross tabulation analysis was carried out.

Cronbach's alpha values were obtained in order to test internal reliability. The rationale behind using Cronbach's alpha values and the values calculated for this study are presented in Table 1, Chapter 3 4.

For the purposes of analysis and cross-tabulation, the following labels were assigned to the variables:

<b>Seniority</b>	<b>Year Group</b>
A = Superintendent Pharmacist	A = Registered since 2007
B = Supervising Pharmacist	B = Registered from 2002 to 2006
C = Support Pharmacist	C = Registered before 2002
D = Locum Pharmacist	
<b>Community Pharmacy Type</b>	<b>Frequency</b>
A = Large multiple (11+)	Never = 1
B = Medium multiple (6-10)	Rarely = 2
C = Small multiple (2-5)	Sometimes = 3
D = Single pharmacy	Often = 4
	Frequently = 5

**Table 3. Labels assigned to variables for analysis using SPSS**

### 3.11 Method of Qualitative Data Analysis

Content analysis was used to analyse the data collected from the semi-structured interviews. This involved listening to the interview recordings and noting the responses of the interviewees. The responses were recorded thematically with comments relating to e.g. workload or work conflicts grouped together. The particular interviewee that made each comment was also recorded. The interviews were listened to several times until no new themes were noted. These themes were then analysed and the responses grouped together where appropriate. The various themes which emerged were grouped into major and minor themes and are listed in Table 4.

Major Themes	Minor Themes
Working long hours / Lack of adequate breaks	Criminal Activity
Managing OTC staff and level of competence of OTC staff	Impact of Pharmacy Act 2007
Staffing Levels	Impact of recession
Work Overload / Multi-tasking	The future for pharmacy in Ireland
Responsibilities to patients	
Stress management	

**Table 4 Major and minor themes to emerge from semi-structured interviews**

The questionnaires contained a free-text response section from which 19 responses were obtained. These responses were read and were grouped together thematically in the same manner as the semi-structured interview questions. The themes to emerge from these responses are presented in Table 5.

<b>Theme</b>
Insufficient breaks and long hours
Work overload
Understaffing/Staff Competency
Errors
New Regulations

**Table 5 Themes which emerged from free-text response section of questionnaires**

## **4 DATA ANALYSIS**

### **4.1 Introduction**

In this chapter the findings of the questionnaire and interviews will be outlined. This chapter will be structured around the major themes of analysis for this research project. These themes include

- Patient Care Responsibility
- Work Conflicts
- Professional Recognition
- Managing Workload
- Professional Uncertainty

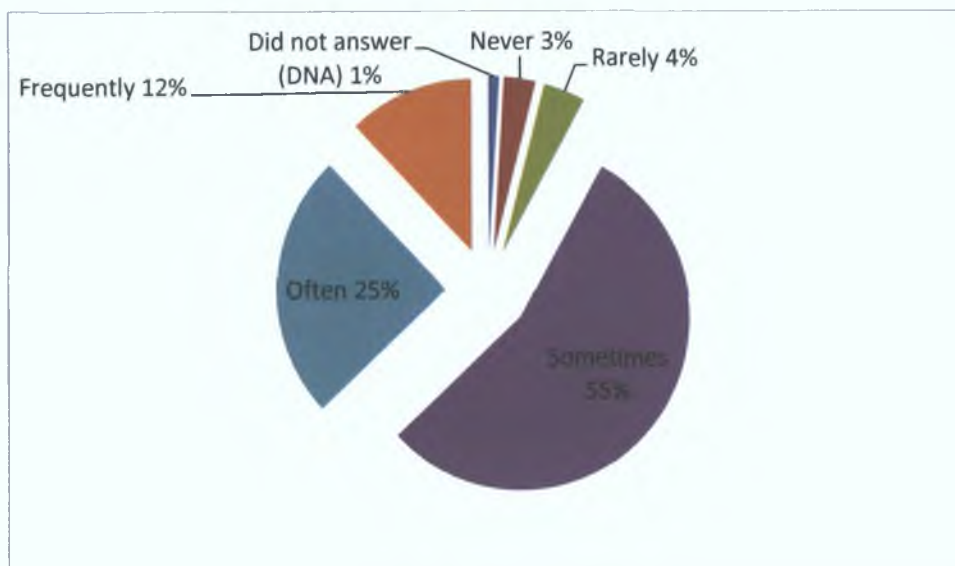
The statistical data will be presented with the aid of illustrations. The data from the interviews and free-text responses from the questionnaires will be presented alongside the statistical data.

### **4.2 Summary of Personal Data from Questionnaires**

After the mailings 97 responses (33%) were obtained. Of these, 75% (n=73) worked in the community sector and were therefore valid responses for this study. The other 25% of respondents indicated that they were working in other areas of pharmacy (hospital industry, and academia). For the purpose of data analysis their responses were not relevant therefore they were removed before data analysis was conducted. 60% of respondents (n=44) were female and 40% (n=29) were male. 17% of questionnaire participants entered a free-text response at the end of the questionnaire.

### 4.3 Patient Care Responsibility

This section of the questionnaire examined whether the level of responsibility a pharmacist has for their patients is a cause of stress. 92% of pharmacists were found to be stressed to some degree by the fact that they are ultimately responsible for patient outcomes. The breakdown of responses is given in Diagram 4.

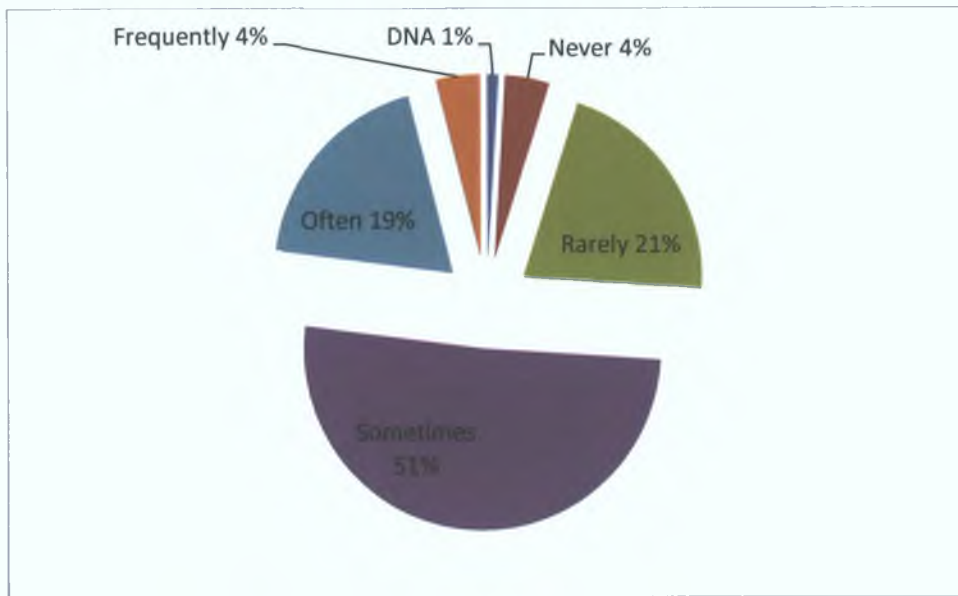


**Diagram 4: Pie chart of frequency of stress experienced because of high level of responsibility for patient outcomes**

Only 7% of respondents were 'never' or 'rarely' stressed by the level of responsibility they have for patients under their care. From the cross-referencing of data, females appeared to view patient care responsibility as more stressful than their male colleagues. One exception to this was that males indicated they were more stressed than females with regard to having job difficulties which conflict with their personal lives - 2.7% of females are 'frequently' stressed compared to 4.1% of males.

When cross analysing patient responsibility with number of items dispensed, 19% of those dispensing 1-150 items per day experienced stress 'sometimes'. 28% of those that dispensed 150 -300 items per day experienced stress 'sometimes'.

Stress levels due to fears that errors will be made in a patient's treatment were examined and the results proved interesting. The findings are shown in Diagram 5.



**Diagram 5: Pie chart of frequency of stress experienced due to fear of making a mistake in the treatment of a patient**

The majority of pharmacists, 74% experience stress 'sometimes', 'often' or 'frequently' due to fear of making a mistake. Using year of registration to cross-analyse the results, all three groupings (since 2007, 2002-2007, before 2002) were found to be stressed to a similar degree due to fear of making a mistake – 40% to 47% indicated they were 'sometimes' stressed. These findings are supported by evidence from Interviewee 4 who remarked '*If it's busier I would worry about it (making a dispensing error)*'. He went on to explain:

*'It is difficult especially at night'*



*it is stressful to get something done as quickly as possible while trying to do it safely'*

Interviewee 2 explained how she is,

*'Aware that any mistake that I make can have big consequences I would often think of something that evening after I got home'*

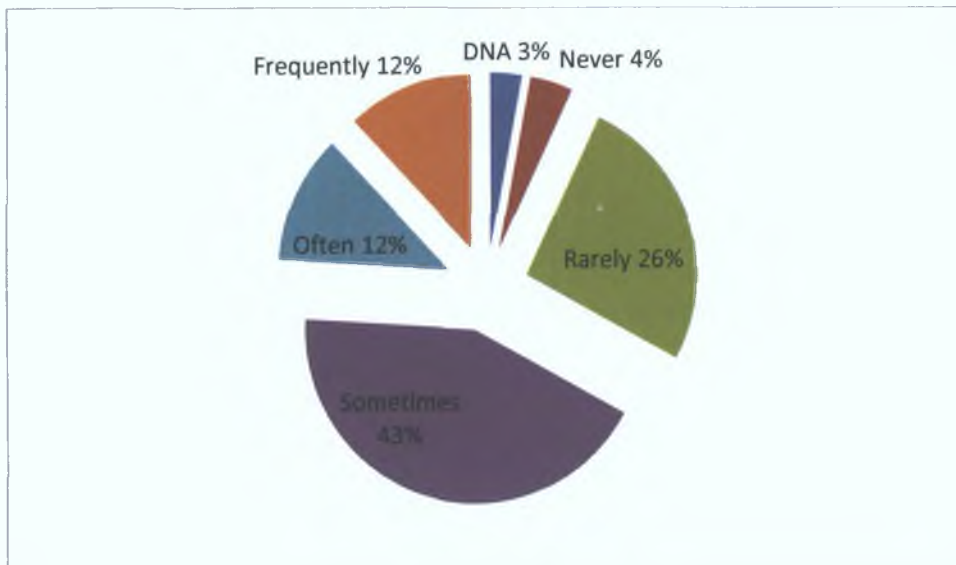
Comparing males to females, 12% of females were found to be 'often' stressed compared to 7% of males while 33% of females indicated they 'sometimes' feel stress due to fear of making a mistake compared to just 18% of males

A large number of pharmacists were found to experience stress due to lack of adequate information regarding a patient's condition 81% were 'sometimes' or 'often' stressed by this while 6% were 'frequently' stressed by this

#### **4.4 Work Conflicts**

12% of respondents indicated they were 'frequently' stressed due to other health professionals determining the way they work while 19% were 'often' stressed and 37% were 'sometimes' stressed. Of these results, the greater proportion was female

Stress experienced due to entrusting work to other staff members was an emotive issue during the interview process. The statistical analysis of the questionnaires is shown in Diagram 6. 55% of respondents were either 'sometimes' or 'often' stressed while 12% were 'frequently' stressed. 4% were 'never' stressed by this while 26% were 'rarely' stressed by this. 3% of respondents did not answer this question.



