Mutah University
College of Graduate Studies

Level of Implementation and Obstacles of the National Building Code for Disabled in Health Buildings

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الآراء الواردة في هذه الرسالة الجامعية لا تُعبر
بالضرورة عن وجهة نظر جامعة مؤتة

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تقرر إجازة الرسالة المقدمة من الطالب مها سالم دواس الدهامشه

والموسومة بـــ: **level of implementation and obstacles of the national buildiing code for disabled in health building**

استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية

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أ.د عمر المعايطة

Dedication

I dedicate this effort to the most cleanest hearts, without them, I would not found on this life, and from them I learned how to live in dignity, to my dear parents.

Then to my brothers and sisters, who shared with me my happiness and sorrows, and to my companion who shared with me in good and bad times the symbol of sincerity and loyalty Dr. Mamdouh Alnaif

And to all relatives and friends

I pray to god that this effort will be crowned with success and acceptance by the honorable to be crowned with success and acceptance by the honorable members of the discussion committee

Acknowledgment

I extend my thanks first to Allah,
who enlightened my path to complete my degree,then to my university, and Dr. Sultan Al-Tarawneh, all thanks for his efforts to provide help and assistance to me, and to the discussion committee that gave me their time and efforts, and the necessary notes to enrich this thesis.
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HCD	Higher Council for the Rights of persons with Disabilities
SPSS	Statistical Package for Social Sience

Abstract

Level of Implementation and Obstacles of the National Building Code for Disabled in Health Buildings

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Maha Salem Dawas Al-Dahamsheh

Mutah University, 2020

This study aimed to evaluate the level of implementation of the disabled building code in the Jordanian hospitals, and to identify the obstacles that face it, and to identify mistakes that should be avoided by future legislation, and to achieve this objectives; a questionnaire was designed and distributed to the study community, which consists of (7) hospitals, including: (3) private hospitals, (3) government hospitals, and (1) university hospital, where a (350) questionnaires were distributed to workers in the Jordanian hospitals within the study sample, and to service recipients with physical disabilities wheelchair users.

In this study, the SPSS programs was used to anlyse the collected data by the instrument of the study, and the statistical results showed that there are obstacles that limit the implementation of disabled building code within the high level in the Jordanian hospitals, and these obstacles came from a series of the most influential to the least influenced according to statistical analysis as follows (financial obstacles, physical obstacles, human resources obstacles, and finally the legislative obstacles), as the results of the study showed that the disabled building code for wheelchair users is actually applied in the Jordanian hospitals at rates ranging from low to high, where this implementation helps this segment of society to practice its activities and ensure their arrival to health facilities.

The study set a group of recommendations the most important were to carry out periodic maintenance of the infrastructure and hospital facilities with the aim of improving performance and ensuring public safety, increase the awareness of hospital staff about how to deal with physically disabled persons, Providing the necessary financial support for the development of Jordanian hospitals, spread the necessary awareness of the rights of persons with disabilities through the various media outlets, and to conduct more studies to improve the implement of disabled building code in the Jordanian hospitals.

الملخص

مستوى تطبيق وعوائق كود البناء الوطني للمعاقين في المباني الصحية

إعداد

مها سالم دواس الدهامشة

جامعة مؤتة ، 2020 م

هدفت هذه الدراسة إلى تقييم مستوى تطبيق قانون البناء للمعاقين في المستشفيات الأردنية، وتحديد المعوقات التي تواجهه، و تحديد الاخطاء التي يتوجب تجنبها في التشريعات المستقبلية، ولتحقيق هذه الأهداف تم تصميم الاستبانة و توزيعها على مجتمع الدراسة والذي تكون من (7) مستشفيات ، منها: (3) مستشفيات خاصة ، (3) مستشفيات حكومية ، (1) مستشفى جامعي ، حيث تم توزيع (350) استبانة على العاملين في المستشفيات الأردنية ضمن عينة الدراسة، و متلقي الخدمة من ذوي الإعاقات الحركية من مستخدمي الكراسي المتحركة.

في هذه الدراسة تم استخدام برنامج SPSS لتحليل البيانات التي جمعت من خلال اداة الدراسة، وقد اظهرت النتائج الاحصائية وجود معوقات تحد من تطبيق كود البناء المعاقين ضمن المستوى العالي في المستشفيات الأردنية، وهذه المعوقات جاءت متسلسلة من الأكثر تأثيراً الى الأقل تأثراً وفقا للتحليل الاحصائي، على النحو التالي (العوائق المالية ، العوائق المادية ، عوائق الموارد البشرية ، واخيرا العوائق التشريعية)، حيث أظهرت نتائج الدراسة أيضًا أن كود البناء المعاقين لمستخدمي الكراسي المتحركة يتم تطبيقه بشكل فعلي في المستشفيات الأردنية بمعدلات تتراوح من منخفضة إلى عالية، حيث ان هذا التطبيق يساعد هذه الشريحة من المجتمع على ممارسة أنشطتها وضمان وصولها إلى المرافق الصحية.

وقد وضعت الدراسة مجموعة من التوصيات كان أهمها إجراء صيانة دورية للبنية التحتية ومرافق المستشفيات بهدف تحسين الأداء وضمان السلامة العامة ، زيادة وعي العاملين في المستشفى حول كيفية التعامل مع الأشخاص من ذوي الاعاقة ، توفير الدعم المالي اللازم لتطوير المستشفيات الأردنية ، نشر الوعي اللازم بحقوق الأشخاص ذوي الاعاقة من خلال وسائل الاعلام المتنوعة، وإجراء المزيد من الدراسات لتحسين تطبيق كود بناء المعاقين في المستشفيات الاردنية.

Chapter One
Introduction

1.1 Overview

It is obvious that human comes at the forefront of elements that must be focused on society, because it is the basic building blocks, the most important and the most valuable, and the development of any society can be measured by the extent of its interest in the aspects of humanity, social and psychological of its members.

The daily life requirement of the individual is imposed on him by different activities which may expose him to various physical risks that may lead to the loss of one of his duties, which reduce and effect their production and thus the general society production, and there are also individuals who are willing to be born with a disability or a chronic disease that may affect their daily lives and functioning and thus reduce or limit their productivity (Prideaux and Roulstone, 2009).

After the world war Π, the European countries tried to contain and help the disabled people by creating housing complexes and providing them with employment opportunities that commensurate with their capabilities, in doing so, a society of disabled people has been created away from the natural society, which prompted the disabled group to feel lonely, negativity and social isolation (Jackson, 2010).

The modern philosophical theory, assumed the necessity of the integration and merge between the homes of physically disabled persons into other housing projects without any distinction to allow disabled persons to interact daily with normal persons at work, sports, cultural, education and any other activities, which allow them to develop a social relations, consolidate the bonds of friendship, mutual understanding, and disappear the psychological isolation that disabled people suffered, and in order to achieve the goal of this philosophy, it was necessary to develop a set of measures and plans that allow people with disabilities to exercise their lives normally in society through what is known as building codes, which have a share of disabled as is the case for normal persons (Castell, 2008).

Huges (2003) stated that the building code means the set of conditions and provisions that must be met in any building or facility in terms of health, strength, durability, ease of access and personnel use which are the basic rules for any facility agreed upon as basics around the world, but its worth mentioning that the building code differs from building to another there is hosing, towers, malls, military facility, commercial buildings, hospitals, health buildings, government and official departments which must meet these conditions in order to be able to reach and benefit both normal and disabled people, and in the absence of these conditions

and provisions the license and approvals are not granted for the construction of these facilties, regardless of the fact that each country has its own distinctive architectural character, but the safety conditions and the fundamentals of construction are uniform.

Therefore, this research focused on the disabled Jordanian building code and its implementation in the health buildings (hospitals), and specially for physical disabled and wheelchairs users as a medical equipment that use in many cases which requires easy movement, also, this study came to shed light on the extent of implementation of the physically disabled building code in Jordanian health buildings and hospitals, the role of legislation and construction laws in applying this code, and its role in serving this segment of society and helping it to integrate into the community healthily, and receiving the appropriate health service, in addition to seek among the most important obstacles that prevent the implementation of disabled building code in the Jordanian hospitals and finding solutions and recommendations that serve the aims of the study (Jackson, 2010).

1.2 Problem of the Study

This study came to examine the most important problems that may face the disabled and prevent their access to health service centers in particular and the extent of the implementations of building code practices in the Jordanian hospitals in addition to examine the obstacles and risks that may face people with disabilities in their access to medical services. This study was devoted to examine the readiness of the Jordanian hospitals, especially for wheelchairs noting that wheelchairs are not only for people with physical disabilities, but also for patients who cannot walk according to any temporary or accidental conditions

The study also found that most studies in Jordan concerning the disabled are concerned with the extent of interaction of disabled in society and the extent of their integration in assessing the extent of implementation of the building code for disabled people in hospitals, while this study concerned with the suitability of the national building code for persons with disabilities and the obstacles that face them, especially for wheelchair users.

1.3 Importance of the Study

This study derives its importance from its role in assessing the real level of the building codes application for the disabled persons specially the wheelchairs users, since the category of disabled increased in 2018 to reach (11%) in Hashmite Kingdom of Jordan according to the statistics of Higher Council for Rights of Persons with Disabilities (HCD), and due to the sensitivity of this group, which require to provide them a special care,

and work for intensified efforts to serve this segment and provide a decent way living for them.

Therefore, this study emphasis placed on the extent to which the building code for disabled persons who use wheelchairs in health buildings (hospitals) is applied and what are the obstacles that limit their application.

1.4 Objectives of the Study

This study aimed to achieve the following objectives:

1- Evaluate the level of implementation of the disabled building code in the Jordanian hospitals.
2- Identification of the obstacles that limit the implementation of disabled building codes in the Jordanian hospitals.
3- Identify the mistakes that should be avoided by future legislation regarding disabled building code and things that should take into consideration.

1.5 Questions of the Study

The researcher determined the questions of the study, in order to answer and to achieve the objectives of the study, and the questions as follow:

1- What is the extent of implementation of the physically disabled building code in the Jordanian hospitals?
2- What are the obstacles that limit the implementation of the disabled building codes in the Jordanian hospitals?

The following sub- questions derived from:

2-1 What are the effects of the legislative obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?

2-2 What are the effects of the physical (construction) obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?

2-3 What are the effects of the human resources obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?

2-4 What are the effects of the financial obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?

1.6 Hypothesis of the Study

The hypotheses of the study were based and determined upon the problem and the questions of the study, which formulated as the follow:

H0-1: there is no statistically significant impact at the level of ($\alpha \leq 0.05$) to the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals.

H0-2: there is no statistically significant impact at the level of ($\alpha \leq 0.05$) to the obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals, and the following sub-hypothesis are derived:

H0-2.1: there is no statistically significant impact on the level of ($\alpha \leq 0.05$) to the legislative obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals.

H0-2.2: there is no statistically significant impact on the level of ($\alpha \leq 0.05$) to the physical (construction) obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals.

H0-2.3: there is no statistically significant impact on the level of ($\alpha \leq 0.05$) to the human reources obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals.

H0-2.4: there is no statistically significant impact on the level of ($\alpha \leq 0.05$) to the financial obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals.

1.7 Model of The Study

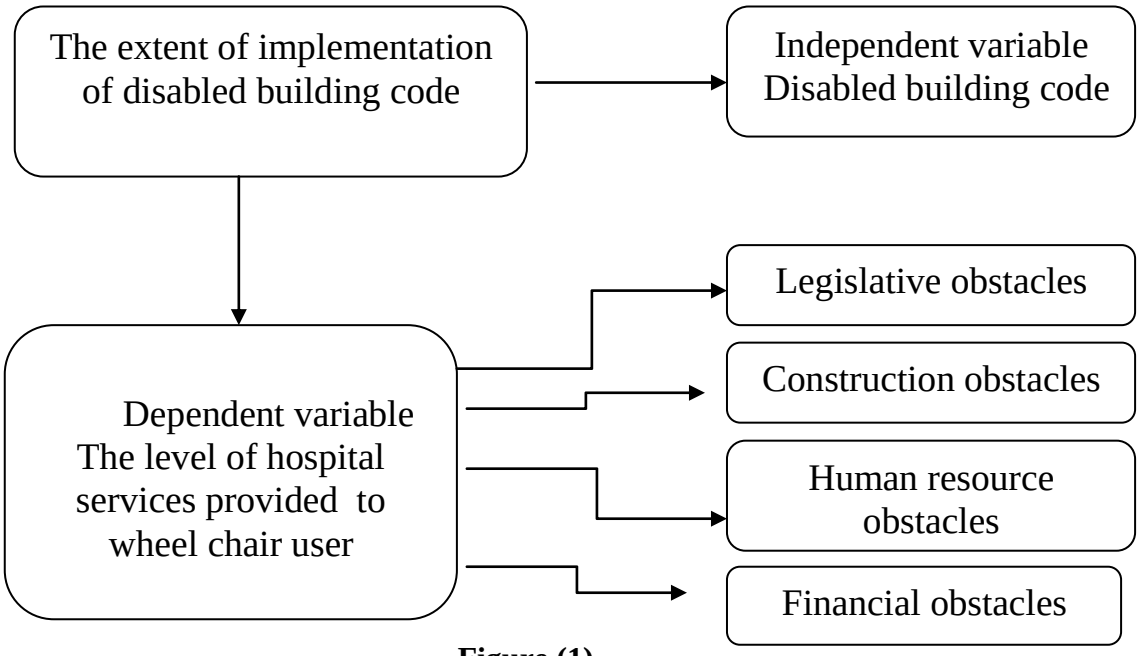

Figure (1)
The dependent and independent variable in the implementation of disabled building code in the Jordanian hospitals

1.8 Limitation of the Study

This study is limited to the sample, therefore, the findings of the study cannot be generalized.

