

# The Reality of Integrating the Dimensions of Computerized Health Information Systems in Dar Al-Shifa Medical Complex

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**Abstract:** *The objective of the research is to identify the reality of integrating the dimensions of computerized health information systems in Dar Al-Shifa Medical Complex. The researchers used the questionnaire method to collect data. The researchers used the random stratified sample method, where 30 samples were distributed to test the internal consistency, structural validity and consistency of the questionnaire. After verifying the validity and reliability of the questionnaire for the test, (220) questionnaires were distributed to the study community. A total of 197 responses were retrieved with a return rate equal to (89.5%).*

*The results showed that there were no statistically significant differences between the averages of the sample of the study on these areas and the domains combined due to the variables of (gender), (qualification), (place of work), (years of service), (Job title). The results showed that there were statistically significant differences between the mean of the sample of the study on these areas due to age for the benefit of those aged 40 years and over. The results confirmed that there are statistically significant differences between the averages of the sample estimates of the study on this field due to the nature of the work in favor of those whose nature is administrative. The results showed that there are statistically significant differences between the average of the sample of the study sample on these two fields due to the years of service in favor of those who have served for 10 years or more.*

*The study reached a number of recommendations including: The need to establish a specialized department of computerized health information systems, with clear responsibilities, and includes technical and administrative specialists and health personnel in the number and efficiency required, working as a team to implement mechanisms of work in computerized health information systems and have direct contact with staff in clinics and divisions to provide services and technical support as soon as possible with the best quality. Increase the support provided by senior management to users by encouraging them to use computerized health information systems and understanding their different needs. Interest in providing the material resources of the equipment and equipment used in the computerized health information system. The need to use database systems in the administrative and medical decisions in clinics and sections that have an impact in raising the effectiveness of decisions by improving the quality.*

**Keywords:** Computerized Health Information Systems, Dar Al-Shifa Medical Complex, Gaza, Palestine.

## 1. INTRODUCTION

Medical decisions face many challenges and difficulties because the volume of information and knowledge that doctors and decision-makers in hospitals and health care centers must deal with on an ongoing basis has grown to a point where it has become difficult to deal with them in purely traditional ways. Limits the intellectual capacity of the human being and increases the analytical and predictive capabilities necessary in decision-making processes, thereby increasing the efficiency and effectiveness of collection, storage, sorting and retrieval of information, and raising the analytical capacity to evaluate and process information and alternatives Different times help to save time and effort for making different decisions.

Computerized health information systems have become a major issue of concern to all managers in health organizations. Health information systems and technology have brought distances far beyond human reach, and have enabled the storage of digital, text, audio and images. This helps to provide information that is very important to decision-makers. Health information systems play an important role in the practical life of health workers. They

support them in identifying their training needs, continuing education and scientific research, Life, and the most important applications of health information systems are hospital information management systems, telemedicine and medical and administrative decision support systems (Tan, 2005).

The hospitals and specialized centers and health centers of the General Administration of Primary Care are the main provider of health services to the public of patients and citizens. The General Directorate of Hospitals is responsible for organizing the work of hospitals and monitoring the performance and providing the necessary means while regulating the relationship with other departments in the Ministry of Health and parallel departments. The aim is to integrate work among all hospitals, distribute competencies and manpower, and provide the service at a decent level to all citizens by the most accessible means ([www.moh.gov.ps](http://www.moh.gov.ps)).

## **2. PROBLEM STATEMENT**

The Ministry of Health is one of the most vital ministries for its services and for the important tasks of citizens such as hospital administration, treatment of citizens, primary care clinics, disease prevention and other tasks. (Abu Sabt, 2005) stressed the need to continue and enhance the development and upgrading of administrative information systems, according to modern technological developments, and study of Ahmed (2007), which studied the role of accounting information systems in rationalizing administrative decisions in Palestinian business establishments and its emphasis on the need to expand the use of information systems and their role in planning operations and administrative decisions. The study of (Al-Shurafa, 2004) state that there is a need for planning programs to introduce medical information systems and benefit from technology.

## **3. RESEARCH QUESTION**

**Q1:** What is the reality of integrating the dimensions of computerized health information systems in Dar Al-Shifa Medical Complex?

## **4. RESEARCH OBJECTIVES**

The purpose of this study is to highlight the reality of the integration of the dimensions of computerized health information systems in Dar Al-Shifa Medical Complex, and from the problem of the study and its questions, the following objectives can be identified:

- To highlight the importance of computerized health information systems Dar Al-Shifa Medical Complex.
- Identification of differences between the responses of respondents attributed to the personal variables (gender, age, academic qualification, nature of work, place of work, years of service, job title) in Dar Al-Shifa Medical Complex.
- Provide some suggestions and recommendations that may contribute to improving the use of computerized health information systems at Dar Al-Shifa Medical Complex.

## **5. RESEARCH IMPORTANCE**

- The importance of this study stems from the fact that it is an important beginning to identify the reality of integrating the dimensions of computerized health information systems in Dar Al-Shifa Medical Complex.
- This study may contribute to the results of the study in a number of practical aspects that concern the senior leaders, planners and officials, through providing them with reliable and documented data derived from field studies, in a more comprehensive and objective scientific manner.
- This study is a serious contribution to the identification of the efficiency of computerized health information systems in the Dar Al-Shifa Medical Complex, which is an important topic for decision-makers and policy-makers.
- The importance of the study is practical in terms of its attempt to identify the weaknesses and deficiencies in computerized health information systems in Dar Al-Shifa Medical Complex.
- The study may serve to open important research areas for researchers in the field of health information systems, which will have a good impact on the activation and development of this important field in the administrative sciences, so it is considered an important reference for the concerned and scholars in the research fields of professors and students.

## **6. RESEARCH HYPOTHESIS**

In order to provide an appropriate answer to the questions posed, the study seeks to test the validity of the following assumptions:

**H01:** There were statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of computerized health information systems due to the demographic variables (gender, age, academic qualification, nature of work, place of work, years of service, job title) Medical - Gaza

**It has the following sub-assumptions:**

**H01-1:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to gender.

**H01-2:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to age.

**H01-3:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the scientific qualification.

**H01-4:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to the nature of the work.

**H01-5:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the workplace.

**H01-6:** There were statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to the years of service.

**H01-7:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the job title.

## 7. RESEARCH LIMITS AND SCOPE

- **Subject Limit (Academic):** The study was limited in its objective to study the reality of integrating the dimensions of computerized health information systems in Dar Al-Shifa Medical Complex.
- **Human Limit:** The study was conducted on the staff of the Dar Al-Shifa Medical Complex in the Gaza Strip.
- **Institutional Limit:** The study was conducted at Dar Al-Shifa Medical Complex.
- **Spatial Limit:** The study was conducted in the State of Palestine, and was confined to the Dar Al-Shifa Medical Complex in Gaza.
- **Timetable:** The study was conducted in 2017.

## 8. LITERATURE REVIEW

- Study of (Al-Gharabawy, 2014) aimed at identifying computerized health information systems and their relation to job performance. A field study on UNRWA's primary health care centers in the Gaza Strip. The study reached several results, the most important of which is: Related to the use of computerized health information systems, applications of computerized health information systems used, and the level of functional performance of health center personnel. And the existence of a positive relationship between computerized health information systems and the level of functional performance of workers in health centers.
- Study of (Abu Kareem, 2013), which aimed to identify the relationship of management information systems in improving the administrative performance in the NGOs in the Gaza Strip. The study concluded that the devices are the most information systems that improve administrative performance, the results indicated that the Board of Directors supervises and sets the policy for the institution. The results revealed that the IT department is responsible for the equipment for storing the data. There is an agreement by the managers that the respondents can identify and judge that there is an IT department in the organization. The results showed that the response from the system staff is high and that the response to maintenance by the system staff is high. The equipment used is currently one of the best and the latest technology available. The results showed that the management and operation of the databases have the ability to add and modify, and that the management and operation of databases are characterized by the ability to store, the existence of statistically significant differences between the relationships of administrative information systems in improving administrative performance due to variable years of service.

