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Job Autonomy as Perceived by Physicians Working in Shifa Hospital

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Dedication

I dedicate this work to

my parents, my wife, sons and daughters for their great help and encouragement.

Hani Abdul Kareem Sammour

Declaration

I certify that this thesis submitted for the degree of Master is the result of my own research except where otherwise acknowledged, and that this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed
Hani

Name: Hani Abdul Kareem Sammour

Date: 2/2/2011

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List of Abbreviations

AMA	American Medical Association
ANOVA	Analysis of Variance
Df	Degree of freedom
D.O	Doctor of Osteopathy
GDP	Gross domestic product
GP	General Practitioner
HRD	Human resource development
M.D	Medical Doctor
MOH	Ministry Of Health.
MPS	Motivation Potential Score
NGOs	Non-governmental organizations
PA	Palestinian Authority
PCBS	Palestinian Central Bureau of Statistics
PHD	Philosophy of Doctorate
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
UNRWA	United Nation Relief and Works Agency
WHO	World Health Organization
WFP	World Food Programme

Abstract

Job Autonomy is a very important part of job enrichment. It promotes employee's empowerment which leads to improving trust, self-awareness and self efficiency; its application can promote motivation and satisfaction.

***Objective**: The overall aim of this study is to assess the level of job autonomy among physicians working in Shifa Hospital and to determine the personal and organizational factors that may influence job autonomy.*

***Methodology**: A descriptive analytic cross sectional study was conducted among physicians working in Shifa Hospital using self-administered questionnaire. A total of 195 questionnaires were distributed to the study population using two stages sampling method (stratified then systematic) from the surgical, medical and maternity wards. A sum of 168 questionnaires were received with a response rate of 86%. The researcher used the SPSS for checking validity, processing and analyzing the data.*

***Results:** The mean level of job autonomy among physicians working in Shifa Hospital was 6.67 out of 10 and P-value < 0.05 (the physicians' perception of job autonomy was 6.57, P-value 0.000, the level of technical autonomy was 7.13, P-value 0.000 and the level of administrative autonomy was 6.07 and P-value 0.563). There were no statistical significance differences in the level of job autonomy between departments (means were 6.87, 6.66 and 6.61 for maternity, medical and surgical departments respectively and the P-value 0.65). Certain personal factors were found to be statistically significant at P-value less than 0.05. Physicians who were highly skilled, working as head of departments, holding PHD degree, older than 40 years and experienced more than 15 years had elicited higher scores on the job autonomy scale than their counterparts with statistical significance differences at P-value less than 0.05. On the other hand, gender and department of work didn't reflect in statistically significant differences among physicians as the P-value was higher than 0.05.*

The organizational factors that have been studied were found to be present at variable degrees and all of them were found to have a positive relationship with the level of autonomy at a statistical significant level. Teamwork was found to be present with the highest mean (7.55 and P-value 0.000) then the bureaucratic level of the structure (mean 7.23 and P-value 0.000) then job description at a mean 6.47 and P-value 0.000. Patient safety and accountability were present at a mean 6.14 and 6.05 respectively but not at a statistical significant level. Standardization was not adequately present (mean 5.74 and P-value 0.030). The organizational structure had the highest relationship with the job autonomy (r 0.550 and P-value 0.000) then teamwork (r 0.525 and P-value 0.000). The bureaucratic level had correlation coefficient 0.438 and P-value 0.000. Issues like having job description, patient safety, accountability and standardization had revealed controversial findings and require further exploration and investigations.

***Recommendation**: The study provided a set of recommendations regarding promoting physicians' autonomy, enhancing standardizations and clarifying roles and responsibilities. It is essential to increase physicians' involvement in the organizational issues and the management of care to patients.*

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Chapter 1: Introduction

1.1 Research background:

It has been recognised that individuals holding the same job will perform a slightly different set of tasks, however they play their roles in slightly different ways (Biddle, 1979). Career satisfaction among physicians is an important topic to physicians in training, physicians in practice and health care managers. The level of career satisfaction derived by physicians from their work is an essential element in the functioning of the health care system (Stoddard, 2001). The employees tend to be satisfied with their career due to the responsibility with high job autonomy. The physicians maintain autonomy through a shared role of clinician and involvement in decision making, this increases trust and job satisfaction and ultimately health outcomes (Fraser, 2006). Autonomy is considered as a characteristic of a profession (Leddy and Pepper, 1993); it is a very important part of job enrichment because it gives the employee power and a feeling of importance. Autonomy is a vital character for attaining professional status that exists on either individual or group level (Moloney, 1992). Porter (1963) considered autonomy as the second most important need in adapting Maslow's Hierarchy of needs.

Excessive standardization and regulation of general practice can reduce diversity and job satisfaction, create barriers between development and implementation of policy, and reduce physicians' capacity to develop innovative approaches to manage new problems (Fraser, 2006). The importance of autonomy has been asserted by numerous writers in a variety of research domains, e.g., leadership, organizational climate, professionalism, and job design (Breaugh, 1985).

The concept of autonomy is of a particular interest for health care providers especially for health care managers as the dynamism of health care setting frequently requires a careful response in term of promoting and developing the role of health care providers which needs wise application of autonomy in practice frequently. Autonomy is regarded as an important dimension of professionalism, most of health care providers have desirability to create professional practice environment that increases the awareness of autonomy to their followers to build professionalism and improve productivity and efficiency of quality of health care services (Gloria, 1970).

Autonomy is a positive characteristic for employees, managers, teams, and organizations as a whole. Employees generally require autonomy, and its application can promote motivation and satisfaction. However, because too much autonomy may reduce the organizational performance, care should be taken when increasing it (Marcia, 2006).

1.2 Research problem

Job performance depends on many factors including job autonomy, which is considered as one of the core dimensions of job characteristics that impacts critical psychological state, which in turn influences work outcomes such as job satisfaction and motivation, (Hackman and Oldham, 1980). Understanding and perception of job autonomy are very important in clinical practice especially for professionals. Many health care professional including physicians in health sector in Gaza are not involved in decision making and don't actively participate in health promotion and development, they also don't have fair enough information and details about their missions, responsibilities, rights and their job description, therefore performance looks to be somewhat arbitrarily. The concept of Job Autonomy seems not to be clearly understood by the managers or the working staff, as many of them feel that they have to act according to the current guidelines, which may limit their scope of job performance. Thus the study will focus on the physicians' perception of job autonomy to describe the level of presence of job autonomy, its determinants and regulations.

1.3 Justification of the study

Autonomy is considered as an important element in job characteristic, it involves various disciplines; including: political science, education, psychology, sociology and medicine. In medicine respect for autonomy of physicians and nurses is an important goal. Internationally many research studies have been conducted regarding nurses and to a lesser extent among physicians. In our community, no previous studies have been conducted to describe job autonomy among health care providers. It is wise to study the job autonomy among physicians, so they can better understand their role in the medical institutions and develop relationship with other departments which in turn improve their performance.

1.4 Overall objective

The aim of this research is to assess the level of job autonomy among physicians working in Shifa Hospital from their perspectives and to study its determinants. Thus, the study could help in promoting the job performance of physicians in Shifa Hospital.

1.5 Specific objectives

1) To assess the level of job autonomy among physicians in Shifa Hospital.
2) To test if there are significant differences due to personal factors (age, gender, academic qualification, abilities & skills, years of experience and managerial status) between the respondents concerning job autonomy.
3) To test if there is relationship between organizational factors (organizational structure**,** job description, standardization, accountability, patient safety and teamwork) and job autonomy.
4) To compare the level of job autonomy among physicians in different units.
5) To communicate findings to the policy makers to promote the job performance.

1.6 Research questions

1) What is the overall level of job autonomy among physicians working in Shifa Hospital?
2) Does the level of job autonomy differ among the different domains of job autonomy (the perception of autonomy, the technical and the administrative domain)?
3) Are there significant differences between the respondents concerning job autonomy due to personal factors (age, gender, academic qualification, abilities & skills, years of experience and managerial status).
4) What is the personal factor that has the highest mean among physicians working in Shifa Hospital concerning job autonomy?
5) To what extent the organizational factors (organizational structure**,** job description, standardization, accountability, patient safety and teamwork) are present in Shifa Hospital from the physicians' perspectives?
6) What is the organizational factor that has the highest mean of presence in Shifa Hospital from the physicians' perspectives?

7) Is there a relationship between organizational factors (organizational structure**,** job description, standardization, accountability, patient safety and teamwork) and job autonomy among physicians working in Shifa Hospital?
8) What is the organizational factor that has the highest relationship with job autonomy among physicians working in Shifa Hospital?
9) Does the level of job autonomy differ among physicians working in different units in Shifa Hospital?

Dependent variable: Job Autonomy

Independent variables: Age, Gender, Academic Qualification, Abilities & Skills, Experience, Organizational Structure**,** Job Description, Standardization, Accountability, Patient Safety, Teamwork.

1.7 Context of the study

The demographic, socioeconomic, and political situations we live in Gaza Strip, may force us to provide health services by specific way to suit these situations.

1.7.1 Demographic context

Gaza Strip is a narrow land, located on the south of Palestine on the coast of Mediterranean sea. Gaza Strip is high crowded area, where approximately 1.5 million live in 365 km; estimated density is 4,000 people per square kilometre (PCBS, 2007). Gaza Strip is classified into five governorates, North of Gaza, Gaza city, Mid-Zone, Khan-younis and Rafah. The population under 15 year old percentage in Gaza Strip is 49% and 2.5%of age 65 years and more (MOH, 2006).

1.7.2 Health care System

The health care system in Palestine is complex and unique under Israeli occupation as it strongly influences this health care system. The consequences of closures and separation formed a great challenge for the MOH as it created obstacles regarding the accessibility to health care services and affects the unity of the health care system in all Palestinian governorates (MOH, 2004).

There are four major providers of health care services in Palestine: Ministry of Health, United Nation Relief and Works Agency (UNRWA), Non-Governmental Organizations (NGOs), and private sector (non and for-profit hospitals). The MOH is the main health care provider; it provides primary, secondary, and tertiary care and purchases some services from private providers domestically and abroad. The Palestinian's overall health is relatively good compared to several countries of the region, major outbreaks of diseases are prevented and health indicators also improved by effective health services (WHO, 2006).

1.7.3. Shifa Hospital

Shifa Hospital is the oldest and largest medical complex and central hospital of Gaza, it's located in the district of North Rimal in Gaza Governorate (MOH website, 2010). It serves 496,100 individuals which represent 35 % of the population of Gaza Strip (Palestinian Central Bureau of Statistics, 2009 Population, Housing and Establishment). It consists of 518 beds and total number of day beds/tables/machines 186, it has about 1200 overall employees, it provides primary, secondary, and tertiary care (Shifa health records, 2010).

It is a functional organization, it has high horizontal and vertical complexity structure. It provides multi-specialty services. Practically it is subdivided into 3 hospitals: Surgical hospital, Medical hospital and Maternity hospital. Each of these hospitals has its own manager and administrative staff with decentralized authority and decision making (Shifa health records, 2010). The special situation in Palestine makes the utilized management style integration of much management style, it's difficult to adopt a unique style, and rather they use mostly the situational one, in the present scenario situational aspects has a higher chance of success (Massoud, 1994). The total number of physicians working at Shifa Hospital is **453,** they are distributed as follow: 253 in the surgical hospital, 118 in the medical hospital and 82 in the maternity hospital (Shifa health records, 2010).

1.7.4 Socio-economic situation

The Palestinian economy is severely depressed compared with the pre-intifada period. The World Bank estimates that GDP is 23 percent lower than in 1999. After accounting for population growth, real GDP per capita is some 35 percent below its pre-intifada level (World Bank, 2004). The Palestinian Authority’s fiscal situation has become increasingly unsustainable mainly as a result of uncontained government consumption, in particular a

rapidly increasing public sector wage bill, expanding social transfer schemes and rising "net lending". In addition, the depressed economy led to lower tax revenues level (World Bank, 2006).

1.7.5 Political situation

Gaza Strip has been subjected to long term recurrent occupations. This very long periods of occupation resulted in increasing the socio-economic and health vulnerability of the Palestinian population. The implementation of the partial autonomy in 1994 and the establishment of the Palestinian Authority (PA) have had its impacts on the society after the many devastating wars and the long years of occupation and dispersion over the globe. However, Israel still holds overall sovereignty over the Gaza Strip. It has the upper hand over borders, movement of goods and travelers in and out of Gaza, (Hamad, 2009). After June 2007, tight siege was imposed on Gaza and the Israeli policy sought to ensure 'no development, no prosperity (WFP, 2007).

The previous described situation has made the Palestinian population more dependent on others and may restrict the overall autonomy of them to some extent.

1.8 Operational definition of terms

Job

A unit of work accomplished by a worker which carries him through the entire unit from beginning to end (Silvern, 1972).

Autonomy

Autonomy defined as "Freedom from bureaucratic restraints" (Laschinger, 1999), power over labor (Scott, 1999) or liberty to take action (Kennerly, 2000).

Professional

Someone who needs to be qualified in order to practice, in addition to having a specific body of knowledge and an ethical code of conduct (Gibb,1994).

Professional Autonomy

It is the socially and legally granted freedom of self-governance and control of the profession's activities without influence from external forces (Chitty, 1993).

Empowerment

Empowerment is a way for individuals to gain control over their lives through active participation (Rappaport, 1981).

Perception

Perception is a process that individuals go through, influenced by surrounding stimuli and sensory impressions, to define their surrounding environment (Robbins, 2005).

Physicians

A physician is a medical doctor (M.D.) or doctor of osteopathy (D.O.) currently licensed to practice medicine and surgery in all its branches, American Medical Association (AMA).

Job description

It is a list of general tasks, functions and responsibilities of a position. It may include specifications such as the qualifications or skills needed by the person in the position (Torrington & Hall, 1987).

Chapter 2: Conceptual Framework & Literature Review

2.1 Conceptual Framework

Based on the available literature, the researcher has built up the conceptual framework (figure 2-1) that addresses the major dimensions of this study which consists of:

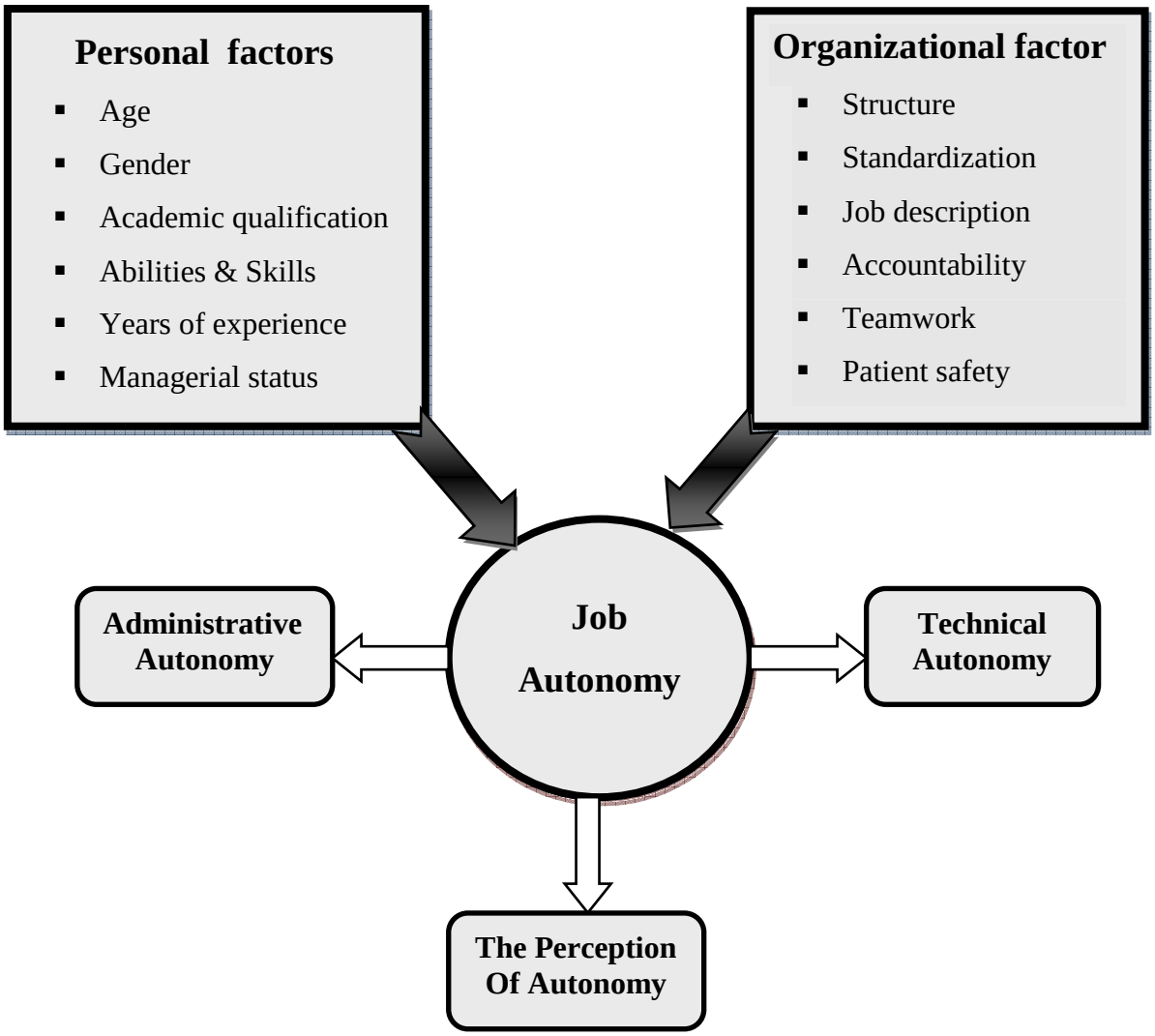

Figure 2-1 Conceptual Framework

Two main dimensions that will be examined may influence job autonomy. The first one includes the **personal factors** like age, gender, academic qualification, abilities & skills, years of experience and managerial status that may have different means concerning the job autonomy among physicians working in Shifa Hospital. The second will focus on the **organizational variables** like structure (including level of bureaucratization), standardization, job description, accountability, teamwork and patient safety that may have relationship with the level of job autonomy among physicians working in Shifa Hospital.

These two dimensions will in turn lead to determine the level of job autonomy in physician practice in three main domains of autonomy (the perception of autonomy from the physicians' perspectives, the administrative and the technical autonomy). These domains will be measured through a semi-structured measurement scale. The perception of job autonomy among physicians was measured by using a scale exploring their feeling about the presence of job autonomy. The technical aspect of job autonomy among physicians was assessed by using a scale concerning their decisions and contribution to the management plan at the operational level regarding the patient care. While the administrative aspect of job autonomy among physicians was assessed by using a scale involving some administrative decisions at the operational level of daily practice.