1.9 Limits of the Study

The study was conducted in Amman during the first semester of the academic year 2019/2020.

1.10 Definitions of Term

Disabled: Anyone who suffers from long- term weaknesses such as mental, intellectual, physical and sensory, which prevents them from participating fully and effectively in society on an equal basis with others.(Al-Majali and Faddoul, 2008)

Building code: the set of conditions and requirements and the subsequent regulations, executive regulations and annexes that guarantee the minimum limit of safety and public health through the durability, stability of the buildings and the way to access to them, in addition to provide a healthy environment, lighting, adequate ventilation, rationalization of water and energy and protection of lives and properties from the dangers of fire and any other risks associated with buildings.(Olson, 1997)

Wheelchair: it is a chair with wheels, designed to be a substitute for walking, its used to stabilize and correct the sitting position of the body of the disabled or the patient in a healthy form in order to use it to move from one place to another, and this type of seating system is prepared at the expense of special measures for each individual in a way that provides complete comfort and reduce the development of disability symptoms . (Amrawi, 2014).

Chapter Two
Theoretical Framework and Literature Review

Through this chapter, the researcher presented the literature review and the empirical studies which related to the field of the study; building codes, disabled persons, and the extent of the application of building code in hospitals, according to the agreed standards and suitability for the wheelchair which will help to shed the lights on the importance of this study, support and achieve its objective, and raising awareness about the health building code and disabled service as a part of society.

2.1 Building Code (General Review)

The building code represents a set of rules that will determine the minimum acceptable level of safety for building and unstructured installations, and it's primarily aimed to ensure safety, public interest and protecting public health which related to the construction of buildings and installations. (Molenbroek and Et.al, 2011).

While (Al-Jowair, 2010) define it as a set of short and uncomplicated rules that refer to hundreds of other laws, standards and guideline principles that define the requirements and details of the component in order to achieve the desired objectives of the building, (Al-Maitah, 2004) added that there are a number of goals to be achieved from the building code, as for how to implement it is left to the owner of the design.

As a simplified historical over view of the building code, (Fahd, 2004) reported that the building code has appeared since Hammurabi enacted building codes and have developed the first one.

Olson (1997) stated that in the 19^{th} century, the industrial revolution in Europe led to the enactment of a set of building codes, the first building code enacted in Baltimore in 1859 and later after the great fire in Baltimore the building code were amended successively until it was formally adopted in 1908, and in France the height of buildings was limited by building code, where the number of floors did not exceed five or six at most, as well as the case in both Germany and Austria.

Consequently, the building code is issued by a specific competent authority and is applied by the competent authorities which composed from planners and engineers. Usually the building code contains additional laws and more specific conditions to apply to housing, hospitals, commercial complexes and towers, which related to parking spaces, pedestrian paths, entrance and exit areas, rooms and other details. (Al-Majali and Faddoul, 2008).

Amrawi (2014) mentioned that the practice of developing building codes varies from country to another; in some countries government agencies enact building codes and are enforced by the central government known as international building codes, while the building codes which

relate to safety from fire and accidents refer to local authorities and are called the model building code. He also mentioned that each major city has its own building codes as well as the development of its building regulations from time to time, for example, in 2008 New York state renounced the building code in force since 1968 and replaced it with a detailed international building code.

2.2 The Basic Rules of Building Code

According to (Welch, Hatton, and Emerson, 2012) the basic rules of building code, which must be available in all buildings and facilities as the basic requirements and necessary for the granting of licenses, which were as follows:

1. Code of fire safety to ensure safe evacuation in the event of a fire Code of resisting earthquakes, hurricanes, storms, tsunamis and floods, especially in areas prone to disasters or large buildings where the error will cause a tragic disaster.
2. Code related to traffic and parking.
3. Code of exits, entrance and location measurements and the minimum and maximum room spaces.
4. The ability and quality of individuals and companies who performing the construction works, and comply with the specifications agreed in the building code, in addition to the permitted installation methods.. Code of special purpose buildings such as storage of flammable materials and housing which contains large numbers of people .
5. Code of energy use and consumption provisions, and anti – collision marks in the case of tall buildings and towers
6. If the building has not been renovated, the building code does not normally apply to existing buildings and does not apply to them, this is known as the acquired law's provisions.

2.3 The Correlation Between the Building Codes and Disabled

The third millennium has witnessed major transformations with regard to marginalized groups in society, where the whole world has taken procedures to support people with disabilities to live their lives as normal as other members of society based on the philosophy of achieving equality between members of society and lift discrimination through the adoption of the international convention on the rights of persons with disabilities in 2006 which aimed to protect the rights of persons with disabilities, enhance their dignity, support them and ensure their enjoyment of fundemental freedoms and human rights, where (147) countries have signed this convention and (98) countries have ratified it to support this category, which constitutes (15%) of the total world population according to the 2018 statistics (HCD, 2008). The Jordanian persons with disabilities law No.31

of 2007 defines a person with a disability as any person with a total or partial impairment that is stable in his senses or his physical, psychological, and mental abilities, which limits his ability to learn, rehabilitate or work, thus he cannot meet his normal requirements in circumstances like non disabled (Al-Otoom and Et.al, 2017).

Al-Safadi (2007) defined a disabled person as a person who suffers from a genetic or environmental factors acquired from physical or mental deficiencies that have social and psychological effects that prevent him from learning or carrying out any intellectual or physical activities.

Amrawi (2014) added that disability defined as the inability of an individual to do something compared to those in his age and can do this work and therefore it is preventing the individual from carrying out one of his or her daily functions such as personal care, social relations or economic activities within the natural and habitual limits.

In accordance with this philosophy and the principles underlying it, all formations of the international community and its members, governments and local communities, organizations and individuals must take all necessary procedures to translate this vision and principles into actual programs of action so that people with disabilities can feel the results in their daily lives, at the level of education, health and services in all its branches, and these procedures are:

1. Take administrative, legislative and administrative procedures to implement the recognized rights of persons with disabilities, and create a legislative environment that ensures equal opportunities and eliminates discrimination against persons with disabilities.
2. Promote the human rights of persons with disabilities in all programs and refrain from any practice contrary to the Convention, as well as take all procedures to eliminate discrimination on the basis of disability by any person or organization.
3. Support and promote research and development processes for goods, equipment and publicly designed facilities.
4. Support and promote research and development in the provision and use of new technologies, information technology, communication, assistive devices and technologies for persons with disabilities at reasonable prices, in addition to facilitating access and identification of this technology.
5. Training and qualifying staff dealing directly with persons with disabilities, and increasing their awareness of the rights recognized in the Convention.

2.4 Types of Disabilities

There are many types of disabilities such as a physical, intellectual and sensory, and it's worth mentioning that the disabilities may result from

many factors like a certain accident, genetic factors, may born with the person, severe malnutrition or neglect, and in some cases the disability may be double. This study came to focus on the type of physical disability, which requires the use of a wheelchair to access various services, hence the importance of applying the disabled building code, especially those with physical disability, and it is worth mentioning that there are some people who suffer from another type of disability besides the physical disability, and according to the following, an explanation of the types of disabilities explained by (Al-Smadi and Al- Sartawi, 2010):

1. Visual disability: means (blind) in a whole or a part so that the disabled person has difficulty seeing even with the use of glasses.
2. Hearing disability: means hearing difficulties (deaf) partially or completely, even with the use of a stethoscope.
3. Movement Disability: which means difficulty of walking, or climbing stairs and doing any movement alone, this kind of disability use the wheelchair to move from place to another.
4. Concentration and remembering disability: means that this person suffers from the dispersion of thought and the inability to concentrate and therefore can not be able to deal with all individuals around him but with a limited group only.
5. Personal care disability: which means having difficulty or inability to pay attention to personal care such as using the bathroom, bathing, and dressing.
6. Communication and understanding with others disability: which means the difficulties of integration and understanding with others and inability to start a conversation with others, thus, lack of understanding of the usual language or traditional among normal individuals.
7. Mental disability includes learning disabilities or mental retardation
8. Emotional disabilities: which means the presence of behavioral disorders.

2.5 Building Code in Health Facilities

Based on the requirements of national buildings and international standards, the environment has been designed and rehabilitated in a way that suits the needs of people with disabilities, also a specialized model have been designed for sensory detection of the physical environment in health institutions to ensure the accessibility and use by persons with disabilities, where access is the first step to enable people with disabilities to get a health service (Molenbroek and Et.al, 2011).

Article (4) of the rights of persons with disabilities law No. (31)(4) of 2016 stipulates the necessity of obliging the relevant authorities, each according to his competence, to provide environmental facilities in a

various places and establishments where persons with disabilities exists, and that is through (Al-A'dra, 2017):

1. Apply the requirement of the official national building code which related to persons with disabilities issued by the relevant authority in all buildings in the public and private sectors, and this applies to all buildings where as much as possible.
2. The building permits shall not be granted to any entity except after confirming compliance with the provisions mentioned in Article (1) of this paragraph.
3. Providing public transport companies and car rental offices with at least one mode of transport to ensure that persons with disabilities use or easily move.
4. Access by persons with disabilities to information technology and systems, including the internet and media of all kinds, visual, audio, print and emergency services, including the provision of sign language interpreters.

Jordan considers as one of the first countries to sign and ratify the International Convention on the Rights of Persons with Disabilities, which was accompanied by a change in the perception of persons with disabilities, which was represented through this agreement, and it took a quick procedure towards persons with disability, the most important was as follows (HCD, 2011):

1. Establishment of the higher council for disabled persons in 2007.
2. Issuance of the national strategy for persons with disabilities in 2007.
3. Issuance the law of the disabilities persons rights No. (31) in 2007.

In implementation of the provisions of this agreement and in order to complement the national achievements in providing services and basic support for persons with disabilities in the aspects of health, rehabilitation, provision of equipment, raise community awareness of their issues from one side, and identify obstacles that limit the access degree of persons with disabilities to their rights in participate and enjoy these services, health institutions and service facilities, through which people with disabilities are absorbed and integrated with other community members. Therefore, its assumed that all health facilities conform to the minimum specifications and conditions related to access from the streets, and pavements leading to these facilities, in addition to the location of these facilities, corridors and external slopes, and the lack or absence of these conditions may not allow persons with disabilities to come to these health facilities to benefit from their services, as the majority of those who require admission to hospitals are considered by virtue of persons who are unable to serve themselves without the help of others, which makes the authorities whose concerned in the design and implantation of buildings more aware and appreciation of the needs of user groups (Huges, 2003).

According to (Al-Smadi and Al- Sartawi, 2010) if the necessary conditions are met so the hospitals and health institutions are easy to access by disabilities persons and these conditions include: slopes, entry and exit lounges, stairs, signboards, parking, toilets, provision of special equipment such as Braille language, speaking equipment, windows, mirrors, electrical panels, floors and the level of equipment which should be suitable for all kind of disabilities including wheelchair users, in addition to the presence of specialized trained staff in the health centers to know how to deal with varies types of disabilities.

2.6 The Building Code

The Jordanian national building code was established in 1993 under the supervision and the agreement of the Hashmite leadership and issued by the national building council. Al-Ma'itah (2004) mentioned that the national building code consisted of (15) articles, and subsequently, a number of articles were amended to keep pace with developments in construction, public safety and everything related to engineering matters, and its worth mentioning that the national council take into consideration the needs of the disabled, so it has a share of the provisions of national building code and has been known as the "code of construction requirement for the disabled", which consisted of (20) Articles, and the 2nd paragraph of the disability defined as any person who has a total or partial impairment that is stable in his senses or physical, mental or psychological abilities to the extent that limits the possibility of learning, rehabilitation or work and cannot meet his needs in the circumstances of non- disabled person and this code is concerned with the minimum requirements that must be met in public buildings, facilities and residential buildings, so that persons with disabilities can use it easily through the development of general requirements that must be provided in existing buildings and external elements to facilitate their use by persons with disabilities (Ministry of Public Works and Housing, 2004).

It has become possible to approve any buildings or give permits and validate them only after ensuring that the engineering plans conform to the Jordanian national code and the requirements of the disabled.

Accordinagly, the Jordanian national building council continued its work in cooperation with the building research center of the royal scientific society, and in 1993, the Jordanian National Building Council prepared the first building code for disabled under an agreement between the Jordanian National building council as the first team, and the Royal Scientific Society as the second team in order to reach an advanced construction industry and to organize the related studies, design and implementation, and it was necessary to establish a unified sound basis that

committed to all the dealers in the construction industry, and these codes were prepared in accordance with the provision of the law.

2.7 The Rights of Persons With Disabilities in Accordance With the Jordanian Law

The Kingdom's philosophy towards citizens with disabilities emanates from Islamic values, the Jordanian Constitution, the Universal Declaration of Human Rights and the principles mentioned in the international conventions on the rights of persons with disabilities, and it emphasizes the following pillars, (HCD,2007):

1. Respect the right, dignity, freedom of choice and respect the private lives of persons with disabilities.
2. Provide equal opportunities and non-discrimination on the basis of disability.
3. Equal right and duties between men and women with disabilities.
4. Allow disabled people to participate in the development of plans, programs and decision making.
5. Provide a reasonable accommodation to enable a person with disabilities to enjoy the right of freedom or benefit from a particular service.
6. Ensure the rights of children with disabilities, build their capacities, develop their skills and promote their integration into society.
7. Acceptance of persons with disabilities as part of the nature of human diversity, and to integrate persons with disabilities in all aspects of life and fields at various levels, including their comprehensive development plans.
8. Raise awareness and education on the issues and rights of persons with disabilities and encouraging scientific research, exchanging information in the field of disability and collecting data, information and statistics related to disability to follow up the new development in this field.

Therefore, the issued legislation against persons with disabilities has ensured that each institute serves this category of society and each institute to its competence in the field of health, education, training, employment, social protection and institutional care, environmental facilities, customs and tax exemptions, public and political life, sports and culture, and finally litigation and legal matters.