- Study of (Al-Dweik, 2010) aimed at determining the implications of the use of computerized health information systems on the decision-making processes of the European Gaza Hospital, and determining the differences between these effects on administrative decisions compared to medical decisions. The study also aimed at analyzing the actual reality of the use of computerized health information systems in various departments and the effects of using these systems on the fields of administrative and medical work. It also aimed to identify the main obstacles and problems that limit their effectiveness, and identify the most important types of these systems in terms of use. The study found that the number of members of the administrative and medical sample who use computerized health information systems in their work was 121 out of 128 individuals (94.5%). The descending order of types of computerized information systems used at the Gaza European Hospital is as follows: functional information systems, office automation systems, document management, decision support systems and top management information systems, messaging systems. The study showed that the computerized health information system currently used in the European Gaza Hospital has a good impact on the fields of medical and administrative work as well as medical and administrative decisions. There are differences between the levels of impact of computerized health information systems on administrative decisions compared to medical decisions and differences in favor of administrative decisions. The study also showed that there are obstacles that limit the effectiveness of health information systems, the most important of which are: weak funds required, lack of adequate training, lack of vision towards the need for comprehensive planning of electronic health applications.
- Study of (Al-Halabi, 2010) aimed at measuring the appropriateness of computerized information systems and their impact on decentralization in the Ministry of Finance in the Gaza Strip. In order to achieve the objectives of the study, a questionnaire was designed and developed for the purpose of collecting data and measuring study variables. The sample consisted of (104) employees, 79 of which were retrieved, and the statistical package (SPSS) was used to perform the statistical analysis of this study using the following statistical methods: descriptive statistics, Siperman correlation coefficient and analysis of variance. The study found that the requirements of computerized administrative information systems (physical, software, human, organizational) are highly efficient from the point of view of the respondents. There is also a statistically significant relationship between the computerized and decentralized administrative information systems in the Ministry of Finance in the Gaza Strip. The study indicates that there is no statistically significant relationship on "the impact of computerized administrative information systems on decentralization in the Ministry of Finance in the Gaza Strip" due to the demographic variables (gender, age, experience, job qualification, scientific level).
- Study of (Al-Omari, 2009), which aimed to identify the impact of Computerized Information Systems on the performance of the employees of the Palestinian Telecommunications Company. To achieve the objectives of the study, a questionnaire was designed and developed consisting of (60) paragraphs for the purpose of collecting data and measuring the variables of the study. The study reached a number of results, the most important of which were: The existence of a statistically significant effect on the operation and management requirements of the administrative information systems (physical, software, human, organizational) on the performance of the employees of the company, Respondents on the subject of the study are attributed Demographic variables (level of the scientific, years of experience, workplace, career level), and the presence of a good level of physical supplies, and the existence of a good level of human supplies and the presence of a good level of supplies software and the existence of a good level of regulatory requirements.
- Study of (Arafat, 2007), the study aimed to assess the administrative requirements for the optimal use of decision support systems in the ministries of the Palestinian Authority - Gaza. Study population consisted of the largest two ministries operating in the Gaza Strip (Ministry of Education and Ministry of Health). The questionnaire was used as a tool for collecting study data. The study found several results, the most important of which are: There is a need to improve the perception regarding the main administrative areas in the governmental sector institutions in the Gaza Strip (Human resources - Organizational and administrative structure - Managing work processes - Controlling change - Discipline and inadequate human resources system in sector institutions Governmental organizations in the Gaza Strip) in order to facilitate the optimal use of the decision support system and the administrative structure of government sector institutions is reasonably acceptable, and with regard to facilitating the optimal use of decision support systems and OMS, the government sector is reasonably adequate in terms of facilitating the optimal use of decision support and discipline systems in government sector institutions, and there are differences in managers' attitudes towards assessing administrative requirements towards optimal use of decision support systems in relation to age, In order to facilitate the optimal use of decision support systems.

- Study of (Al-Saudi, 2006), the aim of this study was to investigate the impact of Computerized Information Systems on the performance of employees in the Social Security Institution. Data were distributed to the 369 members of the sample. The statistical methods were used to analyze the data. Statistical methods were used to determine the perceptions of the sample members of the dimensions of information systems and performance, the study model and the effect of independent variables on the dependent variable and the analysis of the single variance. The study reached several results, the most important of which are: The perceptions of the respondents regarding the requirements of operating the information system were high. The respondents' perceptions of the job performance came to a medium degree. The impact of the main requirements for the management and operation of the computerized, software, human, and organizational information system in the job performance. The study showed that there are statistically significant differences in respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, academic qualification, experience, and career level).
- Study of (Abu Sabt, 2005) which aimed to assess the role of these systems in the decision-making process of decision makers in Palestinian universities in the Gaza Strip. The study reached a number of results, the most important of which is that the current information systems do not rise to expert systems where they do not provide solutions to problems. And not to provide external statistical information and lack of direct contact with the centers of statistics inside or outside the country. And that they have competence and managerial and technical expertise that are very commensurate with the work assigned to them. And that the devices used in universities are modern and highly efficient in Palestinian universities. And that there is a positive relationship between the quality of information and the use of information systems in the decision-making process. And that the programs used help to the flexible exchange of information among users of the system and the presence of modern techniques in the systems used, including technical. And that there is a strong relationship between the organizational level and the quality of decisions.
- Study of (Ghoneim, 2004), which aimed to identify the role of Computerized Information Systems in the decision-making process in the municipalities of the Gaza Strip. The study consisted of (11) municipalities in the Gaza Strip. The study found several results, the most important of which are: a strong positive relationship between the availability of the computerized management information systems infrastructure and the production and use of information needed for decision making, the weak ability of the information system to cover aspects of work including the material potential, the organizational level is suitable for the beneficiaries of the system, The existence of clear plans for the functioning of the computerized administrative information system is a major obstacle that hinders the implementation and development of administrative information systems in the municipalities, and recommended the need for infrastructure, including human resources.

## **9. COMPUTERIZED HEALTH INFORMATION SYSTEMS**

The World Health Organization (WHO) defined the computerized health information system as "the science of acquiring, preserving, retrieving and applying biomedical knowledge and information to improve patient care, education, research and management, as well as the WHO Regional Office for the Eastern Mediterranean" The use of computing, networking and communication technology methodologies to support health-related areas such as medicine, nursing and management ([www.emro.who.int](http://www.emro.who.int)). This definition covers a wide range covering the following areas: conservation, processing, retrieval and exchange of information Administrative and medical decisions Support for administrative and medical decisions Save the radiological image analysis and clinical signs electronically Provide scientific models and telemedicine, defined in the Scientific Encyclopedia of Information Systems As information systems consisting of computer hardware, software, procedures and processes specifically designed to collect, process, store and manage information related to health care delivery, in order to support Medical Management (Wickramasinghe & Geisler, 2008).

The health organizations exercise their functions in a specific organizational environment and within a framework or organizational structure with its characteristics and specifications. Within this regulatory framework, medical, therapeutic, preventive and various administrative aspects that serve the medical and health aspects Jad AL-Rab (2009), Al-Dweik (2010) defined it as a set of elements, procedures and means that record, process, save, retrieve and distribute information to support health care organizations where this information can be divided into health information and management information. "Health information systems in the scientific encyclopedia are defined as information systems Consisting of Computer hardware, software, procedures and processes specifically designed to collect, process, store, and manage information related to health care delivery, to support medical and administrative decisions (Geisler & Wickramasinghe, 2008). Wager et al. Sub-systems consist of information, processes, people, and IT systems that interact with each other to support a health care organization.

## **Dimensions of computerized health information systems:**

### **1. Types of health information systems used:**

#### **A. Medical Information System (MIS)**

Jad AL-Rab (2009), is an important subsystem that makes the overall system of the hospital a meaningful social and human organization. Therefore, this system affects the overall performance of the hospital, without information that is not made, and without information, there is no communication the author is not overly efficient. He says that without information, there is no effective organization. The information is the clean blood flowing, which stimulates the arteries and veins of multiple and interconnected organizations, and the importance of medical information systems in raising the efficiency of medical and organizational performance in health organizations.

#### **B. Medical Records Information System and its benefits for health organizations:**

The concept of JAD AL-Rab (2009) is a concept developed in the field of information systems in general and in the area of health organization management in particular. It is defined as "one of the integrated information systems of the hospital-wide integrated information system Data on the disease as well as on the units and departments responsible for the provision of therapeutic and medical services in the hospital and then tabulation, operation, treatment, storage and retrieval of the data to be used primarily in the decision-making and medical use for the purposes of legal education and training and guidance of the Medical Authority and My research, medical and administrative studies in health organizations.

### **2. Equipment and devices used:**

The devices as defined by (Kundalji and Al-Janabi, 2009) include all the various types of physical components and media used in the processes in which the data and information pass. The hardware or hardware does not include computers and other devices, but also all the media and visible objects on which data are recorded Pages and pieces of paper to extract information onto magnetic or optical disks.

### **3. The databases used**

Al-Najjar (2005) stated that databases are a logical organization of clusters of interconnected files where data are integrated and inter-related, making it easy to find information to achieve the desired objectives, and data are arranged and stored in a typical way Data avoidance is avoided.

### **4. Networks:**

The networks include long-range communications and communications technologies, and various types of networks, such as the Internet, intranet, and extranets, which have become important in managing successful e-business and business operations of all kinds, through its Kundalji and Al- Janabi, (2009). Local networks use cables of various types, including dual-channel telephone wires, single or multichannel cable and high-performance fiber optics (Al-Salmi and Al-Salmi, 2005).