Most of the personal factors will be obtained directly and then will be compared between the respondents concerning the level of job autonomy. Abilities and skills can't be measured directly, so they will be managed as most of the organizational factors. Organizational factors will be represented by fields for each one to measure their presence from the physicians' perspectives. Each field will be composed of many statements scaled from 1-10 to reflect the perception of the participants regarding these factors. Then these factors will be correlated with the job autonomy to study if there is a relationship between them and job autonomy.

The Personal factors

- **Academic Qualification**

Ellstrom (2001) defines qualification as a competence that is actually required by a work task. Qualification and skills are related to job autonomy in working life (Hansen, 2003).

- **Abilities & Skills**

Wright (1997) defines that skills and expertise designate an asset embodied in the labor power of people which enhance their power in labor market and labor processes. Worker’s skill and knowledge have been considered as the most important factors in maintaining their power over the labor process.

- **Experience**

Benner (1984) defines experience as the development of knowledge through clinical practice. Rhorer (1989) found that there was interaction between qualification and experience and they increased autonomy score.

The Organizational factors

- **Organizational Structure**

Organizational structure is defined as how job tasks are formally divided, grouped, and coordinated (Robbins, 2005). The structure and culture of the organization are the main determinants of the autonomy in the organization (Marcia, 2006).

- **Job Description**

It is a list of general tasks, functions and responsibilities of a position (Torrington & Hall, 1987). It's linked with job autonomy as it forms the scope of practice for any position.

- **Accountability**

Edwards and Hulme (1996) describe accountability as the means by which individuals and organizations report to a recognized authority and are held responsible for their actions. Clinical practice guidelines have shifted the focus of professional power from autonomy to accountability (Timmermans, 2005).

- **Standardization**

It refers to developing and using the one best way to perform a work task or execute a step in the process (Kondalkar, 2007). It creates a predictable process that usually reduces an individual's control over work (Hyer & Wemmerlöv 2002).

- **Patient Safety**

Autonomy improves patient safety and other outcomes because professionals have the authority to act and correct a mistake before it happens, (Haworth 1986). A central drive to improve patient safety and quality is standardizing the delivery of health care (Simon, 2008).

- **Teamwork.**

Stockley (2007) defines teamwork as a group of people contributing their individual knowledge and skills but working together to achieve a common goal or task. A relationship has been found between interdisciplinary teamwork and work autonomy on patient outcomes (Rafferty, et al. 2001).

2.2 Literature Review

2.2.1 The concept of Autonomy

A lot of researchers and theories of the autonomy concept mentioned that there is a lack of a unified definition for autonomy (Hertz, 1996). The word "autonomy" is derived from the Greek autos ("self") and nomos ("rule", "governance" or "law". It was first used to refer to self-rule or self-governance of independent Hellenic city-states. Autonomy has since been extended to individuals and has acquired meanings as diverse as self-governance, liberty rights, privacy, individual choice, freedom of the will, causing one's behaviors and being one's own person (Beauchamp & Childress 1994). Autonomy can then refer to persons, their will, or an action in society (Gale 1989).

Leddy and Pepper (1993) define Autonomy as that practitioners have control over their own functions in the work setting. Gillon (1995) stated that the autonomy is the ability to do, believe, think, choose, and decide on the basis of such knowledge or ideas and decision freely and independently and without obstacles. McKay (1983) defined autonomy as both independent and interdependent practice related decision making based on a complex body of knowledge and skills. Peterson (1992) identifies job autonomy as one's level of control in accomplishing one's own job on a daily basis, thus autonomy is contrasted to what Melosh (1982) referred to as "worker control".

The concept of autonomy recognizes the human capacity for self-determination and dictates that the autonomy of persons should be respected. When the individual's interpersonal relations are the result of coercion or manipulation by others, then the individual has little or no capacity for autonomy (Benn, 1988). Autonomy requires that the individual have an adequate range of options, autonomy also requires the capacity for rational decision making (Childress, 1990), which bears with it its own minimal assertions**.** In moral and political philosophy, autonomy is often used as the basis for determining moral respectability for one's actions. In medicine, respect for the autonomy of patients is an important goal, though it can conflict with a competing ethical principle, namely beneficence. Politically, it is also used to refer to the self-governing of a people, (Wikipedia, online encyclopedia). Sociologically autonomy support is defined as a social influence construct proposed by self determination theory that reflects non pressuring forms of social influence (Deci & Ryan, 1985).

Autonomy is considered to be culturally dependent (Gracia, 1993). In addition, it is difficult to be found as a separate concept since it is linked with other concepts, such as professional autonomy, woman's autonomy, structural or work autonomy and attitudinal autonomy. Autonomy related to health care is differently defined, Clifford (1990) defined autonomy related to organizations and professions as the chance to work in healthcare setting free from policies, rules and regulations that have little to do with patient health care.

Beauchamp & Childress (1994) stated that autonomy is one of the most important principles that lead ethical practice in their work on medical ethics. Biomedical ethics offer three important concepts related to autonomy concept: self governance (Beauchamp; Childress, 1994), actual autonomy (Agich, 1993) and self-realization (Taylor, 1991). The key aspect of people's experience of autonomy was freedom from close supervisory attention (Friedson, 1988)

Based on these definitions, the interaction between Gillon's definition (ability to do, believe, think, choose, and decide on the basis of such knowledge or ideas and decision freely and independently and without obstacles) and McKay's definition (independent and interdependent practice related decision making based on a complex body of knowledge and skills) looks to an accepted frame which can meet the researcher expression of autonomy.

2.2.2 Profession and autonomy

Profession is a concept that does not have a consensus definition (Styles, 1982). Funk & Wagnalls (1989) dictionary definition of profession is as an occupation that properly involves a liberal, scientific, or artistic education. Hoyle (1980) provides the following as features of a profession: a body of theoretical knowledge on which members of the profession base their practice, a relatively long time spent in training, a code of ethics regulating member behaviour, a means of controlling the admission of new members and a high degree of autonomy in their work. These characteristics are shared by the profession as a whole and the individual practitioner. According to Friedson (1988) autonomy or the ability to control and self-monitor one’s technical work is the corner stone of physician professionalism.

Hall (1968) classified professional related autonomy to the attitudinal and structural components: Structural or work autonomy exists when professional individuals are expected to use their judgment to make decisions or to determine the provision of client services in the context of their work and work requirements. Attitudinal autonomy exists for individuals who believe themselves to be free to exercise judgment in decision making process, and provide the way of people feel and view the work of the profession.

Autonomy is a vital character for attaining professional status that exists on either individual or group level (Moloney, 1992). In the professional role, the freedom to make independent, role-based decisions about patient care without an order and within the scope of practice of the role. For governance, the profession has control over its own personnel. Indeed, autonomy has been a huge part of how doctors have traditionally defined themselves as professionals.

It has been agreed that physicians need to operate within accepted parameters defined by evidence, and physicians sometimes need to deviate from standard practice to care for a unique patient. For example, physician might discontinue a beta blocker if it doesn't work for a heart failure patient or when treating patients for depression, he sometimes tries a third- or fourth-line drug (Smith, 2007). Would a manager think he doesn't follow guidelines? Cash (2001) argues that all professions operate within boundaries and use procedures that are generally accepted by the discipline, the real question is not whether there are boundaries but who is setting and regulating them. General practice physicians in the United Kingdom are regulated and administratively controlled by government regulations and professional practice groups (Harrison, and Dowswell, 2002). Because of the growing involvement of governmental agencies, absolute aggregate professional autonomy is unrealistic (Curtin 1982).

Lewis (2006) thinks that discretionary and binding decisions mean that no one above the employee needs to give approval or permission for him to take action on a patient's management. If an act requires permission or approval from someone else, the act is not discretionary and the employee is not acting with autonomy. An example of a discretionary and binding decision includes a physician's decision to start a third- or fourth-line drug for a hypertensive patient without using the first or second line drug if they are contraindicated. This decision is within the physician's scope of practice knowledge and no

one needs to make this decision for him. Physician's license laws should clarify the domains of knowledge and skills over which the physician can make discretionary and binding decisions.

Other professions may have special expertise, for example, nurses, clinical pharmacists, and other allied health professionals are now educated and trained to perform many tasks previously assigned only to physicians. In these areas, physicians have a right to autonomy because of their knowledge, but it is not an exclusive right. Instead, it is a right to be shared with other appropriately credentialed professionals (Mirvis, 1993)

Based on this literature, the researcher will adopt the concept of professional autonomy with these characteristics: role-based decisions about patient care without an order and within the scope of practice of the role and deviation from standard practice of care for patients, for example, physician tries a third or fourth line drug for treating a certain disease.

2.2.3 Sociology and autonomy

Sociology is a useful tool to analyze autonomy in medicine. Sociologists analyze how the interaction of class, gender, professional interests, power and ethnicity influence medical knowledge, its organizational structure and changes to its practice. In a sociological sense, medical knowledge is not purely scientific, but shaped by the society (or system) in which medicine is practiced. Applying this concept to health care systems, a related term of tribalism has been developed. Hunter argues that all developed health care systems operate on the basis of tribalism. That is, they are composed of various tribes, including managers, clinicians, nurses and professionals allied to medicine, all of which are represented by various professional associations. All of these tribes have slightly different goals and perceptions of what constitutes effective care and are pulling in some what different directions. The influence of tribalism affects physicians' autonomy and would appear to be one of the major barriers to proposed collaborative organizational change. The influence of interprofessional relationships (i.e. between GPs and non medical health professionals) and intraprofessional relationships (i.e. between GPs and other specialists) is important to the health care system. These relationships can occur at a micro (individual) level or at a macro (organizational) level (Fraser, 2006).

2.2.4 Importance and advantages of job autonomy:

Several meta-analytic studies have found that job autonomy is strongly related to job performance (Fried & Ferris,1987), it was found that job autonomy is positively associated with quality service provision (Shperling & Shirom, 2005). Autonomy must be recognized as a basic value if it has to have any real impact on decision-making. Job autonomy as well as decision involvement are the two dimensions for workplace participation (Jian & Jeffres, 2008). Autonomy and empowerment are used to describe a state where leaders are given greater degrees of freedom from organizational guidelines and directives in terms of executing the duties of their job. Most people like to be given responsibility; it demonstrates trust and helps motivate employees to live up to that trust. Responsibility can also help speed up work processes by enabling the employee to make decisions without having to wait for management approval. Autonomy is a very important part of job enrichment because it gives the employee power and a feeling of importance. In such situations people are motivated and display a great sense of belonging and job satisfaction.

At the **employee level,** as indicated by many research studies when employees have greater levels of autonomy, they will have a stronger impact on their job performance. At the **managerial level,** managers with greater level of autonomy feel that they have more scope to make decisions regarding the employees' work and personnel decisions. This could motivate or satisfy the managers and enable them to reward and motivate employees. At the **team level**, recently many organizations promote the use of teams in the workplace, these teams prefer to act autonomously and manage themselves. There is a strong positive association was found between teamwork and autonomy which could achieve synergism among staff and greatly enhance the ability of organization to be creative, flexible, and innovative. Finally at the **organizational level**, the structure and culture of the organization are the main determinants of the autonomy in the organization. Traditional and bureaucratic organizations often have little autonomy, but newer more organic and flatter organizations structures depend on autonomy, empowerment, and participation to succeed. Higher autonomy level may promote relationships and better trust between management and employees (Marcia, 2006).

Improving professional autonomy can strengthen health systems as higher levels of job autonomy and participation in decision making at work increase the sense of being able to control work and its environment (Jian & Jeffres, 2008). Autonomy improves patient

safety and other outcomes because professionals have the authority to act and correct a mistake before it happens. Autonomy helps the physician's profession respond to changing health needs in society. It promotes physicians' abilities to improve problem solving and decision making skills to achieve job satisfaction and to promote job performance. Autonomy also can achieve individuals or groups empowerment that will lead to improve trust, self-awareness, and self efficiency. Finally autonomy may improve psychological aspect of individuals (Haworth 1986).

- **Autonomy and Job Satisfaction**

Porter (1963) slightly adapted Maslows (1954) hierarchy of needs and placed autonomy as the second most important. Furthermore it has been found that the degree of autonomy is part of the construct of job satisfaction (Armstrong, 1977). The domain of job satisfaction has been thoroughly researched in past literature. It was labelled as one of the 6 dimensions of perhaps the most widely known job characteristic scales are developed by Turner and Lawrence (1965), later reviewed by Hackman and Lawler (1971), who described autonomy as one of the 6 dimensions of job characteristics, and of these 6, 4 of them were considered core characteristic (Ilan, 2007).

- **Autonomy and Psychological States**

Hackman and Oldham stated that there are five core job characteristics (skill variety, task identity, task significance, autonomy, and feedback) (annex 1), which impact three critical psychological states (experienced meaningfulness, experienced responsibility for outcomes, and knowledge of the actual results), in turn influencing work outcomes such as job satisfaction, absenteeism, work motivation, etc. (Hackman and Oldham, 1976).

- **Autonomy and motivation**

Autonomy is closely linked to motivation. Hackman and Oldham (1975) came up with a formula for motivation potential score. This formula is used to measure the propensity of each job to be motivating. It can be assessed by using the following formula: MPS = (Skill Variety + Task Identity + Task Significance)/3 × (autonomy + feedback). Autonomy and feedback are important in the above model. If they are non existent in the job design, the job may not have motivation potential. It is therefore necessary to design the job that caters for autonomy and feedback.

Furthermore, the link between autonomy and motivation is explained in the Job demands-resources model (annex 2). This model proposes that working conditions can be categorized into two main categories, job demands and job resources, that are differentially related to specific outcomes. Job resources (feedback, autonomy, reward and social support) refer to the physical, psychological, social, or organizational aspects of a job that may reduce job demands and the associated physiological and psychological costs. While Job demands (physical workload, time pressure, emotional demands and recipient contact) refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and /or psychological costs (Demerouti et al., 2001). Burnout develops when certain job demands are high and certain job resources are limited, job autonomy represents a job-related resource that could enable employees to cope more effectively with stressful situations because they can use their available coping resources and skills more flexibly (Fried & Ferris 1987).

2.2.5 Critic of job autonomy

Too much autonomy at the individual or at the team level can reduce the level of employee satisfaction and can decrease productivity. Some employees prefer to receive more directions from their managers and feel uncomfortable with greater level of autonomy; they may not want to take the responsibility of having their name solely associated with a task, or they don't want to exert effort (Marcia, 2006).

If managers or employees are not well equipped (in training or in personality) to exercise autonomy, this may result in poor performance. Another point, when employees given autonomy, they may feel that he have high authority somewhat equals to that of their manager. This may lead them to reduce their performance or to receive other advantages. A related point is that managers may feel marginalized when employees are given higher level of autonomy and feel that their role is no longer steering. At the team level if they work without supervision they may have goals that are different from those of the organization, and if there is poor communication among individuals in the team they may have poor achievement. Increased autonomy at the organization level may create disparity among units through different work practices (Marcia, 2006).

2.2.6 Patients' autonomy

Respect for patients' autonomy is one of the fundamental guidelines of clinical ethics. Patients usually don't make their own decisions because they do not have the adequate background or information for making informed choices, so they come to physicians for guidance in making choices. Physicians educate patients so they understand the situation adequately, they calm emotions and address fears that interfere with a patient's ability to make decisions and they counsel patients when their choices seem to be disruptive to health and well-being. Respect for autonomy also includes confidentiality, seeking consent for medical treatment and procedures, disclosing information about their medical condition to patients, and maintaining privacy. Physicians have to promote patients' autonomous behavior such as offering all available treatment options to a patient, explaining risks in terms that a patient understands, ensuring that a patient fully understands the risks related to treatment and agrees to all procedures before going into surgery, (Pantilat, 2008). Physician's autonomy is never focused on the self or on personal power. It is instead focused on carrying out acts that benefit patients (Lewis, 2006).

- **Beneficence**

Beneficence refers to an action that is done for the benefit of others. Beneficent actions can be taken to prevent or remove harms or to improve the situation of others. Physicians possess skills and knowledge to assist others. Due to the nature of the relationship between physicians and patients, doctors do have an obligation to prevent and remove harms, and to weigh and balance possible benefits against possible risks of an action. Beneficence can also include protecting and defending the rights of others. Beneficent actions like resuscitating a drowning victim, providing vaccinations for the general population and encouraging a patient to quit smoking and start an exercise program. A balance should be made when the physician's autonomous decision conflicts with the patient's beneficence. As long as the patient understands the decision at hand clearly without confusion, then the physician should respect the patient's decisions even while trying to convince the patient otherwise (Pantilat, 2008).

2.2.7 Personal factors contribute to autonomy

- **Age**

One study has showed that autonomy peaks at age 40 before beginning a gradual decline (Dobbin & Boychuk, 1999); they may concluded this result when they studied 25 different occupations. However, it would be premature to generalize this finding especially when we are studying profession like medicine when the older age could have higher experience or skills that may increase the level of autonomy. Rhorer (1989) examined the relationship between age and autonomy with a convenience sample of 213 entry level Associate Degree (2 years study) and Bachelor of Science (4 years study). He didn't find a significant relationship between age and job autonomy.

- **Gender consideration**

Gender has been shown to affect remuneration, status, power, and autonomy (e.g. Brown 1975). Differences in job outcomes between men and women have been linked to discrimination in two ways. First, discrimination in hiring and promotion places women in less attractive jobs than similarly qualified men (Rosenfeld and Kalleberg, 1990). Second, discrimination leads to low wages, status, power, and autonomy for jobs traditionally held by women (Jacobs, 1990). Gender shows this effect, being male has a positive effect net on other factors (Dobbin & Boychuk, 1999). Cockburn (1988) argues that male workers tend to keep the most desirable and advantageous jobs relative to females. Rhorer (1989) also studied gender as a personal variable that may influence job autonomy, although he concluded that there is no statistical significance relationship with age and autonomy among his participants.

- **Experience**

Human capital theorists suggest that individuals with the greatest human capital (in terms of ability, education, and experience) will be most productive (Coleman, 1988). Productive workers will carry the highest levels of autonomy. Education, measured as years of schooling, shows a consistent, positive, effect on autonomy (Dobbin & Boychuk, 1999). Rhorer (1989) found that there was interaction between qualification and experience and they increased autonomy score at a statistically significant level.

- **Skills**

Traditionally, worker's skill and knowledge have been considered as the most important factors in maintaining their power over the labor process. Wright (1997) identified the importance of "skill rent" in his relational class structure analysis. He theoretically defines that "skills and expertise designate an asset embodied in the labor power of people which enhance their power in labor market and labor processes". This is because workers owning high level of skills are scarce in the labor market, which they can take advantage in reproducing their labor power. It is also relatively difficult to monitor and/or control those high level skilled workers so they can obtain more autonomy or control over their own labor process.