In terms of health, article (4-A) states that health centers should take care of this category by (HCD, 2007):

1. Providing prevention programs and health education, including testing for early detection of disabilities.
2. Diagnosis, scientific classification and issuance of medical reports for persons with disabilities.

3. Provide medical and psychological rehabilitation services and therapeutic services at different levels and access to easily.
4. Primary health care for women with disabilities during pregnancy, childbirth and postpartum
5. Granting free health insurance to persons with disabilities in accordance with a regulation issued for this purpose.

The Hashmite Kingdom's of Jordan philosophy towards citizens with disabilities emanates from Arab-Islamic values, the Jordanian Constitution, the Universal Declaration of Human Rights, and the principles and provisions set forth in international conventions on the rights of persons with disabilities, and its focus on the following:

1. Provide equal opportunities and non-discrimination on the basis of disability.
2. Equal rights and duties of men and women with disabilities.
3. Respect the rights, dignity, freedom of choice and respect the private lives of persons with disabilities.
4. Participate in the development of plans, programs and decision-making for persons with disabilities and their affairs
5. Ensure the rights of children with disabilities, build their capacities, develop their skills and promote their integration into society.
6. Provide reasonable accommodation to enable a person with disabilities to enjoy a right or freedom or to benefit from a particular service.
7. Acceptance of persons with disabilities as part of the nature of human diversity, and achieve the integration in various fields, including the inclusion of persons with disabilities and their issues in comprehensive development plans.
8. Encouraging and promoting scientific research, exchanging information in the field of disability and collecting data, information and statistics related to disability, and raise awareness and education on the issues and rights of persons with disabilities.

2.8 The Role of Building Code in the Rehailitation of Hospitals and Health Centers in Proportion with Wheelchairs

A wheelchair defined as a four- wheelchair that enables a disabled person to move from one place to another, and its one of the following types: electric wheelchair, mechanically wheelchair, small front wheelchair and large front wheelchair, and it should be noted that the the use of wheelchairs is not only for people with disabilities, but also for patients who have a temporary injury, therefore, it is necessary to take into consideration the provision of a suitable environment suitable for wheelchair movement in various facilities and building in order to facilitate

the access of wheelchair users to commercial, health, educational and government services easily by taking into account the building code to their needs and give them priority on an equal basis with the rest of society (Hughes, 2003).

Barnes & Oliver (1995) stated that the building code takes into account the requirements of the internal and external elements for the use of persons with disabilities which branch as follows:

2.8.1 Requirements for Architectural Spaces

These requirements take the necessary space measurements for people with disabilities when designing and implementing the building code, and thus, the length of human being is determined by the average length of (1.75 cm), in addition to calculate the distances according to the field of movement in each situation, age of disability person, sex (male, female) and the type of disability whether wheelchair user or other.

Prideaux and Roulstone (2009) added that the horizontal, vertical and lower distance that wheel chair users can reach depends on two factors which are: body flexibility and the height of the seat or wheelchair, which is usually at the height of (0.47meters), so all heights whether to open windows or control lighting must be within the distance comfortable limits for wheelchair users, especially in buildings allocated to them, but in residential buildings that the disability persons share with ordinary people, the distance should not exceed (1.07 meters) above the tile surface.

As for public places, heights should not exceed the allowable limit, taking into account the extent of the flexibility of the body, which is a key factor in enabling people with special needs to reach a horizontal distance ranging from (0.26 meters) for females, and (0.34meters) for males from the position of the foot, and a vertical distance of (0.27meters) for females and (0.31meters) for males without foot joint, and a vertical distance - above the head - between (0.06 meters) for females and (0.075meters) for males above the comfortable upper accessible distance (Melhem, 2007).

2.8.2 The Required Range of Motion for Wheelchair Users (Movement Area).

The appropriate dimensions for moving wheelchairs were determined on the basis of the most commonly used wheelchairs, and at the same time, this does not contradict the dimensions of the large wheelchairs, so an area of (0.8 meters) has been determined for those using a wheelchair and assisted by another person, and a distance of (0.9 meters) for those who use wheelchairs without anyone's help, and the dimensions of the corridors ranges between (1.70 meters) which allows the passage of two wheelchairs in opposite directions with the presence of two assistants, and (1.8 meter) in the case of corridor allows the passage of two wheelchairs in opposite

directions without the presence of people assistants, and its worth mentioning that these dimensions determined in case the wheelchair walk straight, taking into consideration the existence of some obstacles in the corridor which may narrow the space, and thus the building code determined the space between the wheelchair and such obstacles as not less than (0.05 meter) (Prideaux and Roulstone, 2009).

2.8.3 The Needed Distance for Wheelchair Rotation.

Yousef (2003) reported that the required distance for wheelchair rotation should not be less than (1.4 * 1.4 meter) in case of rotation at an angle for the most common wheelchairs, and a distance of (1.4 * 1.8 meter) in case of rotation at an angle for the large wheelchairs, and in the case of circular rotation the diameter of the circle should not be less than (1.5 meters) for standard wheelchairs, and (1.7 meters) for large wheelchairs, adding that the diameter of rotation should not be less than (1.7 meters) in residential and people with disabilities buildings, and not less than (1.5 meters) in the public buildings.

2.8.4 Building Code Measurement Related to Doors

Taira and Carlson (1999) explained that the building code determined the door dimensions which must be implemented in a way that does not hinder the movement of the disabled, whether wheelchair users or others, and these measurements as follows:

a. Ensure that the foot mats on the same level of the floor and not rising so as not to affect the wheelchair movement, or causing any injuries.
b. It is preferable that the doors open on the corridor are opposite and if not it is preferable to open the doors in opposite directions, and it is not recommended to open in the same direction.
c. Taking into account the possibility of passing two wheelchairs in the corridor at the same time and therefore the width of the corridor should not be less than (1.7 meters) in buildings for disabilities persons and (1.8 meters) in public buildings, therefore, it should be noted that opening the doors to the outside does not pose any dangers to the people who use the corridors, in addition to choose the positions of the doors at the corners of the rooms not in the middle, provided that the opening towards the wall.
d. If there are doors that open directly on the drawers, a sufficient distance of (1.8 meter) should be left, and the net opening of the doors in residential buildings should not less than (0.80 meters) and not less than (0.90 meters) in public buildings in a way that is suitable for wheelchair users, also the handle of the door must be at the height of (1.0 meter) above the ground level and to use the

normal handles not the circular as it may require more effort in the opening.

e. The direction of opening the doors in the toilets and small rooms must be to the outside, because the fall of persons with disabilities behind the door may lead to close it and therefore difficult access to save them.
f. Not to use swing, rotary or folding doors, which impede the movement of wheelchair users, and its preferably to use of the sliding doors, especially for the main entrances, and to provide the types that open automatically using hydraulic, electric power or compressed air, and to install of sensitive devices on the floor entrances to open doors, in addition, the width of automatic door should not be less than (0.80) meters, and provide it with a manual means to open it in the case of power outages.
g. To avoid damage to doors as a result of collision or friction with wheelchairs, full protection must be provided at a height of (1.00 meters), in addition to the installation of a metal plate on the face of the door, which will be pushed to a height of no more than (0.40 meters).
h. Install a vertical handle with a height parallel to the main handle at a distance (0.209 meters from the side installed in the door) to facilitate the users of wheelchairs to close the doors, in addition to providing sliding doors with handles from the inside and outside.
i. Avoid using locks that require muscle strength, and to provide toilets with locks that can be easily opened from the outside to rescue persons with disabilities if required.

2.8.5 Building Code Measurement Related to Windows

Specific dimensions and measurements of windows shall be carried out to suit safety measures, and in order to open and close easily and safely without being harmed by the persons with disabilities and special wheelchair users, and according to (Gallagher, 2008) the measurements of the windows shall be according to the building code as follows:

1. The height of the window sill shall not exceed (0.60) meters in the cases of the upper floors, so that it is easy for wheelchair disabilities to look outside the building and down, provided that necessary protection against the risk of falling, also, the lower part of the window in the upper floors should be fixed , not able to open and its height not less than (0.85 meters).
2. Not to use the horizontal beams in windows that located within the field of wheelchairs users view, which ranges between (0.90 – 1.20 meters) abovethe floor level.

3. The height of the windows control means should not exceed (1.35 meters), and its prefer to use the remote control devices in opening and closing windows that are difficult for persons with disabilities to reach and it's the same for the curtain.
4. Choose suitable locations for windows in easy access, in addition to the use of windows installed sideways that open inward or sliding horizontally, and avoid the use of vertically sliding windows due to its difficulty in opening and closing.

2.8.6 Building Code Measurement Related to Slopes, Parking and Pedestrian Walkways and Sidewalks, and Elevators:

Crawford and Millar, (1998) stated that according the building code slopes can be defined as a sloping surface constructed of coarse non-slip material with the inclined angle of not more than (1: 8) and not less than (1:12) at the entrances, exits of buildings, emergency, sidewalks, corridors and different levels within the following conditions:

1. The minimum width of the one-way slope (90 cm) and two-way (185) cm, and that the maximum length of the slope does not exceed (9 meters), and in the case of the work of two slopes to reach a certain height it is necessary to separate them with a flat surface of not less than (1.80) meters.
2. Install handrails of not less than (85 cm) and not more than (100 cm) on both sides of the slope with the lifting of the edges of the sides to form a simple barrier at a height of not less than (8 cm) in order to provide protection and reduce the risk of falling or slipping.
3. The slope shall not exceed the limits of the pavement or the pedestrian passage and be submersed in it - at the same level - and place the appropriate indicative signs within the pedestrian crossing area.

AbdulKadir and Jamaludin (2012) pointed out the need to apply the disabled building code in the parking, and the code has specified (5%) of the total public parking for persons with disabilities contains the disabled logo, and take into account the cases of these group so that their parking are closest to the entrances, and the space allocated for the disabled car is not less than (25 square meter), and the distance between the disabled car and the other car is not less than (160 cm), in addition to the need to provide a suitable slopes and good lighting in the parking.

The pedestrian walkways and sidewalks should be suitable for wheelchair users, by using rough materials and anti-skid protrusions in the flooring, and to provide pedestrian walk with slopes and guide boards, and to ensure they are free of drainage covers, which may interfere with the movement of the wheelchair or placed in transverse openings, taking into account that these corridors are not close to the outer walls of buildings in

order to prevent the collision of the disabled with any sharp protruding that may harm him (Venter and Et.al , 1999).

According to building code elevators shall be used in buildings with a height of more than two floors, and must locate near the main entrances to facilitate the disabilities access, taking into account in choosing elevators suitable size, load, quality and suitability for the needs of users with disabilities and provide them with adequate lighting, ventilation, and sufficient space in front of the elevator door not less than (150 * 150 cm) in each floor (Karunasena and Rameezdeen 2010).

The minimum area of the elevator space that can accommodate wheelchairs is (1.88 m2) with dimensions of (137 * 137 cm), and the minimum width of the door opening of the elevator is (82 cm), where the floor of the elevator shall be of non- slip materials, in addition to provide a handrail, necessary light and sound signals of the elevator room.

The elevator dial button panel shall be installed at a height not less than (76 cm) and not more than (137 cm) above the elevator floor level and away from the side wall with a distance of (40 cm).

2.9 The Role of Disabilities Building Code in Health Facilities

This section concerned in the need to provide services related to health facilities, which aims to facilitate and take care of persons with disabilities to keep them away from injuries that may result when they use water cycle (W.C) not allocated to them, in addition to the need to provide a disable W.C in all public facilities and buildings of all kinds, and for both sexes (male and female), and in case of multiple floor must provide on each floor.

Due to the need of this category of society for their own equipment, the building code sets the standards to be met in their toilets and were as follows, (Cox and Groves, 1990).

2.9.1 Sling Rings

Each housing unit has a disabled person, a hospital, and a health center should provide a toilet, a washbasin and a shower to meet its needs, and Only toilets should be used, bathrooms should be provided with rings (manual or motorized) hanging from the ceiling that can be used for severe disability to lift the wheelchair to bathtubs and vice versa, these rings have to hang up to a height of (0.5 meters) from the edge of the bathtub, and are configured to a weight up to (140 kg), also its used to reach the bed or toilet (Cox and Groves, 1990).

2.9.2 Toilets

Campbell and Oliver (1996) and Barens and Et.al (2000) mentioned that the net width of the disabled W.C Rooms should not be less than (0.9

meters) and that the depth should not be less than (1.5 meters) for the units that open their doors outside, and that the door distance of the toilet should not be less than (1.05 meters) for wheelchair users, so, these measurements allow wheelchair users to move easily from chairs to toilets, whether front, side or inclined. Campbell & Oliver (1996) added that (0.5 meters) space should be taken between the running line through the center of the unit and the side of the wall so that it is easy to stand anyone to help people with special needs that the space of the toilet room not less than (2.10 meters) with the provision of back rests and handles hanging from the ceiling. He added that the wall should be structurally designed to resist the loads resulting from the weight of the toilet and used together, or to take special construction measures, in addition to that the toilet installed on the floor of the health unit should be provided with backrests of no more than (0.3).
Barnes (1999) mentioned that the height of the toilet seat and for wheelchair users should be (0.46 - 0.50 meters), and the preferred height is (0.475 meters), and the height of the toilet edge (0.45) meters. They added that a grab rails should be installed to help people with disabilities to sit and move easily to and from the toilets to be (0.225 meters) above the toilet surface, and its length is not less than (0.40 meters) and the longer the better. In the case of horizontal grab rails, its length should not be less than (0.50) meters and its bottom end should be at least (0.2) meters from the toilet. While vertical grab rail's length not less than (0.40 meters) and installed on a height between (1 - 1.4 meters) above the ground level.