### **5. Supporting senior management:**

The effectiveness of the system depends on the support of the senior management of the organization served by the system, whether at the level of data inputs or the level of its policy outputs and without support at the level of either system does not lead (Al-Moghrabi, 2002)

### **6. Users of the system:**

The availability of human skills and competencies, training, development and motivation is one of the most important pillars for achieving the goals of the institution. Achieving success requires dedicating attention and care to individuals starting with the process of selection, appointment, performance evaluation, training and development programs, and motivational methods to seek to prove the differences in work, participation, For the purpose of achieving continuous improvement in performance (Hamoud, 2005), system users are the individuals who use the system or the information produced by the system (Kundalji and Al-Janabi, 2009). System users can also be defined here as specialists Technicians: Individuals, who develop, operate and manage the information system technically (Kundalji and Al-Janabi, 2009).

## **10. FIELD STUDY**

### **First- Methodology of the study:**

In order to achieve the objectives of the study, the researchers used the descriptive analytical method in which he tries to describe the phenomenon of the subject of the study, analyzing its data, the relationship between its components and the opinions that are raised around it, the processes it contains and the effects it causes.

### **Second- Society and Study Sample:**

The society of the study is defined as all the vocabulary of the phenomenon studied by the researchers. Based on the problem of the study and its objectives, the target community consists of the departments and departments

responsible for the health information systems in the Dar Al-Shifa Medical Complex- Gaza (289) administratively. The sample was randomized to a sample of 30 samples to test the internal consistency, structural honesty and stability of the questionnaire. After confirming the validity of the questionnaire, 220 samples were distributed to the study population (89.5%).

**Third: The Study Tool:**

The instrument of study means that the tool measures what has been set for its measurement. The veracity of the questionnaire has been verified by the following methods:

**1. Validity from the point of view of the arbitrators:**

The questionnaire was presented to a number of specialized arbitrators in order to ascertain the accuracy of the linguistic language of the questionnaire, the clarity of the instructions of the questionnaire, the affiliation of the paragraphs to the dimensions of the questionnaire and the validity of this tool to measure the objectives associated with this study. The arbitrators looked.

**2. Internal Validity**

The consistency of the internal consistency of each paragraph of the questionnaire with the area in which this paragraph belongs is true. The researchers calculated the internal consistency of the questionnaire by calculating the correlation coefficients between each paragraph of the question domains and the total score of the field itself.

**Fourthly- Reliability of the study instrument Reliability:**

The questionnaire is consistently meant to "give the questionnaire the same results if repeated several times. The researchers investigated the stability using Alpha Cronbach's Coefficient equation. The researchers used the Alpha Cronbach method to measure the stability of the questionnaire. The results were as shown in Table 1.

**Table 1:** Alpha Cronbach coefficient to measure the stability of the questionnaire

The Field	Number of paragraphs	Alpha Cronbach coefficient	Self-honesty *
Equipment and equipment used.	10	0.875	0.935
Databases used.	10	0.775	0.880
Networks.	9	0.783	0.885
Support senior management.	8	0.839	0.916
Users of the system.	8	0.777	0.882
<b>All fields together</b>	45	0.949	0.974

\*Self-honesty = positive quadratic root of the Cronbach alpha factor

It is clear from the results shown in Table (1) that the value of the alpha-cronbach coefficient is high for each field, ranging from (0.775, 0.949) to all the paragraphs of the questionnaire (0.960). As well as the value of self-honesty is high for each field, ranging between (0.880, 0.974) and reached all the paragraphs of the questionnaire (0.980) this means that the coefficient of self-honesty is high.

**Statistical treatments used:**

The questionnaire was dumped and analyzed through the Statistical Package for the Social Sciences (SPSS).

**Normality Distribution Test:**

The Kolmogorov-Smirnov Test (K-S) was used to test whether or not the data followed normal distribution and the results were as shown in Table 2.

**Table 2:** Demonstrates the results of the normal distribution test

The Field	"Sig." value
Equipment and equipment used.	0.987
Databases used.	0.942
Networks.	0.706
Support senior management.	0.978
Users of the system.	0.162
<b>All fields together</b>	0.872

It is clear from the results shown in Table (2) that the probability value (Sig) for the fields of study is greater than the level of significance ( $\alpha \leq 0.05$ ). Thus, the distribution of data for these fields follows the natural distribution, where the scientific tests will be used to answer the hypotheses of the study. The following statistical tools were used:

- Frequencies & Percentages: To describe the sample of the study.

- Arithmetic mean and relative arithmetic mean.
- The Cronbach's Alpha test, to determine the persistence of the paragraphs of the questionnaire.
- K-S test: Kolmogorov-Smirnov Test to see whether the data follow normal distribution.
- Pearson Correlation Coefficient to measure the degree of correlation: This test examines the relationship between two variables. It has been used to calculate internal consistency and structural honesty of the questionnaire, and the relationship between variables.
- T test in the case of a single T-Test to determine whether the average response has reached the intermediate approval level (3) or increased or decreased. It has been used to ascertain the mean significance of each paragraph of the questionnaire.
- T-Test (Independent Samples T-Test) to see if there are statistically significant differences between two sets of independent data.
- One Way Analysis of Variance (ANOVA) was tested to determine whether there were statistically significant differences between three or more sets of data.

## 11. ANALYSIS OF THE STUDY AXES

### First: Statistical description of the research sample according to personal characteristics and characteristics

The following is a presentation of the research sample according to personal characteristics and characteristics

**Table 3:** Distribution of the sample of the study

Personal data	Category	The Number	Percentage%
Gender	Male	145	73.6
	Female	52	26.4
Age	Less than 30 years	69	35.0
	From 30 to less than 40 years	63	32.0
	From 40 to Less than 50 years	44	22.3
	50 years and over	21	10.7
Academic Qualification	Public secondary school or below	6	3.0
	Diploma	27	13.7
	BA	120	60.9
	M.A.	37	18.8
	Ph.D.	7	3.6
Nature of work	Administrative	65	33.0
	Health Administration	132	67.0
Place of work	Outpatient clinics	25	12.7
	Sections	172	87.3
Years of service	Less than 5 years	55	27.9
	From 5 - less than 10 years	56	28.4
	10years and over	86	43.7
Job Title	Director of department and above	14	7.1
	Head of the Department	90	45.7
	Administrative Head	15	7.6
	Administrative	78	39.6

Table (3) shows that 73.6% of the study sample is male, while the remaining 26.4% is female. The researchers attributed this to the fact that the Dar Al-Shifa Medical Complex is the main compound in the Gaza Strip and there are the outpatient departments and the central departments so most of the competencies of human resources are located within the compound of Dar Al-Shifa for the great work pressure during the twenty-four hours and since both gender do the same work, On the same requirements of computerized health information systems. As a result, females prefer to work within the primary health care centers and clinics in the regions, and prefer to avoid as far as possible the places that suffer from work pressure and friction with the public as the society is male dominant, and conservative.

And 35.0% of the study sample was under 30 years of age, 32.0% were aged 30-40 years and 22.3% were aged 40-50 years, 10.7% (50 years) and more. The researchers attribute this to the diversity of the average age, which indicates the availability of expertise. It is also noticed that 79.3% of the study population is less than (50) years old, and this is because the Palestinian society is young and young.

(13.7%) have an average diploma, 60.9% have a bachelor's degree, 18.8% hold a master's degree, and 3.6% hold a PhD degree, Where the researchers note from the previous results that (74.6%) of the society of the study of holders of a bachelor's degree and diploma. The researchers attributed this to the fact that most jobs in Dar Al-Shifa require a minimum diploma for administrative, medical and medical support, and a bachelor's degree for medical posts. (33.0%) of the study respondents said that the nature of their work is administrative, while (67.0%) the nature of their work is a health administration. The researchers attribute this to the fact that Dar Al-Shifa Medical Complex is the largest medical and health center in the Gaza Strip, Central, and drug stores, so it is normal that the majority of the study group of health administrators.

(12.7%) of the study sample work in outpatient clinics, while 87.3% work in the departments. The researchers attribute that the Dar Al-Shifa Medical Complex has the main sections that serve all the citizens of the Gaza Strip. All hospitals in the Gaza Strip, primary care centers, specialized surgeons, and specialist care departments and referral sections for patients who need clinical care. Outpatient clinics are for patients who complain of various diseases in the Gaza Strip.

(27.9%) of the sample study years of service less than (5) years, (28.4%), the years of service ranging from (5) to less than (10) years, while (43.7%) years of service (10). The researchers attributed this to the fact that the largest percentage is for those with experience. The percentage of workers who have more than 5 years of employment is 72.1%. This is due to the stability of the labor force provided by the Ministry of Health to its employees. The staff of the Palestinian Ministry of Health, which represents their safety compared to private clinics and civil centers.

And (7.1%) of the sample of the study named their job title department manager and above, (45.7%) head of department, (7.6%) administrative head, while (39.6%) their administrative job title, And since the Dar Al-Shifaa complex is a medical complex, it is natural that the owners of the administrative functions of the medical and health personnel who hold managerial positions are more than the administrative staff.

**Analysis of question paragraphs:**

To analyze the resolution paragraphs, a single sample T test was used to determine whether the average response score had reached the intermediate approval level (3) or not.

Zero Hypothesis: The mean response is equal to (3) and corresponds to the average degree of approval according to the Likert scale.