The skills acquired from formal education are not necessarily paralleled with obtaining skilled jobs. Workers' education and skill are linked to job autonomy although human capital functions as a filter for entering skilled jobs. The distribution of skill and autonomy in jobs is primarily a function of workplace design (Braveman, 1974). Hansen (2003) concluded that employees with the highest skills as well as best qualifications enjoy the highest levels of job autonomy in working life.

- **Managerial Status**

Managers have been found to have greater autonomy than subordinates in all settings. The Taylorism/de-skilling thesis suggests that among countries, autonomy should vary between managers and workers. In countries where Taylorism and other management practices that routinize work were popularized, one would expect worker autonomy to be the lowest and manager autonomy to be the highest (Dobbin & Boychuk 1999). In countries where work was not systematically routinized, such as in Denmark, Finland, Norway, and Sweden workers should have greater autonomy than in countries where it was, such as the United States, Canada, and Australia (Cole, 1989). In Dobbin & Boychuk study (1999), they found that managerial status shows strong, consistent, effects on autonomy in these models, with upper managerial status producing the largest positive coefficients, followed by middle managerial and supervisory status.

2.2.8 Summary of the personal factors

Kathryn (1998) proposed that there are many preceding factors of autonomy such as the **abilities** of individuals to prioritize part or aspect of knowledge of personal believes and values related to circumstances. The **experience** of individuals is also required to act autonomously, another factor must individuals have to act autonomously is **educatio**n; the fourth factor is the **capability** or capacity to make choice among alternatives. Littlewood (1996) suggests that ability can be divided into knowledge and skills. Knowledge would include an awareness of alternatives that might be chosen, and the skill to implement any choices made. Autonomy was related significantly to basic education and experience $P < 0.05$ (Rhorer, 1989). Haworth (1986) state the **competence** is the cornerstone of autonomy, the individuals must have a good knowledge and practice to develop their competence.

2.2.9 Organizational factors and job autonomy

- **Organizational Structure**

Organizational Structure is defined as how job tasks are formally divided, grouped, and coordinated. Many other terms are related tightly to the structure. There are two main types of structure, the traditional (mechanistic) model and the modern (organic) model. The mechanistic model of structure is characterized by high specialization, extensive departmentalization, clear chain of command, centralization and high level of formalization (Robbins, 2005). This is generally applicable to those organizations that are not influenced by technological, product، market changes and generally maintains a constant pattern (Kondalkar, 2007). The tasks are well defined so that the goals set by the top level management are attained smoothly. The structure is characterized by plenty of written orders and instructions (Kondalkar, 2007). The organic model of structure is characterized by flat structure, cross-hierarchical and cross-functional teams, has low formalization, possesses a comprehensive information network, and relies on participative decision making (Robbins, 2005).

Chain of command; to whom do individuals and groups report, Span of control; how many individuals can a manager efficiently and effectively direct, Centralization and decentralization; where does decision-making authority lie, **centralization** is the degree to which decision making is concentrated at a single point in the organization, whereas **decentralization** is the degree to which decision making is spread throughout the organization.

Specialization

When all related activities are put together in particular departments, division of work takes place. Every department attempts to specialize in the work assigned to them. Individual achieves expertise when he performs same job over and over again. Principle of unity of direction must be achieved when jobs are broken down in tiny compartments to achieve specialization (Kondalkar, 2007).

Formalization

Formal organization has a mechanistic hierarchical structure. In such type of structure position, authority, responsibility and accountability is well defined. Formal organizations have well-defined lines of command and control, delegation of authority and a system where effective coordination can be carried out. Detailed policies, procedures, and standing orders are laid down for various departments so that everybody is aware of his duties and obligations towards the organization. In a formal organization goals are set and individual tasks are assigned, supervisors exercise strict supervision and control (Kondalkar, 2007). Adler and Borys (1996) argued that formalization in the workplaces is a control device reducing work autonomy, they also argued that formalization could function either to enable workers to master their tasks without close supervision or to enforce workers' effort leading to a loss of control over tasks.

The structure of a health care agency includes the scope of practice that is described in practice literature, license laws, organization's professional practice standards, advanced practice certifications, and knowledge development (Lewis, 2006). The classical organization structure designs are simple, centralized, bureaucratic and divisionalized. Characteristics of large organizations are more specialization, more vertical levels, more rules and regulations and use of protocols. The later features are characteristic of Shifa Hospital.

The Bureaucratic Organization

The Bureaucratic Organization is a mechanistic form of organizational structure (Robbins, 2005)**.** It has been introduced by Max Weber (1864-1920), a German Sociologist. It's characterized by the use of standardization for performing work; and a high degree of control to ensure standard performance, highly routine operating tasks achieved through specialization, very formalized rules and regulations to regulate subordinate behaviour and

to ensure rationality, objectivity, discipline and control, tasks that are grouped into functional departments, centralized authority, narrow spans of control, and decision making through standardization of operations, hierarchy of authority which involves superior-subordinate relationship and chain of command. Bureaucracy recognizes legal power derived from the official position held by an individual (Robbins, 2005 & Kondalkar, 2007).

Advantages of bureaucracy are that its ability to perform standardized activities in a highly efficient manner, minimum duplication of personnel and equipment, and selection and promotion of employees are based on competence. On the other hand, the main critics for bureaucracy are that it's highly rigid; it creates inflexibility in the organization. Specialization as a main feature in the bureaucracy model may lead specialists to have their own interests and this may overlooks the general interests of the common employee in the organization, specialization also can create subunit conflicts, functional unit goals can override the overall goals of the organization. Another point that it can't respond rapidly to change, it hinders employee initiative and rule and regulations exist lead to impersonal behaviour of employees (Robbins, 2005 & Kondalkar, 2007).

Bureaucracy plays a vital role in large organizations where it's the most efficient mean of controlling the work of large numbers of people. Bureaucratic organizations are technically superior to any other type of organization in accomplishing complex goals because they are rational, efficient, and expert master a problem through specialized knowledge (Kondalkar, 2007). Robbins (2005) observed that the majority of large organizations still take on basic bureaucratic characteristics, particularly specialization and high formalization. building on its strengths and minimizing dysfunctional features of the system (spans of control have generally been widened, authority has become more decentralized, and functional departments have been supplemented with an increased use of teams).

Autonomy and bureaucracy

The relationship between bureaucratic structure and degree of professional autonomy within the client-professional relationship was examined by systematically comparing the perceived autonomy of professionals in three types of bureaucratic settings, nonbureaucratic, moderately bureaucratic, and highly bureaucratic. The data revealed that

those professionals associated with the moderately bureaucratic setting are most likely and those in the highly bureaucratic setting are least likely to perceive themselves as autonomous. These findings do not support the contention that bureaucracy is necessarily detrimental to professional autonomy (Engel, 1970).

Edwards (1973) argues that bureaucratization is employed as a control device, but he also suggests that bureaucratization consequently affects the level of job autonomy because it is related to work content. Some sociologists (Clawson, 1980; Perrow, 1986) observe that bureaucratization tends to reduce job autonomy (Clawson argues that bureaucratic management in terms of the reorganization of the labor process removes workers' control from the work process), but others argue that it should increase job autonomy through decentralization of decision making (Blau, 1970 and Marsden, et al, 1996).

Bureaucratization encourages specialization and standardization, specialization and standardization tend to be both efficient and unobtrusive (Perrow, 1986). Standardization sets the range of job responsibilities in order to save time and expenses, and specialization of individual activity encourage workers to focus on specific tasks. Perrow (1986) argues that workers can often exercise more delegation of decision-making through standardization and specialization. Edwards (1979) suggested that bureaucratic control is favored for jobs with significant discretion in the labor process such as in white collar jobs. Large formal organizations decentralize decision making coping with more complex jobs and in order to reduce coordination costs. The degree of delegation of decision-making responsibilities to individuals tends to increase in large organizations as departmentalization of tasks rises and there is a concomitant decrease in administrative intensity. Blau and Schoenherr (1971) and Pugh et al. (1969) find that large organizations are most likely to adopt the kinds of formal work rules and written job descriptions that diminish job autonomy. Subsequent studies have confirmed this ((Dobbin & Boychuk 1999). Thus a large organization like Shifa Hospital is likely to adopt this kind of formal work rules and written job descriptions in order to control the complex jobs.

- **Job description**

It is a list of general tasks, functions and responsibilities of a position. It may include specifications such as the qualifications or skills needed by the person in the position (Torrington & Hall, 1987). Components of a job description usually include job

identification, job summary, job duties and responsibilities, relation to other jobs, supervision and working conditions (Geet et al, 2009). A well written job description tells an employee where his or her job fits within the overall department and the overall company. It also helps employees from other departments who must work with the person hired understand the boundaries of that person's responsibilities (Lutzkendorf & Lorenz, 2006).

Job description is of great importance to determine the scope of work (Kathryn.et al, 1998). Pugh et al. (1969) found that written job descriptions that diminish job autonomy, Dobbin & Boychuk (1999) came up to the same conclusion that the job description usually determines the scope and the boundaries of person's action and in turn limits the autonomy.

- **Teamwork and autonomy**

Views of professionalism emerged during the time (approximately 1945-1965) when physicians worked primarily alone, with less sophisticated interventions in their "black bag". Now, driven by advances in biomedical science, multiple clinical disciplines must work as a team to deliver complex diagnostic and therapeutic interventions. The role of individual physicians as sole arbitrator in decision making is changing with a greater emphasis on team oriented medicine (Simon, 2008). Surowiecki (2004) asserted that teams make wise decisions when there is diverse and independent input. By listening to patients, nurses, residents, and other colleagues and adhering to wise standards, physicians will make or help patients make better decisions. This is especially relevant in complex medical situations in which individuals acting on incomplete information may not make the best decision.

A relationship has been found between interdisciplinary teamwork and work autonomy on patient outcomes. High levels of work autonomy were significantly correlated with high levels of interdisciplinary teamwork. When there are both high levels of work autonomy and interdisciplinary teamwork, work-assessed quality of care is also higher (Rafferty, et al. 2001). Appelbaum and Batt (1994) suggested that self-directed teams allow more training and skills to workers and the autonomous power of team workers should be higher relative to similarly skilled workers.

- **Standardization and patient safety**

Standardization refers to developing and using the one best way to perform a work task or execute a step in the process. Standardization involves repetitive and routine jobs. Jobs are formalized so that every individual can undertake such standardized jobs without additional training (Kondalkar, 2007). A central drive to improve patient safety and quality is standardizing the delivery of health care (Simon, 2008). It seeks to drive out variation in methods and procedures and, as a result, to create a repeatable, predictable process that yields high quality output consistently and at low cost. Standardization by its very nature reduces an individual's control over work methods and procedures and provides little opportunity for operator autonomy. Efforts to create individual's autonomy must focus on indirect activities, such as monitoring and improving quality or participation in improvement efforts. This enables individuals to participate in decisions that affect them and their work (Hyer & Wemmerlöv 2002).

Clinical practice guidelines constitute an unprecedented form of standardization of professional clinical care. The purpose of guidelines is to formulate a best practice to be emulated by health care practitioners (Timmermans, 2005). Standardization is achieved by using criteria for specific preventive, diagnostic, and therapeutic interventions and when delivering health services. Standards take many forms, from protocols developed by a health system, insurer, or professional society to safety practices developed by national organizations. Standardized care requires physicians to engage in informed decision making, in which their decisions are based on rules intended to optimize patients' clinical or economic, although informed decision making may conflict with the very core of physician autonomy. Physicians are often the suppliers of information to help patients make informed decisions about their care (Mathews & Pronovost, 2008).

Lives, morbidity, and costs could be saved if care were more standardized with something as simple as a checklist. To realize these benefits, standards must be wise and just. Furthermore, accepting standards will require that physicians correspondingly turn down some autonomy and engage in informed decision making.

Health care is grossly understandardized and variability in the use of diagnostic and therapeutic interventions the norm. The tension between what standards recommend and what physicians ultimately decide need not exist. Patients and physicians responding to a

survey assigned the most responsibility for medical errors to physicians rather than to hospitals (Blendon, 2002). However, recognizing the value of standardized systems has not translated to wide spread adoption of best practices; adults receive 55% (McGlynn & et al, 2003) and children receive 47% (Mangione & et al, 2007) of recommended therapies. The reasons for these shortfalls are complex. If physicians recognize the value of systems that prevent errors, why do some attempts at standardization succeed while others fail? (Simon, 2008).

When physicians help develop standards or know the process by which they are developed, and know the evidence supporting the risks, benefits, and costs to their patients, trust to support informed decision making will be high. When physicians do not help develop the standards, question the motives of the organization that created the standard, or when the evidence and process by which it was developed are opaque, trust and compliance will be low. Unfortunately, the processes to develop standards are often neither explicit nor transparent. Evidence supporting standards varies widely and it's generally unclear and obscure.

- **Accountability**

Clinical practice guidelines have shifted the focus of professional power from autonomy to accountability (Timmermans, 2005). Implementation of Evidence-Based Medicine (the conscientious, explicit, and judicious use of current best evidence in making decisions) about the care of individual patients as defined by Sackett et al. in 1996 involves the use of clinical practice guidelines during medical decision making to encourage effective care and improve health outcomes. Guidelines can be applied to any aspect of clinical care, they offer instructions for how and when to order diagnostic or screening tests, when to provide certain medical services, how these should be performed, and how long patients should remain hospitalized following a procedure. Thousands of new guidelines have been constructed in the recent five years in UK and USA (Timmermans, 2005).

When professions formulate guidelines, they bring authority to the guidelines, but even then their members look at guidelines more as options than as true standards. The profession itself does not enforce adherence to guidelines or reward guideline-following behavior. Adherence to guidelines depends upon the fit between the standards and the goals and demands upon the individual physician (Timmermans, 2005). Compared to the

1950s through 1970s, in recent decades the health care professions have lost power due to the influence of large corporations, government actions, information technologies, and other third parties (Light and Levine 1988).

2.2.10 Summary of the organizational factors

The individuals' autonomy should be within the scope of their work, **job description** is of great importance to determine the scope of work. Increasing **accountability** among professionals is the most obvious consequence identifiable for the autonomy concept. It is defined as the answerability and responsibility to power or authority for person actions, when person develops into ready to act autonomously the person must be prepared to accept responsibility and answerability for his/her actions (Kathryn.et al., 1998). Maas and Jacox (1977) argue that accountability for behavior is corollary of autonomy. **Standardization**; physicians won't be able to standardize all of medical practice, but they should move toward consensus on practice standards when they can (Reinertsen, 2003). If physicians need to deviate from the protocols, they should note the reasons in the chart. **Organizational structure** may regulate autonomy practice; in traditional organizations only employees at higher levels have autonomy. However, new organizational structures such as organic or flatter organizations may result in higher autonomy at lower levels (Marcia, 2006). **Decentralization** often coincide and have similar implication of autonomy, although they may differ and imply varying organizational outcomes and there is distinction between these two constructs which is potentially significant (Brock, 2003). Holland (1999) believes the **interdependence** relationships with individuals are necessary to achieve autonomy.

2.2.11 Work predictability and Job Autonomy

March and Simon (1958) suggest that job autonomy should vary as a result of the predictability of the work process. In occupations where the work process is predictable, programmatic decision making will reduce job autonomy. In occupations where the work process is unpredictable, the impossibility of programming decision making will increase job autonomy.

2.2.12 The Construct of Autonomy

In the study of Diane & Sadashiv (1997), they constructed their main concern, Work Group Autonomy as separating decisions in two ways, technical and administrative to divide criteria according to whether they concern group processes and management (administrative decisions) or the product, the equipment, or the production process (technical decisions). Based on the previous study, this study will concern individual autonomy, so the researcher will study these domains of the autonomy construct to meet his goal and will add the physicians' perception of autonomy as well. There will be many statements to assess the level of autonomy in each domain individually and to assess the level of autonomy in all domains as a whole.

2.2.13 Measurement of job autonomy

Job autonomy is difficult to be measured and differently interpreted by the way it has been conceptualized and operationalized by recent researchers. Extent of job autonomy was assessed with a 6-item questionnaire. Two items were selected from the autonomy measures in the Job Diagnostic Survey (Hackman & Oldham, 1976). Four additional items were developed (patterned after the two Job Diagnostic Survey items) to more comprehensively assess managerial autonomy. The items were **(a)** There is a lot of autonomy in doing the job; **(b)** The job is quite simple and repetitive; **(c)** If someone else did the job, they could do the tasks in a very different manner than I do; **(d)** The way the job is performed is influenced a great deal by what others (supervisors‹ peers, customers, etc.) expect of the incumbent"; **(e)** The way the job is performed is influenced a great deal by company rules, policies and procedures; **(f)** The work itself provides a lot of clues about what the incumbent should do to get the job done.

For each item, the rater was asked to indicate whether the statement was an accurate or inaccurate description (on a 10-point scale) of the job. Responses were coded in such a way that higher scores indicate more autonomy. Taken together‹ the items measured the degree of discretion the respondent had in selecting appropriate work behaviors, deciding the order and pace of job tasks, and coordinating those activities with others. The scale was completed by both the participating manager and the immediate supervisor. The interrater reliability value was 0.55, and the internal consistency coefficient (alpha) was 0.7.

Based on the literature and the previous studies, the researcher will choose the relevant and applicable variables to study them. Age, gender, academic qualification, abilities & skills, years of experience and managerial status will be studied as personal variables which are expected to influence job autonomy, and variables like structure, standardization, job description, accountability and teamwork will be studied as organizational ones.

Some variables such as income will not be studied as it's mostly related to qualification and years of experience, which have been selected already in the study. Technology as well will be excluded as medicine is mostly clinical science rather than technical one and depends on use of education, experience and skills. Union membership is not well activated and it seems that it doesn't affect the level of autonomy in our community. Instead, safety of patients was noticed to be taken into consideration when practicing autonomy in medicine, so it was chosen for study as a possible factor that could influence autonomy practice.

Chapter 3: Methodology

3.1 Study design

The design of this study is descriptive analytic cross sectional one with quantitative approach. It described the level of job autonomy among physicians working in Shifa Hospital, personal and organizational factors that may influence the practice of job autonomy. This design enabled the researcher to meet the study objectives and explored the association between study variables.

3.2 Study population

Study population consisted of all physicians who have been working at Shifa Hospital with their different categories including those in managerial positions. The total number of physicians is **453** which are distributed on the hospital as follow: 253 in the surgical hospital, 118 in the medical hospital and 82 in the maternity hospital.