2.9.3 The Washbasins

The disability wash basins should be located in a place that is easy to access, either side, inclined or immediately from the door without the need to rotate, and the height of the washbasin should not exceed (0.82 meters) and not less than (0.67 meters), while the preferable height is (0.75 meters). A single-handle faucet should be provided with hot and cold water in addition to the use, wash basin with relatively little depth from the front which increases in the back, which makes it easier for wheelchair users to put their legs under it and use them easily. Therefore, the width free of obstructions under the sink in the front part should not be less than (0.8 meters) at the knee level and (0.7 meters) in the back of it, and the distance between the line passing in the center of the wash basin should not be less than (0.3 meters) without any obstacle around (Molenbroek, Mantas and Bruin, 2011).

2.9.4 The Shower Room

According to the building code for the disabled, bath tubs should be replaced by the so-called shower cubicle, because of the difficulty of access or movement of persons with disability from the wheelchair to the bathtub

and thus exposure to injuries or any type of harm, therefore; a set of conditions and measurements should be provided in the shower cubicle, which allows the wheelchair users to enter and exit easily, and to prevent the water from getting out, by placing a barrier no more than 0.03 meters high, note that if the barrier is higher than that, it will inevitably impede the movement of wheelchairs (Al-A'dra, 2015).

In addition to the above, the shower cubicle tiles should be at the same level with the floor provided with non-slip materials, and the shower rooms shall be provided with seating for the disabled and installed on the side wall in a way that facilitates the movement of wheelchair users to it, leaving enough space for movement, with a (0.4 meters) seat height and depth of (0.35 meters), noting that this seat may be hinged which can be lifted when no need to use it.

Ibrahim (2007) pointed out that the sprinklers should provided with warm and cold water, and are installed in an easy to reach, with a height of (0.9 meters) above the level of the floor, and provide shelves for bathing tools accessible to persons with disabilities. She also pointed out the necessity of having a vertical and horizontal grab rails in the shower rooms; the vertical grab rails placed on the wall opposite to the seat with a height ranging between (0.9 -1.3 meters) above the floor surface, and a horizontal grab rail fixed on the same seat at a height of (0.2 meters) above the level of the seat surface, and another one on the opposite wall at a height of (1.0 meters) above the ground level.

2.10 Obstacles that Limit the Implementation of Disabled Building Code

These obstacles stand in the way of the full participation of people with disabilities, and may prevent their participation or full integration with the rest, members of society, according to (Venter and Et.al, 2007) obstacle can be defined as the determinants that reduce or prevent persons with disabilities from enjoying their rights as a part of society , (HCD, 2011) explained.that there are four types of obstacles that affect the implementation of disabled building code, which are as follow:

2.10.1 Legislative Obstacles

According to Article No. (5) of the United Nations which issued in 1993 concerning equal opportunities, the State must take all the necessary procedures related to determine the standards and guideline principles, and enacting legislation to ensure that persons with disabilities have an access to various places and services in society such as; public buildings, housing, educational and health institutions, public transport and all elements of the external environment. Also, The role of the state is to ensure that architects and constructionists have access to the necessary and adequate information

related to disability policies and procedures that aimed to facilitate access to services, and to include the accessibility requirements as a basic necessity within the design, and implementation of physical environment facilities. Accordingly, organizations of persons with disabilities should be consulted in determining and development of standards and regulations that facilitate access to services from the earliest stages of planning and design (HCD, 2011).

Article (9) of the International agreement on the Rights of Persons with Disabilities, which adopted by the United Nations in 2006, and entered into force in 2007, stated two main points, (United Nation, 2011):

First article: stipulates that persons with disabilities should be able to live independently, and fully participate in all aspects of life through the appropriate procedures that taken by the State to ensure that persons with disabilities have equal access to the surrounding physical environment, which include (buildings, roads, housing, transportation, information and communications technology, facilities and other services such as educational, operational and health services) which available to the rest of society in all region including cities and villages alike, and these procedures must include the identification and removal of obstacles to accessibility, and apply in particular to:

1. Buildings, roads, means of transport and other facilities including schools, housing, medical facilities and workplaces.
2. -Information, communications and other services, including electronic and emergency services.

Second article: It stipulates that the state shall take the necessary measures with regard to define the necessary standards and guidelines principles to facilitate the process of access to facilities and services of all kinds, and the provision of signs in Braille and easy to read and understand in public buildings and facilities, in addition to provide trained and qualified human resources who able to deal with people with disabilities which include (guides, readers, and sign language interpreters) to facilitate access to buildings and service facilities, as well as to provide technological support that facilitates access by persons with disabilities to technologies, new communication means, and the Internet, at low cost.

2.10.2 Physical Obstacle

In spite of the issuance of the Jordanian guidelines in 1993 regarding the international and detailed specifications, known as the requirement of disabled building code, which was implemented to increase awareness toward the diversity of disability and its nature and needs. However, the design and implementation of the facilities do not reach the standards and the required level which is included in this code, and this is obviously clear through the physical facilities which include yards, sidewalks, public

parks, streets, corridors, parking, markets and residential and service buildings.

As for the health aspect, the physical obstacles related to the building code may relate to the ease of access for the disabled to hospitals, health centers and emergency rooms, and their arrival depends mainly on the availability of the necessary infrastructure related to the nature of the floors, parking, ease of road, the availability of services, means of transport, slopes, elevators, provision of facilities such as rooms, W.C and the convenience of corridors, lobbies and sidewalks.

2.10.3 Human Resources Obstacles

Lack of qualified workers consider as one of the obstacles that may face persons with disabilities, which in turn negatively affect the quality of services, which shows the absence of qualified and trained staff on how to deal with this segment of the community, whether in terms of helping the blind, using sign language, helping wheelchair users to move from the chair to the bed and vice versa, which may lead to the injury or injury or hurt him.

2.10.4 Financial Obstacle

Often there is a lack of materials that specialized to the implementation of policies and plans related to people with disabilities, and this is consider as the major obstacle that hinders ensuring the continuity and sustainability of services, and thus the difficulty of the availability of health services or obtaining exemptions or reductions, so its clear that the characterstics of construction related to persons with disabilities come in the second place after the adoption of plans and design, which means that persons with disabilities don't take the priority they need (Batavia and Beaulaurier 2001).

2.11 The Emperical Studies

Al - Owaidi (2018), The Degree of Applicability of the Requirements of International Building Codes for Persons with Physical Disabilities in a Sample of Jordanian University, the World Islamic Science and Education University

Concerned the applicability degree of the international building code requirements for physical disabilities, persons in the Jordanian universities, the sample of the study consisted of (53) faculties; (26) in the private universities and (17) in the public universities. The results of the study showed that the degree of application of building codes in Jordanian universities ranged from low to medium depending on the type of requirements, and The study recommended the need to activate the supervisory role through the application of the disabled code for 2017,

which stipulated the need to consider the application of the building code in building, the need\for universities to re-implement the building code for persons with disabilities within colleges, providing environmental facilities by applying the building code to the university faculty building, and conducting further studies and research to identify obstacles facing higher education institutions in implementing the requirements of disabled persons international building Code.

Amrawi (2014), Ergonomic Design of Wheelchair for People with Physical Impairment for the Age Group (6-12) Years, the Industrial Unit for Prostheses - the National Bureau for Persons with Disabilities - and the Biskra Unit, Biskra University.

This study aimed to find an ergonomic standard suitable for wheelchair design in terms of anthropometric standards, the sample of the study consisted of (20) male and female physically disabled for the industrial unit of artificial organs royal court (Biskra unit) who ranged in age from (6 - 12) years. The researcher designed the study tool, which measured the level of physical dimensions and included variables of sitting , hand and shoulder hieght, shoulder, pelvis and feet width, forearm foot, thigh and leg length, and the study recommended the need to take into account the relative importance of the anthropometric standard in the design of physical dimensions, researching the specialized design of wheelchair for each age group, given that the growth rates of people with physical disability are unequal, providing certain supports on the movement when the disabled goes up and down from the wheelchair, and to avoid possible complications from staying for a long time sitting in the chair the researcher recommended the need to find a chair that responds automatically to the movement of the disabled in order to avoid fatigue and muscle strain resulting from the nature of its use.

Galman (2014), Automated Disabilities Wheelchair Design, Um Al-Qura university.

This study aimed to convert the disability wheelchair from manual to automatic chair by modifying the design and adding some mechanical and electrical elements without any modifications in the design of the chair shape, and to reduce the cost of the automatic chair compared to the manual chair, with the possibility of dismantling and installing additional design parts at any time, with a weight of up to (150 kg). The study has reached a set of results, the most important of which is the design of an advanced electric chair for the disabled at a reasonable price, by adding some improvements such as mechanical parts to convert the movement of the chair from manual to automatic movement with a good degree of performance, and avoiding the complexity in the design.

Abdat and Et.al (2013), A Problems Facing Women with Disabilities in UAE.

This study aimed to identify problems facing women with disabilities in the United Arab Emirates and the relationship of variables in terms of type and severity of disability, educational level, marital status and age in addition to identify the differences in the level of problems faced by women with and without disabilities according to the variables of the educational level, age and social status, the sample of the study consisted of (150) disabled women and (150) of non-disabled women. The results of the study found that there are statistically significant differences in the problems facing women according to the type and severity of disability and the educational and social level, while there was no problem according to the age variable of disability woman, in addition to showing the differences of statistical significance in the problems between women with and without disabilities according to age and educational level and no differences were found according to social status.

Al-Sabah and Al-Hmouz (2013), Problems of Qualifying People with Physical Disabilities in the Centers.

This study aimed to identify the degree of rehabilitation problems of persons with physical disabilities in Palestinian rehabilitation centers, and its relation to variables include: sex, educational qualification, place of residence, degree of disability, years of experience, job title of employees and employment status. The sample of the study consisted of (186) persons with physical disabilities and (94) individuals working in the Palestinian rehabilitation centers. The results showed a high degree of problems facing the rehabilitation of persons with physical disabilities in addition to the presence of statistically significant differences according to sex variable in favor of females, scientific degree, place of residence (camps) and degree of disability (severe). Accordingly, the study recommended the development of vocational training programs for persons with disabilities to meet the requirements of the labor market, follow-up during the period of operation to ensure the adaptation of the disabled to the work environment, solving problems that hinder his professional development, in addition to train workers on how to deal with persons with physical disabilities.

Kamarudin and Et.al (2012), The Implementation of the Malaysian Standard Code of Practice on Access for Disabled Persons by Local Authority

This study which aimed to measure the local authority awareness in providing the suitable access and facilities for persons with disabilities, and their knowledge in implementing the Malysian standards .Questionnaires were distributed to the technical team from various departments in Kuala Lumpur City Hall, and the results of the study

showed that the score of respondents level of awareness in providing access and facilities for the persons with disabilities is higher compared to their knowledge in implementing the Malysian standards, and the study recommended the need to facilitate the access of people with disabilities and give them priority in the design and implementation inside and outside public facilities, and conduct more research that helps people with special needs to be directed to the managers of public buildings.

South and North center for Dialogue and Development (2011), Obstacles and Barriers to the Participation of Persons with Disabilities and their Integration into Society.

This study prepared by an official commission from the higher council for persons with Disabilities (HCD) and the study aimed to identify barriers to the participation and integration of persons with disabilities in the community related to the readiness of public facilities to meet the needs of persons with disabilities and to provide information and qualified personnel to deal with them, the sample of the study consisted of (300) disabled person from three different governorates in the north, center and south of the Hashmite kingdom of Jordan. The results of the study found that the facilities and infrastructure in Jordanian cities still lack the minimum facilities for persons with disabilities, the low level of awareness of officials in municipalities health and educational institutions about disability issues, and consider their requirements as a luxury and can be overcome, the need to qualify health institutions to receive persons with disabilities, the lack of awareness of persons with disabilities about their rights and the activities of (HCD), and their feeling of discrimination in the community. This study recommended raising the legislative awareness of persons with disabilities and reviewing the existing legislation for development, rehabilitation of health, public and educational facilities to enable persons with disabilities to access them and use them safely, organize periodic and specialized meetings between The officials and (HCD) to raise awareness of the size and types of disability and how to deal with them and provide appropriate services, and the establishment of an oversight committee to follow up the implementation of the specifications and conditions stipulated in the guide when the construction of buildings and facilities or rehabilitation.

Karunasen and Et.al (2010), Disability Access in Public Buildings, International Research Conference on Sustainability in Built Environment.

This study aimed to create a barrier-free environment when designing health and educational buildings in Sri Lanka and treating disabled people on an equal basis with other segments of society. After the 30-year civil war in Sri Lanka resulted in many disabilities reaching nearly (900,000) disabilities, or (5%.) of the society, The study showed that no

importance was given to this category of society, especially when designing buildings, the researcher conducted an experimental and industrial survey to assess the accessibility of disabled persons to public buildings such as banks, schools, universities, hospitals, offices, bus and train stations, but the results showed that the level of interest is very low and does not reach the required level.

Awawdeh (2007), Integration of the Physically Disabled in the Local Environment and Socially.

This study aimed to mphasize the appropriate methods that facilitate the integration of the disabled in the public life of society, and that this integration is achieved through two stages; the first stage is social and its focus on removal the disabled from isolation through a range of activities that allow them to participate, under the supervision of a competent and qualified team, while the second stage is the environmental obstacles at the architectural level, where the process of integration requires the ability of the disabled to move , and therefore the study concluded that the process of rehabilitation and integration of the disabled in the community is a national issue beyond the willingness of the disabled for integration and requires financial and legal efforts and political decision, therefore, the study recommended the concerned parents, committees and institutions supporting the disabled to expedite the transfer of their perceptions to the local councils, municipalities, legislative and executive institutions, to work on the recognition of others and accepting persons with disabilities as partners in society.

Hamzat and Dada (2005), Wheelchair Accessibility of Public Building in IBDAN, NiGeri.