**Diagram 6: Pie chart of frequency of stress experienced due to entrusting work to other members of staff**

The findings of the interviews support the findings of the questionnaires. Interviewee 1 stated that he found himself *'Stressing myself out getting them to do jobs'*. He went on to explain;

*'It's annoying to have to chase OTC staff up, it's a fine balance trying to have good relationship and be their boss'*

*'I'm not very comfortable with this and find it difficult'*.

Interviewee 3 gave further support to this view as he stated;

*'The difficult element is ensuring they do what you expect and not what they want to do. It's not something I like'*.

41% of respondents 'rarely' experience stress when supervising co-workers while 28% 'sometimes' experience stress in this scenario. 8% reported 'frequently' experiencing stress in this situation. Both males and females were found to experience stress to a similar extent for this scenario as 4.1% of both experienced stress 'frequently'. This is in contrast to the

statistics for entrusting work to other staff members and this delegation of work appears to be a greater cause of stress than actually supervising the work of others

No discernible pattern could be identified regarding work conflict and level of seniority. Further cross analysis indicated that approximately 40% of those registered since 2007 experienced stress in this situation 'sometimes' while those registered before 2002 experienced stress in 34% of cases. This difference is possibly due to those having registered since 2007 being less experienced than their colleagues who registered before 2002.

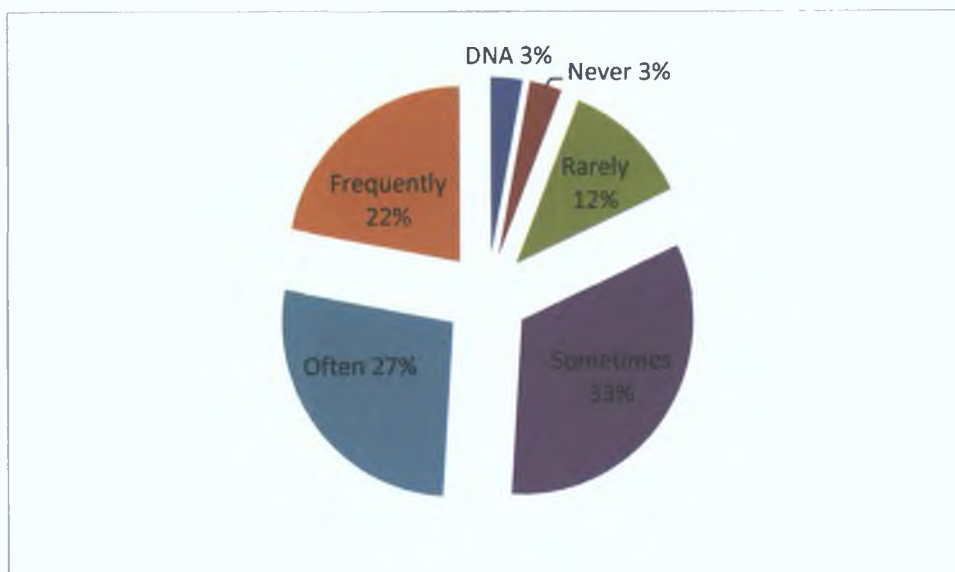
33% of respondents indicated they experienced stress 'sometimes' due to conflicts with co-workers. Interestingly, 33% of respondents were also found to 'rarely' experience stress because of this. Slightly more males than females (4% vs 3%) 'frequently' experience stress due to conflicts with co-workers. Pharmacists working longer hours were also found to experience increased incidence of stress in this instance than those working shorter hours.

#### **4.5 Professional Recognition**

70% of respondents indicated they felt stressed because they were not recognised as a true health professional. 41% were found to be 'sometimes' stressed by this while 4% were 'frequently' stressed by this. The majority of respondents were also found to be stressed by not receiving recognition from the general public with 40% 'sometimes' stressed, 21% 'often' stressed and 7% 'frequently' stressed by this. Regarding stress due to poor career advancement prospects, 20% were 'sometimes' stressed while 15% were 'frequently' stressed. A further 26% said that this is 'rarely' a cause of stress for them.

Feeling overwhelmed in trying to meet patient expectations was 'sometimes' a cause of stress for 37% while 44% indicated they were 'never' or 'rarely' stressed by this. Question 8 related to stress caused by not being able to use one's abilities to the fullest. Diagram 7 illustrates the

findings. 33% were 'sometimes' stressed by this while 49% were 'often' or 'frequently' stressed by this.



**Diagram 7: Pie chart of frequency of stress experienced due to not being able to use ones abilities to the fullest**

These figures were similar for both males and females. When compared with year of registration, 10% of those registered since 2007 said they were 'frequently' stressed due to not being able to use their abilities to the fullest compared to 4% of those registered before 2002. These findings are supported by the views of Interviewee 3 who stated;

*'Paperwork, stock control and HR would take from the function of the pharmacist, unfortunately its part and parcel'.*

He stated that pharmacists now *'have to perform those roles'*. It appears that the business management aspect of running a pharmacy may be a potential reason for the high stress levels evident here. This view is further supported by two questionnaire free-text responses;

*'A ridiculous amount of paper work takes far too much time and completely takes from our role so we can't fulfil potential I spend more time with paperwork than dispensing some days'*

*'Increased workload re paperwork mainly in trying to adhere to all the new PSI regulations It leaves little time for what you're qualified to do'*

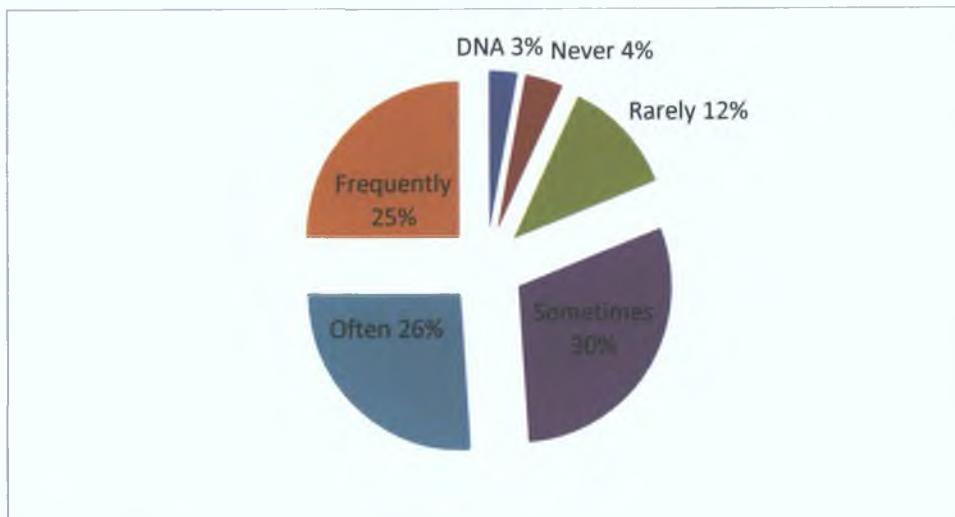
*'Time to speak with patients has reduced dramatically'*

It appears that community pharmacists consider time spent dealing with patients to be very important and various factors are preventing them from doing this which may be leading to stress

Work appraisal does not appear to be a significant issue that causes stress for many pharmacists as lack of feedback on performance was 'never' or rarely a cause of stress for 44% of respondents with 8 2% indicating that this is a 'frequent cause of stress

#### **4 6 Managing Workload**

56% of respondents were either 'sometimes' or 'often' stressed due to excessive or increased workloads while 25% were 'frequently' stressed because of this as shown in Diagram 8



**Diagram 8: Pie chart of frequency of stress experienced due to excessive or increased workloads**

27% of those working between 30 - 45 hours per week experienced stress 'frequently' due to excessive workload compared with 32% of those working 45 or more hours per week. This indicates that longer working weeks may be contributing to stress levels.

This supported by the views of the interviewees. Interviewee 1 explained;

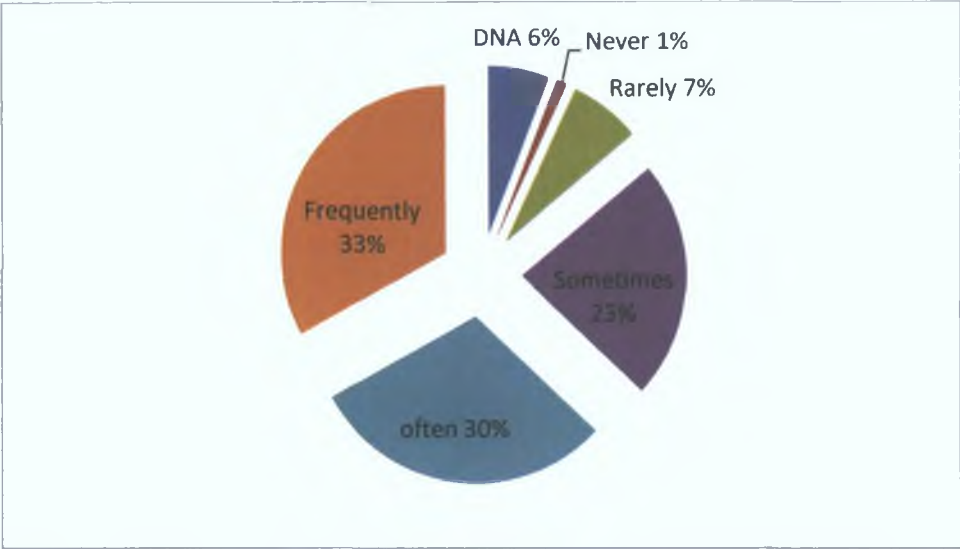
*'I was in at 9am, was finished at 7 but didn't get to leave until quarter past 8 and was working solid for the 11 hours without much of a break. You don't get to eat so you get more stressed as you go through the day'.*

When asked to describe how busy he is in a normal day, Interviewee 3 remarked that *'whether or not I managed to eat a lunch'* was in indication of how busy he was and his duties consisted of *'doing everything and anything'*. He went on to explain;

*'Complex prescriptions from hospitals increase workload, having a few of these prescriptions will have a significant impact of your workload' 'you get stretched and stress levels go up'.*

Interviewee 1 described how *'it always feels like there is stuff to do and catch up on'*. This data indicates that work overload may be a significant cause of stress and lack of adequate breaks may also be a major contributory factor. Stress levels in this instance were similar between males and females as 12% of both reported experiencing stress *'frequently'* due to excessive workload.

Stress experienced due to being interrupted by phone calls or other staff while performing work duties was notably high. Diagram 9 illustrates the findings.



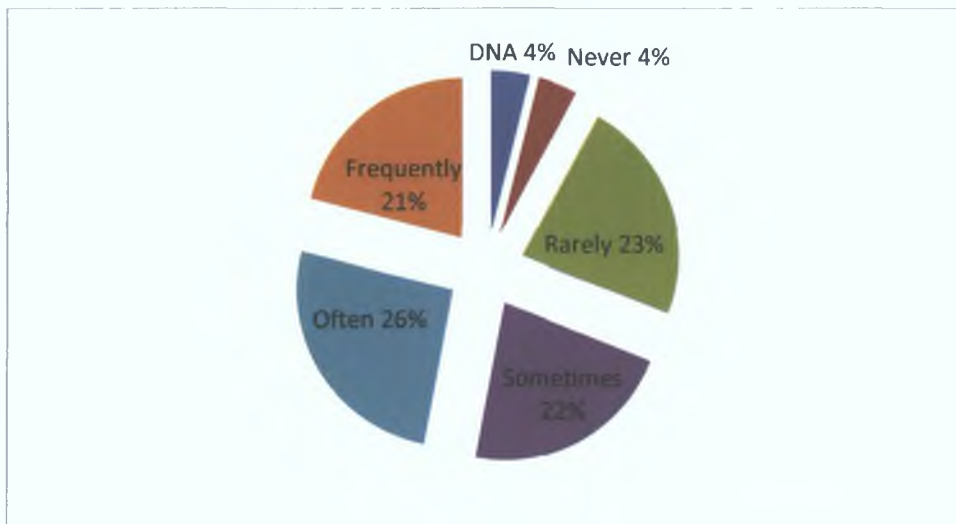
**Diagram 9: Pie chart of frequency of stress experienced due to being interrupted by phone calls or other staff while performing work duties**

One third of respondents were *'frequently'* stressed due to interruptions while only 1% were *'never'* stressed by interruptions. These findings are supported by Interviewee 4 who described the pressure that can be involved when trying to dispense medication and handle other issues simultaneously;

*'It arises every night, a staff member could tell you that someone wants to talk to you, you could be in the middle of a big prescription and parents with babies are staring at you wondering why their single antibiotic is taking so long'.*

One free-text questionnaire response also remarked that they were *'on call on the phone 24/7'* which further strengthens the view that interruptions due to phone calls and other staff members may be a significant cause of stress. Incidence of stress among females was marginally higher as 37% experienced stress 'often' and 'frequently' compared to 26% of males. 53% of those registered since 2007 experienced stress 'often' or 'frequently' which was similar to those registered before 2002 at 56%.