3.3 Study Settings

The study was conducted at Shifa Hospital, the main health care center in Gaza, and the largest medical complex in Palestine.

3.4 Sample size and sample process

By using Epi Info program version 3.5.1 (Annex 1), considering the accessible population **390**, the expected frequency of the factor under the study (perception of job autonomy) 50% and the worst acceptable result 45%, thus the sample included 194 out of 390 physicians (the sample size was approximated to 195 for simplicity, which represents approximately 50% of the accessible population). They are selected systematically after stratification of departments, so approximately 50% of physicians in each department are selected systematically (every second physician on the duty list as ranked according to the specialty and employment number) in each hospital (surgical, medical and maternity hospital). The sample size is relatively large, and this could increase the generalizability, and could ensure an acceptable response rate by the physicians. The accessible population **(390)** are distributed on the hospital as follow: 205 in the surgical hospital, 105 in the medical hospital and 80 in the maternity hospital. So the sample was distributed as follow: 103 in the surgical hospital, 52 in the medical hospital and 40 in the maternity hospital.

3.5 Selection criteria

3.5.1 Inclusion Criteria

All of the accessible physicians in Shifa Hospital have the same chance to be selected in the study.

3.5.2 Exclusion Criteria

The director general of the hospital (as holding top managerial position), physicians who are not currently working at Shifa Hospital during the data collection period for any reason (e.g. vacation, traveling, sick leave etc.), and volunteers are excluded as well as physicians who have been employed for less than one year as they may not well perceive or practice autonomy yet. The total number is 63 of the 453 physicians are excluded from the study for these reasons.

3.6 Period of the study

The study was implemented immediately after the approval of the proposal. The study was completed by November 2010.

3.7 Administrative considerations

Administrative approval was obtained from the school of public health Al-Quds University (annex 2). Approval letters then was sent to hospitals general director and to the director of Shifa Hospital (annexes 3&4).

3.8 Ethical considerations

- Approval was obtained from Helsinki Committee to carry out the study (annexes 5&6).
- The names of participants in this research were not mentioned because of the ethical considerations.
- Every participant was provided with an explanatory form about the study. This form included the purpose of the study, confidentiality of information and some instructions; it also included statement about people's right to participate or to refuse that (annex 7).
- Guarantees of confidentiality was given and maintained.
- Ethical concept, respect for truth and for people was considered.

3.9 Limitations of the study

- The cross sectional design of the study has some weaknesses as it is liable to contextual changes and does not allow giving answers of possible causalities.
- Limited scientific resources like books and journals.

3.10 Research instrument

The researcher used a self-administered questionnaire (annex 8) which was used as it's familiar to most people, simple to administer, simple and quick for the respondents to complete and easy to analyze. The researcher's own opinions didn't not influence the respondent to answer questions in a certain manner; there were no verbal or visual clues to influence the respondents. The questionnaire is self structured except for part of the autonomy scale; it's designed in Arabic language to be easily understood by the participants.

Questionnaire content

The questionnaire was provided with a covering letter explaining the purpose of the study, the way of responding, the aim of the research and the security of the information in order to encourage a high response. The questionnaire included multiple choice questions and a 10-point scale. It consisted of three main parts: the **first** included personal and professional variables that may cause the main determinants of job autonomy, the **second** explored and assessed the level of job autonomy among physicians and the **third** part identified the organizational factors that may influence the level of job autonomy among physicians.

Part 1 :a) Personal and professional factors consisted of 11 questions.

b) Abilities and Skills consisted of 5 questions

Part 2: **The level of job autonomy** which will be measured through three main domains

a) The perception of autonomy from their perspectives consisted of 7 questions.

b) The technical domain of autonomy and consisted of 9 questions.

c) The administrative domain of autonomy and consisted of 6 questions

Part 3: Organizational factors that may have a relationship with autonomy practice and divided into subsections as the following:

1. **Organizational structure** consisted of 27 questions.
2. **Job description** consisted of 6 questions.

3. **Accountability** consisted of 6 questions
4. **Teamwork** consisted of 7 questions.
5. **Standardization** consisted of 6 questions
6. **Patient safety** consisted of 6 questions

3.11 Data Collection

Each subject was individually given a questionnaire to fill without writing a name or a number. The researcher reviewed the completed questionnaires to ensure completion of all information needed. The process of data collection continued for about 4 weeks.

3.12 Data Entry and Analysis

After over-viewing the questionnaire, each one was coded, and the usable number of questionnaires was determined. This step was followed by designing an entry model using the Statistical Package for Social Sciences (SPSS) program. The coded questionnaires were entered by the researcher using the computer software. Cleaning of data was done, the data was analyzed; frequency tables were conducted for the study variables. Means and standard deviation were computed for the continuous numeric variables, reliability and validity of the instrument will be tested. Then, factor analysis was done for Likert scale questions. An independent t-test and one way ANOVA statistical test were used to investigate the relationship between the independent and dependent variables.

3.13 Pilot Study

The researcher conducted a pilot study to test the appropriateness of data collection instrument, to provide feedback about the questionnaire and standardize the suitable way for data collection. A sample of 20 participants (10 from the surgical hospital, 5 from the medical hospital and 5 from the maternity hospital) have been collected and checked for standardization of the tool.

3.14 Validity

Validity is defined as the extent to which a measuring instrument measures what is supposed to measure (Mark 1996,). In general, validity is an indication of how sound the research is. More specifically, validity applies to both the design and the methods of the research. Validity in data collection means that the findings truly represent the phenomenon that is claimed to be measured.

3.14.1 Content Validity of the Questionnaire

Content validity is defined as the extent to which a test reflects the variable it seeks to measure, (Holm and Liewehyn 1986,). It was conducted before data collection by the help of experts to ensure relevancy, clarity and completeness. Content validity is a subjective estimate of measurement based on judgment rather than statistical analysis. In order to validate the instrument used, the designed questionnaire with a covering letter, title and objectives of the study were sent to experts from different backgrounds including researchers, public health experts in management field (annex 9). The experts were asked to estimate the relevance, clarity and completeness of each item; some questions have been modified with the help of the supervisor as requested.

3.14.2 Statistical Validity of the Questionnaire

To insure the validity of the questionnaire, two statistical tests should be applied. The first test is Criterion-related validity test (Pearson test) which measures the correlation coefficient between each item in the field and the whole field. The second test is structure validity test (Pearson test) that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one filed and all the fields of the questionnaire that have the same level of similar scale.

3.14.2.1 Criterion Related Validity

Criterion Related Validity is measured by a scouting sample, which consisted of **twenty** questionnaires, through measuring the correlation coefficients between each paragraph in one field and the whole filed. The correlation coefficient and P-value for each field items were < 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs in each field are valid to measure what it was set for.

3.14.2.2 Structure Validity of the Questionnaire

Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one filed and all the fields of the questionnaire that have the same level of likert scale. The significance values < 0.05, so the correlation coefficients of all the fields are significant at $\alpha = 0.05$, so it can be said that the fields are valid to measure what it was set for to achieve the main aim of the study**.**

3.15 Reliability of the research

Cronbach Alpha coefficient and Half Split Method are used through the SPSS software to overcome distribution of the questionnaire twice to measure the reliability, reliability coefficient above 0.7 are considered satisfactory.

3.15.1 Half Split Method

This method depends on finding Pearson correlation coefficient between the means of odd rank questions and even rank questions of each field of the questionnaire. Then correcting the Pearson correlation coefficients can be done by using Spearman Brown correlation coefficient of correction. The normal range of corrected correlation coefficient is between 0.0 and + 1.0. All the corrected correlation coefficients values are between 0.8085 and 0.8521 and the general reliability for all items equal 0.8408, and the significant (α) is less than 0.05. It can be said that according to the Half Split method, the dispute causes group are reliable.

3.15.2 Cronbach Alpha Coefficient

This method is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. The Cronbach alpha coefficient was calculated for the first field of the causes of claims, the second field of common procedures and the third field of the Particular claims. The results were in the range from 0.8267 and 0.8456, and the general reliability for all items equal 0.8633. This range is considered high; the result ensures the reliability of the questionnaire.

After application of the pilot study, three questions were dropped from the questionnaire as they were found to be unclear for the participants and can be ignored without significance. So the pilot sample was included in the total sample.

Chapter 4: Data Analysis and Discussion

4.1 Response rate

A total of 195 questionnaires (103 in the surgical hospital, 52 in the medical hospital and 40 in the maternity hospital) including 20 for piloting were distributed to the research population and **168** questionnaires (91 in the surgical hospital, 45 in the medical hospital and 32 in the maternity hospital) including those for piloting were received with a **total response rate** of 86% (168/195).

Three samples (one from each hospital) were excluded after data cleaning so the final number of questionnaires is **165** (90 from the surgical hospital, 44 from the medical hospital and 31 from the maternity hospital).

To achieve the research goal, the researcher used the Statistical Package for the Social Science (SPSS) for analyzing the data.

4.2 Statistical methods are as follows:

1) Frequencies and Percentile
2) One sample t test
3) Independent samples t test
4) Person correlation coefficients
5) One way ANOVA test

4.3 Descriptive statistics

- **Demographic characteristics of the participants**

Table No. (4-1) Demographic characteristics of the study population

No.	Item		Frequency	Percentage
1)	Gender	Male	155	94%
		Female	10	6%
2)	Age	Less than 36 years	51	30.9%
		36 to less than 40 years	57	34.5%
		40 years and over	57	34.5%
3)	Marital status	Single	8	4.8%
		Married	157	95.2%
4)	Place of residence	North of Gaza	23	13.9%
		Gaza city	131	79.4%
		Mid-Zone	11	6.7%
5)	Qualification	Bachelor	71	43.0%
		High diploma	9	5.5%
		Master	60	36.3%
		PHD	25	15.2%
6)	Job title	General Practitioner	69	41.8%
		Specialist	76	46.1%
		Head of department	20	12.1%
7)	The work nature	Technical	141	85.5%
		Tech.& Administrative	24	14.5%
8)	Working in preferable place	Yes	144	87.3%
		No	21	12.7%
9)	Department of work	Surgery	90	54.5%
		Medical	44	26.7%
		Maternity	31	%18.8
10)	Years of overall experience	1-4 years	21	12.7%
		5-9 years	51	30.9%
		10-14 years	51	30.9%
		15 years and More	42	25.5%

1. Gender

Figure no. (4-1) shows that 93.9% from the participants are males, and 6.1% are females, which reflects that the majority of physicians in Shifa Hospital are males.

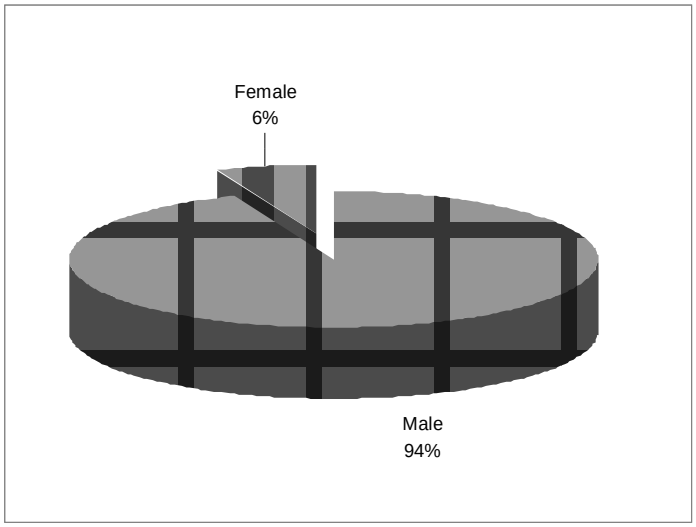

Figure No. (4-1) Gender distribution of the participants

2. Age

The mean age of the physicians in the study is 38.8 years, while when categorizing the age into groups, figure no. (4-2) shows that **30.9%** of the participants are aged less than 36 years, **34.5%** are aged 36 to less than 40 years and **34.5%** of them are aged 40 years and over, that indicates that about two thirds of the physicians are younger than 40 years.

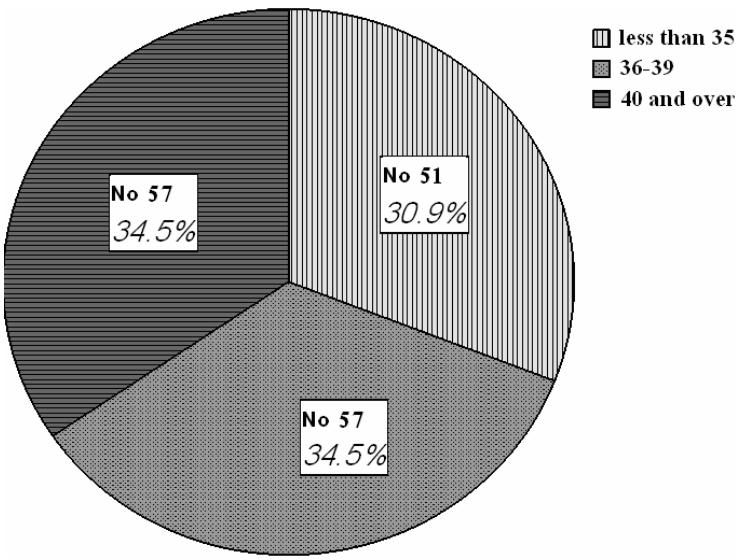

Figure No. (4-2). Age groups of the participants

3. Qualification

Figure no. (4-3) shows that 43.0% of the physicians have bachelor degree of medicine, 5.5% have high diploma, 36.4% have Master degree and 15.2% of them have PHD degree. Concerning their education attainment 57% (5.5+36.3+15.2) of the physicians (more than the half) certified specialists and 43% of them are general practitioners. This percentage of GPs is lower than the MOH report (2006) which was 66% for GPs and 34% for specialists.

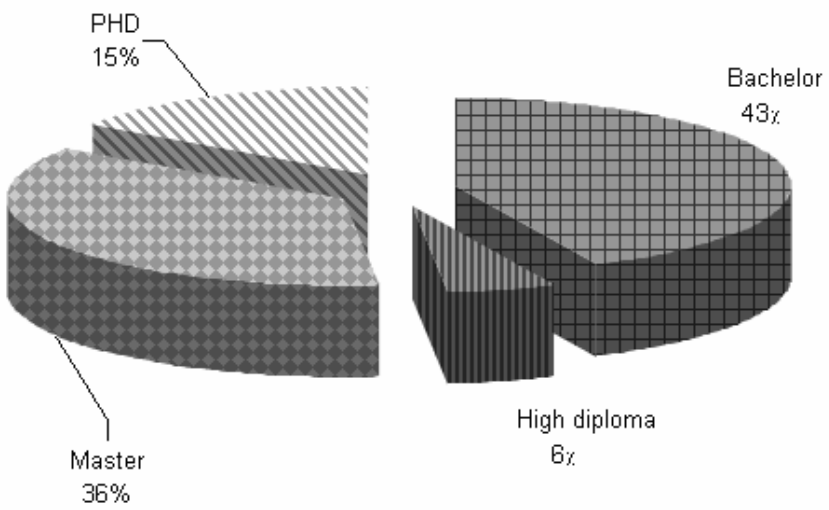

Figure No. (4-3): Qualification of the participants

4. Job title

41.8% of the participants hold general practitioner title, 46.1% hold specialist title while 12.1% of them have title of head of department, Figure no. (4-4). This may indicate that large percentage of the physician (specialists and head of departments) could have higher authority which in turn cloud lead to practice more autonomously.

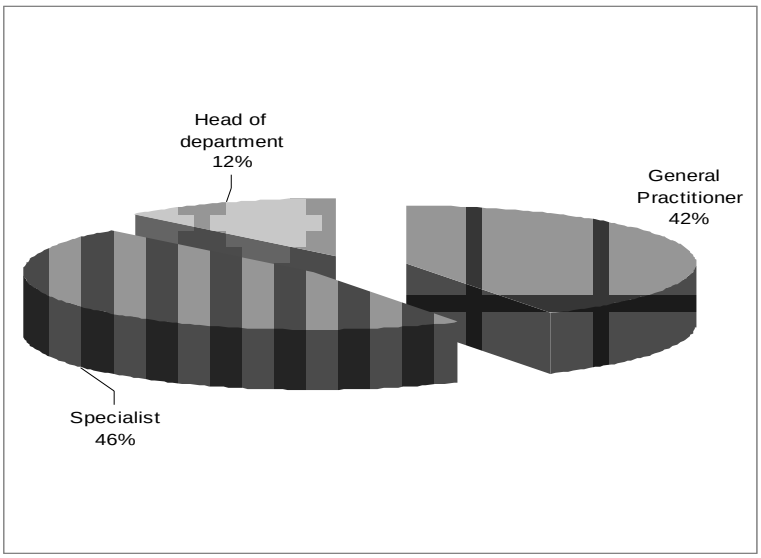

Figure No. (4-4): Job title of the precipitants

5. Department of work:

Figure no. (4-5) shows that 54.5**%** of the physicians are working in the surgical hospital, 26.7**%** in the medical hospital and 18.8**%** are working in the maternity hospital, and this may be attributed to the proportional selection according to distribution of physicians working in Shifa Hospital among departments.

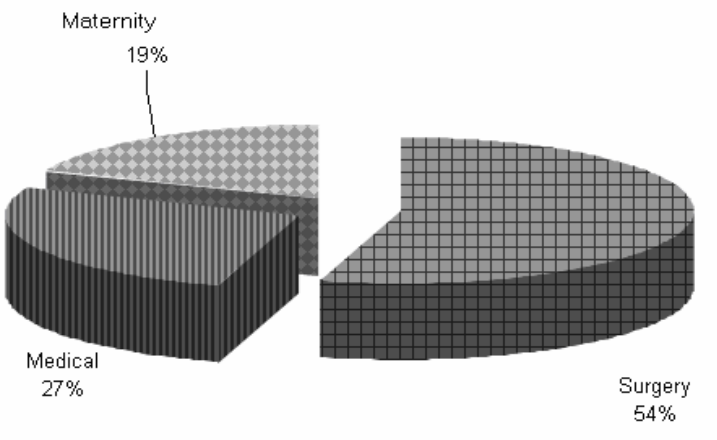

Figure No. (4-5): Distribution of the physicians by hospitals

6. Overall years of experience

The mean of overall experience is 11 years, and when categorizing the overall years of experience into groups we find that 12.7% of the participants have 1-4 years of experience, 30.9% have 5-9 years, 30.9% have 10-14 years experience and 25.5% of the them have 15 years and more, figure no.(4-6). This reveals that more than the half of physicians (56.4%) have more then 10 years of experience and may aid in practicing autonomy.