This study aimed to determine the level of wheelchair accessibility of public buildings in Africa's second largest city Ibdan, the researcher used (ADA) American with Disability Act Accessibility Guidelines, the sample of the study consisted of (38) public buildings including; hospital, housing, education, social, recreation centers and government ministries, and took into consideration the measured door width, thresholds and step height, width of routes, and ramp grade. The findings of the study showed that on 7 buildings (18.4) of the 38 buildings have a suitable accessibility, and hospitals were the most accessible buildings with a rate of (66.7%), and none of social or recreation buildings accessible, which mean that the level of wheelchair accessibility is very low, and thus the opportunities of integration the wheelchair users with the rest of community limited and weak, The study recommended that the Nigerian government need to lead the way in providing wheelchair access to buildings and enact laws that help. This can be achieved by communicating with wheelchair users and professionals such as (Occupational, Physiotherapy engineers and architects). Thus facilitating independence; integrating and or reintegrating

wheelchair users into society, and enable everyone to access the service point.

Olson (2007), Baltimore: The Building of an American City.

T his study focused on (10) regions in the united states between 2001 and 2002 with four types of participants include: targeted persons with disabilities, architects, fitness professionals, city planners and park area managers, they were interviewed, recorded and analyzed, where barriers and facilitators were identified, including: nature of the built environment, emotional and Psychological barriers, equipment barriers, barriers related to the use and interpretation of guidelines , laws and regulations. Policies and procedures at the establishment and community level .

Soyingbe, Ogundairo and Adenuga (2003). A Study of Facilities for Physically Disabled People in Public Building in Nigeria.

This study aimed to determine the available facilities for disabled people in public buildings in Nigeria, the sample of the study consisted of (257) public buildings, where the researcher discussed the suitability of the infrastructure for people with disabilities and the contents of the elevators, water fountains, signage, restrooms, corridor, stairs, entrance and ramps. The results of the study show the lack of most facilities which required by the disabled persons in public buildings, Due to the lack of such facilities, this has restricted the freedom of the disabled and not granted them their rights to access buildings and services like the rest of society, and make them unproductive

Haigh and Feeney (1986). Access for the Disabled to Buildings Through a Survey of Architects.

This study evaluated the British Standard 5810 : 1979 Disabled access to buildings with the aim of improving it . Emphasis has been placed on the exercise of these basic provisions , which must be integrated into buildings for easy use by the disabled, the aim of their study is to provide suggestions for improving the standard. A research was also carried out to ensure that the data contained in the standard are based on survey data as postal questionnaires were sent to architects and structured interviews.

2.11.1 What Distinguishes This Study from Previous Studies.

This study was distinguished from other studies that were conducted in Jordan on the topic of the implementation of disabled building code in terms of dealing with the importance of this application in Jordanian hospitals and health buildings in particular, and that the most important goal of its implementation is the ease of access for people with disabilities to health services with ease and flexible, and according to the researcher's knowledge, there are no previous studies conducted in this regard on several Jordanian hospitals, and the obstacles that faced their application have not previously been mentioned in this clarity.

2.12 The Summarize of the Emperical Studies

No.	The author name	The aim of the study	The Results of the study	The researcher comments
1	Al - Owaidi (2018)	Concerned the applicability degree of the international building code requirements for physical disabilities, persons in the Jordanian universities	The degree of application of building codes in Jordanian universities ranged from low to medium depending on the type of requirements..	**.** The need to activate the supervisory role through the application of the disabled code for 2017. **.** The need\for universities to re-implement the building code for persons with disabilities within colleges. **.** Providing environmental facilities by applying the building code to the university faculty building**.** **.** Conducting further studies and research to identify obstacles facing higher education institutions in implementing the requirements of disabled persons international building Code.
2	Amrawi (2014)	Find an ergonomic standard suitable for wheelchair design in terms of anthropometric	Anthropometric standards do not apply to their proper content, and do not take into account age requirements	. The need to take into account the relative importance of the anthropometric standard in the design of physical dimensions

		standards	and different growth in some disabilities	. Researching the specialized design of wheelchair for each age group. . Providing certain supports on the movement when the disabled goes up and down from the wheelchair. . The need to find a chair that responds automatically to the movement of the disabled in order to avoid muscle strain resulting from the nature of its use.
3	Galman (2014)	.Convert the disability wheelchair from manual to automatic chair in its minimum cost and by modifying the design and adding some mechanical and electrical elements without any modifications in the design of the chair shape,	.The design of an advanced electric chair for the disabled at a reasonable price, by adding some improvements such as mechanical parts to convert the movement of the chair from manual to automatic movement with a good degree of performance, and avoiding the complexity in the design.	. Providing the necessary equipment to modify the wheelchair to suit people with disabilities at low cost. . Conduct further studies on the suitability of wheelchairs for persons with disabilities

4	Al-Sabah and Al-Hmouz (2013)	Identify the degree of rehabilitation problems of persons with physical disabilities in Palestinian rehabilitation centers, and its relation to variables include: sex, educational qualification, place of residence, degree of disability, years of experience, job title of employees and employment status.	There is a high degree of problems facing the rehabilitation of persons with physical disabilities in addition to the presence of statistically significant differences according to sex variable in favor of females, scientific degree, place of residence (camps) and degree of disability (severe)	. The development of vocational training programs for persons with disabilities to meet the requirements of the labor market. . Follow-up during the period of operation to ensure the adaptation of the disabled to the work environment. . Solving problems that hinder his professional development. . Train workers on how to deal with persons with physical disabilities.
5	Abdat (2013)	Identify problems facing women with and without disabilities in the United Arab Emirates and the relationship of variables related to the type and severity of disability, educational level, marital status and age.	There are statistically significant differences in the problems facing women, according to the type and severity of disability and the educational and social level, while there was no problem according to the age variable of disability	Attention to the training and educational aspects of women with special needs and marital status, through training and qualifying them to practice social life, and exercise their right to education as other members of society

			woman. .Showing the differences of statistical significance in the problems between women with and without disabilities, according to age and educational level and no differences were found according to social status.	
6	South and north center for dialogue and development (2011)	Identify barriers to the participation and integration of persons with disabilities in the community	. The facilities and infrastructure in Jordanian cities still lack the minimum facilities for persons with disabilities. . Low level of awareness of officials in municipalities health and educational institutions about disability	. Raising the legislative awareness of persons with disabilities and reviewing the existing legislation for development, rehabilitation of health, public and educational facilities to enable persons with disabilities to access them

			issues. . The need to qualify health institutions to receive persons with disabilities. . The lack of awareness of persons with disabilities about their rights and the activities of (HCD), and their feeling of discrimination in the community	and use them safely. .Organize periodic and specialized meetings between the officials and (HCD) to raise awareness of the size and types of disability and how to deal with them. .provide appropriate services, and the establishment of an oversight committee to follow up the implementation of the specifications in the construction of buildings .
7	Karunasena (2010)	Create a barrier-free environment when designing health and educational buildings in Sri Lanka and treating disabled people on an equal basis with other segments of society	The study showed that no importance was given to this category of society, especially when designing buildings	. The study recommended the need to support this segment of society through the legislative and executive authorities and associations support and taking into account the need for access to buildings and services and provide facilities that ensure that
8	Awawdeh (2007)	Emphasize the appropriate methods that facilitate the integration of the disabled	. Removal the disabled from isolation through a range of activities that allow them to	Provide the necessary support by the concerned parents, committees and institutions for

		in the public life of society, through social and environmental stages	participate, under the supervision of a competent and qualified team. .Removal of the architectural obstacles, where the process of integration requires the ability of the disabled to move.	disabled to expedite the transfer of their perceptions to the local councils, municipalities, legislative and executive institutions, to work on the recognition of others and accepting persons with disabilities as partners in society.
9	Hamzat and Dada (2005)	Determine the level of wheelchair accessibility of public buildings in Africa's second largest city Ibdan	The level of wheelchair accessibility is very low, and thus the opportunities of integration the wheelchair users with the rest of community limited and weak,	The Nigerian government need to lead the way in providing wheelchair access to buildings and enact laws that help. This can be achieved by communicating with wheelchair users and professionals such as (Occupational, Physiotherapy engineers and architects)
10	Soyingbe, Ogundairo and Adenuga (2003)	Determine the available facilities for disabled people in public buildings in Nigeria	The lack of most facilities which required by the disabled persons in public buildings.	.Providing infrastructure to ensure access for the disabled to services provided by the state;

				.Conduct further studies that raise awareness of the needs of persons with disabilities and put them into practice.
11	Haigh and Feeney (1986)	Evaluated the British Standard which allows disabled to access to buildings and improving it	There are severe problems faced disabled who use wheelchairs, walking difficulties and visually impaired which related to parking, roads, steps, stairs, information , and location design and furniture.	To provide a standard for design and maintenance.

Chapter Three
Methods and Procedures

Through this chapter, the researcher shows the methods and procedures in collecting data and information pertaining to the subject of the study, which includes the study instrument, the community and the sample of the study, in addition to measure the level of stability and validity of the study instrument, and the methods used in the statistical analysis.

3.1 Methodology

The researcher reviewed the literature which serves as the subject of the study, and used the descriptive and analytical method for their suitability, and as a methodology that addresses existing events and practices that are available for study and measurement as they are, by identifying the extent of implementation of disabled building code and the obstacles that limit its application in the Jordanian hospitals. This study also based on the use of the statistical analysis method due to its importance in measuring the reliability and accuracy of the results, as well as the analysis of the information content of the questionnaire, which was distributed to the sample of the study in the Jordanian hospitals.

3.2 The Quantitative Approaches

The researcher collecting the data according to the quantitative method, where a questionnaire design as a study instrument to measure the implementation and the obstacles facing the disabled building code in the Jordanian hospitals from the sample of the study, which represented by a set of hospitals within the Jordanian health sector, and data were collected and process through statistical analysis of generalization to the community of the study in Jordan.

3.3 The Population of the Study

The population of the study was chosen intentionally so that it represents governmental, private and university hospitals in the governors of Amman and Madaba. The questionnaire was distributed to five hospitals from Amman and two from M'adaba.

The population of the study consisted of employee in (113) Jordanian hospitals, according to the following response

1. Governmental hospitals, which consist of 31 employees.
2. Private hospital, which consist of 65 employees
3. University hospitals, which consist of 2 employees
4. Military hospitals, which consist of 15 employees.

Also the population of the study includes service recipient (persons with physical disabilities who is used wheelchairs) in these hospitals.

3.4 The Sample of the Study

The sample of the study was chosen intentionally so that it represents governmental, private and university hospitals in the governors of Amman and Madaba, where the questionnaire was distributed to (7) Jordanian hospitals (5) of them from Amman, and (2) of them from M'adaba.

The division of hospitals was as follows: (3) private hospitals included (Jordan hospital, and Al-Hamaidah hospital) from Amman and (Al-Mahaba hospital) From M'adaba. In addition to (3) governmental hospitals included (Al-Bashir hospital and Al-Toutanji) in Amman and (Al-Nadeem hospital) in Madaba and (1) university hospital included (The Jordanian university hospital).

The sample of the study targeted workers who are within the job titles of administrators, doctors, nurses and others, in addition to persons with disabilities using wheelchairs.

This category was chosen in particular due to their experience and practice of their works in the Jordanian hospitals, and their knowledge of the reality of the situation, in addition to their ability to absorb the questionnaire paragraphs and answer them with clarity and credibility.

The study population consisted of the medical and administrative staff in the Jordanian hospitals, and (7) hospitals were chosen to form the study sample, as the number of workers in them reached (6822), varying between a doctor, a nurse, an administrator and other jobs, see (Appendix 1).

Also, the researcher used Sekaran table in the sampling process in survey studies in general, which show the appropriate sample size at the different level of significance, see (Appendix 2) (Sekaran & Bougie. 2016).

The questionnaire of the study was distributed on the study population represented in the Jordanian hospitals, where (350) questionnaire were distributed to the sample of the study in order to test the hypotheses of the study, and to reach the results.

The number of retried questionnaires was (334) and (16) questionnaire was excluded from them as not valid for statistical analysis due to the lack of data in some of them and to the randomly answer in others, remaining from the total number of distributed questionnaires (318) and the following table (1) clarifies this:

Table (1)
The number of distributed questionnaires on the workers and the disabled service recipients in the Jordanian hospitals, the retrieved and the valid questionnaire

The population of the study	The number of distributed questionnaires	The number of retrieved questionnaires	The number of excluded questionnaires	The number of valid questionnaires for statistical analysis	Ratio of valid questionnaires for statistical analysis to retrieved questionnaires
Administrative	350	114	16	112	98.24%
Doctors		48		47	97.91%
Nurses		86		85	98.8%
Others		16		11	68.75%
Physical disabled service recipients		70		63	90.00%
The total	350	334	16	318	95.2%

3.5 The data collection sources

Two primary sources were used to collect information and data, which were as follows:

1. Secondary sources: which were relying on scientific books, previous studies and research published in periodicals, scientific journals, statistics and websites dealing with the subject of the study.
2. Primary sources: a questionnaire was designed and distributed to the sample of the study in the governmental, private and university Jordanian hospitals.

3.6 The Instrument of the Study

To achieve the goals of the study, the researcher designed a questionnaire to identify the extent of implementation building code for the physically disabled and the obstacles facing wheelchair users in the Jordanian hospitals from the point of view of each workers of those hospitals and service recipients which include persons with disabilities using wheelchairs, and analyzed statistically through SPSS program to reach the results of the study.