Alternative Hypothesis: The average response score is not equal to (3).

If Sig <0.05 (Sig is greater than 0.05), the null hypothesis cannot be rejected. In this case, the average of the individuals' opinions on the phenomenon studied is not substantially different from the average degree of approval (3). 0.05), the null hypothesis is rejected and the alternative hypothesis is accepted that the average views of individuals differ substantially from the average approval level (3). In this case, it is possible to determine whether the average response substantially increases or decreases the degree of intermediate approval. By means of the value of the test. If the value of the test is positive, it means that the arithmetic mean of the answer exceeds the degree of intermediate approval and vice versa.

**Analysis of paragraphs of the questionnaire**

**First: Analysis of the "Types of Computerized Health Information Systems"**

The frequencies and percentages were used to determine the degree of approval and the results are shown in Table 4.

**Table 4:** Degree of Approval of Each Paragraph of the "Types of Computerized Health Information Systems"

Types of Computerized Health Information Systems		Yes		No	
		K	%	K	%
1.	Dar Al-Shifa Medical Complex has office automation and document management systems.	166	84.3	31	15.7
2.	Dar Al-Shifa Medical Complex has a patient registration system.	177	89.8	20	10.2
3.	Dar Al-Shifa Medical Complex has medical records systems.	179	90.9	18	9.1
4.	Dar Al-Shifa Medical Complex has blood bank records systems.	130	66.0	67	34.0
5.	Dar Al-Shifa Medical Complex has radiation systems.	98	49.7	99	50.3
6.	Dar Al-Shifa Medical Complex has pharmacy systems.	102	51.8	95	48.2

7.	Dar Al-Shifa Medical Complex has laboratory systems.	99	50.3	98	49.7
8.	Dar Al-Shifa Medical Complex has medical reporting systems.	135	68.5	62	31.5
9.	Dar Al-Shifa Medical Complex has electronic reporting systems.	122	61.9	75	38.1
10.	Dar Al-Shifa Medical Complex has internal department systems.	141	71.6	56	28.4
11.	Dar Al-Shifa Medical Complex has outpatient clinics and an emergency department.	167	84.8	30	15.2
12.	Messaging systems such as e-mail and voice mail are available.	56	28.4	141	71.6

From Table (4), the following can be drawn:

Dar Al-Shifa Medical Complex- Gaza uses different applications of computerized health information systems.

- 84.3% of the sample agreed on the availability of office automation and document management systems at Dar Al-Shifa Medical Complex, while the rest (15.7%) disagreed. The researchers attribute this to systems that provide managers with information tools to help solve problems.
- 89.8% of the sample agreed on the availability of patient registration systems at Dar Al-Shifa Medical Complex, while the remaining 10.2% did not agree. The researchers attributed this to the high level of computer capabilities of the human cadre because the availability of computer skills became has been a prerequisite for employment in most institutions in recent times.
- 90.9% of the sample agreed on the availability of medical records systems at Dar Al-Shifa Medical Complex, while the remaining 9.1% disagreed. The researchers attributed this to the fact that they serve all sections of Dar Al-Shifa Medical Complex, Gaza according to specialization.
- 66.0% of the sample agreed to the availability of blood bank records systems at Dar Al-Shifa Medical Complex, while the remaining 34.0% disagreed. The researchers attributed this to the availability of blood bank records systems at the Blood Bank located within Dar Al-Shifa Medical Complex
- 49.7% of the sample agreed to the availability of radiation systems in Dar Al-Shifa Medical Complex, while the remaining 50.3% do not agree. The researchers attribute the availability of radiation systems in the radiology sections of Dar Al-Shifa Medical Complex.
- 51.8% of the sample agreed to the availability of pharmacy systems at Dar Al-Shifa Medical Complex, while the remaining 48.2% disagreed. The researchers attributed this to the availability of pharmacy systems at the drug store inside Dar Al-Shifa Medical Complex.
- It was found that 50.3% of the sample agreed on the availability of laboratory systems at Dar Al-Shifa Medical Complex, while the remaining 49.7% disagreed. The researchers attributed this to the availability of laboratory systems at Dar Al-Shifa Medical Complex.
- 68.5% of the sample agreed on the availability of medical reporting systems at Dar Al-Shifa Medical Complex, while the remaining 31.5% do not agree. The researchers attribute this to the availability of medical reporting systems at the departments, sections and clinics in Dar Al-Shifa Medical Complex.
- 61.9% of the sample agreed on the availability of electronic reporting systems at Al-Shifa, while the remaining 38.1% do not agree, and the researchers attribute that the electronic reporting systems are available in all departments and administrative departments, medical and medical support in the healing
- It was found that 71.6% of the sample agreed on the availability of internal partitions systems at Dar Al-Shifa Medical Complex, while the remaining 28.4% do not agree. The researchers attributed this to the existence of the specialized and general departments in Al-Shifa.
- 84.8% of the sample agreed on the availability of outpatient clinics and emergency department at Dar Al-Shifa Medical Complex, while the remaining 15.2% do not agree. The researchers attributed this to the presence of outpatient clinics and emergency department in Al-Shifa.
- (28.4%) of the sample agreed on the availability of messaging systems such as e-mail and voice mail at the Al-Shifa, while the rest (71.6%) do not agree, and attributed to the researchers because of the lack of e-mail for each employee within the complex, The researchers attributed the high percentage of the use of various applications of computerized health information systems within the Dar Al-Shifaa complex. This system is comprehensive and calculates and links all departments and specialties. It is highly dependent on the daily transactions of patients. Soundtrack Encouraged not to provide a special email each employee inside the Dar al-Shifa compound Taby- Gaza.

These results were agreed with some studies (Al-Gharabawy, 2014) which found a high degree of approval from the use of computerized health information systems applications and the study of Zine El-Din and El-Ajrami (2013) The programs used in the Deanship contributed to the selection of qualified elements in the field of information technology, and the study (Al-Dweik, 2010), which concluded the high rate of use of computerized health

information systems in the European Gaza Hospital such as information systems, Office and document management, decision support systems and management information systems , The systems of knowledge bases and expert systems, and the study (Ramadan, 2009), which showed the diversity of information systems that support decisions well.

The reason for the agreement is that the studies were carried out in institutions and centers that have a special programming department that designs and prepares specialized programs, while the difference with studies conducted in government institutions is due to the existence of a central software unit of the government in general, which affects the design of specialized programs for each ministry or Foundation separately.

These results differed with some studies (Ghoneim, 2004), which concluded that the information system was unable to cover various aspects of the work.

**Second: Analysis of the paragraphs of the "equipment and devices used"**

The T test was used to determine whether the average response was 3 or not. The results are shown in Table (5).

**Table 5:** The arithmetic average and the probability value (Sig) for each paragraph of the "equipment and equipment used"

No.	Item	SMA	Relative arithmetic mean	Test value	"Sig." value	Ranking
1.	Dar Al-Shifa Medical Complex has equipment to support its activities.	3.11	62.28	1.42	0.078	3
2.	Dar Al-Shifa Medical Complex has an IT department.	3.34	66.77	4.59	*0.000	1
3.	The appropriate computers are available to complete the required work.	3.05	61.05	0.65	0.257	6
4.	The systems used provide sufficient space for information storage.	3.09	61.77	1.19	0.118	5
5.	Data entry is available to suit business needs.	3.19	63.78	2.42	*0.008	2
6.	The means of information extraction are commensurate with the needs of the business.	3.10	62.07	1.24	0.109	4
7.	The speed of the devices is commensurate with the volume of work to be performed.	2.86	57.22	-1.61	0.055	9
8.	The information network used provides adequate information systems capabilities.	2.95	58.96	-0.57	0.286	7
9.	Modern and highly efficient communication technologies are available.	2.78	55.65	-2.55	*0.006	10
10.	High efficiency maintenance techniques are available in the event of hardware failure.	2.92	58.37	-0.95	0.172	8
<b>All paragraphs of the field together</b>		3.04	60.79	0.80	0.212	

\* The arithmetic average is statistically significant at the level of significance ( $\alpha= 0.05$ ).

From Table (5) we can draw the following:

- The arithmetic mean of the second paragraph "There is a 3.34 (total grade 5) in the Dar Al-Shifa Medical Complex. The relative arithmetic mean is 66.77%, the test value is 4.59 and the probability value (Sig) is 0.000. Therefore, this paragraph is considered statistically significant at a level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph has exceeded the average approval level of 3, which means that there is considerable agreement by the respondents on this paragraph.
- The arithmetic mean of the ninth paragraph "Modern and highly efficient communication techniques" equals 2.78, ie, the relative arithmetic average is 55.65%, the test value is -2.55, and the probability value (Sig) is 0.006. Therefore, this paragraph is considered statistically significant at a level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph has fallen below the average approval level of 3, which means that there is little agreement by the respondents on this paragraph.
- In general, the arithmetic average is equal to 3.04, the relative arithmetic average is 60.79%, the test value is 0.80, and the probability value (Sig) is 0.212. Therefore, the field of "used equipment and equipment" is

not statistically significant at a level of significance ( $\alpha= 0.05$ ). The average response level for this field is not significantly different from the average approval score of 3, which means that there is moderate approval by the sample members in this field.