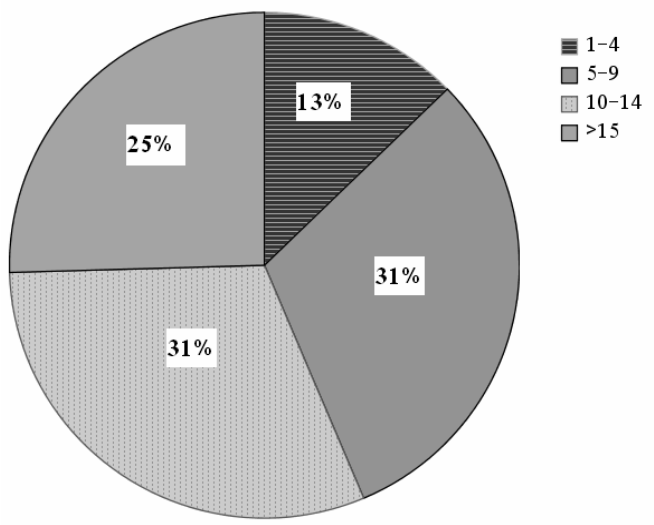

Figure No. (4-6): overall years experience of the physicians

4.4 Analytic statistics

4.4.1 First part: The level of job autonomy

- **The overall level of autonomy**

We used one sample t test to test if the opinion of the respondents in the content of the sentences are positive (weighted mean greater than "60%" or mean greater than "6" and the P-value less than 0.05) or the opinion of the respondents in the content of the sentences are neutral (P- value is greater than 0.05) or the opinion of the respondents in the content of the sentences are negative (weighted mean less than "60%" and the P-value less than 0.05).

Table No. (4-2) showed the results of the opinion of the respondents about the overall level of job autonomy according to means. The average mean of the level of job autonomy was **6.67** which is greater than "6" and the value of t test equals 6.388 which is greater than the critical value which equals 1.97 and the P-value equals 0.000 which is less than 0.05, that means **the level of job autonomy among physicians was positive** at a statistically significant level.

Table (4-2) The overall level of autonomy among physicians

No.	Items	Mean	SD	t-value	P-value
1	I have significant autonomy in determining how I do my job	6.75	2.505	3.854	0.000
2	I can decide on my own how to go about doing my work	7.08	2.504	5.535	0.000
3	I have considerable opportunity for independence and freedom in how I do my job.	6.24	2.613	1.162	0.247
4	The job is quite simple and repetitive	5.94	2.752	-0.256	0.798
5	If someone else did the job, they could do the tasks in a very different manner than I do	5.96	2.580	-0.181	0.857
6	The way the job is performed is influenced a great deal by what others (supervisors، peers, customers, etc.) expect of the incumbent	6.55	2.394	2.945	0.004
7	The way the job is performed is influenced a great deal by company rules, policies and procedures	7.40	2.549	7.045	0.000

No.	Items	Mean	SD	t-value	P-value
8	The work itself provides a lot of clues about what the incumbent should do to get the job done	7.35	2.089	8.248	0.000
9	I prefer to hold responsibility	5.45	3.126	-2.241	0.026
10	I feel I have a lot of control over what I practice.	7.68	2.098	10.278	0.000
11	I have my own standards for practice.	8.03	1.939	13.410	0.000
12	I am able to set my own management plan.	7.65	2.352	9.001	0.000
13	I can participate in decisions about the nature of my work	7.31	2.505	6.701	0.000
14	I do not use standard treatment, if I think it's not suitable for my patient.	7.44	6.106	3.018	0.003
15	I can perform another tasks I think they are not included in my job description	6.50	2.678	2.391	0.018
16	I have complete authority to solve my problem	6.53	2.688	2.549	0.012
17	I have influence over the way of admitting patients to the ward I work in.	6.91	2.729	4.279	0.000
18	I have influence on managing the patients in unit.	7.37	2.297	7.648	0.000
19	It is easy to ask permission to leave early for the day.	5.95	2.982	-0.209	0.834
20	It is easy to ask permission to come late to work.	5.66	2.971	-1.472	0.143
21	It is easy to ask permission to change my scheduled duty hours	5.34	3.004	-2.807	0.006
22	As a physician I feel that I practice autonomy more than other professions	5.57	2.889	-1.892	0.060
	Total	6.67	1.348	6.388	0.000

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

- **The perception of autonomy**

The perception of autonomy was assessed from the physicians' perspective and one sample t test was used to test their opinion. The results showed that the mean of the perception of autonomy was 6.57 and P value 0.000 which is positive. That means that the physicians working in Shifa Hospital perceived that job autonomy was present at a statistical significant level, table (4-3).

Table (4-3) The perception of autonomy among physicians

No.	Items	Mean	SD	t-value	P-value
1)	I have significant autonomy in determining how I do my job	6.75	2.505	3.854	0.000
2)	I have considerable opportunity for independence and freedom in how I do my job.	6.24	2.613	1.162	0.247
3)	If someone else did the job, they could do the tasks in a very different manner than I do	5.96	2.580	-0.181	0.857
4)	I feel I have a lot of control over what I practice.	7.68	2.098	10.278	0.000
5)	I can perform another tasks I think they are not included in my job description	6.50	2.678	2.391	0.018
6)	The work itself provides a lot of clues about what the incumbent should do to get the job done	7.35	2.089	8.248	0.000
7)	As a physician I feel that I practice autonomy more than other professions	5.57	2.889	-1.892	0.060
	Total	6.57	1.437	5.040	0.000

Critical value of **t** at df "160" and significance level 0.05 equals 1.97

- **The level of technical autonomy**

To test the level of technical autonomy among physicians we used one sample t test and the result showed that the mean was 7.13 and P value 0.000 which is positive, so the level of technical autonomy was positive among physicians working in Shifa Hospital at a statistical significant level, table (4-4).

Table (4-4) The level of technical autonomy among physicians

No.	Items	Mean	SD	t-value	P-value
1.	I can decide on my own how to go about doing my work	7.08	2.504	5.535	0.000
2.	The job is quite simple and repetitive	5.94	2.752	-0.256	0.798
3.	I have my own standards for practice.	8.03	1.939	13.410	0.000
4.	I am able to set my own management plan.	7.65	2.352	9.001	0.000
5.	I can participate in decisions about the nature of my work	7.31	2.505	6.701	0.000

No.	Items	Mean	SD	t-value	P-value
6.	I do not use standard treatment, if I think it's not suitable for my patient.	7.44	6.106	3.018	0.003
7.	I have complete authority to solve my problem	6.53	2.688	2.549	0.012
8.	I have influence over the way of admitting patients to the ward I work in.	6.91	2.729	4.279	0.000
9.	I have influence on managing the patients in unit.	7.37	2.297	7.648	0.000
	Total	7.13	1.762	8.078	0.000

Critical value of **t** at df "159" and significance level 0.05 equals 1.97

- **The level of administrative autonomy**

To test the level of administrative autonomy among physicians we used one sample t test and the result showed that the mean was 6.07 and P value 0563 which is positive, so the level of administrative autonomy was positive among physicians working in Shifa Hospital but not at a statistical significant level, table (4-5).

Table (4-5) The level of administrative autonomy among physicians

No.	Items	Mean	SD	t-value	P-value
1)	The way the job is performed is influenced a great deal by what others (supervisors، peers, customers, etc.) expect of the incumbent	6.55	2.394	2.945	0.004
2)	The way the job is performed is influenced a great deal by company rules, policies and procedures	7.40	2.549	7.045	0.000
3)	I prefer to hold responsibility	5.45	3.126	-2.241	0.026
4)	It is easy to ask permission to leave early for the day.	5.95	2.982	-0.209	0.834
5)	It is easy to ask permission to come late to work.	5.66	2.971	-1.472	0.143
6)	It is easy to ask permission to change my scheduled duty hours	5.34	3.004	-2.807	0.006
	Total	6.07	1.582	0.580	0563.

Critical value of **t** at df "161" and significance level 0.05 equals 1.97

4.4.2 Second part: Personal factors and job autonomy

For each personal factor, the researcher tested the differences of means between groups of each factor and the level of job autonomy. He used independent samples t test to test the differences of means between groups of each personal factor that has two means and he used one way ANOVA to test the differences of mean between groups of each personal factor that has more than two means, and the results illustrated in table no. (4-6 & 4-7).

Table No. (4-6) Independent samples t test for the differences in the level of job autonomy due to gender and working nature

Personal factor	Groups	N	Mean	Std. Deviation	t-value	P-value
Gender	Male	155	6.673	1.354	0.093	0.926
	Female	10	6.632	1.324		
Working nature	Technical	141	6.635	1.383	0.826	0.410
	Both (Technical &Administrative)	24	6.881	1.125		

Critical value of t at df "163" and significance level 0.05 equal 1.97

1) To test the difference between gender and the level of job autonomy we used the independent samples t test, table (4-6) and the results showed that males had higher level of job autonomy than females (6.67 versus 6.63) but not at a statistically significant level (P-value was greater than 0.05 and the value of t test is less than the value of critical value which equals 1.97). That means that there is there is **no difference** in the respondents about the level of job autonomy among physicians working in Shifa Hospital from their perspectives at significant level $\alpha = 0.05$ due to **gender.**

2) To test the difference between the physicians' working nature and the level of job autonomy we used the independent samples t test, table (4-6) and the results showed that the physicians with technical & administrative working nature together had higher level of job autonomy compared with the physicians with technical working nature alone (6.88 versus 6.64) but not at a statistically significant level (P-value was greater than 0.05). That means there is **no difference** in the respondents about the **level of job autonomy** among physicians working in Shifa Hospital from their perspectives at significant level $\alpha = 0.05$ due to **working nature**.

Table No.(4-7) One way ANOVA test for the differences in the level of job autonomy among physicians due to some personal factors

Personal factor	**Groups**	**N**	**Mean**	**Sources**	**Sum of Squares**	**df**	**Mean Square**	**F value**	**P-Value**
Age	<35 Y	51	6.24	Between Groups	25.638	2	12.819	7.624	0.001
	36-39	57	6.54	Within Groups	272.380	162	1.681		
	>40 Y	57	7.19	Total	298.018	164			
Qualification	Bachelor	71	6.41	Between Groups	14.446	3	4.815	2.734	0.046
	High Diploma	9	6.69	Within Groups	283.573	161	1.761		
	Master	60	6.99	Total	298.018	164			
	PHD	25	7.26						
Job title	General Practitioner	69	6.42	Between Groups	12.877	2	6.438	3.658	0.028
	Specialist	76	6.72	Within Groups	285.142	162	1.760		
	Head of department	20	7.32	Total	298.018	164			
Department	Surgical	90	6.61	Between Groups	1.571	2	0.785	0.429	0.652
	Medical	44	6.66	Within Groups	296.448	162	1.830		
	Maternity	31	6.87	Total	298.018	164			
Experience	1-4Y	21	6.04	Between Groups	17.164	3	5.721	3.280	0.022
	5-9Y	51	6.60	Within Groups	280.854	161	1.744		
	10-14Y	51	6.63	Total	298.018	164			
	>15 Y	42	7.12						

3**)** To test the difference between age groups and the level of job autonomy we used one way ANOVA test and the results illustrated in table no.(4-7) which showed that the older age group had higher level of job autonomy (means are 7.19, 6.54 and 6.24 for age groups older than 40 years, 36 to 39 years and younger than 35 years respectively) at a statistically significant level (P-value 0.001 for the level of job autonomy and the value of F test is greater than the value of critical value which equals 3.05). That means there is **a difference** in the respondents about the **level of job autonomy** among physicians working in Shifa Hospital at significant level $\alpha = 0.05$ due to **age.**

4**)** To test the difference between physicians' qualification and the level of job autonomy we used one way ANOVA test and the results in table no. (4-7) showed that the higher qualification had higher level of autonomy (7.26, 6.99, 6.69 and 6.41 for PHD, master, high diploma and bachelor respectively) at a statistically significant level (P-value 0.046 and the value of F test is greater than the value of critical value which equals 2.66). That means there is **a difference** in the respondents about **the level of job autonomy** among physicians working in Shifa Hospital at significant level $\alpha = 0.05$ due to **Qualification.**

5**)** To test the difference between the job title of physicians and the level of job autonomy we used one way ANOVA test and the results in table no. (4-7) showed that the higher managerial position represented by higher job title had higher level of job autonomy (means are 7.32, 6.72 and 6.42 for the head of departments, specialists and general practitioners respectively) at a statistically significant (P-value 0.028 and the value of F test is greater than the value of critical value which equals 3.05). That means there is **a statistical significance difference** in the respondents about the **level of job autonomy** among physicians working in Shifa Hospital at significant level $\alpha = 0.05$ due to **job title.**

6**)** To test the difference between the departments of physicians and the level of job autonomy we used one way ANOVA test and the results in tables no. (4-7) showed that the maternity hospital had higher level of autonomy than the medical hospital which in turn had higher level of autonomy than the surgical hospital (means are 6.87, 6.66 and 6.61 respectively) but not at a statistically significant level (P-value 0.652 and the value of F test less than the value of critical value which equals 3.05). That means there is **no difference** in the respondents about the **level of job autonomy** among physicians working in Shifa Hospital at significant level $\alpha = 0.05$ due to **department.**

7) To test the difference between the overall years of experience and the level of job autonomy we used one way ANOVA test and the results in tables no. (4-7) showed that the higher years of experience had the higher level of job autonomy (7.12, 6.63, 6.60 and 6.04 for experience groups over than 15 years, 10-14 years, 5-9 years and 1-4 years respectively) to a statistically significant level (P-value 0.022 and the value of F test is greater than the value of critical value which equals 3.05. That means there is **a difference** in the respondents about **the level of job autonomy** among physicians working in Shifa Hospital at significant level $\alpha = 0.05$ due to **overall years of experience**

8) Abilities and Skills

We used one sample t test to test if the opinion of the respondents in the content of the sentences are positive (mean greater than "6" and the P-value less than 0.05) or the opinion of the respondents in the content of the sentences are neutral (P-value was greater than 0.05) or the opinion of the respondents in the content of the sentences are negative (mean less than "6" and the P-value less than 0.05). Table no. (4-8) showed the results of the opinion of the respondents about the Abilities and Skills. The average mean of the **Abilities and Skills** was **8.11** which is higher than 6 and the value of t test equals 22.551 which is greater than the critical value which equals 1.97, and the P-value equals 0.000 which is less than 0.05, that means the Abilities and Skills of the participants are high at a statistically significant level.

Table (4-8) Abilities and Skills (one sample t test)

No.	Items	Mean	standard deviation	t-value	P-value
1	I have the required level of skills to solve problems I face in my work	8.07	1.455	18.300	0.000
2	I have high level of skills for making decisions in an effective goal-oriented way.	8.02	1.558	16.693	0.000
3	I have the required level of skills for organizing and performing tasks	8.29	1.473	19.972	0.000
4	I have the required level of skills that fit my current position.	8.34	1.403	21.413	0.000
5	I am capable of handling stress calmly and collectedly**.**	7.83	1.759	13.368	0.000
	Total	8.11	1.202	22.551	0.000

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

The correlation between abilities & skills and the level of autonomy

The correlation coefficient between abilities & skills and the level of autonomy among physicians is 0.407 and P-value 0.000, which means there is a statistically significant relationship between the level of skills and the level of job autonomy table (4-9).

Table (4-9) The correlation coefficient between
Abilities & skills and the level of autonomy

	Abilities and Skills
Pearson Correlation	0.407(**)
Sig. (2-tailed)	.000
N	165

Table (4-10) Summary of means of the level of job autonomy according to personal factors

No.	Item		Means	P-Value
1)	Gender	Male	6.673	0.926
		Female	6.632	
2)	Age	Less than 36 years	6.24	0.001
		36 to less than 40 years	6.54	
		40 years and over	7.19	
3)	Job title	General Practitioner	6.42	0.028
		Specialist	6.72	
		Head of department	7.32	
4)	The work nature	Technical	6.635	0.410
		Tech.& Administrative	6.881	
5)	Department of work	Surgery	6.61	0.652
		Medical	6.66	
		Maternity	6.87	
6)	Qualification	Bachelor	6.41	0.046
		High diploma	6.69	
		Master	6.99	
		PHD	7.26	
7)	Overall years of experience	1-4 years	6.04	0.022
		5-9 years	6.60	
		10-14 years	6.63	
		15 years and More	7.12	

4.4.3 Third : Organizational factors and job autonomy

For each field of the organizational factors we used one sample t test to test if the opinion of the respondents in the content of the sentences are positive (mean greater than "6" and the P-value less than 0.05) or the opinion of the respondents in the content of the sentences are neutral (p- value is greater than 0.05) or the opinion of the respondents in the content of the sentences are negative (mean less than "6" and the P-value less than 0.05). Then to test the relationship between the organizational factors and the level of job autonomy we used the correlation coefficient between each organizational factor and the level of job autonomy.

1. **Organizational structure**

   The mean of each item of the organizational structure are shown in table no. (4-11). The average mean was 6.38 and the value of t test equals 2.964 which is greater than the critical value which equals 1.97 and the P-value equals 0.003 which is less than 0.05, that means that there is a relationship between organizational structure in the Shifa Hospital and practicing autonomy.

   The opinion of the respondents ranged for the different statements, some showed positive results such as the work in the hospital is based on departmentalization and specialization, at mean 8.15 and P-value equals 0.000, the work in the hospital is usually routine at mean 8.07 and P-value equals 0.000 and the work nature in the hospital is formalized at mean 7.73 and P-value equals 0.000. On the other hand some items showed negative results such as the management style in the hospital doesn't adequately support the practice of autonomy from their perspectives at mean 4.87 and P-value 0.000, there was no adequate transparency in practicing autonomy in the hospital at mean 4.87 and P-value 0.000 and there was no sufficient delegation in making decisions at mean 4.88 and P value 0.000.