Where the questionnaire dealt with two parts, the first one was devoted to indicate the demographic characteristics of the study sample, whether it was among the hospital employees, and whether those who are within the segment of service recipients with disabilities using wheelchairs, while the second part dealt with five basic axes, the first axis

Of these contains (8) paragraphs and design to dedicated the extent of implementation of building code for people with physical disabilities in the Jordanian hospitals, as for the second axis, it contains (7) paragraphs which dedicated to identify the legislative obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals, while the third axis contains (14) paragraphs dedicated to identify the physical obstacles that affecting persons with disabilities from wheelchair users in the Jordanian hospitals. The fourth axis contains (8) paragraphs that are devoted to identify the human resource obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals, while the fifth axis contains (8) paragraphs dedicated to identify the finance obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals.

Likert scale was chosen to determine the importance of each paragraph of the study instrument as it is one of the most used scales to measure the responses and opinions as the member of the study sample subject to the test indicate the extent of their agreement with each of the paragraphs of the study instrument according to the mentioned scale as follows: (Abu Baker, 2006).

Table (2)
Likert scale measures (Abu Baker, 2006)

Relative importance	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The degree	5	4	3	2	1

According to (Abu Baker, 2006) the measure was adopted for the degree of evaluation of the study sample which is divided into three levels, where the degree of cut was calculated by dividing the difference between the highest value of the scale (5) and the lowest value (1) by three levels, which means that the degree of cutting is ((5-1)/3=1.33, and table (3) shows that:

Table (3)
The arithmetic mean criterion for the degree of impact (Abu Baker, 2006)

The arithmetic mean		The impact
From	To	
1.00	2.33	Weak
2.34	3.67	Medium
3.68	5.00	High

3.7 The Validity of the Instrument of the Study

The validity of the content of the study instrument indicates the degree of a particular scale through logical analysis of the content of the scale, or checking its representation of the content to be measured, and

therefore a high degree of validity of the content on a scale are achieved, but it is an indication that the paragraphs of the scale represent the range of behavior to be measured well (Al-Ansari, 2010).

To verify the validity of the content of the study instrument the researcher presented it to (7) arbitrators with expertise and experience from faculty members at Mu'tah university, alhusiien bin talal university and engeneering offices (Appendix 3), and the aim of the questionnaire arbitration was to verify the extent of the paragraphs belonging to the study variables and the extent of the accuracy of the linguistic formulation of the paragraphs and their observations were taken, as the questionnaire was modified based on these notes until the questionnaire reached its final form (Appendix 4).

3.8 The Stability of the Instrument.

The stability of the tool was confirmed by the method of re-testing (Al-Ansari, 2010). In order to obtain an acceptable level of verification of the stability of the answer in both times by redistributing (10%) of the number of questionnaires distributed the first time, a (35) questionnaire were distributed again on a random sample from the study sample, and this is a fter (4) days have passed since the distribution and retrieval of the questionnaire the first time from the study sample , and the Kronbach – Alpha formula has been used to find the coherence factor of the instrument so that each paragraph of the questionnaire is consistent with the axis to which the paragraph belongs, and the results of this parameter as shown in table (4) below:

Table (4)
The axis of the questionnaire

No.	Axis	Coefficient of consistency
1	The extent of implementation building code for physically disabled	0.81
2	Legislative obstacles	0.78
3	Physical obstacles	0.80
4	Human resources obstacles	0.81
5	Finance obstacles	0.79
*	The total degree	0.798

It is clear from Table (4) above that the stability coefficients ranged between (0.79 - 0.81) for the dimensions of the questionnaire, while the total score was (0.798), meaning that respondents from the study sample had a close and not spaced out opinions and answers, and these values indicate that the study questionnaire enjoyed suitable stability coefficients that met the purposes of the current study.

3.9 The Statistical Progress

After completing the process of collecting data that related to the variables of the study the SPSS were used to process the data in order to extract the required statistical results and answer the questions of the study and test their hypotheses and the following statistical methods were used:

1. Descriptive statistics of arithmetic averages, standard deviations, percentages and ranks for the questionnaire axes.
2. The test of total stability (Alpha Kronbach) to find out the stability of the questionnaire paragraphs.
3. Multicollinearity – test to ensure study data is consisted with the regression analysis assumptions.
4. Analysis of multiple linear regression to know the extent of implementation the building code for the physically disabled.
5. Analysis of the simple regression for each axis of the questionnaire which related to the obstacles to implementing the building code for physically disabled, and this is to verify that there is a relationship between these obstacles and wheelchair users in the Jordanian hospitals.

Chapter Four
Discussion of the Results , Conclusion and Recommendation

4.1 Introduction

This chapter showed the data analysis and the test of the study hypothesis, through answering the paragraphs of the questionnaire, and its results which reached through analysis its paragraphs, thus a statistical treatment was performed for data collected from the study questionnaire, and several statistical methods were used in order to analyze the data collected in a way that leads to achieve the goals of the study which presented and analyzed in this chapter.

4.2 The Results of the Descriptive Statistics of the Demographic Variables Data For the Sample of the Study

This part deals with a presentation and an analysis of the results related to the demographic variables of the sample of the study in terms of gender, age, academic qualification, job title, years of experience for workers in the Jordanian hospitals.

Also, this part showed a presentation and an analysis of the results related to the demographic variables related to the service recipient in terms of gender, age, academic qualification, the reason for use wheelchair, the reason and ratio of disability, and the following tables shows these results:

Table (5)
Characteristics of the study sample according to gender variable

The gender of respondent	Repetition	Percentage
Male	178	55.97%
Female	140	44.03%
The total	318	100.00%

It is clear from table (5) that the majority of the members of the study sample are male, as their percentage is close to the female

Table (6)
Characteristics of the study sample according to age variable

The age of respondent	Repetition	Percentage
20 -30 year	65	20.44%
31 – 40 year	81	25.47%
41 – 50 year	113	35.53%
51 and more	59	18.56%
The total	318	100.00%

Also table (6) shows that the majority of the study sample members ages fall into the category (41- 50 years) with a rate of (35.53%), and the lowest ratio fall into the category of 51 and more, which record a rate of (18.56%).

Table (7)
Characteristics of the study sample according to academic qualification

The academic qualification of respondent	Repetition	Percentage
Diploma and less	64	20.13%
Bachelor	191	60.06%
Master	37	11.63%
Higher Diploma	10	3.14%
PHD	16	5.04%
The total	318	100.00%

Table (7) clarifies that (60.06%) of those holding a bachelor's degree in their academic specializations which indicate that the sample members combine expertise and modern science, in addition to the ability of the study sample to understand the questionnaire paragraphs and answer them.

Table (8)
Characteristics of the study sample according to job title

The job title of respondent	Repetition	Percentage
Managerial	85	26.72%
Nurse	112	35.25%
Doctor	63	19.81%
Other job titles	11	3.45%
Health service received	47	14.77%
The total	318	100.00%

The above table (8) shows the number of study sample to whom the questionnaire was addressed, as they are the most efficient to answer them, due to their direct relationship to the subject and problem of the study, and it is clear from the above table that the majority of the study sample members are nurse with a rate of (35.25%) followed by the managerial with a rate of (26.72%) then doctors with a rate of (19.81%), health services received with arate of (14.77%) and finally who is related to the subject of the study with a rate of (3.45%), which indicates the able to trust their answers without being biased and to their understand to the paragraphs of the questionnaire when answering them.

Table (9)
Characteristics of the study sample according to years of experience

The years of experience of respondent	Repetition	Percentage
Less than 3 years	65	20.44%
4 – 9 years	137	43.08%
10 – 19 years	108	33.9%
More than 20 years	8	2.53%
The total	318	100.00%

It is clear from table (9) that the majority of the study sample members have a number of years of experience ranging between (4 – 9) years and with a rate of (43.08%), and the reason behind this may be attributed to the fact that hospitals are searching for the stability of their employees, which indicates the ability of the study sample members to understand the study problem and trust in their response to the questionnaire.

4.3 The Questionnaire Paragraph's Analysis.

The researcher presents the results related to the first axis of the questionnaire, through which the first question of the study questions can be answered which states:

What is the extent of implementation of building code for the physically disabled in the Jordanian hospitals?

In order to answer this question, the questionnaire paragraphs related to this axis were analyzed from the point of view of the study sample, where the arithmetic averages, standard deviations, the degree of impact and the percentage rank of questions related to the first axis of the study instrument, and the following table (10) indicates to these results:

Table (10)
The arithmetic mean and standard deviations of the extent of implementation building code for physically disabled in the Jordanian hospitals

No.	The paragraph	Arithmetical averages	Standard deviations	Degree	The impact level
4	The implementation of the Jordanian building code for people with physical disabilities in the Jordanian hospitals guarantees the fulfillment of public safety conditions and is not subject to harm.	4.38	0.63	1	High

3	The implementation of the Jordanian building code for the physical disabled helps this segment of receiving appropriate health services in the Jordanian hospitals.	4.31	0.72	2	High
2	The Jordanian building code take into consideration the structural details of people with disabilities in the Jordanian hospitals.	4.26	0.61	3	High
1	The implementation of building code for people with physical disabilities ensures that disabled people from wheelchair users have access to health services in Jordanian hospitals.	4.05	0.84	4	High
5	Building code implementation ensures the protection of individual hospital buildings and health centers in emergency case and natural accident.	4.32	0.75	5	High
8	The Jordanian building code for the disabled is applied in the Jordanian hospitals taking into consideration the slopes, lounges, stands and all means that facilitate the access of people with physical disabilities to medical services.	3.91	1.24	6	High
7	Not granting construction permits to the Jordanian hospitals and health centers unless they take into consideration the building code for physically disabled and taking into account their health conditions	3.72	1.12	7	High
6	Regular maintenance of the infrastructure is carried out in the Jordanian hospitals with the employment of monitors to follow up on good use and performance.	3.04	0.83	8	Medium
-	General average	4.00	0.77	-	High

`From table (10) its clear that the arithmetic averages for the axis of the extent of implementation building code for persons with disabilities using wheelchair in the Jordanian hospitals ranged between (3.04 – 4.38) as the highest arithmetic mean was for paragraph (4) which states that:

The implementation of the Jordanian building code for people with physical disabilities in the Jordanian hospitals guarantees the fulfillment of public safety conditions and is not subject to harm, which has an arithmetic average of (4.38) and a standard deviation of (0.63) and that the lowest arithmetic mean was for paragraph (6) which

states that: **Regular maintenance of the infrastructure is carried out in the Jordanian hospitals with the employment of monitors to follow up on good use and performance,** which has an arithmetic average of (3.04) and a standard deviation of (0.83)**,** while the general average reached (4.00) and the general standard deviation reached (0.773) means that its located within a high level which indicates that there is an actual and high implementation of building code for the disabled wheelchair users in the Jordanian hospitals.

The researcher presents the results related to the second question of the study, which states: **What are the obstacles that limit the implementation of the building codes in the Jordanian hospitals?**
In order to answer this question, the arithmetic averages, standards deviations, the degree of impact and the percentage rank of the obstacles of implementation building code for the disabled were extracted from the sample of the study point of view for each obstacle separately:

First: First sub question: What are the effects of the legislative obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?

Table (11)
The arithmetical averages and standard deviations of the axis of legislative obstacles to the implementation of building code for physically disabled in the Jordanian hospitals

No.	The paragraph	Arithmetical averages	Standard deviations	Degree	The impact level
1	Jordanian laws and legislation taken into consideration the segment of physical disabled when drafting the provisions and laws related to health services in the Jordanian hospitals.	3.63	1.00	1	Medium
7	Legislative provisions and laws guarantee easy access to medical services for persons with physical disabilities in the Jordanian hospitals.	3.53	1.09	2	Medium
3	Workers in the Jordanian hospitals aware of the rights of persons with physical disabilities, which the Ministry of Health has legislated for them and their right to treatment in the Jordanian hospitals.	2.98	1.33	3	Medium
4	Workers in the Jordanian hospitals are aware of the rights of people with physical disabilities, which have been enacted by the Higher Council for the Rights of Persons with Disabilities.	2.97	1.31	4	Medium

6	Jordanian hospitals regularly organize awareness campaigns about the rights of people with physical disabilities and the duty of society towards them and how to deal with them.	2.95	1.21	5	Medium
5	Workers in Jordanian hospitals are aware of the percentages of discounts and insurance, which stipulated in the legislation of the Jordanian law and the Ministry of Health	2.83	1.34	6	Medium
2	The provisions and laws related to the rights of physically disabled persons which are stipulated in the Jordanian laws, have been placed within the scope of implementation and application in the Jordanian hospitals	2.57	1.38	7	Medium
-	General average	3.07	0.856	-	Medium

From table (11) its clear that the arithmetic averages for the axis of the legislative obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals ranged between (2.57 – 3.63) as the highest arithmetic mean was for paragraph (1) which states that: **Jordanian laws and legislation taken into consideration the segment of physical disabled when drafting the provisions and laws related to health services in the Jordanian hospitals,** which has an arithmetic average of (3.63) and a standard deviation of (1.00) and that the lowest arithmetic mean was for paragraph (2) which states that: **The provisions and laws related to the rights of physically disabled persons which are stipulated in the Jordanian laws, have been placed within the scope of implementation and application in the Jordanian hospitals,** which has an arithmetic average of (2.57) and a standard deviation of (1.38)**,** while the general average reached (3.07) and the general standard deviation reached (0.856) means that its located within a medium level which indicates that there is a legislative obstacles that limit the actual implementation of building code for the disabled wheelchair users in the Jordanian hospitals.