The researchers attributed this to the availability of adequate number of modern computers suitable for the number of staff and supported large storage areas and high speeds and provide the necessary protection to prevent cases of vandalism. In contrast, the network used in health centers of the problems of interruption and low speed sometimes, despite the modernity and due to the enormous operations Which is at the same time.

These findings were consistent with some studies (Ghoneim, 2004), the most important of which was the weak ability of the information system to cover aspects of work, including material potential.

These results differed with some studies such as Abu Kareem (2013), which concluded that the devices are the most information systems that improve the administrative performance, Al-Omari (2009), which reached a good level of material requirements, -Saudi, 2006), which found the impact of the main requirements for the management and operation of the physical, software, human and organizational computer information system in job performance, and the study of Abu Sabt (2005) which concluded that the devices used in universities are modern and highly efficient.

**Third: Analysis of the paragraphs of the "databases used"**

The T test was used to determine whether the mean response was 3 or not. The results are shown in Table (6).

**Table 6:** The arithmetic average and the probability value (Sig.) for each of the paragraphs of the "used databases"

No.	Item	SMA	Relative arithmetic mean	Test value	"Sig." value	Ranking
1.	The software used is compatible with the devices used.	3.44	68.80	5.27	*0.000	1
2.	Computer software and applications are easy to use.	3.27	65.33	3.43	*0.000	3
3.	Programs are controlled to ensure data integrity.	3.27	65.36	3.50	*0.000	2
4.	The databases are highly scalable.	3.10	61.97	1.25	0.106	6
5.	The databases have the ability to retrieve data.	3.17	63.38	2.19	*0.015	4
6.	The databases have the ability to add and modify.	3.07	61.44	0.88	0.189	7
7.	The databases in the systems take into account the non-repetition of stored data.	3.12	62.40	1.54	0.063	5
8.	Helps databases to identify the problem and find solutions.	3.03	60.61	0.38	0.354	9
9.	Software is updated to suit your business needs.	3.07	61.36	0.80	0.213	8
10.	Instructions are available to run programs that I need to do in my work.	2.97	59.48	-0.29	0.386	10
All paragraphs of the field together		3.15	62.97	3.04	*0.001	

\* The arithmetic average is statistically significant at the level of significance ( $\alpha= 0.05$ ).

From Table (6) we can draw the following:

- The computational average of the first paragraph "The software used with the devices used" corresponds to 3.44 (the total score of 5), ie, the relative arithmetic mean (68.80%), the test value 5.27, and the probability value (Sig.) Equals 0.000. Thus this paragraph is statistically significant at a level of significance ( $\alpha= 0.05$ ), indicating that the average response rate for this paragraph has exceeded the average approval level of 3 which means that there is a high degree of approval by the respondents to this paragraph.
- The mathematical average of the tenth paragraph "The instructions needed to run the programs that I need to perform in action" equals 2.97, ie, the relative arithmetic mean is 59.48%, the test value is -0.29, and the probability value (Sig) is 0.386. Therefore, this paragraph is not statistically significant at the level ( $\alpha= 0.05$ ), indicating that the average response rate for this paragraph is not substantially different from the average approval level of 3, which means that there is a moderate approval by the respondents on this paragraph.

- In general, the arithmetic average is 3.15, the relative arithmetic average is 62.97%, the test value is 3.04, and the probability value (Sig) is 0.001. Therefore, the "used databases" field is statistically significant at the level ( $\alpha=0.05$ ), the degree of response to this area has exceeded the average approval level of 3, which means that there is considerable agreement by the sample members on the paragraphs of this area.

The researchers attribute this to the availability of databases used by the Palestinian Ministry of Health, in addition to providing the necessary instructions for running the programs.

These results were agreed with Abu Kareem (2013), which concluded that the management and operation of the databases is highly capable of adding and modifying, and that the management and operation of the databases are highly capable of storage. Al-Halabi (2010) (Al-Omari, 2009), which found a statistically significant impact on the operational and management requirements of MIS (physical, software, human, organizational) On the performance of the operators of the telecommunications company, the existence of a good level of Supplies software, study (Al-Saudi, 2006), which reached the presence of the impact of the main requirements for the management and operation of computerized information material and software, human and organizational system functionality.

These results differed with some studies, such as Ghoneim (2004), which showed the weak ability of the information system to cover aspects of work.

#### Fourth: Analysis of the paragraphs of the field of "networks"

The T test was used to determine whether the average response rate reached the intermediate approval score of 3. The results are shown in Table (7).

**Table 7:** The arithmetic average and the probability value (Sig.) for each of the paragraphs of the "Networks"

No.	Item	SMA	Relative arithmetic mean	Test value	"Sig." value	Ranking
1.	There is an internal computer network in Dar Al-Shifa.	3.66	73.16	7.26	*0.000	1
2.	Suit the computer network used with business needs.	3.24	64.74	3.02	*0.001	3
3.	The computer network has a fast connection speed.	3.09	61.85	1.08	0.141	7
4.	The computer network is maintained periodically.	2.90	57.96	-1.32	0.095	9
5.	The computer network is protected from hacking and tampering with information.	3.03	60.51	0.30	0.383	8
6.	The computer network can be developed flexibly in a technical way.	3.20	64.06	2.52	*0.006	4
7.	The computer network uses modern and efficient physical components.	3.10	61.93	1.32	0.094	6
8.	The computer network reduces the time and effort required to implement the work.	3.33	66.53	4.39	*0.000	2
9.	There is a connection between the internal computer network of Dar Al-Shifa Medical Complex and the Internet.	3.19	63.88	2.21	*0.014	5
<b>All paragraphs of the field together</b>		3.19	63.84	3.72	*0.000	

\* The arithmetic average is statistically significant at the level of significance ( $\alpha=0.05$ ).

From Table (7) we can draw the following:

- The arithmetic average of the first paragraph "There is an internal computer network in the Dar Dar Al-Shifa Medical Complex" equals 3.66 (the total score of 5), ie, the relative arithmetic average is 73.16%, the test value is 7.26, and the probability value (Sig) is 0.000. Therefore, this paragraph is considered statistically significant at a level of significance ( $\alpha=0.05$ ) indicating that the average response rate for this paragraph has exceeded the average approval level of 3, which means that there is considerable agreement by the respondents on this paragraph.
- The arithmetic mean of the fourth paragraph "The computer network is maintained periodically" equals 2.90, ie, the relative arithmetic average is 57.96%, the test value is -1.32, and the probability value (Sig) is equal to 0.095. Therefore, this paragraph is not statistically significant at the indication level ( $\alpha=0.05$ ), the

average response rate for this paragraph is not substantially different from the average approval level of 3, which means that there is a moderate approval by the respondents on this paragraph.

- In general, the arithmetic average is 3.19, the relative arithmetic average is 63.84%, the test value is 3.72, and the probability value (Sig) is 0.000. Therefore, the "networks" field is statistically significant at the level ( $\alpha= 0.05$ ) indicating this area has exceeded the degree of approval of the medium of 3, which means that there is a high degree of approval by the respondents on the paragraphs of this area.

The researchers attributed this to the existence of an internal computer network commensurate with the needs of the work, and characterized by speed of communication, and is maintained periodically, and is characterized by protection from penetration and tampering with information, and can be developed flexibly in terms of technical.

These results were agreed with some studies such as the study (Ramadan 2009), which showed the availability of material and technical resources for the use of decision support systems in the Ministry of Education, and the study (Ammar, 2009) which reached the availability of financial and technical requirements.

**Fifth: Analysis of the paragraphs of the "support of senior management"**

The T test was used to determine whether the average response was 3 or not. The results are shown in Table (8).

**Table 8:** The arithmetic average and the probability value (Sig) for each of the paragraphs of the "senior management support"

No.	Item	SMA	Relative arithmetic mean	Test value	"Sig." value	Ranking
1.	Senior management is interested in developing computerized health information systems.	3.24	64.82	2.66	*0.004	1
2.	Senior management is encouraged to use computerized health information systems.	3.05	61.02	0.58	0.280	3
3.	The senior management follows the work process based on the use of information systems.	2.99	59.90	-0.06	0.476	6
4.	Senior management provides training programs and special courses on the use of computerized health information systems.	3.09	61.87	1.09	0.139	2
5.	Senior management is interested in suggestions on the use of computerized health information systems.	3.01	60.21	0.12	0.452	4
6.	Senior management provides the necessary requirements and financial support to improve the use of computerized health information systems.	2.76	55.26	-2.71	*0.004	8
7.	Senior management provides the necessary staff to carry out the training process for its employees.	3.01	60.10	0.06	0.477	5
8.	Senior management is interested in analyzing the problems that are facing them and prioritizing their solution.	2.85	57.04	-1.72	*0.043	7
All paragraphs of the field together		3.00	60.07	0.06	0.476	

\* The arithmetic average is statistically significant at the level of significance ( $\alpha= 0.05$ ).