Just under half of respondents (47%) indicated that they 'rarely' or 'never' experience stress due to not being challenged at work. 25% experience stress in this situation 'frequently' or 'often'. 21% of respondents were found to be 'frequently' stressed due to workload affecting the amount of work that could be done well. The full data breakdown is given in Diagram 10.



**Diagram 10: Pie chart of frequency of stress experienced due to having so much work to do that everything cannot be done well**



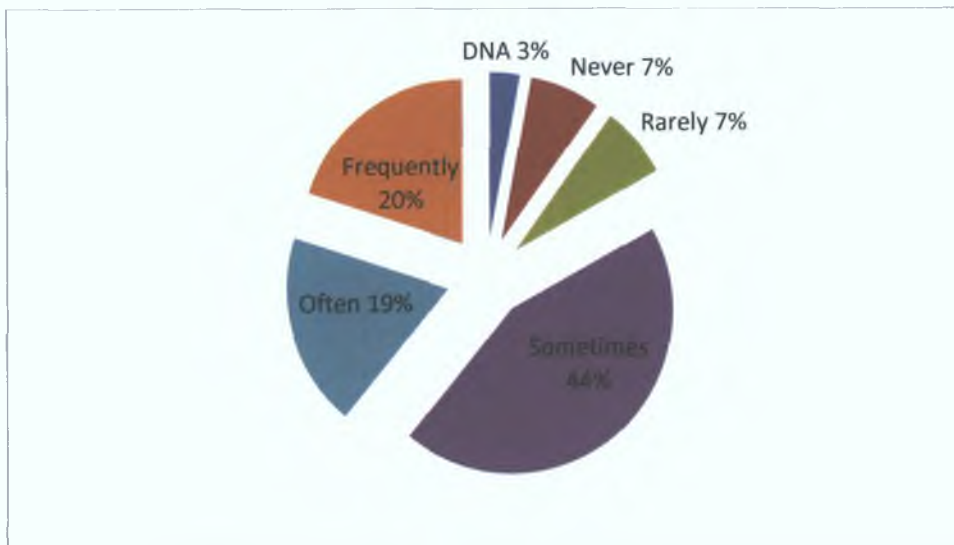
Interestingly in 50% of cases those working in single (independent) pharmacies experienced stress 'often' and 'frequently' however for those working in small multiples (2-5 pharmacy chain) this figure was 36%. When considered in light of the results from stress due to work overload these results are what would be expected as excessive workload means less time can be spent completing each task. The comments of Interviewee 1 support this as he states,

*'You would be rushed a lot of the time, you try and ask what you think are the relevant questions'*

The incidence of stress due to lack of control over workload was also significant as 68% of respondents were 'sometimes', 'often' or 'frequently' stressed by this. Interestingly 42% of those in single pharmacies experienced stress in this situation 'often' or 'frequently'. This compares to the lower figure of 28% for those working in small multiples. This indicates that pharmacists working in independent pharmacies may be more stressed than those working for a pharmacy group. When cross referenced with the data concerning the number of items dispensed the results were unexpected. 67% of those who dispense 0-150 items per day experienced stress 'frequently', 'often' or 'sometimes' compared to 56% of those who dispense 150-300 items per day. This is unexpected as one would expect the busiest pharmacist to experience more stress in this instance.

Question 6 in this section addressed the issue of stress caused by performing management duties for which one had not been trained. 27% were found to be 'frequently' or 'often' stressed by this while 44% 'never' or 'rarely' experienced stress in this instance. As was previously mentioned stress was experienced due to delegating to other staff members 'frequently' or 'often' among 24% of pharmacists. This indicates that this may be an area which is causing high levels of stress. Of those registered before 2002, 22% were 'often' or

'frequently' stressed compared to 26% of those registered since 2007. These results are similar to those for stress caused by entrusting work to other staff. Question 7 in the 'Managing Workload' section addressed whether not having enough staff to provide necessary services adequately is a cause of stress. The results are outlined in the Diagram 11.



**Diagram 11: Pie chart of frequency of stress experienced due to not having enough staff to provide necessary services adequately**

The results are very interesting and are reflected in the data from the interviews. One fifth of respondents were found to experience stress 'frequently' due to understaffing. 76% of those registered since 2007 experienced stress 'sometimes', 'often' or 'frequently' compared to 86% of those registered before 2002. Interestingly, 8% and 12% of pharmacists working in single pharmacies experienced stress 'frequently' and 'often' respectively. This is contrasted with figures of 6% and 3% respectively for small multiples. This is further evidence that those working in single pharmacies experience stress more than those in small multiples indicating a possible trend. Support pharmacists appear to demonstrate a higher level of stress than supervising pharmacists, with 10% 'frequently' experiencing stress and 16% 'sometimes' experiencing stress compared to 6% and 10% of supervising pharmacists respectively.

These findings are supported by data from the semi-structured interviews and questionnaire free-text responses Interviewee 2 stated,

*'It can be a lot more stressful if not enough staff on If not enough other staff you can be easily distracted and can be more stressful in terms of getting everything done inside (in the dispensary) and having to deal with customers at the same time Mistakes happen more frequently*

Interviewee 4 also indicated that understaffing can have a significant impact, *'if we had more staff it would make dispensing less stressful'* Several free-text questionnaire responses also addressed this issue,

*'Stress for me is directly related to workload and lack of qualified staffing'*

*'Too many items not enough staff'*

*'Support and more support is the most important thing I believe especially when working in a busy pharmacy*

A related issue that arose from the free-text responses related to a lack of qualified staff,

*'The biggest stress comes from working with staff that are not properly trained'*

*Lack of qualified staffing'*

This issue also arose in the interviews with Interviewee 1 stating *'inexperienced people can make it much more difficult'* These responses indicate that it is an area which may warrant further investigation

#### 4.7 Professional Uncertainty

The majority of respondents (69%) were found to 'never' or 'rarely' experienced stress because of significant change in their place of work. In contrast to these figures, 58% of pharmacists experienced stress 'sometimes' or 'often' due to having to balance new roles with existing responsibilities. When these results are cross-referenced, it can be seen that 29% of superintendent pharmacists 'often' feel stress due to balancing new roles compared to just 12% of support pharmacists. These results are as expected when one considers the additional responsibilities given to superintendent pharmacists as a result of the Pharmacy Act 2007.

The following response from Interviewee 4, a superintendent pharmacist, supports these findings:

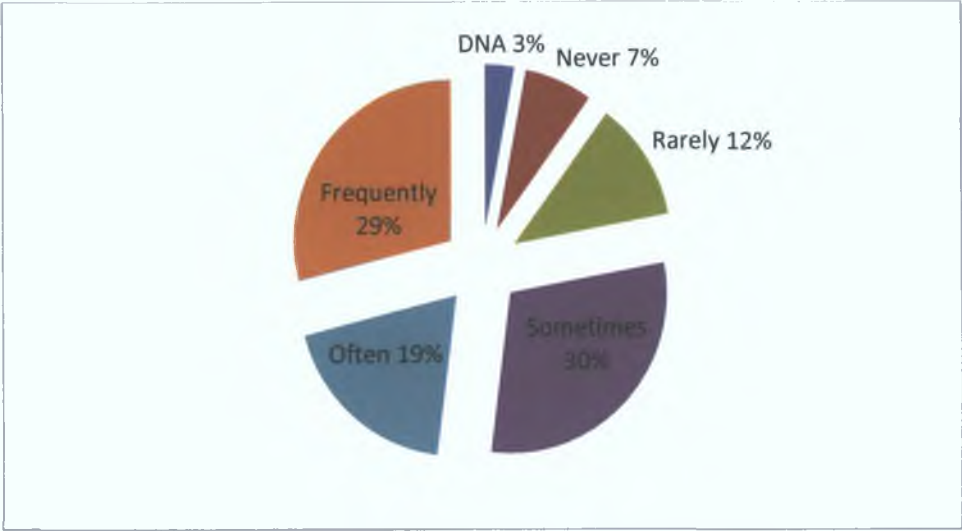
*'There will be a lot of pressure to fulfil the obligations of the Pharmacy Act which might be to the detriment of our work.'*

One free-text response also provides evidence to support this view, stating,

*'The biggest stress is the increased workload re paperwork in trying to adhere to the new PSI regulations.'*

The need to keep up with new developments in order to maintain professional competence was found to be a cause of stress for over three quarters of questionnaire respondents as 7% were frequently stressed while 61% were sometimes or often stressed by having to attend classes or complete study modules in order to fulfil Continuing Professional Development requirements.

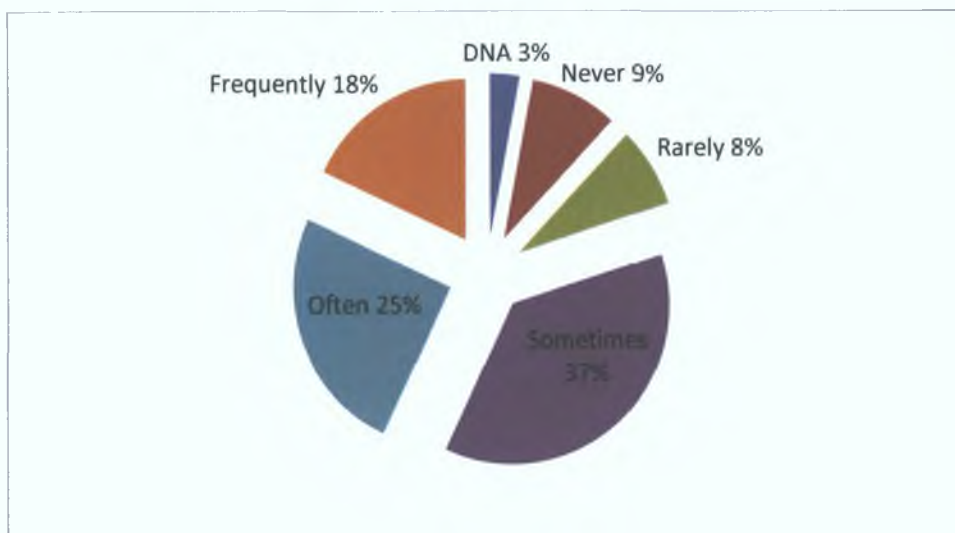
Since the economic downturn in 2008, the HSE has implemented a range of reductions in fees paid to pharmacies and in the cost of drugs. This was examined in relation to stress levels and the results are illustrated in Diagram 12.