The researcher presents the results related to the second sub question of the study, which states: **What are the effects of the physical (construction) obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?**

In order to answer this question, the arithmetic averages, standard deviations, the degree of impact and the percentage rank of the physical obstacles were extracted from the sample of the study point of view:

Table (12)
The arithmetical averages and standard deviations of the axis of physical obstacles to the implementation of building code for physically disabled in the Jordanian hospitals

No.	The paragraph	Arithmetical averages	Standard deviations	Degree	The impact level
8	Water cycles for disabilities are available on each floor with easy to access them in the Jordanian hospitals.	3.88	0.86	1	High
4	The quality of the floors is commensurate with the movement of wheelchairs to ensure that they are not subject to slipping in the Jordanian hospitals.	3.83	0.84	2	High
5	Private parking for the physically disabled cars is available near the main entrances with easy to access and exit from them in Jordanian hospitals	3.83	0.77	3	High
7	The slopes for wheelchairs are available, especially near the stairs in the Jordanian hospitals	3.81	0.77	4	High
11	The necessary lighting is available in the facilities and rooms of Jordanian hospitals	3.79	0.84	5	High
12	Electrical doors are used in the entrances to facilitate the entry and exit of the physically challenged people from wheelchair users in the Jordanian hospitals.	3.79	0.90	6	High
3	The internal and external corridors, are compatible with the movement of wheelchairs in Jordanian hospitals	3.34	1.12	7	Medium
14	The height of the windows is commensurate with the building code for the handicapped users, with the ease of opening and closing them in the Jordanian hospitals	2.95	1.30	8	Medium
13	Convenience of room door measurements for wheelchair entry and exit users of wheelchairs in the Jordanian hospitals	2.53	1.44	9	Medium
2	The elevators are available and can accommodate wheelchairs easily in the Jordanian hospitals	2.49	1.43	10	Medium
1	Informative signs for persons with disabilities are available in a clear line and abundant in all the internal and external facilities in the Jordanian hospitals.	2.45	1.41	11	Medium

9	Request for assistive devices are available in the water cycles for the physically disabled in the Jordanian hospitals.	2.44	1.37	12	Medium
6	Convenience of external berth design and breadth for wheelchairs in the facilities of the Jordanian hospitals.	2.30	1.45	13	Low
10	The necessary ventilation is available in the facilities and rooms of Jordanian hospitals	2.27	1.43	14	Low
-	The general average	3.12	0.71	-	Medium

From table (12) its clear that the arithmetic averages for the axis of the physical obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals ranged between (2.27 – 3.88) as the highest arithmetic mean was for paragraph (8) which states that: **Water cycles for disabilities are available on each floor with easy to access them in the Jordanian hospitals,** which has an arithmetic average of (3.88) and a standard deviation of (0.86) and that the lowest arithmetic mean was for paragraph (10) which states that: **The necessary ventilation is available in the facilities and rooms of Jordanian hospitals,** which has an arithmetic average of (2.27) and a standard deviation of (1.43)**,** while the general average reached (3.12) and the general standard deviation reached (0.71) means that its located within a medium level which indicates that there is a physical obstacles that limit the actual and high level of implementation of building code for the disabled wheelchair users in the Jordanian hospitals.

The researcher presents the results related to the third sub question of the study, which states: **What are the effects of the human resources obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?**

In order to answer this question, the arithmetic averages, standard deviations, the degree of impact and the percentage rank of the human resource obstacles were extracted from the sample of the study point of view:

Table (13)
The arithmetical averages and standard deviations of the axis of human resources obstacles to the implementation of building code for physically disabled in the Jordanian hospitals

No.	The paragraph	Arithmetical averages	Standard deviation	Degree	The impact level
3	The medical staff has the necessary skill and ability to deal with cases of persons with physical disabilities in the Jordanian hospitals.	3.43	1.06	1	Medium
6	Providing free programs and tests for early detection of physical disability in the Jordanian hospitals.	3.40	1.14	2	Medium
4	The medical staff is working on issuing medical and periodic reports to follow up the cases of those with physical disabilities and their progress in the Jordanian hospitals.	3.07	1.24	3	Medium
7	Availability of a specialized medical staff for the syndrome of persons with physical disability impairment and to assist them during their visit to Jordanian hospitals if there is no accompanying them	3.04	1.26	4	Medium
1	Hospital staff have sufficient experience about the requirements of people with physical disabilities in the Jordanian hospitals	3.01	1.18	5	Medium
2	Ensure that persons with physical disabilities are given the necessary importance in the Jordanian hospitals.	3.00	1.32	6	Medium
8	Organizing training and qualification sessions for workers in the Jordanian hospitals on how to deal with people with physical disabilities beside to their nursing and treatment profession.	2.95	1.18	7	Medium
5	The early tests necessary for early detection of disabilities are carried out in the Jordanian hospitals	2.44	1.36	8	Medium
--	The general average	3.04	0.903	-	Medium

From table (13) its clear that the arithmetic averages for the axis of human resources obstacles that limits the implementation of the disabled

building code on the level of health services that provided by the Jordanian hospitals ranged between (2.44 – 3.43) as the highest arithmetic mean was for paragraph (3) which states that: **The medical staff has the necessary skill and ability to deal with cases of persons with physical disabilities in the Jordanian hospitals.,** which has an arithmetic average of (3.43) and a standard deviation of (1.06) and that the lowest arithmetic mean was for paragraph (5) which states that: **The early tests necessary for early detection of disabilities are carried out in the Jordanian hospitals,** which has an arithmetic average of (2.44) and a standard deviation of (1.36)**,** while the general average reached (3.04) and the general standard deviation reached (0.903) means that its located within a medium level which indicates that there is a human resources obstacles that limit the actual and high level of implementation of building code for the disabled wheelchair users in the Jordanian hospitals.

The researcher presents the results related to the fourth sub question of the study, which states: **What are the effects of the financial obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals?**

In order to answer this question, the arithmetic averages, standard deviations, the degree of impact and the percentage rank of the financial obstacles were extracted from the sample of the study point of view:

Table (14)

The arithmetical averages and standard deviations of the axis of financial obstacles to the implementation of building code for physically disabled in the Jordanian hospitals

No.	The paragraph	Arithmetical averages	Standard deviation	Degree	The impact level
2	Insufficient governmental and material assistance for individuals with disabilities and not supporting it in the Jordanian hospitals.	2.83	1.18	1	Medium
1	The State is working to allocate a budget to provide the necessary financial support to support the segment of the physically disabled in the Jordanian hospitals	2.79	1.04	2	Medium
4	Care programs support the cost of treatment for persons with disabilities in the Jordanian hospitals.	2.32	0.92	3	Low
8	The cost of treatment and medicine for people with disabilities is minimal in the Jordanian hospitals.	2.11	1.18	4	Low

7	The provisions and laws dealing with exemptions or reducing the costs of treatment and providing material support for individuals with physical disabilities in the Jordanian hospitals.	2.05	1.11	5	Low
6	Care programs support occupational therapy for people with physical disabilities who use wheelchairs in the Jordanian hospitals.	2.01	1.22	6	Low
3	The hospital administration allocates the necessary budget to carry out maintenance and developments for visitors in general and those with disabilities in particular in the Jordanian hospitals	1.99	1.17	7	Low
5	Care programs support the costs of medicines in the Jordanian hospitals.	1.99	1.19	8	Low
-	General average	2.26	0.90	-	Low

From table (14) its clear that the arithmetic averages for the axis of financial obstacles that limits the implementation of the disabled building code on the level of health services that provided by the Jordanian hospitals ranged between (1.99 – 2.83) as the highest arithmetic mean was for paragraph (2) which states that: **Insufficient governmental and material assistance for individuals with disabilities and not supporting it in the Jordanian hospitals,** which has an arithmetic average of (2.83) and a standard deviation of (1.18) and that the lowest arithmetic mean was for paragraph (5) which states that: **Care programs support the costs of medicines in the Jordanian hospitals,** which has an arithmetic average of (1.99) and a standard deviation of (1.19)**,** while the general average reached (2.26) and the general standard deviation reached (0.899) means that its located within a low level which indicates that there is a financial obstacles that limit the actual and high level of implementation of building code for the disabled wheelchair users in the Jordanian hospitals.

4.4 Test Suitability of Study Data

A linear interference test (Multicollinearity – Test) was performed to ensure that the study data fit the assumption of regression analysis, as it was determined that there was no high correlation between the independent variables by calculating the Tolerance allowable coefficient and (Variance.inflation. Factor .(VIF)) for the independent variables taking into account the following: (Doane & Seward, 2011)

1. Allowed variation: a value greater than (0.05).
2. Variation inflation coefficient: the value does not exceed (10).

3. Calculating the skewness coefficient of the study variables to ensure that the normal distribution data is followed, if the value of the torsional coefficient is less than (1).

Table (15)
The results of Multicollinearity Test

Independent variables	Tolerance	VIF	Skewness
The implement of disabled building code	0.226	4.668	0.743
Legislative obstacles	0.462	3.148	0.222
Physical obstacles	0.333	3.910	0.479
Human resources obstacles	0.403	3.444	0.279
Financial obstacles	0.309	3.071	0.382

It appears from table (15) which summarizes linear interference tests that the values of the allowable contrast test ranged between (0.226 – 0.462) which is greater than (0.05), in addition to that the values of the contrast, inflation coefficient were less than (10) as they ranged between (3.071 – 4.668) which indicates that there is no high correlation between the independent variables, and the value of torsional coefficient were less than (1) which confirms the normal distribution of data.

4.5 Test the Hypotheses of the Study

4.5.1 The First Hypothesis

H0-1.There is no statistically significant effect at the level ($\alpha \leq 0.05$) to implement the building code for the disabled at the level of health services provided to persons with physical disability in the Jordanian hospitals.

To show the effect of the independent variable on the dependent variable, the ANOVA test was performed, and the following table (16) indicates the results of this test:

Table (16)
The results of the analysis of the variance test (Anova) of the impact of the implementation of building code for the physical disabled persons at the level of services provided to them

Dependent variable	Source of contrast	Sum of squares	Degree of freedom DF	Calculated statistic value F	Tabular value F	Sig	The result
The implement of disabled building code	Within the groups	0.184	1	28.10	27.99	0.000	Reject the nihilistic hypothesis
	Inside the groups	5.107	21				
	Total variance	5.361	22				

Its obvious from table (16) that there is a statistically significant effect of the implementation of building code for disabled wheel chair users at the level of services provided to them, where the calculated statistic value (F) reached (28.10) which is greater than the tabular value which reached (27.99) at the level of significance of (0.05) or less, and thus, the nihilistic hypothesis was rejected and the alternative hypothesis accepted, which concluded that there is a statistically significant effect of implementing the building code for the physical disabled persons at the level of the health services provided to them.

4.5.2 The Second Hypothesis

H0 – 2: There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the obstacles to implement the building code for the disabled which represented in (legislative, physical, human resources and financial obstacles) at the level of health services provided to them in the Jordanian hospitals.

To test this hypothesis a multiple linear regression analysis was conducted to find out the effect of obstacles to the implementation of building code for the physical disabled persons at the level of health services provided to them in the Jordanian hospitals, which shows results in table No. (17) as follows:

Table (17)

The results of the multiple regression analysis for the obstacles to implementing the disabled building code and the level of health service

Dependent variable	Correlation coefficient (R)	The coefficient of etermination (R^2)	F	Degree of freedom(DF)	Sig*	Regression coefficient (β)		Sig*
The level of services provided to persons with physical disabilities	0.62	0.384	29.10	21	0.000	Legislative obstacles	0.191	0.051
						Physical obstacles	0.291	0.021
						Human recourses obstacles	0.335	0.001
						Financial obstacles	0.199	0.000

Its obvious from table (17) that there is a statistically significant effect for each of the legislative and human resourses obstacles on the level of service provided to persons with physical disabilities according to their building code, where the correlation coefficient (R) reached (0.62) and the determining coefficient (R 2) has interpreted a ratio of (38.4%) of the variance in the dependent variable , while the value of the statistic (F) was (29.10), which is at the level of significance (0.05) and less, so in the light of this result it can be state that there are no legislative and human resourses obstacles at the level of services provided to persons

with physical disabilities according to their building code, likewise, it can be state that there are physical and financial obstacles that effect the level of health services provided for persons with physical disability according to their building code.

To test the sub hypotheses, a simple regression analysis was performed for each of the axes of the questionnaire which related to the obstacles of implementation the building code for the disabled wheelchair users in the Jordanian hospitals, and this is to verify that there is a relationship between each of the obstacles in the implementation of the building code for the disabled (legislative, physical, human resources and financial obstacles) at the level of services provided to them in the Jordanian hospitals, and thus reaching a decision to accept sub – assumptions or reject them for this study: **4.5.3 The First Sub-Hypothesis:**

H0-2.1 There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the legislative obstacles which limit the implement of disabled building code at the level of health services provided to them in the Jordanian hospitals.

To test this hypothesis a simple regression test was conducted as follows:

Table (18)
The results of simple regression analysis to test the first sub hypothesis

Correlation coefficient (R)	Determination coefficient (R2)	Beta B	T	Sig.
0.58	0.336	0.57	21.01	0.051

Its clear from the table (18) above that the correlation coefficient reached (0.58) and that the value of the statistic (T) was(21.01), which is not a function at the level ($0.05 \geq \alpha$), also it appears from the above table that the significance level is (0.051), which indicates the absence of a statistically significant relationship between the legislative obstacles that limit the implementation of the building code for the physical disabled persons according to the desired degree at the level of health services provided to them, in addition, the results indicated that the legislative obstacles explain (33.6%) of the variation in the improvement of the health level services in the Jordanian hospitals.

According to the above , the null hypothesis is accepted, which states that: there is no statistically significant effect at the level ($\alpha \leq 0.05$) of legislative obstacles that limit the implementation of building code for the disabled at the level of health services provided to them in the Jordanian hospitals. The reason behind this may be due to the absence of

legislative obstacles that preventing access to a good level of services due to the implementation of the building code for the disabled wheelchair users in the Jordanian hospitals, and this is what the results indicated, which means that the better improved of the legislative laws the better the building code goals that are reflected at the level of services provided for disabled wheelchair users in Jordanian hospitals, and this is evidenced by the positive value of the beta coefficient, which has a value of (0.58).

4.5.4 The Second Sub-Hypothesis:

H0-2.2 There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the physical obstacles which limit the implement of disabled building code at the level of health services provided to them in the Jordanian hospitals.