Table (4-11) Organizational structure (one sample t test)

No.	Items	Mean	Standard deviation	t-value	P-value
1	The work in the hospital is based on departmentalization and specialization	8.15	2.341	11.775	0.000
2	The work nature in the hospital is formalized	7.73	2.432	9.154	0.000
3	The work in the hospital is based on written rules and regulations	6.64	2.824	2.922	0.004
4	The physicians are committed to work with these rules and regulations	6.02	2.743	0.114	0.910
5	The decision making process follows a systematic and an organized approach	5.01	2.894	-4.384	0.000
6	The decision making process is centralized	6.20	2.730	0.941	0.348
7	There a sufficient delegation in decision making	4.88	2.620	-5.454	0.000
8	The chain of command (authority) in the hospital is hierarchal	6.61	2.877	2.706	0.008
9	There is good respect to this style of authority	5.87	2.827	-0.606	0.546
10	There is a unity of command (one person is responsible for me)	7.19	2.977	5.126	0.000
11	The work in the hospital is usually routine	8.07	2.129	12.508	0.000
12	The hospital structure supports the practice of autonomy	5.42	2.700	-2.748	0.007
13	The management style in the hospital supports the practice of autonomy	4.87	2.627	-5.528	0.000
14	There is transparency in practicing autonomy in the hospital	4.87	2.896	-5.028	0.000
15	A good relationship with the direct manager enables me to practice more autonomy	7.52	2.503	7.808	0.000
16	My direct manager supports me in making decisions	6.53	2.766	2.448	0.015
17	The department I work in enables me to work more autonomously than other departments	6.89	2.698	4.241	0.000
	Total	6.38	1.657	2.964	0.003

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the organizational structure

To test the relationship between the organizational structure in Shifa Hospital and the level of job autonomy we used the correlation coefficient between the organizational structure in Shifa Hospital and the level of job autonomy which was 0.550 and P-value 0.000, that means there is a statistically significant relationship between the level of autonomy and the organizational structure (table 4-12).

Table (4-12)The correlation coefficient between
the organizational structure and the level of autonomy

	The organizational structure
Pearson Correlation	0.550(**)
Sig. (2-tailed)	.000
N	165

** Correlation is significant at the 0.01 level (2-tailed).

The level of Bureaucratization of the Shifa Hospital

To test the level of bureaucratic structure of Shifa Hospital from the physicians' perspective we calculated the average of questions No 39, 40, 41, 44, 46, 48 and 49 in questionnaire which represent the characteristic features of the bureaucratic Structure Table (4-13), the average is 7.23 which is greater than 6 but still below 8, that means the structure of Shifa Hospital is high but to a moderate level.

Table (4-13) Characteristic features of the bureaucratic structure

No.	Items	Mean	SD	P-value
39	The work in the hospital is based on departmentalization and specialization	8.15	2.34	0.000
40	The work nature in the hospital is formalized	7.73	2.43	0.000
41	The work in the hospital is based on written rules	6.64	2.82	0.004
44	The decision making process is centralized	6.20	2.73	0.348
46	The chain of command in the hospital is hierarchal	6.61	2.88	0.008
48	There is a unity of command	7.19	2.98	0.000
49	The work in the hospital is usually routine	8.07	2.13	0.000
Total		7.23	1.57	0.000

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the level of Bureaucratization

The correlation coefficient between the level of autonomy and the level of Bureaucratization of the organizational structure is 0.438 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and this level of Bureaucratization in the organization, table (4-14).

Table (4-14) The correlation coefficient between the level of autonomy and the level of Bureaucratization of the organization

	Average of Bureaucratization
Pearson Correlation	0.438 (**)
Sig. (2-tailed)	0.000
N	164

** Correlation is significant at the 0.01 level (2-tailed).

2) Job description

The means of each item of the organizational structure are shown in table no. (4-15). The average mean was 6.47 and the value of t test equals 3.895 which is greater than the critical value which is 1.97 and the P-value equals 0.000 which is less than 0.05, that means the physicians believe that the job description is present at a statistically significant level.

Table (4-15) Job description (one sample t test)

No.	**Items**	**Mean**	**Standard deviation**	**t-value**	**P-value**
1	The presence of job description is an important issue	7.72	2.707	8.139	0.000
2	The presence of job description influences the level of job autonomy	6.75	2.885	3.319	0.001
3	The presence of job description decreases the practice of autonomy	3.30	2.410	-14.41	0.000
4	I have clear job description	6.28	2.955	1.238	0.217
5	I know my rights and responsibility in the work adequately	7.38	2.651	6.666	0.000
6	I know how my work contributes to overall hospital objectives	7.40	2.523	7.119	0.000
	Total	6.47	1.536	3.895	0.000

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the Job description

The correlation coefficient between the level of autonomy and the job description in the organizational structure is 0.343 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and the job description the organization, table (4.16).

Table (4-16) The correlation coefficient between the level of autonomy and job description

	Job description
Pearson Correlation	0.343 (**)
Sig. (2-tailed)	0.000
N	164

** Correlation is significant at the 0.01 level (2-tailed).

3) Accountability

The means of each item of the organizational structure are shown in table no. (4-17). The average mean 6.05 and the value of t test equals 0.399 which is less than the critical value which equals 1.97 and the P-value equals 0.691 which is greater than 0.05, that means that accountability system is present but not to a statistically significant level.

Table (4-17) Accountability (one sample t test)

No.	**Section**	**Mean**	**Standard deviation**	**t-value**	**P-value**
1	The presence of accountability system is an important issue	8.48	2.418	13.198	0.000
2	The presence of accountability system influences the practice of autonomy	6.85	2.979	3.659	0.000
3	The presence of accountability system limits the practice of autonomy	5.90	2.931	-0.451	0.652
4	There is an effective accountability system in the hospital	5.30	2.783	-3.198	0.002
5	Feedback is received on good performance	4.20	2.805	-8.243	0.000
6	Feedback is received on poor performance.	5.48	2.789	-2.346	0.020
	Total	6.05	1.536	0.399	0.691

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the Accountability

The correlation coefficient between the level of autonomy and the accountability system in the organizational structure is 0.309 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and accountability system in the organization, table (4-18).

Table (4-18) The correlation coefficient between the level of autonomy and Accountability

	Accountability
Pearson Correlation	0.309 (**)
Sig. (2-tailed)	0.000
N	165

** Correlation is significant at the 0.01 level (2-tailed).

4) Teamwork

The means of each item of the organizational structure are shown in table no. (4-19). The average mean 7.55 and the value of t test equals 12.881 which is greater than the critical value which equals 1.97 and the P-value equals 0.000 which is less than 0.05, that means that teamwork is present at a mean 7.55 at a statistically significant level.

Table (4-19) Teamwork (one sample t test)

No.	**Section**	**Mean**	**SD**	**t-value**	**P-value**
1	The work in a team enables me to participate in important decisions related to managing patients.	8.05	2.432	10.822	0.000
2	I benefit from the different ideas about management in my team.	8.31	2.281	13.004	0.000
3	The system of consultation is better than working individually	8.73	1.871	18.763	0.000
4	Work in teams leads to a higher level of job autonomy	8.24	2.136	13.485	0.000
5	I work in the hospital in a team	6.18	3.688	0.633	0.527
6	There is high level of cooperation among the different units in the hospital	5.64	2.721	-1.688	0.093
7	I have a good relationship with other professions in the hospital	7.67	2.183	9.759	0.000
	Total	7.55	1.542	12.881	0.000

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the Teamwork

The correlation coefficient between the level of autonomy and the teamwork in the organizational structure is 0.525 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and teamwork in the organization, table (4-20).

Table (4-20) The correlation coefficient between the level of autonomy and Teamwork

	Teamwork
Pearson Correlation	0.525 (**)
Sig. (2-tailed)	0.000
N	165

** Correlation is significant at the 0.01 level (2-tailed).

5) Standardization

The means of each item of the organizational structure are shown in table no. (4-21). The average mean 5.74 and the value of t test equals -2.183 which is greater than the critical value which equals 1.97 and the P-value equals 0.03 which is less than 0.05, that means that there is no sufficient standardization of work at a statistically significant level and no satisfactory commitment to the standards of work.

Table (4-21) Standardization (one sample t test)

No.	**Section**	**Mean**	**SD**	**t-value**	**P-value**
1	The presence of standardization is an important need	8.37	2.193	13.883	0.000
2	The presence of standardization influences the practice of autonomy	6.70	3.048	2.920	0.004
4	There is standardization of work in the hospital	5.39	2.731	-2.879	0.005
5	There is a good commitment to these standardization of work	5.47	2.647	-2.588	0.011
6	There is a continuous update of these standards	4.90	2.777	-5.065	0.000
3	The presence of standardization decreases the practice of autonomy in the hospital	3.72	2.648	-11.03	0.000
	Total	5.74	1.511	-2.183	0.030

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the Standardization

The correlation coefficient between the level of autonomy and the Standardization in the organizational structure is 0.329 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and Standardization in the organization, table (4-22).

Table (4-22) The correlation coefficient between the level of autonomy and standardization

	Standardization
Pearson Correlation	0.329 (**)
Sig. (2-tailed)	0.000
N	162

** Correlation is significant at the 0.01 level (2-tailed).

6) Patient safety

The means of each item of the organizational structure are shown in table no. (4-23). The average mean 6.14 and the value of t test equals 1.217 which is lower than the critical value which equals 1.97 and the P-value equals 0.225 which is greater than 0.05, that means there is presence of policy concerning the health and safety of patients but not to a statistically significant level and the health and safety of patients is promoted but not to a statistically significant level.

Table (4-23) Patient safety (one sample t test)

No.	**Section**	**Mean**	**SD**	**t-value**	**P-value**
1	The presence of clear policy concerning the health and safety of patients is an essential need	8.22	2.692	10.586	0.000
2	The health and safety of patients is adequately promoted.	6.22	2.790	1.032	0.303
3	Physicians are involved in the issues concerning the health and safety concept	5.82	2.842	-0.822	0.412
4	I understand the legislation that governs health and safety concept.	6.42	2.721	1.974	0.050

No.	Section	Mean	SD	t-value	P-value
5	The presence of policy concerning the health and safety of patients influences the practice of autonomy	5.93	3.074	-0.279	0.780
6	The presence of policy concerning the health and safety of patients decreases the level of job autonomy	4.25	2.881	-7.782	0.000
	Total	6.14	1.497	1.217	0.225

Critical value of **t** at df "163" and significance level 0.05 equals 1.97

Correlation between the level of autonomy and the Patient safety

The correlation coefficient between the level of autonomy and the Patient safety in the organizational structure is 0.331 and P-value 0.000 that means there is a statistically significant relationship between the level of autonomy and Patient safety in the organization, table (4-24).

Table (4.24) The correlation coefficient between the level of autonomy and Patient safety

	Patient safety
Pearson Correlation	0.331 (**)
Sig. (2-tailed)	0.000
N	164

** Correlation is significant at the 0.01 level (2-tailed).

Summary of the relationship between organizational factors and job autonomy

For each field of the organizational factors we used one sample t test to test if the opinion of the respondents in the content of the sentences are positive (mean greater than "6" and the P-value less than 0.05), then to test the relationship between the organizational factors and the level of job autonomy we used the correlation coefficient between each organizational factor and the level of job autonomy.

We came to a conclusion that the organizational factors (teamwork, organizational structure, job description, standardization, patient safety and accountability) had a statistically significant relationship with the level of job autonomy. **Teamwork** with the highest mean (7.55 and P value 0.000) had a positive relationship with the level of autonomy, the **bureaucratic level** of the organization at mean 7.23 and P value 0.000 had also positive relationship with the level of autonomy. The **job description** which was present at a mean of 6.47 and P value 0.000 had a positive relationship with the level of autonomy as well. **Organizational structure** at a mean 6.38 and P value 0.003 had a positive relationship with the level of autonomy. **Patient safety** was present at a mean 6.14 but not at a statistical significant level (P value 0.225) and had a statistically significant relationship with the level of autonomy. **Accountability** was present with a mean 6.05 but not at a statistical significant level (P value .691) and had a positive relationship with the level of autonomy. **Standardization** was not present sufficiently, its mean was 5.74 and P value 0.030 and had a relationship with the level of job autonomy table (4-25).

Table (4-25) Organizational factors and the relationship with job autonomy

No.	Section	Mean	Pearson Correlation	P-value
1.	Organizational structure	6.38	0.550	0.000
2.	Teamwork	7.55	0.525	0.000
3.	bureaucratic level	7.23	0.438	0.000
4.	Job description	6.47	0.343	0.000
5.	Patient safety	6.14	0.331	0.000
6.	Standardization	5.74	0.329	0.000
7.	Accountability	6.05	0.309	0.000

4.5 Discussion

4.5.1 The level of Job Autonomy

Three main domains (the perception of job autonomy, the technical and administrative ones) were measured individually to assess their level among physicians working in Shifa Hospital, and the level of autonomy was assessed as a whole for all these domains together.

The perception of job autonomy among physicians was measured by using a 7 item scale exploring their feeling about the presence of job autonomy. The technical aspect of job autonomy among physicians was assessed by using a 9 item scale concerning their decisions and contribution to the management plan at the operational level regarding the patient care. While the administrative aspect of job autonomy among physicians was assessed by using a 6 item scale involving some administrative decisions at the operational level of daily practice.

The mean of overall level of job autonomy was found at a mean 6.67 and P-value 0.000. Dobbin & Boychuk (1999) studied the score of job autonomy among 25 occupations. In their study the scale ranged from 0 to 5 with an average mean of 1.45. The score ranged from 0.41 for the transportation workers to 3.94 for University teachers and social scientists. The score for physicians and dentists was 3.93 (7.86 out of 10). The result of this study (6.67) is lower than their one (7.86). This difference could be attributed to a non unified scale of autonomy or to the environmental and demographic changes.

The highest score of job autonomy among physicians regarding the studied domains was for the technical one (mean 7.13 and P value 0.000), this may reflect their interest and their competence regarding the technical issues and may be attributed to their nature of job as a profession. This is consistent with Hoyle (1980), who stated that the presence of high level of autonomy is one of the features of a profession. While the lowest score was for the administrative aspect (mean 6.07 and P value 0.563), this may reflect lack of interest about the administrative issues or some restriction of rules and legislation in the organization. Their perception of presence of job autonomy was found at a mean 6.57 and P value 0.000, which was close to the overall level of job autonomy (6.67), this may indicate an approximate level between their feeling and the reality.

4.5.2 Personal factors and job autonomy

- **Gender**

The majority of the physicians working in the Shifa Hospital are males 94% versus 6% females, the mean for the job autonomy was slightly higher among males but not at a statistical significant level (means are 6.67 for males and 6.63 for females and P-value 0.93). So gender is not a determinant of job autonomy in this study. And this result is expected as the medicine as a profession depends mostly on qualification, experience and skills which all could be found among both males and females in a similar levels. This finding is also consistent with Choi (2005) and Rhorer (1989), who found that gender failed to influence job autonomy in his study.

- **Age**

The level of job autonomy has reached a statistical significant level among **age** groups of the physicians (P-value 0.001 and means are 6.24, 6.54 and 7.19 for the age groups less than 36 years, 36 to less than 40 years and 40 years and over respectively). This finding is inconsistent with Rhorer (1989) who found that the age has not a statistical significant relationship with autonomy, and counteracts the result of Dobbin & Boychuk (1999) who found that autonomy peaks at age 40 before declining gradually. This could be explained as their study involved about 25 occupations and many of them could be physical or technical, while in our case, the profession of medicine is expected to be characterized by higher level of autonomy among the older as they may get more experience or skills and possibly a higher qualification by advancing in age.

- **Qualification**

The level of job autonomy varies significantly with **qualification** (means were 6.41 for Bachelor degree, 6.99 for High diploma, 6.69 for Master degree and 7.26 for PHD degree and P-value 0.046). This result is consistent with Choi (2005) and Rhorer (1989), who found that education statistically significant increases the level of autonomy. This result also is consistent with Hansen (2003), who found that the corner stone for practicing autonomy were highest skills and best qualification. So we can conclude that qualification as a body of theoretical knowledge which is considered as a feature of profession was a positive determinant that can help in practicing more autonomy among physicians.

- **Experience**

The overall years of **experience** showed a statistical significant level of difference among physicians, (p- value is 0.022 and the means were 6.04, 6.60, 6.63 and 7.12 for the groups of overall years of experience 1-4 years, 5-9 years, 10-14 years and 15 years and more respectively. These results are consistent with literature, education, measured as years of schooling, shows a consistent, positive, effect on autonomy (Dobbin & Boychuk, 1999) and Human capital theorists suggest that individuals with the greatest human capital (in terms of ability, education, and experience) will be most productive (Coleman, 1988), productive workers will carry the highest levels of autonomy. Rhorer (1989) found that there was interaction between qualification and experience and they increased autonomy score at a statistically significant level. Choi (2005) also found that training (which is closely represented as experience in our setting) influences autonomy positively.

- **Managerial position**

When comparing the means of level of job autonomy according to **job title** (as closely represents the managerial position) we have found that there statistical significant level among to physicians' job title (means are 6.42 for General Practitioner, 6.72 for Specialist and 7.32 for Head of department and P-value 0.028). This result is consistent with Dobbin & Boychuk study (1999); Choi (2005) who found that managerial status showed strong, consistent, effects on autonomy in these models, with upper managerial status producing the largest positive coefficients, followed by middle managerial and supervisory status. This also could be interpreted as head of departments are capable to practice higher level of autonomy as they have both higher level of qualification and authority and those who are specialists have higher level of qualification as well than general practitioners, so this could attribute to higher level of autonomy.

- **Abilities and skills**

Abilities and skills were the most important personal factors that were significantly correlated to the level of job autonomy with correlation coefficient 0.407, mean 8.11 and P-value 0.000, which means there was a statistically significant relationship between the level of skills and the level of job autonomy. This high level can make physicians more competent and gives them higher level of self confidence which in turn increases the level of autonomy in general. This result is consistent with Braveman's one who believes that workers' skills are linked to job autonomy, and the distribution of skills and autonomy in

jobs is primarily a function of workplace design (Braveman, 1974). The result is also consistent with Hansen (2003), McKay (1983) who based the practice of autonomy on a complex body of knowledge and skills and Wright (1997), who theoretically defines that skills and expertise designate an asset embodied in the labor power of people.

- **Departments**

When comparing the level of job autonomy among the departments, we found that there is no statistical significance in the difference between **departments** (means were 6.87, 6.66 and 6.61 for the maternity, medical and surgical hospital respectively and P-value 0.65). Although it was expected to find a higher level among physicians is surgical hospital as the type of their cases (emergency, crises and need for early decisions), this could be attributed to approximately similar level of personal variables (skills, qualification and experience) or the similarity in managerial style for each hospital and the Shifa Hospital as a whole. There is no a statistically significant difference among physicians about the level of job autonomy due to **working nature** (mean 6.34 for technical work and 6.88 for both technical & administrative and P-value 0.41 and there was no pure administrative work).

4.5.3 Organizational factors and job autonomy

The main organizational factors that have been studied and have relationship with job autonomy are organization structure, job description, accountability, standardization, patient safety and teamwork.