**Diagram 12: Pie chart of frequency of stress experienced due to on-going uncertainty regarding HSE reimbursement prices and fees paid to pharmacies**

As can be seen, the majority of pharmacists are experiencing some level of stress due to the actions of the HSE in relation to payments to pharmacies with 29% experiencing stress ‘frequently’. Further analysis indicates that superintendent pharmacists experience stress ‘frequently’ in 58% of those sampled while the corresponding figures for supervising and support pharmacists were 37% and 15% respectively. These results are as expected as the superintendent is very often the managing or owner pharmacist therefore the financial stress would most likely be felt by them. 33% of pharmacists working in single pharmacies were found to be ‘frequently’ stressed compared to 21% of those in small multiples and 12% in large multiples.

Deregulation has meant that competition in the community pharmacy sector has increased dramatically in the last ten years. The impact of this on pharmacists was examined. The majority of pharmacists were found to experience stress due to increased competition with 18% 'frequently' and 25% 'often' experiencing stress. This data is illustrated in Diagram 13.



**Diagram 13: Pie chart of frequency of stress experienced due to increasing competition in the community pharmacy sector**

When the data is cross-referenced with level of seniority, 50% of superintendent pharmacists were 'frequently' stressed compared to just 8% of support pharmacists and 10% of locum pharmacists. These results are similar to those found for stress caused by uncertainty regarding fees paid to pharmacists and are likely to be related to the fact that many superintendent pharmacists are pharmacy owners and must protect their business from threats such as increased competition. There may be evidence of a trend here towards increased stress levels among supervising pharmacists which may warrant further investigation. Support pharmacists or locum pharmacists, in contrast, are not as likely to be concerned by increased competition. Interview responses support these findings as Interviewee 4 remarked '*It's worrying. There is a lot of competition. Profits have taken a hammering*'. Interviewee 1 was

deeply concerned regarding the level of increased competition and its impact on his profession,

*I would think every day about the future 'It has changed so much since I finished college wondering if you made the right decision (to study pharmacy)'*

*'Is it a race to the bottom?'*

The interviews also provided an insight into how increased competition combined with the recession has changed the community pharmacy landscape Interviewee 3 explained that,

*'Up to 2008, the primary function was dealing with every customer, purchasing was less significant, now you are expected to be able to still deal with everyone and yet still balance your books'*

Interviewee 4 further supported these views in relation to the recession stating *'It has made a big difference we would have more staff members'* The impact of the recession was not dealt with specifically in the questionnaire however these responses indicate that it may also be a factor in the stress levels of pharmacists since, as discussed, understaffing is likely to be a cause of stress

The issue of stress management training and techniques was discussed in the interviews and the responses indicated that while the interviewees were not aware of any stress management techniques, they would certainly welcome training or education in this area Interviewee 3 was very forthcoming on this issue as he explained,

*Stress management should be incorporated into something that we do Pharmacists under stress leads to mistakes poorly performing shops and unhappy staff A degree in pharmacy doesn't teach you anything about day to day running of a pharmacy'*

*'There are too many pharmacists working in what is a relatively stressful environment and have no coping mechanism I certainly would welcome some element of that in terms of CPD'*

Interviewee 4 supported this view stating that knowledge about stress management techniques *'would be very relevant there is definitely a gap for it'*

#### **4 8 Summary of Key Findings**

Work-related stress is experienced by community pharmacists who participated in this study. Stress was experienced by participants across each of the five areas examined by the questionnaire and the four interviewees were found to experience work-related stress also.

Table 6 lists the top six factors which questionnaire participants said caused them stress *'frequently'*

<b>Situation</b>	<b>%</b>
Interruption by phone calls or other staff when performing work duties	33%
On-going uncertainty over HSE drug prices and fees paid to pharmacists	29%
Excessive or increased workloads	25%
Not being able to fulfil ones abilities to the fullest	22%
Having so much work to do that everything cannot be done well	21%
Not having enough staff to provide necessary services adequately	21%

**Table 6 Top 6 situations which questionnaire participants said caused them to be *'Frequently'* stressed**

Both supervising and superintendent pharmacists experience higher levels of stress than support pharmacists in relation to non-clinical, business management issues. The level of



responsibility pharmacists have for the patients under their care is a source of stress for the vast majority of pharmacists who took part in the study. Pharmacists working in single, independent pharmacies experience stress more frequently than those working in small multiples or large multiples.

The non-clinical roles of the pharmacist such as work delegation and staff management were found to be a considerable cause of stress and may be affecting the time pharmacists have to spend with patients. Understaffing may also be contributing to this situation. Balancing various roles such as dispensing medication and stock management was found to be a significant cause of stress. There is evidence of lack of job satisfaction as many pharmacists were found to be stressed due to not being able to use their abilities to the fullest. Awareness of stress management techniques among community pharmacists appears to be low however pharmacists are interested in being educated in this area. The recession, the on-going uncertainty with regard to the income of pharmacies from state contracts and frequent changes in drug prices are significant causes of stress among the community pharmacists who took part in the study.

While the limitations of the study mean that no inferences can be made regarding the total population of community pharmacists in Ireland, the results indicate that this phenomenon is worthy of further research.

## **5 DISCUSSION**

### **5.1 Introduction**

The aim of this study was to explore the levels of work-related stress experienced by community pharmacists in Ireland. An overall response rate of 33% was achieved for the questionnaire. This response rate was acceptable for a self-administered web-based questionnaire. The results suggest that work-related stress does exist among the community pharmacists who took part in the study. The findings of the study will now be discussed with reference to the literature. This will be done in sections which correspond to the themes identified by the questionnaire and interviews.

The findings of this study are consistent with those of McCann et al (2009) (a) who found that a moderate level of work-related stress existed among community pharmacists in Northern Ireland. While the exact levels of stress in this study could not be determined due to questionnaire limitations, stress could be seen to exist in the sample of Irish community pharmacists studied. The findings are also consistent with a similar study in New Zealand which found work-related stress exists among community pharmacists at moderate levels (Dowell, Westcott, McLeod & Hamilton, 2001).

### **5.2 Patient Care Responsibility**

This is an area which contributes significantly to stress among community pharmacists as almost all pharmacists surveyed (92%) were found to experience some level of stress due to being ultimately responsible for patient outcomes. As the number of items dispensed per day gets higher the frequency of stress is also seen to increase. This may be linked to increased

likelihood of an error occurring 75% of pharmacists were found to experience stress due to fear of making a mistake When compared with other studies, this figure is quite high Lapane and Hughes (2004) found that only 33% of pharmacists reported stress because of fears of mistakes in patient treatment A possible explanation for this difference may be that dispensing processes in different countries differ The use of automated dispensing is more widespread in some countries compared to Ireland The high number of pharmacists who work as the sole pharmacist on duty (67%) may also contribute to high stress levels as having each item double checked is not possible The issue of lack of qualified staff may also be important in this situation The presence of a qualified pharmacy technician means a system of double checking of items may be used This would lead to reduced likelihood of mistakes occurring and therefore less stress for pharmacists

Incidence of stress compared to year of registration was similar for all groups and excludes the possibility that level of experience affects the stress experienced Data from the interviews suggests that the more items a pharmacist is dispensing, the more they can feel stress due to fear of making a mistake The change in pharmacy practice and expanding role of the pharmacist since the study by Lapane and Hughes (2004) may account for the difference in findings between this study and that of Lapane and Hughes (2004) This difference in findings is one which requires further investigation in order to establish why Irish pharmacists appear to be under more stress than their counterparts abroad

The vast majority of participants indicated that a lack of adequate information regarding a patient's condition caused them stress This supports the findings of Wolfgang (1988) (b) who found that this issue was a significant cause of stress among pharmacists This is possibly due to communication barriers between pharmacists and other healthcare professionals It may also be due to the amount of time pharmacists spend with patients as the research indicated

that pharmacists are increasingly constrained in the time they spend with patients. Ideally, pharmacists would spend more time dealing individually with patients rather than dispensing, thereby improving their knowledge of patient's individual conditions.

### **5.3 Work Conflicts**

Stress caused by having to entrust work (delegate) to other members of staff was found to be a major cause of stress from the questionnaire respondents and interviewees. The supervising of other staff members was also noted to cause stress but not as frequently. As mentioned previously, the primary functions of a pharmacist are clinical duties; however, delegation of work is a managerial responsibility.

The issue of managerial duties causing stress was a recurring theme throughout the questionnaire and interviews. As mentioned, a large proportion of pharmacists indicated they were stressed due to entrusting work to others. While stress due to patient care responsibilities was very evident, issues surrounding pharmacy management also appeared to be causing stress. This is reflected in the literature as insufficient training in communication and management skills is recognised as a major factor which can negatively affect workers (Ramirez et al. 1996). The interviews allowed participants to be more open about this issue and when their responses are combined with the evidence from the questionnaire data, it is clear that the non-clinical duties such as stock, personnel and financial management are taking up an increasing amount of time and leading to stress for some pharmacists. One striking quote from Interviewee 3 stated,

*'A degree in pharmacy doesn't teach you anything about day to day running of a pharmacy'*

This evidence implies that the role of the pharmacist may be assuming more and more managerial responsibilities which must be done in addition to the clinical duties. This is consistent with evidence from the literature as the research of Ottewill et al (2000), which had a direct focus on community pharmacists in the U K , highlights the fact that management skills can be as important as medical skills in a community pharmacy. Studies in Germany have also found that there is an increasing focus on the commercial aspects of the pharmacist's duties at the expense of the healthcare aspects (Pioch & Schmidt, 2001)

The managerial style of the pharmacist is also important as this can affect both the pharmacist and their staff. According to Friedman et al (2000) managers that use a more integrative style experience lower levels of task conflict and lower stress whereas those who use a more dominating style experience more task conflict and, subsequently, more stress. Management style was not examined in this study however it is relevant in the context of managerial skills and is an aspect of community pharmacy that may warrant further investigation.

#### **5.4 Professional Recognition**

Not being recognised as a true health professional by other health professionals was found to be a major cause of stress experienced by pharmacists as was not receiving recognition from the general public. Evidence that a lack of adequate information is available to pharmacists is also suggestive of communication difficulties between pharmacists and other healthcare professionals.