From Table (8) we can draw the following:

- The mean of the first paragraph "The senior management is concerned with the development of computerized health information systems" equals 3.24 (the total score of 5), ie, the relative arithmetic average is 64.82%, the test value is 2.66 and the probability value (Sig) is 0.004. Therefore, this paragraph is considered statistically significant at a level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph has exceeded the average approval level of 3, which means that there is considerable agreement by the respondents on this paragraph.
- The arithmetic mean of the sixth paragraph, "senior management provides the necessary requirements and financial support to improve the use of computerized health information systems" equals 2.76, ie, the relative arithmetic average is 55.26%, the test value is 2.71 and the probability value (Sig) is 0.004. Therefore, this

paragraph is considered statistically significant at a level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph has fallen below the average approval level of 3, which means that there is little agreement by the respondents on this paragraph.

- In general, the arithmetic mean is 3.00, the relative arithmetic average is 60.07%, the test value is 0.06, and the probability value (Sig) is 0.466. Therefore, the area of "senior management support" is not statistically significant at a level of significance ( $\alpha= 0.05$ ), the degree of response to this area is not significantly different from the average approval level of 3, which means that there is a moderate approval by the sample members in this field.

The researchers note that the senior management is interested in the development of computerized health information systems, encourages the use of computerized health information systems, monitors the work process based on the use of information systems, provides training programs and special courses related to the use of computerized health information systems, And provide the necessary requirements and financial support to improve the use of computerized health information systems, provide the necessary cadres to carry out the training process for their employees, and analyze the problems that face them and prioritize their solution.

These findings were agreed with (Al-Otaibi, 2010), which concluded that the Academy's management supports the transition to the use of information technology for human resources management and the study of (Ramadan, 2009), which showed awareness and awareness among senior management regarding the use of decision support systems. These results differed with some studies such as (Arafat, 2007), which showed that there were differences in the attitudes of managers towards evaluating administrative requirements towards the optimal use of decision support systems.

**Sixth: Analysis of the paragraphs of the "users of the system"**

The T test was used to determine whether the average response was 3 or not. The results are shown in Table (9).

**Table 9:** The arithmetic mean and the probability value (Sig.) for each of the paragraphs of the "system users"

No.	Item	SMA	Relative arithmetic mean	Test value	"Sig." value	Ranking
1.	Employees in existing systems have the ability to adapt to business requirements.	3.48	69.59	5.66	*0.000	1
2.	Responding to the requirements of beneficiaries by high-system employees.	3.15	63.08	2.01	*0.023	2
3.	Maintenance and guidance for beneficiaries by high system employees.	3.14	62.87	1.77	*0.039	4
4.	Human cadres possess the necessary skills to operate and maintain computerized information systems.	3.15	62.90	1.89	*0.030	3
5.	The department concerned with the computerized systems shall abide by what is stated in the prescribed time.	3.09	61.88	1.16	0.123	6
6.	The Computer Systems Department provides the same level of services at all times.	2.92	58.36	-0.98	0.163	8
7.	Employees in the Department of Computer Systems and System Users participate in system design and development.	2.93	58.67	-0.76	0.224	7
8.	Users are well qualified to use the network.	3.13	62.67	1.51	0.066	5
<b>All paragraphs of the field together</b>		3.12	62.48	2.30	*0.011	

\* The arithmetic average is statistically significant at the level of significance ( $\alpha= 0.05$ ).

From Table (9) we can draw the following:

- The arithmetic average of the first paragraph "the workers in existing systems have the ability to adapt to business requirements" equals 3.48 (the total score of 5), i.e. the relative arithmetic average is 69.59%, the test value is 5.66 and the probability value (Sig) is 0.000. Therefore, this paragraph is considered statistically significant at a level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph has

exceeded the average approval level of 3, which means that there is considerable agreement by the sample members on this paragraph.

- The computational average of the sixth paragraph "The computer systems section provides the same level of services at all times" equals 2.92, ie, the relative arithmetic mean is 58.36%, the test value is -0.98 and the probability value (Sig) is 0.163, so this is not statistically significant at the level of significance ( $\alpha= 0.05$ ) indicating that the average response rate for this paragraph is not significantly different from the average approval level of 3, which means that there is a moderate approval by the respondents on this paragraph.
- In general, the arithmetic mean is 3.12, the relative arithmetic average is 62.48%, the test value is 2.30, and the probability value (Sig) is 0.011. Therefore, the "system users" field is statistically significant at a level of significance ( $\alpha= 0.05$ ). This area differs substantially from the average approval level of 3, which means that there is considerable agreement by the sample members on the paragraphs of this area.

The researchers attributed this to the existence of the administration responsible for the computerized health system at the Dar Al-Shifa Health Complex in Gaza, and the opinion of the members of the community that the workers in the existing systems have the ability to adapt to the requirements of the work, Human cadres have the skills to operate and maintain computerized information systems.

These results were agreed with some studies such as Abu Kareem (2013), which found that the response by the staff in the systems is high, and the study (Al-Omari, 2009), which found a good level of human inputs, and study (Ammar, 2009) (2009), which showed the existence of human potential to a good degree, and study (Al-Saudi, 2006), which reached to the existence of the impact of the main requirements for the management and operation of computerized information system and software, human and organizational performance, and study of (Abu Sabt, 2005), which showed that there is a diversity of disciplines working in decision-support systems and that they have efficient administrative and technical expertise commensurate significantly with assigned business to them.

These results differed with some studies such as Arafat (2007), which showed the inadequacy of the human resources system in the governmental sector in the Gaza Strip, and Ghoneim (2004), which recommended the availability of infrastructure, including human resources.

**Analysis of all paragraphs of the first axis "computerized health information systems"**

The T test was used to determine whether the average response was 3 or not. The results are shown in Table 10.

**Table 10:** The arithmetic mean and the probability value (Sig) of all the sections of "computerized health information systems"

The Field	SMA	Relative arithmetic mean	Test value	"Sig." value
computerized health information systems	3.10	62.06	2.29	*0.012

\* The arithmetic average is statistically significant at the level of significance ( $\alpha= 0.05$ ).

Table (10) shows that the arithmetic average of all the first axes is 3.10 (the total score of 5), ie, the relative arithmetic average is 62.06%, the test value is 2.29, and the probability value (Sig) is 0.012. Therefore, the first axis clauses are statistically significant Indicating that the average response rate has exceeded the average approval level, which is 3. This means that there is a great deal of agreement by the sample members on the first axis in general. The researchers attribute this to the work carried out by employees of Dar Al-Shifa Medical Complex Based mainly on the different applications of health information systems the ratio, the higher the efficiency of computerized health information systems led to improved performance of the administrative staff level.

These results were agreed with (Al-Gharabawy, 2014), which found a high degree of approval for the use of computerized health information systems applications and the level of performance of health center staff. (AL-Arabi, 2012), which confirmed the existence of a statistically significant relationship between the use of information technology and the performance of the employees, and the study (Al-Otaibi, 2010), which reached There is clarity in the study sample of the importance of the use of information technology in the management of human resources, and the study (Al-Bashaabsha, 2005), which found a significant impact of the quality of management information systems in raising the level of performance.

These results differed with some studies such as AL-Arabi (2012), which showed no statistically significant relationship between the use of information technology and the speed of achievement, and Al-Dweik (2010), which concluded that there are constraints that limit the effectiveness of health information systems.

### Test hypothesis study

**H01:** There were statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of computerized health information systems due to the demographic variables (gender, age, academic qualification, nature of work, place of work, years of service, job title) Medical - Gaza

The T-test of two independent samples was used to determine whether there were statistically significant differences, a teacher's test to compare two sets of data. The "monotonous" test was also used to determine if there were statistically significant differences. This test is a teacher fit to compare 3 or more averages.

**H01-1:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to gender.

**Table 11:** Results of the test of "T-two independent samples" - gender

The Field	Averages		Test value	"Sig." value
	Male	Female		
Equipment and equipment used.	3.01	3.12	-0.931	0.353
Databases used.	3.15	3.16	-0.107	0.915
Networks.	3.20	3.18	0.127	0.899
Support senior management.	2.96	3.11	-1.080	0.281
Users of the system.	3.12	3.12	0.014	0.989
All Fields Together	2.71	2.76	-0.602	0.548

Of the results shown in Table (11) shows that the probability value (Sig) corresponding to the T test for two independent samples is greater than the  $\alpha$  ( $\alpha 0.05$ ) for all domains and domains combined, so it can be concluded that there are no statistically significant differences Among the averages of the sample of the study on these areas and areas combined together are attributed to gender.