Organizational structure at a mean 6.38 and P value 0.003 had a higher correlation coefficient (r 0.550 and P value 0.000) with the level of autonomy. The presence of relationship between the structure and the level of autonomy is logic, as the structure and culture of the organization are the main determinants of the autonomy in the organization (Marcia, 2006). The mean of bureaucratization of the hospital with the main features of the bureaucratic structure (specialization, formalization, rules and regulations, centralization, hierarchal chain of command, unity of command and routine work) was 7.23 which means that the structure is moderately bureaucratized (positive level but was not too much high). When this level of bureaucratization was correlated to the level of job autonomy it was statistically significant (correlation coefficient 0.438 and P-value 0.000). This result is consistent with Engel, (1970) who stated that professionals associated with the moderately

bureaucratic setting are most likely to have higher level of autonomy and differs with Edwards (1973) who argues that bureaucratization is employed as a control device and Clawson, (1980); Perrow, (1986) who observe that bureaucratization tends to reduce job autonomy.

Although the level of organizational structure is moderately bureaucratized, there are some points to be discussed. The basis of written rules and regulations of work was found to be low when compared to other features of structure (mean 6.64) and the commitment of physicians to work with these rules and regulations was lower (mean 6.02). This could need more concern on these points especially in a large organization such as Shifa Hospital to get better control and outcomes. The participants feel that the decision making process follows a systematic and organized approach at a mean 5.01, which is low regarding an important issue like decision making. The management style has been seen to support autonomy practice at a mean 4.87 and the hospital structure did support autonomy practice at a mean 5.42, from their perspectives. These results contradict the presence of positive level of autonomy (6.67) which has been found, and this could reflect misjudgment or misunderstand which requires further justification.

Teamwork (which present at a mean 7.55 and P-value 0.000) was one of the most important organizational factors that have relationship with job autonomy (r 0.550 and P-value 0.000). In more details, the participants thought that work in teams leads to a higher level of job autonomy at a mean 8.24 and P-value 0.000, on the other hand, the lowest score was for assessing the level of cooperation among the different units in the hospital with mean 5.64 and P-value 0.093. The work in teams can empower the employees and gives them more confidence, so they can practice more autonomy on the base of team support. It is notable to say that the participants have a good relationship with other professions in the hospital (mean 7.67 and P-value 0.000).

These findings are consistent with the literature, where Simon (2008) mentioned that there is greater emphasis on team oriented medicine, and Surowiecki (2004) asserted that teams make wise decisions when there is diverse and independent input. And when linking teamwork with autonomy, Appelbaum and Batt, (1994) stated that autonomous power of team workers should be higher relative to similarly skilled workers and Rafferty, et al. (2001) asserted that when there are both high levels of work autonomy and

interdisciplinary teamwork, work-assessed quality of care is also higher. However, Choi (2005) concluded that team work does not predict job level autonomy in her study.

Job description which was present at a mean of 6.47 and P value 0.000, had a positive relationship with the level of autonomy (r 0.343 and P value 0.000). This positive relationship is inconsistent with the previous studies, where Blau and Schoenherr (1971) and Pugh et al. (1969) find that large organizations are most likely to adopt written job descriptions that diminish job autonomy and subsequent studies have confirmed their results ((Dobbin & Boychuk 1999). The job description usually limits the practice of autonomy as it makes boundaries for work and determine the scope of practice which relatively restricts job autonomy. This result reflects confusion of the physicians regarding this issue or perception of this issue in such a manner. This confusion could be explained as they didn't have a full detailed or they didn't read their job description properly.

Accountability was present at a mean 6.05 but not at a statistical significant level (P value 0.691) and had a positive relationship (r 0.309 and P value 0.000) with the level of autonomy. Its presence was low in comparison to the physicians' believe (they thought that the presence of accountability system is an important issue at a mean is 8.48 and P-value 0.000). The positive correlation of accountability with the job autonomy is inconsistent with Kathryn, et al. (1998) who asserted that the person must be prepared to accountability and Maas & Jacox (1977) argued that accountability will limit autonomy. This inconsistent result may indicate weak application of the accountability system or weak implementation of the decisions that have been made.

Patient safety was present at a mean 6.14 but not at a statistical significant level (P value 0.225) and had a statistically significant relationship with the level of autonomy (r 0.331 and P value 0.000). This positive relationship is against Simon' opinion (2008) who stated that a central drive to improve patient safety and quality is standardizing the delivery of health care. Although the health and safety of patients is adequately promoted at a mean 6.22 and P-value 0.303 and the participants thought that they were involved in the issues concerning the health and safety concept in a lesser extent at a mean 5.82 and P-value 0.412. This positive result may indicate that the respect for patient safety when practicing medicine is not fully maximized and this need better concentration on this important issue.

Standardization was not present sufficiently, its mean was 5.74 and P value 0.030 and it had a positive relationship with the level of job autonomy (r 0.329 and P value 0.000). This results is inconsistent with the belief that clinical practice guidelines and standardization shifted the focus of professional power from autonomy to accountability and authority has been brought to the guidelines (Timmermans, 2005). This inconsistent results may reflect misjudgment of the participants rather than their actual belief from the researcher's point of view as they thought that the presence of standardization is an important need (mean was 8.37 and P-value 0.000). And this could be explained also by weak commitment for these standards which makes them practice more autonomously.

It's notable to mention other points regarding the organizational structure. Some organizational factors are thought very important to be present, but they aren’t highly present from the participants' point of view like job description, accountability, teamwork, standardization of work and involvement of physicians in the issues concerning the health and safety concept.

The mean for the level of cooperation among the different units in the hospital was 5.64 compared with the mean 8.73 for those who believe that the system of consultation is better than working individually. The presence of standardization was at a mean 5.74 although its necessity was 8.37 from the physicians' perspectives. Patient safety was adequately promoted in an average 6.22 and the physicians are involved in the issues concerning the health and safety concept in average 5.82, although it has been seen as an essential issue in an average 8.22. A need for further research covering a longer time period with a wider range of conditions could reveal some new insight.

Chapter 5: Conclusion and Recommendation

5.1 **Conclusion**

According to the framework of the research (figure 2-1), the objective of this research is to assess the level of the job autonomy among physicians working in Shifa Hospital, to test if there are significant differences due to personal factors (age, gender, academic qualification, abilities & skills, years of experience and managerial status) between the respondents concerning job autonomy and to test if there is relationship between organizational factors (organizational structure**,** job description, standardization, accountability, patient safety and teamwork) and job autonomy.

The level of job autonomy among physicians working in Shifa Hospital was present at a mean 6.67 and P-value 0.000. The highest score of job autonomy among physicians regarding the studied domains was for the technical one (mean 7.13 and P value 0.000), then the perception of job autonomy among physicians (mean 6.57 and P-value 0.000). On the other hand, the lowest score was recorded for the administrative aspect of autonomy (mean 6.07 and P-value 0.563). There is no statistical significance in the difference of the level of autonomy between departments (means are 6.87, 6.66 and 6.61 for the maternity, medical and surgical hospital respectively and P-value 0.65).

The highest mean of the personal factors among physicians working in Shifa Hospital was for the abilities and skills, which represented 8.11 and P-value 0.000, and they had a positive relationship with the job autonomy (correlation coefficient 0.407 and P value 0.000). The second highest mean was for head of department at a mean 7.32 and P-value 0.028 then the PHD degree holders at a mean 7.26 and P value 0.046. The age older than 40 years had a mean 7.19 and P value 0.001, and the experience more than 15 years had a mean 7.12 and P value 0.022.

On the other hand, other personal factors such as gender, department of work and working nature didn't show a statistically significant differences of the means. No differences in the means of gender concerning job autonomy between male and female at a statistical significant level, male had a mean of 6.67 and female had a mean of 6.63 and P-value 0.926. The department of work had means of 6.87, 6.66 and 6.61 for the maternity, medical and surgical hospitals respectively, but not at a statistical significant level. The working

nature had a mean 6.88 for the physicians with technical & administrative nature together while a mean 6.63 for the technical working nature alone but not at a statistical significant level (P value 0.410).

Organizational factors that have been studied (organizational structure**,** level of bureaucracy, job description, standardization, accountability, patient safety and teamwork) were found to be present at different levels. **Teamwork** was found to be present with the highest mean (7.55 and P-value 0.000), **job description** was present at a mean 6.47 and P-value 0.000. **Patient safety** was present at a mean 6.14 but not at a statistical significant level (P-value 0.225). The level of bureaucracy of the organizational structure was 7.23 and P-value 0.000. **Accountability** was present at a mean 6.05 but not at a statistical significant level (P-value 0.691). **Standardization** was not adequately present (mean 5.74 and P-value 0.030).

All the organizational factors which have been studied had a positive relationship with the level of job autonomy at a statistical significant level. The organizational structure had the highest correlation coefficient with the job autonomy (r 0.550 and P-value 0.000) then teamwork (r 0.525 and P-value 0.000). The bureaucratic level had correlation coefficient 0.438 and P-value 0.000. Other variables (job description, patient safety, standardization and accountability) showed also positive relationship with the job autonomy at a statistical significant level with close correlation coefficient (r 0.343, 0.331, 0.329 and 0.309 respectively and P-value 0.000 for all.

The physicians' perspectives regarding job description, patient safety, accountability and standardization to have a positive relationship with the job autonomy did contradict the previously mentioned studies and literature. This may reflect misunderstanding of the participants about the organizational issues which needs further exploration and investigations to answer this contradiction.

5.2 Recommendations

It was not surprising to find a positive level of job autonomy among physicians (as professionals) working in Shifa Hospital, although the administrative aspect showed the lowest level of autonomy. Most of the personal factors are expected to be determinants of level of autonomy to variable degrees, but there are many organizational factors have been misinterpreted by the participants or perceived in such way by them. These points need to be better probed and detailed in further future studies to answer this contradiction. According to the main two dimensions of this study (personal and organizational ones), the researcher concluded a set of recommendations according to the previously discussed results especially as regards to the organizational issues.

At the personal level

Most of the studied personal variables showed accepted results, however, some recommendations are provided to enhance and promote these factors like such as:

- To ensure and enhance the physicians' abilities and skills by continuous direct supervision and emphasis on the job training.
- To promote the continuous education program through regular lectures to increase their knowledge and experience.
- To encourage physicians to get higher certification and qualification, this could promote and develop their competence and ultimately improve their performance.
- To promote a balanced level between the administrative and technical aspects of autonomy to encourage the use of best capacities of the physicians in order to improve their performance.

At the organizational level

- To maximize the standardization of work especially in light of continuous update in technology and medicine, this could reduce medical errors and improve the patient safety and health outcome. Standardization could be maximized by involving physicians in developing and application of these standards to match the local situations, make them know the process by which they are developed and explaining the evidence supporting the risks, benefits, and costs to their patients.

- To ensure a higher level of commitment for these standards, as standards may limit autonomy practice as was mentioned previously. The commitment could be achieved by focusing on indirect activities, such as monitoring and improving quality or participation in improvement efforts.
- To activate the accountability system in the hospital in order to improve the performance through a balanced level of autonomy and to give feedback and recognition especially for good performance.
- To encourage more cooperation between teams and to emphasis on teamwork, and to promote the system of consultations especially in the presence of specialization. This could result in a better health services and ultimately health outcome. This may be attained by holding a weekly meeting for the whole department to discuss the complicated issues and to offer new ideas about getting the work done more effectively.
- To involve the physicians in the decision making process whenever possible and to emphasis on decentralization especially in the presence of such level of bureaucratization. These steps need the staff to be more oriented and better understand their roles in the organization especially in the presence of such qualifications and experience.
- To conduct further research covering a longer time period with a wider range of conditions could reveal some new insight about the organizational issues that had contradicted results.

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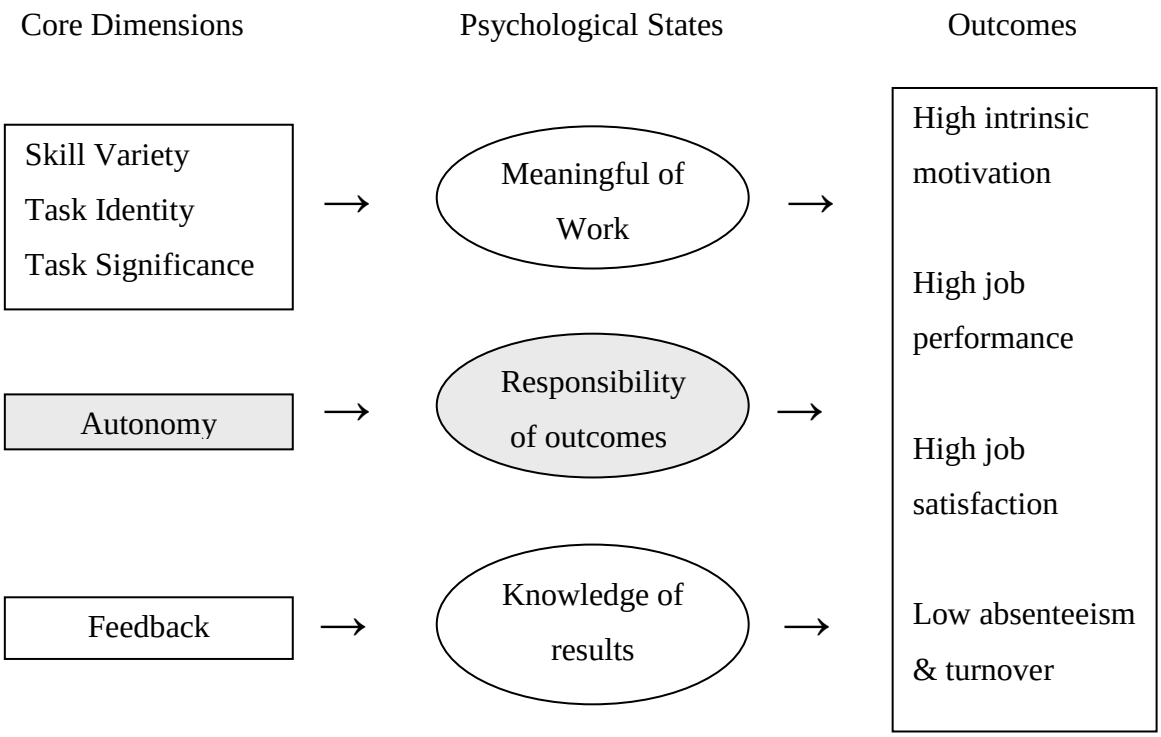
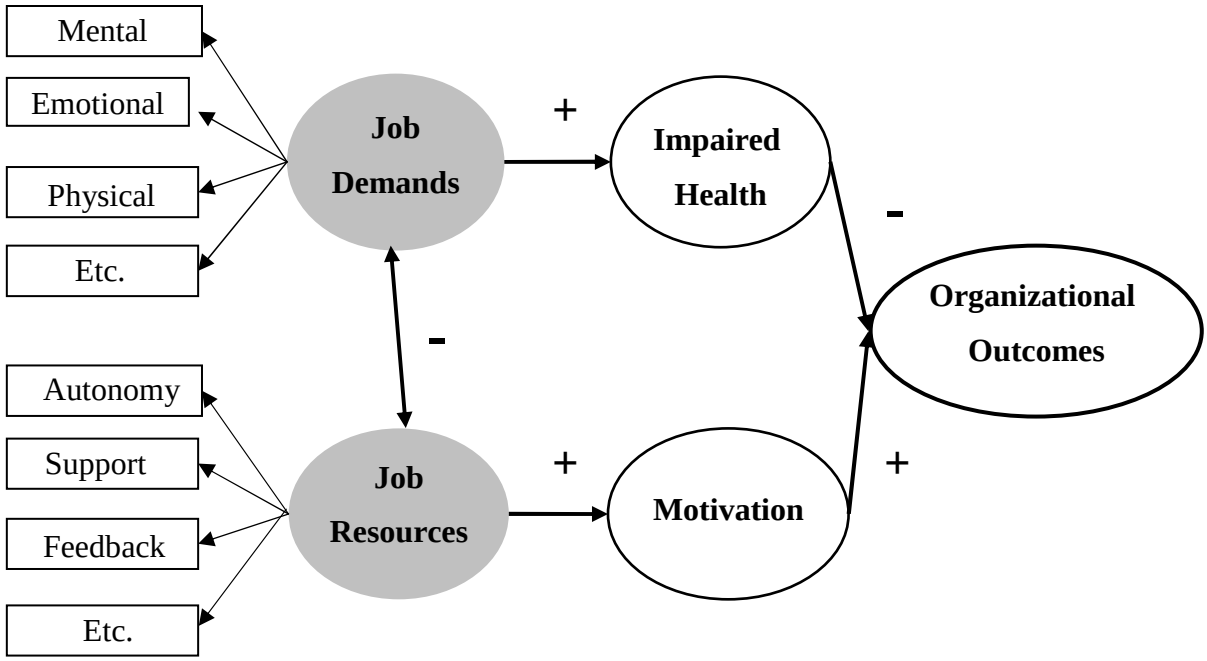
Annex 1

Job Characteristics Model, (Hackman & Oldham, 1976)



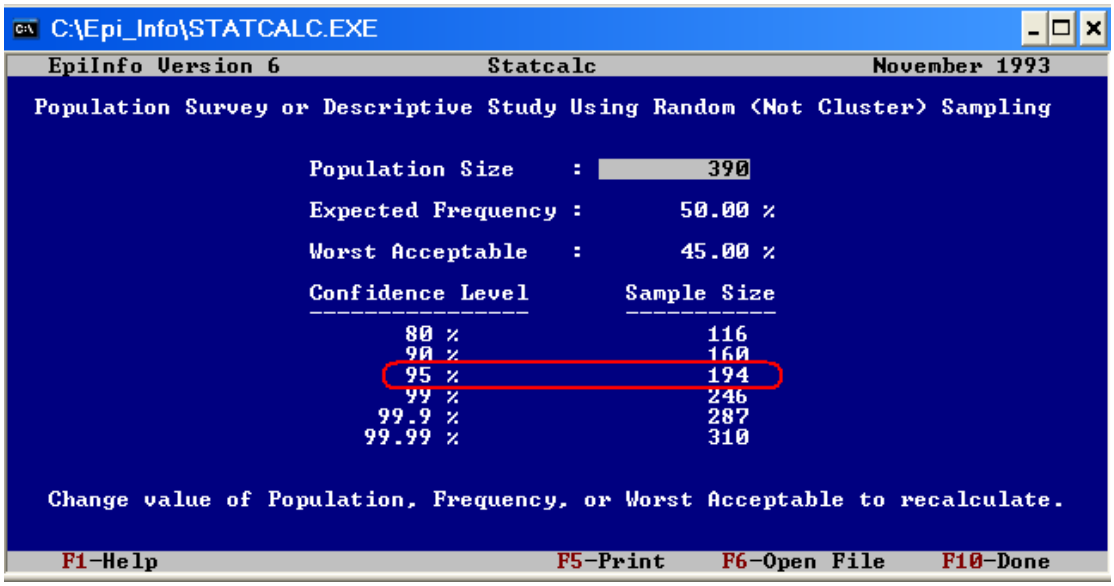
Annex 2

Job Demands-Resources Model of burnout (Demerouti et al, 2001)



Annex 3

Epi Info program for calculation of sample size



Annex 4

Al-Quds University
Jerusalem
School of Public Health

جـامـعـة الـقـدس
القدس
كلية الصحة العامة

2010/7/7

الأخ/د. ناصر أبو شعبان المحترم
مدير عام تنمية القوى البشرية–وزارة الصحة
تحية طيبة وبعد،،،

الموضوع: مساعدة الطالب هاني عبدالكريم سمور

يقوم الطالب المذكور أعلاه بإجراء بحث بعنوان:

"Job Autonomy as Perceived by Physicians Working in Shifa Hospital"

كمتطلب للحصول على درجة الماجستير في الصحة العامة–مسار إدارة صحية و عليه نرجو التكرم للإيعاز لمن ترونه مناسب لتسهيل مهمة الطالب في جمع البيانات اللازمة من مستشفى الشفاء التابع لوزارة الصحة.
علماً بأن المعلومات ستكون متوفرة لدى الباحث و الجامعة فقط.