Being able to use one's abilities to the fullest proved to be an important issue for many pharmacists as just under half (49%) of questionnaire respondents were found to be 'frequently' or 'often' stressed by this. Spending more time on non-clinical roles may mean more stress as pharmacists cannot use the clinical knowledge and skills at their disposal. This

finding was supported by the interview findings and also several questionnaire free-text responses, many of which identified 'paperwork' as major cause of stress

Further evidence in support of these findings is abundant in the literature Jacobs et al (2011) refer to the phenomenon of combining clinical and managerial roles as Professional-Business role dichotomy Pines (1993) found that administrative tasks, such as paperwork, are inconsistent with professional activities and take human service professionals away from their primary focus which is working with and helping clients Furthermore, Guest (2009) and Cramton et al (1995) found role overload and dealing with multiple tasks to be important factors in increased stress levels among pharmacists

Taking a broader view on these findings, it appears that there is a frustration among pharmacists that current work practices mean they cannot meet and interact with patients as much as they would like and this is leading to stress and lack of self-fulfilment The findings of Smith et al (2004) indicate that work overload, which was found to exist among the pharmacists sampled in this study, led to a decrease in the amount of time spent by pharmacists counselling patients While dispensing and administration duties had been to some extent, preventing pharmacists from taking a more active role in patient care, business management duties are now becoming more important and are acting as a further barrier between pharmacist and patient This appears to be having a knock-on effect on the quality of patient care and on the stress levels of pharmacists

## **5.5 Managing Workload**

The majority of respondents (82%) experienced some level of stress due to work overload These findings are supported in the literature by Gidman (2011) who found that pharmacist workload in the U K has increased and pharmacies are becoming more stressful places in

which to work McCann et al (2009) (a) also found work overload to be an important factor in community pharmacist stress levels in Northern Ireland

Increased stress due to increased workload is what would be predicted using the Demand-Control Model created by Karasek (1979) as the amount of work performed under pressure was identified as a cause of stress Karasek's model also predicted interruption rate and conflicting demands to be a major contributor of work-related stress The results of this study give support to this model as the majority of pharmacists surveyed indicated that interruptions due to phone calls or other staff members was a cause of stress for them 33% of respondents reported that this 'frequently' causes them stress This was the highest 'frequently' response obtained from all the questionnaire questions indicating that this may be an issue worthy of further research This was mirrored in the McCann et al (2009) (a) study as frequent interruptions by phone calls or other staff were found to be an important source of stress Further support for these findings comes from Wolfgang (1988) (b), who also found dealing with interruptions to be an important source of stress for pharmacists Data from the interviews also suggests that conflicting demands such as dispensing and dealing with other issues simultaneously can be a source of stress

Adler and Benbunan-Fich (2012) explored the relationship between multi-tasking and performance and found that increased levels of multi-tasking led to an increase in errors Multi-tasking appears to be commonplace for pharmacists as they juggle clinical and managerial roles 74% of respondents were found to experience stress due to fear of making a mistake and since multi-tasking can increase error, this may be contributing to pharmacist stress levels

### **5.5.1 'Long Hours' Culture**

A 'long hours' culture, where there is a lack of adequate work breaks, was found to exist among the participants. Some interviewees spoke at length on this issue and remarked how it led to increased stress. These findings are supported by the literature as a 'long hours' culture was also identified by Hassell (2009). Further evidence comes from McCann et al. (2009) (a) and (b) who both cited 'long hours' as a potential source of stress for community pharmacists. The strong support for the findings of this study in the literature indicates that this is an area which warrants further research in Ireland.

### **5.6 Lack of Challenge**

Just over half the respondents reported experiencing stress due to not being challenged by their work. These findings mirror those of Wolfgang (1988) (b) who demonstrated that a lack of challenge was an important source of stress for pharmacists. However, this figure was large compared to the McCann et al. (2009) (a) study which found that a relatively low number of pharmacists were stressed due to not being challenged by their work. A study by Mott, Doucette, Gaither, Pedersen and Schommer (2004) also found relatively few pharmacists to be stressed due to not being challenged by their work. These findings are also unusual when compared to the findings on entrusting work to other members of staff. Both the interviews and questionnaires indicated that the majority (77%) of pharmacists experience significant stress when dealing with managerial issues such as delegating work.

When figures relating to stress due to delegation and supervising difficulties are considered in light of the results on being challenged at work, it appears that it may be in the clinical rather than the managerial roles that pharmacists find themselves 'unchallenged'. Legislation differs greatly between countries in relation to prescription requirements for medicines and the tasks



that a pharmacist can legally carry out Pharmacist in Northern Ireland can, for example, prescribe certain medications on completion of a prescribing course This is currently not possible in Ireland and factors such as these may be contributing to the high stress levels due to not being challenged by work

## **5.7 Understaffing**

Understaffing in pharmacies was found to be a major cause of stress for community pharmacists 21% of all respondents experienced stress 'frequently' because of staffing levels McCann et al (2009) (a) also found lack of adequate staff to be an important source of stress Terantanavat and Kleiner (2001) identify understaffing as a major source of stress in small businesses These findings are also supported by Lapane and Hughes (2004) who reported that short-staffing was the most frequently reported source of stress among pharmacists Both the interviews and questionnaire free-text responses provide plentiful data to support these findings One particular free-text response summed up the overall findings when they wrote '*Support and more support is the most important thing, I believe, especially when working in a busy pharmacy*' Stress resulting from understaffing may be due to increased likelihood of errors taking place as Interviewee 2 remarked '*If not enough other staff you can be easily distracted*' Potential for making an error was already identified as a likely source of stress and understaffing may be exacerbating the situation

An interesting trend emerged from the data in relation to whether the pharmacist worked in a single pharmacy or a group of pharmacies 8% and 12% of those working in single pharmacies experienced stress 'frequently' and 'often' respectively compared with 6% and 3% respectively for small multiples A possible reason for this is single pharmacies may be under more financial pressure and thus have fewer staff or perhaps independent pharmacies

do not have the same level of managerial expertise and support available to ensure staff are organised more effectively. Lack of managerial skills has already been discussed in relation to delegation of work and this may be relevant in this situation also.

In addition to this, 42% of those in single pharmacies experienced stress due to lack of control over workload 'often' or 'frequently'. This compares to the lower figure of 28% for those working in small multiples. Also, in 50% of cases, those working in single pharmacies experienced stress 'often' and 'frequently' due to having so much work to do that everything cannot be done well. However, for those working in small multiples, this figure was 36%. It appears that pharmacists working in single pharmacies may be experiencing more stress than those working in small multiples, large multiples or pharmacy chains. This is an area which warrants further investigation as pharmacists working in these single pharmacies may be more at risk from the negative outcomes of stress than those working for larger chains.

A separate but related issue which arose from both the interviews and the questionnaire free-text responses related to an apparent lack of qualified support staff working in pharmacies. One free-text response stated *The biggest stress comes from working with staff that are not properly trained*. There are currently no requirements for any staff member other than the pharmacist, to hold a recognised qualification in order to work in a community pharmacy in Ireland. This may be a possible reason for these findings, however, this is certainly an area which should be investigated in future studies as lack of qualified staff may be contributing to stress just as much as understaffing.

## **5.8 Professional Uncertainty**

Over half of pharmacists who completed the questionnaire experienced stress due to having to balance new roles with existing responsibilities, however, more superintendent pharmacists

than support pharmacists were found to experience stress in this instance. This theme also emerged from the interviews and free-text responses. This is possibly related to the increased level of responsibility they have due to the increased regulations in the Pharmacy Act 2007 and the increased powers given to the pharmacy regulatory body (the Pharmaceutical Society of Ireland)

Terantanavat and Kleiner (2001) contend that lack of experience is one of the five main sources of stress in small businesses. This did not appear to be borne out by the findings as the less experienced participants (those registered since 2007) did not appear to have any higher overall stress levels than their more experienced colleagues. It was the more experienced pharmacists who appeared to experience more stress. A possible explanation for this is that less experienced pharmacists may have to deal with business management issues less frequently as they may not be the managers or owners of the pharmacy business.

## **5.9 Financial Uncertainty**

The issue which appeared to cause most stress to pharmacists in relation to professional uncertainty related to on-going uncertainty over HSE reimbursement prices and fees paid to pharmacists. 29% of questionnaire respondents were 'frequently' stressed because of this issue while 19% were 'often' stressed by it. McCann et al (2009) (a) found that 30% of pharmacists experienced stress due to a similar issue relating to community pharmacy contracts with the state. These figures illustrate how financial issues such as these can cause significant stress for pharmacists. Further analysis also indicates that, as before, pharmacists in single pharmacies experienced stress more frequently than those in small multiples or large multiples which fits in with the trend already identified. This problem may be exacerbated due to the impact of the recession in the past few years. The research of Brock and Evans (1989)

supports the findings that single pharmacies may be under increased financial pressure as the authors assert that liquidity dries up faster for smaller firms than larger firms during a recession

### **5 10 Increased Competition**

The increased level of competition in the community pharmacy sector has resulted in stress for many pharmacists. Similar to stress due to financial issues, this appears to be highest for superintendent and supervising pharmacists. The interviews were quite revealing in relation to this issue. One pharmacist described how he worried about the future of community pharmacy, describing the industry at present as a '*race to the bottom*' in terms of drug prices and salaries. He also questioned whether he made the right choice to choose a career in pharmacy as the industry is now experiencing so much change. The interviews also revealed evidence of a possible shift in emphasis for some pharmacists away from the clinical aspect of their job towards a more financially orientated role with issues such as cost savings through closer stock control central to this. These findings indicate that the change taking place in the industry may not benefit either the patient or the pharmacist as pharmacists may become more stressed and spend less time dealing with clinical issues. Further research is required to explore this issue.

### **5 11 Continuing Professional Development**

The need to keep up with new healthcare developments to maintain professional competence has been found to be a cause of stress for pharmacists (Lapane & Hughes, 2006). The research findings support this assertion as 67% of respondents were found to experience stress 'frequently', 'often' or 'sometimes' due to CPD requirements. Since work overload was

found to be a leading cause of stress it is possible that having to attend additional classes outside of normal working hours is acting as yet another stressor for community pharmacists

Interviewee responses did however indicate that CPD on stress management would be very much welcomed. Indeed management of occupational stress was a theme which emerged from the interview process and which some interviewees spoke at length about. Of the four interviewees, none were aware of any possible ways to reduce or manage their own stress levels or those of their co-workers. It appears that a knowledge gap exists in relation to stress management techniques among community pharmacists. The interviewees in this study acknowledged both a gap in their knowledge in this area and also a desire to bridge this gap through CPD.

## **5.12 Key Findings**

The responsibility that pharmacists have for patients was a source of stress for the majority of pharmacists who took part in the study.

Pharmacists working in single, independent pharmacies experienced more stress than those working in small multiples, large multiples or pharmacy chains.

Senior pharmacists (supervising and superintendent) are more likely to experience work-related stress than support or locum pharmacists in relation to staff management and business/financial issues.

There appears to be an acknowledgement that the more business-oriented duties of pharmacists are beginning to encroach on the time they spend with patients as the business environment becomes less favourable for pharmacies. Increased competition is also contributing to this trend.

Managerial duties which must be carried out in addition to clinical duties are a constant source of stress for many pharmacists as they are struggling with a growing workload and often lack the managerial skills to cope with management duties

## 6 CONCLUSIONS

Work-related stress is experienced by some community pharmacists in Ireland. This work-related stress is having a negative impact on pharmacists, their patients and their businesses. Owing to research limitations, the scale of this phenomenon in Ireland cannot be accurately determined however several factors have been identified which account for work-related stress amongst this sample. Some of the more significant reasons for this stress are frequent interruptions when performing work duties, increasing workloads and financial uncertainty. These are some of the same stressors that Wolfgang (1988) (b) described, indicating that work environments for community pharmacists have changed little in the past twenty five years.

The daily workload of pharmacists is increasing. This increase in workload is related to a possible shift in emphasis from clinical responsibilities to managerial responsibilities. Clinical responsibilities have not diminished however managerial tasks such as stock and personnel management have now assumed greater importance for many pharmacists. The marriage of these two roles is proving difficult due to a lack of management skills. Additional management roles mean that pharmacists have less time to spend with patients which may be having a negative impact on pharmacist-patient relationships.

Staffing levels are viewed by many as being insufficient however the impact of the recession and reductions in fees paid to pharmacists may mean this issue is likely to continue.

Education in the area of business management may allow pharmacists to assume more control over their workload. It may also assist in addressing the issue of understaffing as a more thorough understanding of personnel management may mean more effective use of the human resources available.

While the limitations of this research must be acknowledged, the findings present strong evidence for the presence of work-related stress among community pharmacists in Ireland. Further research is required in order to more fully understand this phenomenon.



## 7: RECOMMENDATIONS

Managerial roles are a frequent cause of stress and should be examined in terms of further education and training. The introduction of management modules to the curriculum for pharmacy students would help to improve this situation. The pharmacy representative body, the IPU, should work towards facilitating CPD for pharmacists to help bridge a possible knowledge gap relating to business management. This would be especially beneficial in the areas of stock, personnel and financial management and staff training.