The results were consistent with some studies (Zine El-Din and El-Ajrami, 2013), which showed no statistically significant differences at the level of significance (0.05) between the functional performance of the employees using electronic programs to support the gender variable and the scientific qualification and years of experience, AL-Arabi, 2012) showed that there were no statistically significant differences in the effect of the use of information technology on the performance of the functions of the variables (gender, educational level) and the study (Al-Otaibi, 2010) The perceptions of the respondents are based on the demographic variables (gender, qualification, experience, etc.) . The study of Al-Saudi, 2006, which found that there are statistically significant differences in respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, scientific qualification, experience, and career level).

These results differed with some studies such as Al-Halabi (2010), which found that there is no statistically significant relationship on the "impact of decentralized administrative information systems in the Ministry of Finance in the Gaza Strip" due to demographic variables (gender, age, experience, qualification, Career, scientific level).

**H01-2:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to age.

**Table 12:** Results of the "Single Contrast" test - Age

The Field	Averages			Test value	"Sig." value
	Less than 30 years	30- Less than 40 years	40 years and over		
Equipment and equipment used.	2.84	3.07	3.22	5.102	*0.007
Databases used.	3.08	3.18	3.19	0.542	0.583
Networks.	3.09	3.22	3.28	1.205	0.302

Support senior management.	2.79	3.04	3.20	4.087	*0.018
Users of the system.	3.06	3.07	3.24	1.108	0.332
All Fields Together	2.61	2.74	2.83	3.574	*0.030

\* The difference between the D averages statistically at the level of significance ( $\alpha \leq 0.05$ )

Of the results shown in Table (12), the following can be inferred:

It was found that the probability value (Sig) corresponding to the "mono-variance" test was lower than the significance level ( $\alpha \leq 0.05$ ) for the areas "equipment and devices used, senior management support, computerized health information systems used", thus it can be concluded that there are statistically significant differences between The average of the sample of the study sample on these areas is attributed to age for the benefit of those aged 40 years and over.

As for the other fields and fields together, the probability value (Sig) was found to be greater than the significance level ( $\alpha \leq 0.05$ ) and thus it can be concluded that there are no statistically significant differences between the averages of the sample of the study on these areas and the domains combined due to age.

These results were consistent with some studies (AL-Arabi, 2012), which showed that there are statistically significant differences in the effect of using IT on job performance, which is related to variables (age, financial seniority, occupational category), (Al-Omari, 2009) which showed that there are differences in the attitudes of the managers towards evaluating the administrative requirements towards the demographic variables (scientific level, years of experience, work place, job level). The study of (Arafat, 2007), which showed that there are differences in the attitudes of managers towards assessing the administrative requirements towards the optimal use of decision support systems in terms of age, experience and qualification in the institutions of the government sector is acceptable in terms of facilitating the optimal use of decision support systems, Study of (Al-Saudi, 2006), which showed a statistically significant difference in respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, scientific qualification). Study of Al-Bashaabsha (2005), which found statistically significant differences between the respondents' perceptions (age, qualification, and career level).

These results differed with some studies such as Al-Halabi (2010), which found that there is no statistically significant relationship on the "impact of decentralized administrative information systems in the Ministry of Finance in the Gaza Strip" due to demographic variables (gender, age, experience, qualification). (Al-Otaibi, 2010), which found that there are no statistically significant differences between respondents' perceptions of demographic variables (gender, qualification, experience, level of career).

**H01-3:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the scientific qualification.

**Table 13:** Results of the "Single Contrast" test - Scientific qualification

The Field	Averages			Test value	"Sig." value
	Diploma and below	BA	Postgraduate		
Equipment and equipment used.	2.98	3.03	3.11	0.367	0.693
Databases used.	3.08	3.17	3.15	0.217	0.805
Networks.	3.25	3.13	3.32	1.203	0.303
Support senior management.	2.93	2.95	3.22	1.769	0.173
Users of the system.	3.22	3.07	3.19	0.730	0.483
<b>All Fields Together</b>	2.70	2.70	2.82	1.079	0.342

Of the results shown in Table (13) shows that the probability value (Sig) corresponding to the "Mono-variance" test is greater than the significance level ( $\alpha \leq 0.05$ ) for all domains and domains combined, so it can be concluded that there are no statistically significant differences between the average estimates Sample study on these areas and areas combined together are attributed to the scientific qualification.

The researchers attributed this to the fact that the sample of the study included groups that include scientific qualifications at close rates, which showed the existence of differences in their responses.

The results were consistent with some studies (Zine El-Din and El-Ajrami, 2013), which found that there were no statistically significant differences at the level of significance (0.05) between the functional performance of the employees using electronic programs in support of gender variable, (AL-Arabi, 2012), which showed no statistically

significant differences in the effect of the use of information technology on the job performance attributed to variables (gender, educational level) and Al-Halabi (2010) "The Impact of Informed Administrative Information Systems on Decentralization in the Ministry of Finance in the Gaza Strip" (Al-Otaibi, 2010), which found that there are no statistically significant differences between respondents' perceptions of demographic variables (gender, qualification, experience, level) Career).

These results differed with some studies such as Al-Omari (2009), which found that there were statistically significant differences between respondents' perceptions of the subject of the study due to the demographic variables (scientific level, years of experience, workplace, job level) , 2006). The study found that there are statistically significant differences in respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, scientific qualification, experience, and career level), and the study (Al-Bashaabsha, 2005) Statistical significance between the respondents' perceptions attributed to (age, scientific qualification , Career Level).

**H01-4:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to the nature of the work.

**Table 14:** Results of T-test for two independent samples - Nature of work

The Field	Averages		Test value	"Sig." value
	Administrative	Health Administration		
Equipment and equipment used.	3.14	2.99	1.430	0.154
Databases used.	3.24	3.11	1.258	0.210
Networks.	3.38	3.10	2.613	*0.010
Support senior management.	3.04	2.99	0.382	0.703
Users of the system.	3.15	3.11	0.302	0.763
<b>All Fields Together</b>	2.79	2.70	1.227	0.221

\* The difference between the two averages is statistically significant ( $\alpha \leq 0.05$ )

Of the results described in Table 14, the following can be inferred:

It was found that the probability value (Sig) corresponding to the T-test for two independent samples is less than the ( $\alpha \leq 0.05$ ) for the field of "networks." It can thus be concluded that there are statistically significant differences between the average sample estimates for this field Work for the benefit of those who nature their administrative work.

For the other fields and fields together, the probability value (Sig) was greater than the ( $\alpha \leq 0.05$ ) Thus, it can be concluded that there are no statistically significant differences between the averages of the sample estimates of the study on these areas and areas combined due to the nature of the work.

The researchers point out that computerized health information systems are easy-to-use systems that anyone who is good at dealing with the computer, and with a little training can use these systems and get their outputs, and therefore the nature of work on this field for the benefit of those whose nature is administrative.

These findings were agreed with Al-Dweik (2010), which showed that the computerized health information system currently used in the European Gaza Hospital has a good impact on the fields of medical and administrative work as well as on medical and administrative decisions and Al-Omari (2009) which found statistically significant differences between the respondents' perceptions of the subject of the study due to the demographic variables (scientific level, years of experience, workplace, job level) and (Al-Saudi, 2006), which showed a significant statistical difference for the respondents' perceptions of the operating requirements Information system, attributable to demographic variables (Gender, age, academic qualification, experience, and career level).

These results differed with some studies such as Al-Otaibi (2010), which found that there were no statistically significant differences, between respondents' perceptions of demographic variables (gender, qualification, experience, level of employment).

**H01-5:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the workplace.

**Table 15:** Results of T-test for two independent samples - workplace

The Field	Averages		Test value	“Sig.” value
	Outpatient clinics	Sections		
Equipment and equipment used.	3.14	3.02	0.798	0.426
Databases used.	3.12	3.15	-0.239	0.811
Networks.	3.31	3.18	0.844	0.400
Support senior management.	3.13	2.99	0.779	0.437
Users of the system.	3.13	3.12	0.044	0.965
<b>All Fields Together</b>	2.80	2.72	0.772	0.441

Of the results shown in Table (15) shows that the probability value (Sig) corresponding to the T-test for independent samples is greater than the ( $\alpha \leq 0.05$ ) for all domains and domains combined, so it can be concluded that there are no statistically significant differences between The average sample study estimates on these areas and areas combined are attributed to the workplace, as the systems used are not affected by the different department, medical administration or workplace.

The researchers attributed this to the fact that all the work that takes place within Dar Al-Shifa Medical Complex is a medical health work and the target group is administrative and health administrators. Therefore, the work place is not different from one department to another, where there is similarity in the same health field. There is no difference in the working environment from one department to another.

These results were consistent with (Al-Otaibi, 2010), which found no statistically significant differences between respondents' perceptions of demographic variables (gender, qualification, experience, level of employment).

The results differed with some studies such as (AL-Arabi, 2012), which showed that there are statistically significant differences in the effect of the use of information technology on job performance, which is related to the variables (age, financial seniority, Which showed that the computerized health information system currently used in Gaza European Hospital has a good impact on the fields of medical and administrative work as well as on medical and administrative decisions. Al-Omari (2009) found that there are statistically significant differences between the respondents' perceptions of the subject of the study due to demographic variables (scientific level, years). (Al-Bashaabsha, 2005), which found statistically significant differences between the respondents' perceptions attributed to age, academic qualification, and career level.