و اقبلوا فائق التحية و الاحترام،،،

د. بسام أبو حمد
منسق عام برامج الصحة العامة

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Annex 5

The Palestinian National Authority
Ministry of Health
Directorate General of Human Resources Development

السلطة الوطنية الفلسطينية
وزارة الصحة
الإدارة العامة لتنمية القوى البشرية

الرقم: ١٥/١٥٧٣ التاريخ: 2010-07-11

الأخ الدكتور / محمد الكاشف المحترم،،،
مدير عام المستشفيات
تحية طيبة وبعد،،،

الموضوع/ إجراء بحث

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الطبيب/ هاني سمور والذي يعمل في م. غزة الأوروبي وملتحق ببرنامج ماجستير الصحة العامة – مسار إدارة صحية – جامعة القدس لإجراء بحث بعنوان:-

" Job Autonomy As Perceived By Physician Working in Shifa Hospital"

حيث سيقوم الباحث بتعبئة استبانه من الأطباء العاملين في مجمع الشفاء الطبي، وذلك بما لا يتعارض مع مصلحة العمل وضمن ضوابط وأخلاقيات البحث العلمي،دون تحمل الوزارة أي أعباء، مع أخذ موافقة خطية من المشاركين في البحث.

وتفضلوا بقبول خالص الاحترام والتقدير،،،،،،

د. ناصر رأفت أبو شعبان
مدير عام تنمية القوى البشرية

صورة لـــ/
- الملف

وزارة الصحة
تنمية الموارد البشرية
صادر: ١٥/١٥٧٣
التاريخ: ١٥/٧/١٢

Gaza Tel / 08-2827298 Fax / 08-2868109 Email ...ps

Annex 6

Palestinian National Authority
Ministry Of Health
Hospitals General Administration

السلطة الوطنية الفلسطينية
وزارة الصحة
الإدارة العامة للمستشفيات

٢٠١٠/٠٧/١٨

السيد مدير عام مجمع الشفاء الطبي المحترم

الدكتور/ حسين عاشور

السلام عليكم ورحمة الله وبركاته

الموضوع: تسهيل مهمة

بناء على كتاب السيد مدير عام تنمية القوى البشرية رقم ١٠/١٠٧٣ بتاريخ ٢٠١٠/٧/١١ والمتضمن أن الطبيب/ هاني سمور والذي يعمل في مستشفى غزة الأوروبي والملتحق ببرنامج ماجستير الصحة العامة-مسار الصحة العامة- جامعة القدس سيقوم بإجاء بحث بعنوان:

Job Autonomy As Perceived By Physician Working Shifa Hospital

وعليه سيقوم الباحث بتعبئة استبانة من الأطباء العاملين في مجمع الشفاء الطبي.

آملين اطلاعكم وتسهيل مهمة الباحث لديكم بما لا يتعارض مع مصلحة العمل وضمن ضوابط وأخلاقيات البحث العلمي دون تحمل الوزارة أي أعباء مع أخذ موافقة خطية من المشاركين في البحث.

و تفضلوا بقبول فائق الاحترام و التقدير

دكتور . محمد الكاشف
٢٠١٠/٧/١٨
مدير عام المستشفيات

دكتور
حسين مصيحلف عاشور
مدير عام مجمع الشفاء الطبي

الإدارة العامة للمستشفيات
صادر
رقم: ٧١٨٣
التاريخ: ٧/١٩

صورة لـ:
- السيد مدير عام تنمية القوى البشرية

Annex 7

Al Quds University
School of public health

جامعة القدس
كلية الصحة العامة

To6 : Chairperson of Helsinki committee

From : Hani Abdul Kareem Sammour

Subject: Application for study approval

I am a master student of public health at Al-Quds University-Palestine. I am conducting my research as a part of my study requirement at the university. The study title is:

Job Autonomy as Perceived by Physicians Working in Shifa Hospital

It will be a great honor if the study gets the approval of the committee.

Thank you

Hani Abdul Kareem Sammour

Annex 8

Palestinian National Authority
Ministry of Health
Helsinki Committee

السلطة الوطنية الفلسطينية
وزارة الصحة
لجنة هلسنكي

التاريخ7/6/2010

Name:

الاسم: هاني عبد الكريم سمور

I would like to inform you that the committee has discussed your application about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:-

Job autonomy as perceived by physicians working in Shifa Hospital.

In its meeting on June 2010

و ذلك في جلستها المنعقدة لشهر 6 2010

and decided the Following:-

و قد قررت ما يلي:-

To approve the above mention research study.

الموافقة على البحث المذكور عاليه.

Ministry of Health Helsinki Committee

Signature
توقيع

Member	Member	Chairperson
عضو	عضو	

Conditions:-

- Valid for 2 years from the date of approval to start.
- It is necessary to notify the committee in any change in the admitted study protocol.
- The committee appreciate receiving one copy of your final research when it is completed.

Annex 9

Al Quds University
School of public health

جامعة القدس
كلية الصحة العامة

Consent form

Research title: Job Autonomy as Perceived by Physicians Working in Shifa Hospital

Dear Participant

Hello, my name is Hani Abdul Kareem Sammour; I am a master student of public health at Al Quds University-Palestine.

I am conducting my research as a part of my study requirement at the university.

The study aims to know job autonomy as perceived by the physicians working at Shifa Hospital, it will help to explore the perception, main determinants and regulations of job autonomy**,** thus it could promoting the job performance of physicians in Shifa Hospital.

I highly appreciate your participation in this study. The questionnaire takes about 20 minutes to be completed. Participation in this study is voluntary and you have the right to withdraw at any time. Confidentiality will be provided, no need to write down your name. Please answer the questions as you feel and practice in reality.

Thank you very much in advance for your co-operation.

Hani Abdul Kareem Sammour
Mobile: 0599347273
E-mail: drhani74@hotmail.com

Annex 10

Questionnaire

No.:

Code:

First: Personal and professional factors

No.	Personal data
1)	**Gender** ☐ Male ☐ Female
2)	**Age in Years**
3)	**Marital status** ☐ Single ☐ Married ☐ Divorced ☐ Widowed
4)	**Place of residence (Governorate)** ☐ North of Gaza ☐ Gaza city ☐ Mid-Zone ☐ Khan-younis ☐ Rafah
5)	**Qualification** ☐ Bachelor ☐ High diploma ☐ Master ☐ PHD
6)	**Job title** ☐ General Practitioner ☐ Specialist ☐ Head of department ☐ Hospital director
7)	**My working nature** ☐ Technical ☐ Administrative ☐ Both
8)	**Working in preferable place** ☐ Yes ☐ No
9)	**Hospital :** ☐ Surgery ☐ Medical ☐ Maternity
10)	**Years of working in this department**:
11)	**Years of overall experience:**

Please rate these statements as you feel from 1 (least accurate) to 10 (most accurate)

Abilities and Skills		
No.	**Statement**	**1-10**
12)	I have the required level of skills to solve problems I face in my work	
13)	I have high level of skills for making decisions in an effective goal-oriented way.	
14)	I have the required level of skills for organizing and performing tasks	
15)	I have the required level of skills that fit my current position.	
16)	I am capable of handling stress calmly and collectedly**.**	

Second: The level of job autonomy

No.	Statement	1-10
The perception of job autonomy		
17)	I have significant autonomy in determining how I do my job	
18)	I have considerable opportunity for independence and freedom in how I do my job.	
19)	If someone else did the job, they could do the tasks in a very different manner than I do	
20)	I feel I have a lot of control over what I practice.	
21)	I can perform another tasks I think they are not included in my job description	
22)	The work itself provides a lot of clues about what the incumbent should do to get the job done	
23)	As a physician I feel that I practice autonomy more than other professions	
The technical level of autonomy		
24)	I can decide on my own how to go about doing my work	
25)	The job is quite simple and repetitive	
26)	I have my own standards for practice.	
27)	I am able to set my own management plan.	
28)	I can participate in decisions about the nature of my work	
29)	I do not use standard treatment, if I think it's not suitable for my patient.	
30)	I have complete authority to solve my problem	
31)	I have influence over the way of admitting patients to the ward I work in.	
32)	I have influence on managing the patients in unit.	
The administrative level of autonomy		
33)	The way the job is performed is influenced a great deal by what others (supervisors، peers, customers, etc.) expect of the incumbent	
34)	The way the job is performed is influenced a great deal by company rules, policies and procedures	
35)	I prefer to hold responsibility	
36)	It is easy to ask permission to leave early for the day.	
37)	It is easy to ask permission to come late to work.	
38)	It is easy to ask permission to change my scheduled duty hours	

Third: Organizational factors that influence autonomy practice

Please rate these statements as you feel from 1 (least accurate) to 10 (most accurate)

No.	Statement	1-10
Organizational structure		
39)	The work in the hospital is based on departmentalization and specialization	
40)	The work nature in the hospital is formalized	
41)	The work in the hospital is based on written rules and regulations	
42)	The physicians are committed to work with these rules and regulations	
43)	The decision making process follows a systematic and an organized approach	
44)	The decision making process is centralized	
45)	There a sufficient delegation in decision making	
46)	The chain of command (authority) in the hospital is hierarchal	
47)	There is good respect to this style of authority	
48)	There is a unity of command (one person is responsible for me)	
49)	The work in the hospital is usually routine	
50)	The hospital structure supports the practice of autonomy	
51)	The management style in the hospital supports the practice of autonomy	
52)	There is transparency in practicing autonomy in the hospital	
53)	A good relationship with the direct manager enable me to practice more autonomy	
54)	My direct manager supports me in making decisions	
55)	The department I work in enables me to work more autonomously than other departments	
Job description		
56)	The presence of job description is an important issue	
57)	The presence of job description influences the level of job autonomy	
58)	The presence of job description increases the practice of autonomy	
59)	I have clear job description	
60)	I know my rights and responsibility in the work adequately	
61)	I know how my work contributes to overall hospital objectives	

Accountability		
62)	The presence of accountability system is an important issue	
63)	The presence of accountability system influences the practice of autonomy	
64)	The presence of accountability system limits the practice of autonomy	
65)	There is an effective accountability system in the hospital	
66)	Feedback is received on good performance	
67)	Feedback is received on poor performance.	
Teamwork		
68)	The work in a team enables me to participate in important decisions related to managing patients.	
69)	I benefit from the different ideas about management in my team.	
70)	The system of consultation is better than working individually	
71)	Work in teams leads to a higher level of job autonomy	
72)	I work in the hospital in a team	
73)	There is high level of cooperation among the different units in the hospital	
74)	I have a good relationship with other professions in the hospital	
Standardization		
75)	The presence of standardization is an important need	
76)	The presence of standardization influences the practice of autonomy	
77)	The presence of standardization increases the practice of autonomy in the hospital	
78)	There is standardization of work in the hospital	
79)	There is a good commitment to these standardization of work	
80)	There is a continuous update of these standards	
Patient safety		
81)	The presence of clear policy concerning the health and safety of patients is an essential need	
82)	The health and safety of patients is adequately promoted.	
83)	Physicians are involved in the issues concerning the health and safety concept	
84)	I understand the legislation that governs health and safety.	
85)	The presence of policy concerning the health and safety of patients influences the practice of autonomy	
86)	The presence of policy concerning the health and safety of patients increase the level of job autonomy	

Thank you for completing this questionnaire

Annex 11

Al Quds University
School of public health

جامعة القدس
كلية الصحة العامة

Questionnaire panel of experts

1. Dr. Yehia Abed, PHD
2. Dr. Bassam Abu Hamad, PHD
3. Dr. Nehayia Eltelbani, PHD
4. Dr. Ashraf Eljedi, PHD
5. Dr. Yousif Eljaish, PHD
6. Dr. Majed Elfarra, PHD
7. Dr. Nafez Barakat, PHD
8. Dr. Samir Safi, PHD
9. Dr. Emad Lubbad, PHD
10. Dr. Moatasem Salah, PHD
11. Mr. Yousif Awad, MPH
12. Mr. Ibrahim Mansour, MPH
13. Mr. Saadi Abu Awad, MPH

Annex 12

الاستقلال الوظيفي من وجهة نظر الأطباء العاملين في مستشفى الشفاء

إعداد: هاني عبد الكريم سمور

إشراف: د. محمد إبراهيم المدهون

ملخص الدراسة

أهداف الدراسة:

يعتبر الاستقلال الوظيفي جزءاً أساسياً من الإثراء الوظيفي كما أن من شأنه أن يؤدي إلى زيادة التمكين لدى الأطباء و الذي بدوره يؤدي إلى زيادة الثقة والوعي الذاتي و زيادة كفاءة الأداء، كما يؤدي تطبيق الاستقلال الوظيفي إلى زيادة الدافعية و الرضى الوظيفي. تهدف هذه الدراسة إلى تقييم مستوى الاستقلال الوظيفي لدى الأطباء العاملين في مستشفى الشفاء وتحديد الفروقات بين العوامل الشخصية فيما يتعلق بالاستقلال الوظيفي و دراسة العوامل المتعلقة بالمؤسسة و علاقتها مع مستوى العمل باستقلالية وظيفية.

منهجية الدراسة:

إن هذه الدراسة هي وصفية تحليلية أجريت بين الأطباء العاملين في مستشفى الشفاء عن طريق تعبئة استبانة تم إعدادها من قبل الباحث. تم توزيع ما مجموعه 195 من الاستبانات على الأطباء و قد تم اختيار العينة على مرحلتين (الطبقية أولاً ثم المنظمة ثانياً) بين أقسام الجراحة و الباطنة و الولادة و تم جمع 168 استبانة مع معدل استجابة كلي 86 ٪. وقد استخدم الباحث طريقة التحليل الإحصائي SPSS للتحقق من توافق و ملائمة الاستبانة وتحليل البيانات. العوامل الشخصية التي تم دراستها هي الجنس والعمر، والمؤهل، والموقع الإداري والمهارات والخبرات، في حين أن العوامل المتعلقة بالمؤسسة شملت الهيكل التنظيمي (مستوى البيروقراطية)، و الوصف الوظيفي، ونظام المحاسبة، والعمل وفق معايير، وسلامة المرضى والعمل وفق روح الفريق.

نتائج الدراسة:

كشفت نتائج الدارسة أن مستوى الاستقلال الوظيفي لدى الأطباء العاملين في مستشفى الشفاء موجود بنسبة 6.67 من 10 و مستوى دلالة إحصائية < 0.05 (مفهوم الاستقلال الوظيفي وجد بمعدل 6.57 و مستوى دلالة إحصائية 0.000، و معدل الاستقلال من ناحية فنية وجد بمعدل 7.13 و مستوى دلالة إحصائية 0.000 أما معدل الاستقلال من ناحية إدارية وجد بمعدل 6.07 ومستوى دلالة إحصائية 0.563). كما أنه ليس هناك فرق ذو دلالة إحصائية في مستوى الاستقلالية الوظيفية بين أقسام الولادة و الباطنة و الجراحة حيث كان المعدل 6.87 و 6.66 و 6.61 على التوالي و مستوى دلالة إحصائية 0.65. من بين العوامل الشخصية و المهنية التي تم دراستها ووجد أن لها علاقة ذات دلالة إحصائية مع مستوى الاستقلالية الوظيفية هي المهارات حيث أنها كانت العامل الأعلى معدلاً (8.11) ثم من كان يعمل بموقع رئيس قسم (معدل 7.32) ثم حملة شهادات الدكتوراه (معدل 7.26) ثم من هم أكبر من 40 سنة (معدل 7.19) ثم من لديهم خبرة أكثر من 15 سنة (معدل 7.12) بدلالة إحصائية أقل من 0.05. في حين أن الجنس و مكان العمل وجدا أنهما لا يؤثران على درجة العمل باستقلالية وظيفية بدرجة ذات دلالة إحصائية.

بالنسبة للعوامل المتعلقة بالمؤسسة وجد أنها موجودة بنسب متفاوتة من جهة نظر أفراد العينة كما وجد أن جميع العوامل المدروسة لها علاقة إيجابية مع مستوى الاستقلال الوظيفي بمستوى دلالة إحصائية أقل من 0.05 لجميع العوامل. وجد أن العمل ضمن فريق هو العامل الأعلى وجوداً بمعدل 7.55 و دلالة إحصائية أقل من 0.05 ثم بيروقراطية المؤسسة بمعدل 7.23 ثم وجود الوصف الوظيفي بمعدل 6.47 و دلالة إحصائية 0.000. كان لهيكلية المؤسسة أعلى علاقة إيجابية مع وجود الاستقلال الوظيفي (معامل ارتباط 0.550) ثم العمل ضمن فريق و معامل ارتباط 0.525 ثم مستوى بيروقراطية المؤسسة و معامل ارتباط 0.438. كذلك كشفت الدراسة أيضاً أن قضايا مثل الوصف الوظيفي ووجود معايير للعمل بموجبها و كذلك نظام سلامة المرضى و وجود نظام محاسبة أظهرت نتائج مثيرة للجدل و هذا الشيء يحتاج دراسة أخرى و تحليل عميق.

التوصيات:

و قدمت الدراسة مجموعة من التوصيات و خصوصاً فيما يتعلق بالقضايا المتعلقة بالمؤسسة مثل العمل وفق معايير و بروتوكولات خاصة في ظل التقدم العلمي و التقني و إشراك أكثر للأطباء في صنع القرار ما أمكن ذلك مما قد يساهم في زيادة فهم أدوار العمل و قوانين المؤسسة و تفعيل نظام المحاسبة والتغذية الراجعة و خصوصاً الإيجابية.