The IPU should also facilitate education of all pharmacists in the area of stress management. Similarly, pharmacy managers / owners should be encouraged to facilitate employee pharmacists in developing awareness about this issue.

Evaluating dispensing processes and reviewing the work environment may help in identifying and reducing stress causing practices. Pharmacist involvement in any stress reduction process is important and management must be aware of this. Practical solutions to some issues may involve screening phone calls or moving telephones away from the dispensing area to minimise interruptions when the pharmacist is dispensing.

The development of a 'Stress Policy' by pharmacy owners / managers would be beneficial as it would outline the steps taken to prevent stress and also the most appropriate action to take when dealing with stress once it is acknowledged. A sample policy which can be adapted to suit any organisation can be found in Appendix 3 (Health and Safety Executive, 2012).

Pharmacy owners/ managers must examine ways to allow pharmacists to take breaks during the day. Legislative and financial restrictions will mean that this may be difficult to organise

as employing two pharmacists in order to allow for alternative lunch breaks would be very costly. Simply encouraging pharmacists to take regular breaks during less busy times may help this situation as evidence indicates that many pharmacists choose not to take breaks even when they have no patients to attend to immediately.

Increased recognition on behalf of the HSE of the clinical skills that pharmacists have could lead to the introduction of more clinical responsibilities for pharmacists. Further emphasis on this area of a pharmacist's expertise may help to move pharmacists away from the dispensing and managerial roles into a more active role in patient care. Recent developments have seen pharmacists take part in vaccination programmes. The success of this programme has served to highlight the huge positive impact that giving pharmacists more clinical responsibilities can have. Pharmacist prescribing is a good example of an area where pharmacist's skills can be further utilised. The evidence presented here indicates that this is likely to benefit pharmacists through increased professional fulfilment, as well as patients.

## 8 FUTURE STUDIES

The findings of this study raised several issues which future studies may seek to address. Lack of qualified staff emerged as an important issue for many pharmacists. Future research may identify whether this is true for Irish community pharmacies and the impact it may be having.

High levels of stress were found among Irish pharmacists compared to those in other countries regarding dispensing errors. Research in this area would indicate possible reasons for this and highlight ways to improve community pharmacy in Ireland.

The managerial aspect of community pharmacy was a theme which emerged throughout the research. Future research may examine the value of including business management modules into both third-level curriculums for pharmacy students and CPD modules.

The levels of work-related stress experienced by pharmacists working in independent pharmacies warrants further investigation. This was found to be greater than for pharmacists working in pharmacy multiples indicating that this particular group may be at significant risk from stress.

The role of community pharmacists is changing. The nature of this change is likely to have a significant impact on both patients and pharmacists. The role of community pharmacists and their place in the healthcare system should be examined in future studies of the industry.

## References

- Adler, R F & Benbunan-Fich, R (2012) 'Juggling on a high wire Multi-tasking effects on performance' *International Journal of Human-Computer Studies*, 70 (2) 156-168
- Bailey, K D (1982) *Methods of Social Research*, New York Free Press
- Benson, H & Allen, R L (1980) 'How much stress is too much?' *Harvard Business Review*, 58(5) 86-92
- Berger, A N & Udell, G F (2002) 'Small business credit availability and relationship lending The importance of bank organisational structure' *The Economic Journal*, 112 32-53
- Birn, R (2004) *The effective use of market research how to drive and focus better business decisions*, London Kogan Page
- Biron, C , Ivers, H , Brun, J P & Cooper, C L (2006) 'Risk assessment of occupational stress Extensions of the Clarke and Cooper approach' *Health, Risk and Society*, 8(4) 417-429
- Bonoma, T (1985) 'Case research in marketing opportunities, problems and a process', *Journal of Marketing Research*, (12) 199-208
- Boyd, C O (2000) *Combining qualitative and quantitative approaches* Boston Jones & Bartlett
- Britten, N (1995) 'Qualitative interviews in medical research' *British Medical Journal*, 311 251-253

- Brock, W A & Evans, D S (1989) 'Small business economics' *Small Business Economics*, 1 (1) 7-20
- Bryman, A (2008) *Social research methods* Oxford Oxford University Press
- Catts, H W , Fey, M E , Tomblin, J B , & Zhang, X (2002) 'A longitudinal investigation of reading outcomes in children with language impairments' *Journal of Speech, Language, and Hearing Research*, 45 1142–1157
- Cavanagh, M E (1988) 'What you don't know about stress?' *Personnel Journal*, July 53-59
- Cooper, C L (1998) *Theories of Organizational Stress* New York Oxford University Press
- Cooper, C L & Cartwright, S (1994) 'Stress-management interventions in the workplace stress counselling and stress audits' *British Journal of Guidance Counselling*, 22 (1) 65-73
- Cox T & Griffiths, A (2010) 'Work-Related Stress A theoretical perspective' In Leka, S and Houdmont, J eds *Occupational Health Psychology* Chicester Blackwell Publishing Ltd , 31-60
- Cox, T , Griffiths, A & Rial-Gonzalez, E (2000) 'Research on Work-Related Stress' *European Agency for Safety and Health at Work*
- Crampton, S M , Hodge, J W , Mishra, J M & Price, S (1995) 'Stress and Stress Management' *SAM Advanced Management Journal*, 60 (3) 10
- Creswell, J W, Plano Clark, V L , Guttman, M L , & Hanson, E E (2003) 'Advanced mixed methods research design' In Tashakkori, A and Teddlie, C eds *Handbook of mixed methods in social and behavioural research* Thousand Oaks, CA Sage, 209-240

- Cummings, T G & Cooper, C L (1998) 'A cybernetic theory of organizational stress' In Cooper, C L , ed *Theories of Organizational Stress* New York Oxford University Press
- Denzin, N K (1970) *The research act A theoretical introduction to sociological methods* Chicago Aldine
- Denzin, N K , & Lincoln, Y S (2000) *Introduction The discipline and practice of qualitative research* Thousand Oaks, CA Sage
- Dowell A C , Westcott T , McLeod D K , & Hamilton S (2001) 'A survey of job satisfaction, sources of stress and psychological symptoms among New Zealand health professionals' *New Zealand Medical Journal*, (114) 540–543
- Drapeau, M (2002) 'Subjectivity in Research Why Not? But ' *The Qualitative Report*, 7 (3) 1-20
- Dunleavy-Larkin, G (2004) 'Spice of Life – Kiss of Death, Work Related Stress' Unpublished Master's Thesis, Dublin National College of Ireland
- Edwards, J R , Caplan, R D & Van Harrison, R (1998) 'Person-environment fit theory conceptual foundations, empirical evidence, and directions for future research' In Cooper C L ed *Theories of Organizational Stress*, Oxford University Press, New York, NY, 28-67
- Elkin A J & Rosch P J (1990) 'Promoting mental health at the workplace the prevention side of stress management' *State of the Art Reviews Occupational Medicine*, 5 (4) 739-754
- Evans, J R & Lindsay, W M (1996) *The Management and Control of Quality* MN West

- Fichera, G P , Sartori, S & Costa, G (2009) 'Post-traumatic Stress Disorder following robbery at the workplace a pilot study on 136 pharmacy workers' *Medicina del Lavoro*, 100(2) 97-108
- French, J R P , Caplan, R D & Van Harrison, R (1982) *The mechanisms of Job Stress and Strain* Wiley and Sons New York
- Friedman, R A , Tidd, S T , Curall, S C & Tsai, J C (2000) 'What goes around comes around the impact of personal conflict style on work conflict and stress' *The International Journal of Conflict Management*, 11 (1) 32-55
- Gardiner, M & Tiggemann, M (1999) 'Gender differences in leadership style, job stress and mental health in male and female dominated industries' *Journal of Occupational and Organizational Psychology*, 72 301-315
- Gibson, J L , Ivancevich, J M & Donnelly, J H (1994) *Organizations Behaviour, Structure, Processes* Illinois Irwm
- Gidman, W (2011) 'Increasing community pharmacy workloads in England causes and consequences' *International Journal of Clinical Pharmacy*, 33 (3) 512-520
- Gillham, B (2000) *Case Study Research Methods*, London Continuum
- Glaser, B & Strauss, A (1967) *The Discovery of Grounded Theory*, Chicago, IL Aldine
- Gopher, D , Olin, M , Badhih, Y , Cohen, G , Donchin, Y , Bieski, M & Cotev, S (1989) 'The nature and causes of human errors in a medical intensive care unit' Proceedings of the 32<sup>nd</sup> annual meeting of the Human Factors Society Santa Monica, California Human Factors Society

- Gronroos, C (1997), 'From marketing mix to relationship marketing - towards a paradigm shift in marketing' *Management Decision*, 35 (4) 322 – 339
- Guest, D (2009) 'The causes and consequences of stress among pharmacists' Report and Outcomes of Joint Royal Pharmaceutical Society of Great Britain and Pharmacy Practice Research Trust Symposium, London
- Harris, JH & Arendt, L (1998) 'Stress reduction and the small business increasing employee and customer satisfaction' *Society for the Advancement of Management*, 63 (1) 67- 74
- Hassell, K (2009) 'Hard work never killed anyone' Report and Outcomes of Joint Royal Pharmaceutical Society of Great Britain and Pharmacy Practice Research Trust Symposium, London
- Hassell, K, Seston, E M, Schafheutle, E I, Wagner, A & Eden, M (2011) 'Workload in community pharmacies in the UK and its impact on patient safety and pharmacists' well-being a review of the evidence' *Health & Social Care in the Community*, 19 561–575
- Health and Safety Executive (2012) 'Example Stress Policy' [Internet] In *HSE Tools and Templates* Available from <http://www.hse.gov.uk/stress/pdfs/examplepolicy.pdf> [Accessed 22nd August 2012]
- Hill, J & Wright, L T (2001) 'A qualitative research agenda for small to medium-sized enterprises', *Marketing Intelligence & Planning*, 19 (6) 432 – 443
- Hollway, W & Jefferson, T (2000) *Doing qualitative research differently* London Sage



- Hurrell Jr , J J , Nelson, D L & Simmons, B L (1998) 'Measuring job stressors and strains Where we have been, where we are and where we need to go' *Journal of Occupational Health Psychology*, 3(4) 368-389
- Irish Pharmaceutical Union (2012) 'Business Trends Survey' Dublin Irish Pharmaceutical Union
- Jacobs, S , Ashcroft, D & Hassell, K (2011) 'Culture in community pharmacy organisations what can we glean from the literature?' *Journal of Health Organization and Management*, 25(4) 420-454
- Jick, T D (1979) 'Mixing Qualitative and Quantitative Methods Triangulation in Action' *Administrative Science Quarterly*, 24(4) 602-611
- Johnson, R B , & Onwuegbuzie, A J (2004) 'Mixed methods research A research paradigm whose time has come' *Educational Researcher*, 33 (7), 14-26
- Kahn, R L , & Byosiere, P (1990) *Handbook of Industrial and Organizational Psychology, Vol 3 Stress in organizations* Palo Alto Consulting Psychologists Press
- Karasek, R (1979) 'Job demands, job decision latitude and mental strain implications for job design' *Administrative Science Quarterly*, 24 285-308
- Keen, J & Packwood, T (1995) 'Case study evaluation' *British Medical Journal*, 311 444-446
- Kompier, M & Cooper, C (1999) *Preventing stress, improving productivity European case studies in the workplace* London and New York Routledge

Kompier, M A J , Cooper, C L & Geurts, S A E (2000) 'A multiple case study approach to work stress prevention in Europe' *European Journal of Work and Organisational Psychology*, 9(3) 371-400