**H01-6:** There were statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex due to the years of service.

**Table 16:** Results of the "Single Contrast" test - years of service

The Field	Averages			Test value	“Sig.” value
	Less than 5 years	5- Less than 10 years	10 years and over		
Equipment and equipment used.	2.84	3.11	3.12	3.182	*0.044
Databases used.	3.13	3.19	3.14	0.139	0.870
Networks.	3.11	3.33	3.15	1.496	0.227
Support senior management.	2.77	3.01	3.15	3.361	*0.037
Users of the system.	3.15	3.07	3.15	0.232	0.793
<b>All Fields Together</b>	2.63	2.75	2.77	1.462	0.234

\* The difference between the two averages is statistically significant ( $\alpha \leq 0.05$ )

From the results shown in Table (16), the following can be inferred:

It was found that the probability value (Sig) corresponding to the "mono-variance" test was lower than the ( $\alpha \leq 0.05$ ) for the "equipment and devices used, senior management support" The two fields are attributed to years of service in favor of those who have served for 10 years or more.

For the other fields and fields together, the probability value (Sig) was greater than the ( $\alpha \leq 0.05$ ) Thus, it can be concluded that there are no statistically significant differences between the averages of the sample estimates of the study on these areas and the fields combined due to years of service.

The researchers attributed this to the fact that the sample of the study included different groups of experienced people in close percentages, which showed differences in their responses in favor of the owners of the years of experience the highest, where we find that most of the middle age group most popular using modern technologies.

The results were consistent with some studies (Abu Kareem, 2013), which showed statistically significant differences between the relationship between management information systems in improving administrative performance due to variable years of service, and study (AL-Arabi, 2012), which showed statistically significant differences The effect of the use of information technology on job performance is attributed to the variables (age, financial seniority, occupational category) and (Al-Omari, 2009), which found statistically significant differences between the respondents' perceptions of the subject of the study due to demographic variables , Workplace, Career Level), and the study (Arafat, 2007) which showed that there are differences in the attitudes of managers towards evaluating the administrative requirements towards the optimal use of decision support systems in terms of age, experience and qualification in the institutions of the government sector is acceptable in terms of facilitating the optimal use of decision support systems, and study (Al-Saudi, 2006) which showed statistically significant differences in respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, academic qualification, experience, and career level).

The results differed with some studies such as (Zine El-Din and El-Ajrami, 2013), which showed no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the functional performance of the employees using electronic programs in support of the gender variable, Al-Otaibi, 2010) found that there were no statistically significant differences between respondents' perceptions of demographic variables (gender, academic qualification, experience, level of career).

**H01-7:** There are statistically significant differences between the responses of the respondents at the level of significance ( $\alpha \leq 0.05$ ) on the reality of the integration of dimensions of computerized health information systems in Dar Al-Shifa Medical Complex attributed to the job title.

**Table 17:** Results of the "Single Contrast" test - Job Title

The Field	Averages				Test value	"Sig." value
	Head of department and above	Head of the Department	Administrative Head	Administrative		
Equipment and equipment used.	3.08	3.12	3.14	2.92	1.310	0.272
Databases used.	3.18	3.16	3.12	3.13	0.045	0.987
Networks.	3.13	3.21	3.32	3.15	0.282	0.838
Support senior management.	3.09	3.09	3.28	2.83	1.925	0.127
Users of the system.	3.21	3.15	3.16	3.07	0.234	0.873
<b>All Fields Together</b>	2.77	2.77	2.81	2.65	0.994	0.397

Of the results shown in Table (17) show that the probability value (Sig) corresponding to the "Mono-variance" test is greater than the ( $\alpha \leq 0.05$ ) for all domains and domains combined, so it can be concluded that there are no statistically significant differences between the average estimates The study sample on these areas and areas combined together are attributed to the job title.

The researchers attributed this to the fact that computerized health information systems are modern systems and use computer technologies, communications, equipment and modern equipment that lead to the completion of the work quickly and accurately.

These results were agreed with (Al-Gharabawy, 2014), which found a positive relationship between the computerized health information systems and the level of performance of the workers in the health centers, and the study of (Al-Halabi, 2010), which concluded that there was no significant relationship The impact of computerized administrative information systems on decentralization in the Ministry of Finance in the Gaza Strip is due to the demographic variables (gender, age, experience, job qualification, scientific level) and the study of (Al-Otaibi, 2010) Statistical significance between respondents' perceptions of demographic variables (gender, gender) Whether scientific, experience, or career level).

These results differed with some studies such as (Al-Omari, 2009), which found that there were statistically significant differences between respondents' perceptions of the subject of the study due to demographic variables (scientific level, years of experience, workplace, 2006), which found that there are differences of statistical

significance for the respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, academic qualification, experience and level of employment). The study (Al-Bashaabsha, 2005) Statistical significance between the respondents' perceptions attributed to (age, scientific qualification, level career).

## **12. CONCLUSIONS**

- The results showed that 84.3% of the sample agreed to the availability of office automation systems and document management at Dar Al-Shifa Medical Complex. (89.8%) of the sample agreed to the availability of patient registration systems at Dar Al-Shifa Medical Complex. (90.9%) of the sample agreed to the availability of medical records systems at Dar Al-Shifa Medical Complex. (66.0%) of the sample agreed to the availability of blood bank records systems at Dar Al-Shifa Medical Complex. It also confirmed that (49.7%) of the study sample agreed to the availability of radiation systems at Dar Al-Shifa Medical Complex. (51.8%) of the sample agreed to the availability of pharmacy systems at Dar Al-Shifa Medical Complex. The results showed that (50.3%) of the study sample agreed to the availability of laboratory systems at Dar Al-Shifa Medical Complex. (68.5%) of the sample agreed to the availability of medical reporting systems at Dar Al-Shifa Medical Complex. (61.9%) of the sample agree on the study of electronic reporting systems at Dar Al-Shifa Medical Complex. The results showed that 71.6% of the study sample agreed on the availability of internal department systems at Dar Al-Shifa Medical Complex. (84.8%) of the study sample agreed to the availability of outpatient clinics and emergency department at Dar Al-Shifa Medical Complex. The results confirmed that (28.4%) of the sample of the study agree to the availability of messaging systems such as e-mail and voice mail at Dar Al-Shifa Medical Complex.
- The results showed that the field of "used equipment and equipment" is not statistically significant at the level of ( $\alpha \leq 0.05$ ). This indicates that the average response rate for this field is not significantly different from the average approval level (3). By the respondents on this field. And that the field of "databases used" is statistically significant at the level of significance ( $\alpha \leq 0.05$ ), indicating that the average response to this field has exceeded the average approval level (3). This means that there is considerable approval by the sample Paragraphs of this area. And that the field of "networks" is statistically significant at the level of significance ( $\alpha \leq 0.05$ ), indicating that the average response to this field has exceeded the degree of intermediate approval which is (3). This means that there is a high degree of approval by the respondents the field. And that the area of "senior management support" is not statistically significant at the level of significance ( $\alpha \leq 0.05$ ), indicating that the average response rate for this field is not significantly different from the average approval level (3). This means that there is moderate approval by individuals Sample on this field.
- The results showed that there are no statistically significant differences between the mean of the sample of the study on these areas and the domains combined, which are attributed to the variables of gender, qualification, place of work, years of service, job title,
- The results showed that there were statistically significant differences between the average of the sample of the study sample on these areas due to (Age) for the benefit of those aged (40) years or more.
- The results showed that there are statistically significant differences between the average estimates of the sample of the study on this field due to the nature of the work in favor of those whose nature is administrative.
- The results showed that there are statistically significant differences between the average of the sample of the study sample on these two fields due to the years of service in favor of those who have served for 10 years or more.

## **13. RECOMMENDATIONS**

- The need to establish a specialized department of computerized health information systems, with clear responsibilities, and includes technical and administrative specialists and health personnel, and the number and efficiency required, working as a team work to apply the mechanisms of work computerized health information systems, and be in direct contact with staff in clinics and sections to provide services and technical support as soon as possible Best quality.
- Increased support from senior management to users by encouraging them to use computerized health information systems and understanding their different needs.
- The interest in providing the material resources of equipment and devices used in the computerized health information system.

- The use of database systems in administrative and medical decisions in clinics and departments that have the effect of raising the effectiveness of decisions by improving their quality.
- Attention to the provision of modern networks characterized by rapid communication, and the problem of slow network, through the provision of a main server.
- Provide a special e-mail to each employee using the computerized health information system, which facilitates the exchange of data between employees and increases communication with senior management.
- The need for the users of the system to participate in the process of design and evaluation of computerized systems, because it is important in reducing the causes of resistance to change and raise morale and notify employees of their functional importance.
- The importance of implementing qualitative campaigns targeting health workers on the importance of computerized systems.

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