Kompier, M A J & Kristensen, T S (2001) 'Organisational work stress interventions in a theoretical, methodological and practical context' In Dunham, J ed *Stress in the workplace Past, present and future* London Whurr Publishers

Kompier, M & Levi, L , (1994) '*Stress at work causes, effects and prevention A guide for small and medium sized enterprises*' Dublin European Foundation for the Improvement of Living and Working Conditions (1994)

Kompier M A J & Marcelissen F H G (1990) *Handbook of Work Stress* (in Dutch) NIA, Amsterdam

Kotler, P (1977) *Marketing Management Analysis, Planning, Implementation and Control*, 3<sup>rd</sup> Ed Upper Saddle River, NJ Prentice Hall

Labaw, P J (1980) *Advanced Questionnaire Design* Cambridge, MA Abt Books

Lapane K L , & Hughes, C M (2004) 'Baseline job satisfaction and stress among pharmacists and pharmacy technicians participating in the Fleetwood Phase III study' *The Consultant Pharmacist*, 19 1029-37

Lapane K L , & Hughes, C M (2006) 'Job satisfaction and stress among pharmacist in the long-term care sector' *The Consultant Pharmacist*, 21 287 -292

Layder, D (1995) *New Strategies in Social Research*, Cambridge Polity

Lazarus, R S (1966) *Psychological Stress and the Coping Process* McGraw Hill, New York

- Lazarus, R S (1991) 'Psychological stress in the workplace' *Journal of Social Behaviour and Personality*, (6) 1-13
- Lazarus, R S (1993) 'From psychological stress to the emotions a history of changing outlooks' *Annual Review of Psychology*, (44) 1-21
- Lea, V M, Corlett, S A & Rodgers, R M (2012) 'Workload and its impact on community pharmacists' job satisfaction and stress a review of the literature' *International Journal of Pharmacy Practice*, 20 259–271
- Leape, L (1994) 'Error in medicine' *Journal of the American Medical Association*, 273 (23) 1851-1857
- Leeman-Conley, M (1990) 'After a violent Robbery' *Criminology Australia*, 1(4) 4-6
- Le Fevre, M, Kolt, G S & Matheny, J (2006) 'Eustress, distress and their interpretation in primary and secondary occupational stress management interventions which way first?' *Journal of Managerial Psychology*, 21(6) 547 – 565
- Le Fevre, M, Matheny, J & Kolt, G S (2003) 'Eustress, distress, and interpretation in occupational stress', *Journal of Managerial Psychology*, 18(7) 726 – 744
- Lehrer, P M, Carr, R, Sargunanj, D & Woolfolk, R L (1994) 'Stress management techniques Are they all equivalent or do they have specific effects?' *Applied Psychophysiology and Biofeedback*, 19 (4) 353-401
- Linehan, T (2012) 'Pharmacy Crime Information' Central Statistics Office Query Response, Cork Central Statistics Office

- Lundberg, U. & Frankenhaeuser, M. (1999) 'Stress and workload of men and women in high-ranking positions'. *Journal of Occupational Health Psychology*, 4(2): 142-151.
- Makin, P.J., Rout, U. & Cooper C.L. (1988) 'Job satisfaction and occupational stress among general practitioners--a pilot study'. *Journal of the Royal College of General Practitioners*, 38 (312): 303-306.
- Marshall, M.N. (1996) 'Sampling for qualitative research'. *Family Practice*, 13: 522-525.
- Marshall, L.L., Allison, A., Nykamp, D. & Lanke, S. (2008) 'Perceived stress and quality of life among Doctor of Pharmacy students'. *American Journal of Pharmaceutical Education*, 72(6): 137.
- McCann, L., Hughes, C.M., Adair, C.G. & Cardwell, C. (2009) (a) 'Assessing job satisfaction and stress among pharmacists in Northern Ireland'. *Pharmacy World & Science*, 31(2): 188-194.
- McCann, L., Adair, C. G. & Hughes, C. M. (2009) (b) 'An exploration of work-related stress in Northern Ireland community pharmacy: a qualitative study'. *International Journal of Pharmacy Practice*, 17: 261-267.
- McGowan, J., Gardner, D. & Fletcher, R. (2006) 'Positive and Negative Affective Outcomes of Occupational Stress'. *New Zealand Journal of Psychology*, 35(2): 92.
- Michie, S. (2002) 'Causes and management of stress at work'. *Occupational and Environmental Medicine*, 59: 67-72.
- Miller, K., Greyling, M., Cooper, C., Lu, L., Sparks, K. and Spector, P. E. (2000) 'Occupational stress and gender: a cross-cultural study'. *Stress Medicine* 16: 271-278.

- Miller-Burke, J, Attridge, M & Fass, P M (1999) 'Impact of traumatic events and organisational response A study of bank robberies' *Journal of Occupational and Environmental Medicine*, 41(2) 73-83
- Mott D A , Doucette, W R , Gaither, C A , Pedersen, C A & Schommer, J C (2004) 'Pharmacists' attitudes toward worklife results from a national survey of pharmacists' *Journal of the American Pharmacists Association*, (44) 326–36
- Nakash, R A , Hutton, J L, Jorstad-Stein, E C , Gates, S & Lamb, S E (2006) 'Maximising response to postal questionnaires – a systematic review of randomised trials in health research' *BMC Medical Research Methodology*, 6 5
- Nelson, D L & Simmons, B L (2003) 'Health psychology and work stress A more positive approach ' *International Journal of Stress Management*, 10(4) 361-375
- Oates, R K & Oates, P (1995) 'Stress and mental health in neonatal intensive care unit' *Archives of Disease in Childhood*, 72 107-110
- O'Dea, R (2005) 'Irish workplace stress a risk for both employee and employer' [Internet] In Finfacts Ireland, Business and Finance Portal Available from [http://www.finfacts.com/irelandbusinessnews/publish/article\\_10002323.shtml](http://www.finfacts.com/irelandbusinessnews/publish/article_10002323.shtml) [Accessed 19 July 2012]
- Organ, D W & Bateman, T S (1989) *Organizational Behaviour* Illinois Irwin
- Ottewill, R , Jennings, P L , & Magirr, P (2000) 'Management competence development for professional service SMEs the case of community pharmacy', *Journal of Education and Training*, 42(4-5) 246-255

- Palmer, S , Cooper, C & Thomas, K (2004) 'A model of work stress' *Counselling at Work*, Winter 5
- Parent-Thirion, A , E F Macias, J Hurley & G Vermeulen, (2007) 'Work-related Stress' European Foundation for the Improvement of Living and Working Conditions, Luxembourg
- Park, J (2007) 'Work stress and job performance' *Perspectives on Labour and Income*, 8 (12) 5-17
- Patton M Q (1987) *How to use qualitative methods in evaluation* London Sage
- Peel, D (2006) 'An Analysis of the Impact of SME Organisational Culture on Coaching and Mentoring' *International Journal of Evidence Based Coaching and Mentoring*, 4 (1) 9-19
- Perreweê, P L & Zellars, K L (1999) 'An examination of attributions and emotions in the transactional approach to the organizational stress process' *Journal of Organizational Behaviour*, 20 739-752
- Pines, A M (1993) *Burnout An Existential Perspective* Washington DC Taylor Francis
- Ponterotto, J G (2005) 'Qualitative Research in Counseling Psychology A Primer on Research Paradigms and Philosophy of Science' *Journal of Counselling Psychology* Copyright 2005 by the American Psychological Association, 52(2) 126-136
- PRICEWATERHOUSECOOPERS (2011) 'Review of Community Pharmacy in Ireland' Report Commissioned by Irish Pharmaceutical Union
- Ramirez, A J , Graham, J , Richards, M A , Gregory, W M & Cull, A (1996) 'Mental health of hospital consultants the effects of stress and satisfaction at work' *The Lancet*, 347 (9003) 724-728

Ratner, C (2002) 'Subjectivity and Objectivity in Qualitative Methodology' *Forum Qualitative Social Research*, 3 (3)

Reason, J (1997) '*Managing the risks of organisational accidents*' Brookfield, Vermont Ashgate

Rees, D W (1997) 'Managerial stress dealing with the causes not the symptoms' *Industrial and Commercial Training*, 29(2) 35-40

Ried, L D , Wang, F , Young, H , Awiphan, R (1999) 'Patients' satisfaction and their perception of the pharmacist' *Journal of the American Pharmacists Association* 39 (6) 835-842 & 882-884

Robson, C (2002) *Real World Research* Oxford Blackwell

Romano, C (1989) 'Research strategies for small business a case study', *International Small Business Journal*, 7(4) 35-43

Rupp, M T , DeYoung, M & Schondelmeyer S W (1992) 'Prescribing Problems and Pharmacist Interventions in Community Practice' *Medical Care*, 30 (10) 926-940

Saks, A M , & Ashforth, B E (1997) 'A longitudinal investigation of the relationships between job information sources, applicant perceptions of fit, and work outcomes' *Personnel Psychology*, 50(2) 395-426

Saunders, M , Lewis, P & Thornhill, A (2009) *Research Methods for business students Fifth Edition* Harlow Prentice Hall/ Financial Times

Saunders, M , Lewis, P & Thornhill, A (2007) *Research Methods for Business Students Fourth Edition* Harlow Prentice Hall/ Financial Times

Schafheutle, E I, Seston, E M & Hassell, K (2011) 'Factors influencing pharmacist performance A review of the peer-review literature' *Health Policy*, 102(2) 178-192

Schmidt, R A & Pioch, E A (2004) 'Community pharmacies under pressure issues of deregulation and competition' *International Journal of Retail & Distribution Management*, 32(7) 354 – 357

Schmidt, R A & Pioch, E A (2001) 'Ten years after the impact of German unification on retail pharmacy' *International Journal of Retail & Distribution Management*, 29(5) 247 – 258

Schneider, B (2001) 'Fits about Fit' *Applied Psychology An International Review*, 50 (1) 141-152

Selye, H (1956) *The Stress of Life* New York McGraw-Hill

Seston, E , Hassell, K , Ferguson, J & Hann, M (2009) 'Exploring the relationship between pharmacists job satisfaction, intention to quit the profession, and actual quitting' *Research in Social and Administrative Pharmacy*, 5 (2) 121-132

Smith, S R , Golin, C E & Reif, S (2004) 'Influence of time stress and other variables on counselling by pharmacists about antiretroviral medications' *American Journal of Health-System Pharmacy*, 61 (11) 1120-1129

Sparks, K , Faragher B & Cooper C L (2001) 'Well-being and occupational health in the 21st century workplace' *Journal of Occupational and Organizational Psychology*, 74 489–509



- Tavakol, M & Dennick, R (2011) 'Making sense of Cronbach's alpha' *International Journal of Medical Education*, 2 53-55
- Teratanavat, R & Kleiner, B H (2001) 'Stress reduction in small businesses' *Management Research News*, 24 (3/4) 67 – 71
- Van der Doef, M & Maes, S (1999) 'The Job Demand-Control (-Support) Model and psychological well-being A review of 20 years of empirical research' *Work & Stress*, 13(2) 87-114
- Van der Klink, J J, Blonk, R W Schene, A H & van Dijk, F J (2001) 'The benefits of Health, 91 (2) 270-276
- Willis, S & Elvey, R (2011) 'What is the evidence that workload is affecting hospital pharmacists' performance and patient safety?' Report commissioned by the *Centre for Workforce Intelligence* Manchester University of Manchester
- Wine, J (1971) 'Test anxiety and direction of attention' *Psychological Bulletin*, 76, 92-104
- Wolfgang, A P (1988) (a) 'The Health Professions Stress Inventory' *Psychological Reports*, 62 220-222
- Wolfgang, A P (1988) (b) 'Job Stress in the Health Professions A Study of Physicians, Nurses, and Pharmacists' *Behavioural Medicine*, 14(1) 43-47
- Wright, L T & Crimp, M (2000), *The Marketing Research Process*, Englewood Cliffs, NJ Prentice-Hall
- Yerkes R M & Dodson J D (1908) 'The relation of strength of stimulus to rapidity of habit-formation' *Journal of Comparative Neurology and Psychology*, 18 459–482

## **APPENDICES**

### **Appendix 1 Cover Letter / Email Sent to Potential Respondents**

Dear Colleague,

My name is Michael Doody (M.P.S.I.) and I am currently carrying out a study to explore pharmacist's attitudes towards stress in the workplace. This study is to be used as research for a thesis which I am completing as part of a Master's degree in the National College of Ireland. I studied pharmacy at University College Cork and currently work full-time as a pharmacist in Rathmines Pharmacy, Dublin 6.

As part of this study, I would like to invite fellow community pharmacists to complete an online questionnaire to obtain their views on this issue. The questionnaire should take no more than 7-10 minutes to complete. Your response will be anonymous and all information will be treated confidentially. To ensure results are uniform, please complete the questionnaire on a Tuesday or Wednesday morning between 10am and 11am.

If you wish to participate, please click on the link below to access the questionnaire:

<https://www.surveymonkey.com/s/pharmaciststresssurvey>

**Once finished, please click on the 'Done' button at the end of the questionnaire to ensure your responses are saved!**

If you would like to view the findings of this research or receive any further information on the study then please fill in your details in the relevant section of the questionnaire. The research findings are due to be finalised in August of this year.

Please feel free to forward the link to any other pharmacists you think may be interested in taking part in the questionnaire.

Thank you for taking part in this study. If you have any further questions or any difficulties in accessing the questionnaire, please do not hesitate to contact me at the contact details below.

Yours sincerely,

Michael Doody M.P.S.I. PSI #9661

[thomasmichaeldoody@gmail.com](mailto:thomasmichaeldoody@gmail.com) tel: 087-6290965

## **Appendix 2 Semi-Structured Interview Schedule**

- 1 Describe your role within the pharmacy?
- 2 How would you describe your workload?
- 3 Describe your daily and weekly work schedule?
- 4 How do you feel about the non-clinical duties of a pharmacist?
- 5 Studies in Britain have found that a culture of 'long hours' exists for community pharmacists How would you describe the situation in Ireland?
- 6 How comfortable is your work environment?
- 7 Are you comfortable with the level of responsibility you have for patients?
- 8 Do you think that pressure at work causes you to perform less well?
- 9 Has your work environment changed since you qualified as a pharmacist as if so please describe how?
- 10 Have regulatory changes brought about by the Pharmacy Act 2007 impacted your work?
- 11 Do you feel that the recession has affected your work duties and work environment and if so, how?
- 12 How would you describe the working relationship between you and your non-pharmacist support staff?
- 13 Do you, as a supervising/superintendent/support/locum pharmacist think it is important that community pharmacy owners/ managers should be familiar with stress management techniques for employee pharmacists?
- 14 How do you feel about the future of community pharmacy?

### **Appendix 3 Stress Policy**

## **Introduction**

We are committed to protecting the health, safety and welfare of our employees. We recognise that workplace stress is a health and safety issue and acknowledge the importance of identifying and reducing workplace stressors.

This policy will apply to everyone in the company. Managers are responsible for implementation and the company is responsible for providing the necessary resources.

## **Definition of stress**

The Health and Safety Executive define stress as “the adverse reaction people have to excessive pressure or other types of demand placed on them”. This makes an important distinction between pressure, which can be a positive state if managed correctly, and stress which can be detrimental to health.

## **Policy**

- The company will identify all workplace stressors and conduct risk assessments to eliminate stress or control the risks from stress. These risk assessments will be regularly reviewed.
- The company will consult with Trade Union Safety Representatives on all proposed action relating to the prevention of workplace stress.
- The company will provide training for all managers and supervisory staff in good management practices.



- The company will provide confidential counselling for staff affected by stress caused by either work or external factors
- The company will provide adequate resources to enable managers to implement the company's agreed stress management strategy

## **Responsibilities**

### **Managers**

- Conduct and implement recommendations of risks assessments within their jurisdiction
- Ensure good communication between management and staff, particularly where there are organisational and procedural changes
- Ensure staff are fully trained to discharge their duties
- Ensure staff are provided with meaningful developmental opportunities
- Monitor workloads to ensure that people are not overloaded

- Monitor working hours and overtime to ensure that staff are not overworking Monitor holidays to ensure that staff are taking their full entitlement
- Attend training as requested in good management practice and health and safety
- Ensure that bullying and harassment is not tolerated within their jurisdiction
- Be vigilant and offer additional support to a member of staff who is experiencing stress outside work e.g bereavement or separation

### **Occupational health and safety staff**

- Provide specialist advice and awareness training on stress
- Train and support managers in implementing stress risk assessments
- Support individuals who have been off sick with stress and advise them and their management on a planned return to work
- Refer to workplace counsellors or specialist agencies as required
- Monitor and review the effectiveness of measures to reduce stress
- Inform the employer and the health and safety committee of any changes and developments in the field of stress at work

### **Human resources**

- Give guidance to managers on the stress policy

- Help monitor the effectiveness of measures to address stress by collating sickness absence statistics
- Advise managers and individuals on training requirements
- Provide continuing support to managers and individuals in a changing environment and encourage referral to occupational workplace counsellors where appropriate

### **Employees**

- Raise issues of concern with your Safety Representative, line manager or occupational health
- Accept opportunities for counselling when recommended

### **Safety representatives**

- Safety Representatives must be meaningfully consulted on any changes to work practices or work design that could precipitate stress
- Safety Representatives must be able to consult with members on the issue of stress including conducting any workplace surveys
- Safety Representatives must be meaningfully involved in the risk assessment process
- Safety Representatives should be allowed access to collective and anonymous data from HR
- Safety Representatives should be provided with paid time away from normal duties to attend any Trade Union training relating to workplace stress

- Safety Representatives should conduct joint inspections of the workplace at least every 3 months to ensure that environmental stressors are properly controlled

**Safety Committee**

- The joint safety committee will perform a pivotal role in ensuring that this policy is implemented
- The joint safety committee will oversee monitoring of the efficacy of the policy and other measures to reduce stress and promote workplace health and safety

**Signed by**

**Managing Director Date**

**Employee Representative Date**

## **Appendix 4 Questionnaire**

# 1. Personal Data

The purple bar (above) indicates the percentage of the survey you will have completed by the end of the current question page

For the purpose of this research the definition of stress is The psychological and physical state that results when the resources of the individual are not sufficient to cope with the demands and pressures of the situation Stress can come from any situation or thought that makes you feel frustrated angry nervous or anxious

## 1. Please provide the following information about yourself and the pharmacy that you work in by choosing the appropriate option:

- Male
- Female

## 2. Year of registration

## 3. Sector of work

- Community
- Hospital
- Industry
- Academia/Regulatory Body

## 4. How many hours on average do you work per week?

- 0-15
- 15-30
- 30-45
- 45+

## 5. If you work in the community pharmacy sector, please tick the position in which you currently work:

- Support pharmacist
- Supervising pharmacist
- Superintendent Pharmacist
- Locum pharmacist

## 6. Please tick the type of community pharmacy in which you work the majority of the time:

- Single
- Small multiple (2-5 pharmacies)
- Medium multiple (6-10 pharmacies)
- Large multiple (11+ pharmacies)

**7. In the pharmacy where you spend the majority of your time, how many other pharmacists work with you at the same time?**

**8. Approximately how many prescription items do you personally dispense on an average day in the pharmacy in which you work the majority of the time?**

- 0-150
- 150-300
- 300-450
- >450

## 2. Patient Care Responsibility

**1. How often do you feel stressed because you are ultimately responsible for patient outcomes?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**2. How often do you feel stress when dealing with 'clinically challenging' patients e.g. patients with rare conditions or those with multiple disease states whose medication requirements may be highly complex?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**3. How often do you feel inadequate in meeting the needs of patients?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**4. How often do you feel stressed because you do not have adequate information regarding a patient's condition?**

- Never
- Rarely
- Sometimes
- Often
- Frequently



**5. How often do you feel stressed because you allow personal feelings/emotions to interfere with the care of patients?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**6. How often do you feel stressed because you are uncertain about what to tell a patient or family about a patient's condition and/or treatment?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**7. How often do you feel stressed because you have job difficulties that conflict with your personal life?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**8. How often do you feel stressed fearing that you will make a mistake in the treatment of a patient?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

## 3. Work Conflicts

**1. How often do you feel stressed because other health professionals determine the way you work? (e.g. supervising/ superintendent pharmacists, pharmacy owners, HSE)**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**2. How often do you feel stressed entrusting work to other members of staff under your supervision?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**3. How often do you feel stressed supervising the performance of co-workers/ pre-registration students?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**4. How often do you feel stressed because you disagree with other health professionals concerning the treatment of a patient?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**5. How often do you feel stressed because you experience conflicts with co-workers/management?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

## 4. Professional Recognition

YOU'RE NOW MORE THAN HALFWAY THROUGH THE SURVEY!

**1. How often do you feel stressed because you are not being recognised or accepted as a true health professional by other health professionals?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**2. How often do you feel that someone less qualified than you could do your job?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**3. How often do you feel stressed because you do not receive respect or recognition from the general public?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**4. How often do you feel stressed because you feel that opportunities for advancement in your job are very poor?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**5. How often do you feel overwhelmed trying to meet patients expectations?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**6. How often do you feel stressed because you do not know what type of job performance is expected from you?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**7. How often do you feel stressed because you feel that you are not being paid enough?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**8. How often do you feel stressed because you are not able to use your abilities to the fullest?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**9. How often do you feel stressed because you do not receive adequate feedback on your job performance?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

## 5. Managing Workload

YOU'RE NEARLY THERE JUST 14 QUESTIONS LEFT!

**1. How often do you feel stressed because of excessive/ increased workloads?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**2. How often do you feel stressed because you are interrupted by phone calls or other staff when performing work duties?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**3. How often does NOT being challenged by your work make you feel stressed?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**4. How often do you feel stressed because you have so much work to do that everything cannot be done well?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**5. How often do you feel stressed because you have no control over your own workload?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**6. How often do you feel stressed because you have to perform management duties for which you have not been trained e.g. mediating in conflicts between staff members?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**7. How often does not having enough staff to provide necessary services adequately make you feel stressed?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**8. How often do you feel stressed due to the possibility of dealing with a robbery at work?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

## 6. Professional Uncertainty

**1. How often do you feel stressed keeping up with new developments in order to maintain professional competence?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**2. How often do you feel stressed because of significant change in your place of work?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**3. How often do you feel stressed because you have to balance new roles with existing responsibilities?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**4. How often do you feel stressed because of the ongoing uncertainty regarding HSE drug reimbursement prices and fees paid to community pharmacies?**

- Never
- Rarely
- Sometimes
- Often
- Frequently



**5. How often do you feel stressed because of increasing levels of competition in the community pharmacy sector?**

- Never
- Rarely
- Sometimes
- Often
- Frequently

**6. Please add any additional comments on your personal work stress in the space provided below:**

You have now completed the survey Thank you for your time! If you are interested in viewing the findings of this research then please provide your contact details in the space provided

You can contact me at [thomasmichaeldoody@gmail.com](mailto:thomasmichaeldoody@gmail.com) or tel 087 6290965