To test this hypothesis a simple regression test was conducted as follows:

Table (19)
The results of simple regression analysis to test the second sub-hypothesis

Correlation coefficient (R)	Determination coefficient (R2)	Beta B	T	Sig.
0.56	0.314	0.56	24.73	0.021

Its clear from the table (19) above that the correlation coefficient reached (0.56) and that the value of the statistic (T) was(24.73), which is a function at the level ($0.05 \geq \alpha$), also it appears from the above table that the significance level is (0.021), which indicates a statistic relation between the physical obstacles which limit the implementation of the building code for the physical disabled persons according to the desired degree at the level of health services provided to them, in addition, the results indicated that the physical obstacles explain (31.4%) of the variation in the improvement of the health level services in the Jordanian hospitals.

According to the above , the alternative hypothesis is accepted, which states that: there is a statistically significant effect at the level ($\alpha \leq 0.05$) of the physical obstacles that limit the implementation of building code for the disabled at the level of health services provided to them in the Jordanian hospitals. The reason behind this may be due to the presence physical obstacles that preventing access to a good level of services due to the implementation of the building code for the disabled wheelchair users in the Jordanian hospitals, and this is what the results indicated, which means that the more the physical obstacles are overcome the better the building code goals that are reflected at the level of services

provided for disabled wheelchair users in Jordanian hospitals, and this is evidenced by the positive value of the beta coefficient, which has a value of (0.56).

4.5.5 The Third Sub-Hypothesis:

H0-2.3 There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the human resources obstacles which limit the implement of disabled building code at the level of health services provided to them in the Jordanian hospitals.

To test this hypothesis a simple regression test was conducted as follows:

Table (20)

The results of simple regression analysis to test the third sub-hypothesis

Correlation coefficient (R)	Determination coefficient (R2)	Beta B	T	Sig.
0.61	0.36	0.61	24.01	0.001

Its clear from the table (20) above that the correlation coefficient reached (0.61) and that the value of the statistic (T) was(24.01), which is a function

at the level ($0.05 \geq \alpha$), also it appears from the above table that the significance level is (0.001), which indicates a statistic relation between the human resources obstacles which limit the implementation of the building code for the physical disabled persons according to the desired degree at the level of health services provided to them, in addition, the results indicated that the human resources obstacles explain (36.0%) of the variation in the improvement of the health level services in the Jordanian hospitals.

According to the above , the alternative hypothesis is accepted, which states that: there is a statistically significant effect at the level ($\alpha \leq 0.05$) of the human resources obstacles that limit the implementation of building code for the disabled at the level of health services provided to them in the Jordanian hospitals. The reason behind this may be due to the presence of human resources obstacles that preventing access to a good level of services due to the implementation of the building code for the disabled wheelchair users in the Jordanian hospitals, and this is what the results indicated, which means that the more the human resources obstacles are overcome by training and improvement the better the building code goals that are reflected at the level of services provided for disabled wheelchair users in Jordanian hospitals, and this is evidenced by the positive value of the beta coefficient, which has a value of (0.61).

4.5.6 The Fourth Sub-Hypothesis:

H0-2.4 There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the financial obstacles which limit the implement of disabled building code at the level of health services provided to them in the Jordanian hospitals.

To test this hypothesis a simple regression test was conducted as follows:

Table (21)
The results of simple regression analysis to test the fourth sub hypothesis

Correlation coefficient (R)	Determination coefficient (R2)	Beta B	T	Sig.
0.55	0.302	0.55	22.23	0.000

Its clear from the table (21) above that the correlation coefficient reached (0.55) and that the value of the statistic (T) was (22.23), which is a function at the level ($0.05 \geq \alpha$), also it appears from the above table that the significance level is (0.000), which indicates the precence of a statistically significant relationship between the financial obstacles that limit the implementation of the building code for the physical disabled persons according to the desired degree at the level of health services provided to them, in addition, the results indicated that the financial obstacles explain (30.2%) of the variation in the improvement of the health level services in the Jordanian hospitals.

According to the above , the alternative hypothesis is accepted, which states that: there is a statistically significant effect at the level ($\alpha \leq 0.05$) of the financial obstacles that limit the implementation of building code for the disabled at the level of health services provided to them in the Jordanian hospitals. The reason behind this may be due to the presence of financial obstacles that preventing access to a good level of services due to the implementation of the building code for the disabled wheelchair users in the Jordanian hospitals, and this is what the results indicated, which means that the more overcome financial obstacles like financial allocations to implement the disabled building code the better the building code goals that are reflected at the level of services provided for disabled wheelchair users in Jordanian hospitals, and this is evidenced by the positive value of the beta coefficient, which has a value of (0.55).

4.6 Comparing Between the Results of the Current Study Analysis and the Empirical Studies Mentioned in the Same Study

The following table compares between the results of the analysis of the current studies and the results of the empirical studies

Table (22)

The comparison between the results of the current studies and the results of the empirical studies mentioned in the same study

The results of the current study	The empirical studies	The results of the empirical studies
In compared to Al-Owaidi study, the result of the current study showed that there is a medium level of physical obstacles that limit the implement of disabled building code in the Jordanian hospitals.	**Al - Owaidi (2018)** the applicability degree of the international building code requirements for persons with physical disabilities in the Jordanian universities.	The results of the study showed that the degree of application of building codes in Jordanian universities ranged from low to medium depending on the type of requirements
In compared to Amrawi study with our current study the results showed that both studies concerned in the physical part of disabled building code, but each one from different side, while Amrawi study concerned on the physical side of wheelchair design according to age and different growth rate from disability to other, the current study concerned in the physical obstacles of building code in Jordanian hospitals which should be suitable for all ages of persons with physical disability who use wheelchair..	**Amrawi (2014)** ergonomic standard suitable for wheelchair design in terms of anthropometric standards,	The need to take into account the relative importance of the anthropometric standard in the design of physical dimensions, researching the specialized design of wheelchair for each age group, given that the growth rates of people with physical disability are unequal

Galman and the current study both concerned in the physical and financial obstacles , so, Galman study focused on the mechanical part to improve wheelchair in a reasonable price while the current study focused on the physical obstacles which limit the implementation of disabled building code and also shed the light on the financial obstacles which record a low level which indicated that there are a financial obstacles that limit the implement of disabled building code	**Galman (2014)** Convert the disability wheelchair from manual to automatic chair by modifying the design and adding some mechanical and electrical elements without any modifications in the design of the chair shape.	The results showed that the design of an advanced electric chair for the disabled at a reasonable price, by adding some improvements such as mechanical parts to convert the movement of the chair from manual to automatic movement with a good degree of performance, and avoiding the complexity
The current study focused on both gender, and level of age for both workers in the jordanian hospitals and service receipt.	**Abdat study (2013)** identifies the problems facing women with disabilities in the United Arab Emirates	there are statistically significant differences in the problems facing women according to the type of disability and the educational and social level, while there was no problem according to the age variable of disability woman,
The current study focused on the Jordanian hospitals as a health center to provide treatment, care and occupational therapy for the physically disabled, wheelchair users by shed the light on the human resources who works in the Jordanian hospitals.	**Al-Sabah and Al-Hmouz (2013)** the degree of rehabilitation problems of persons with physical disabilities in Palestinian rehabilitation centers,	The results showed a high degree of problems facing the rehabilitation of persons with physical disabilities in addition to the presence of statistically significant differences according to sex variable in favor of females, scientific degree, place of residence (camps) and

		degree of disability (severe).
The current study record a medium level of ligeslative obstacle which indicated that there are a ligeslative obstacles face the implement ob disabled building code in the Jordanian hospitals.	**Kamarudin and et.al (2012)** Measure the local authority awareness in providing the suitable access and facilities for persons with disabilities,	The level of awareness in providing access and facilities for the persons with disabilities is higher compared to their knowledge in implementing the Malysian standards,
The current study shed the light on providing the disabled building code in the Jordanian study and consider it as a necessary not a luxury reqirements and the statistical showed that the physical obstacles of implement the disabled building code record a medium level which means the need to improve the level of disabled building code in the Jordanian hospitals	**South and north center for dialogue and development (2011)** identify barriers to the participation and integration of persons with disabilities in the community related to the readiness of public facilities to meet the needs of persons with disabilities and to provide information and qualified personnel to deal with them	The facilities and infrastructure in Jordanian cities still lack the minimum facilities for persons with disabilities, the low level of awareness of officials in municipalities health and educational institutions about disability issues, and consider their requirements as a luxury and can be overcome, the need to qualify health institutions to receive persons with disabilities, the lack of awareness of persons with disabilities about their rights and the activities of (HCD), and their feeling of discrimination in the community
The results of the current study showed that the physical obstacles that limit the implement of disabled building within the medium level in the	**Karunasena (2010)** create a barrier-free environment when designing health and educational buildings in	The study showed that no importance was given to this category of society, especially when designing buildings

Jordanian hospitals.	Sri Lanka and treating disabled people on an equal basis with other segments of society	that the level of interest is very low and does not reach the required level.
The results of the study showed that the legislative obstacles placed the medium level in the implement of disabled building code in the Jordanian hospitals, while it placed a low level in the financial obstacles which means that the financial obstacles limit the implement of disabled building code in the Jordanian hospitals.	**Awawdeh (2007)** study aimed to mphasize the appropriate methods that facilitate the integration of the disabled in the public life of society	the process of rehabilitation and integration of the disabled in the community is a national issue beyond the willingness of the disabled for integration and requires financial and legal efforts and political decision
The results of the current study showed that the Jordanian hospitals have a medium obstacles related to the physical matters and the main intarnces and doors inside the hospital.	**Hamzat and Dada (2005)** study aimed to determine the level of wheelchair accessibility of public buildings in Africa's second largest city Ibdan	The findings of the study showed that about 7 buildings (18.4) of the 38 buildings have a suitable accessibility, and hospitals were the most accessible buildings with a rate of (66.7%), and none of social or recreation buildings accessible, which mean that the level of wheelchair accessibility is very low, and thus the opportunities of integration the wheelchair users with the rest of community limited and weak.
The current study identified the obstacles which limit the implementation of building code which	**Panel (2004)** focused on (10) regions in the united states between 2001 and	The findings of the study showed that barriers and facilitators were

variance between (legislative, physical, human resources and financial obstacles) in the Jordanian hospitals.	2002 with four types of participants include: targeted persons with disabilities, architects, fitness professionals, city planners and park area managers	identified, including: nature of the built environment, emotional and Psychological barriers, equipment barriers, barriers related to the use and interpretation of guidelines , laws and regulations. Policies and procedures at the establishment and community level
	Soyingbe, Ogundairo and Adenuga (2003) study aimed to determine the available facilities for disabled people in public buildings in Nigeria	The results of the study show the lack of most facilities which required by the disabled persons in public buildings, Due to the lack of such facilities, this has restricted the freedom of the disabled and not granted them their rights to access buildings and services
the results of the study determined the physical obstacles that limit the implementation of disabled building code in terms of (roads, parking, doors, main entrances and exits, corridors, rooms, bathrooms, counters, light and others) which record a medium level according to the statistical results.	**Haigh and Feeney (1986)** study, evaluated the British Standard 5810 : 1979 Disabled access to buildings with the aim of improving it	The findings showed that there are severe problems faced disabled who use wheelchairs, walking difficulties and visually impaired which related to parking, roads, steps, stairs, information, location, design and furniture.

4.7 The Conclusion of the Study

The study reached a set of results after reviewing the theoretical framework of the study and designing the study instrument that fit with the main study axes and related to the extent of the implementation of the building code for the disabled and the obstacles facing wheelchair users in Jordanian hospitals, which identified the obstacles in (legislative, physical, human resources and financial obstacles).

The researcher concluded through the previous studies and the statistical analysis of the study instrument a set of results which was as follows:

1. The researcher found that the disabled building code is actually applied in the Jordanian hospitals, which helps this segment of society and ensure their easy access to health facilities and receive health services within a set of safety rules.
2. The researcher also concluded that there is a presence of obstacles that limit the implementation of disabled building code in the Jordanian hospitals, and these obstacles came in a series from the most influential to the least influential as follows:
   a. The financial obstacles: its counterparts from the obstacles that limit the implementation of disabled building code in the Jordanian hospitals, which indicates the need for more improvements that support the financial aspect of the disabled category in the Jordanian hospitals, also, it was found that the financial obstacle affects the level of health services provided to disabled in the Jordanian hospitals.
   b. The physical obstacles: the researcher concludes the actual existence of this kind of obstacles, which indicates that the provision of these construction requirements and facilities varies from hospital to another, despite their global and national accreditation, and therefore they need improvement and development, therefore, the physical obstacles affects the level of health services in the Jordanian hospitals.
   c. The human resource obstacles: the researcher concluded that the obstacles related to the human resources affects the level of services provided for the disabled in Jordanian hospitals, and perhaps the most important of these obstacles is the low procedures for early detection of physical disability, and how to deal with the persons with physical disability and their rehabilitation without harming them, and therefore the human resources need more training courses on how to deal with persons with physical disabilities.
   d. The legislative obstacles: the researcher concluded that the legislative obstacles are among the least that affect the implementation of the building code for the disabled, however, there is a need to enact more laws and regulations that are in the

interest of persons with physical disabilities and ensure their easy access to Jordanian health facilities.

4.8 The Recommendations of the Study

The researcher developed a set of recommendations that may contribute to the expansion and development of the process of applying disabled building code with the aim of providing better services to this group of society and ensuring that they are treated equally to the rest of the community, and the recommendations were as follows:

1. To carry out periodic maintenance of the infrastructure and hospital facilities with the aim of improving performance and ensuring public safety, in addition to not grant any construction licenses to the Jordanian hospitals unless they take into consideration the implement of disabled building code.
2. To increase the awareness of hospital staff about how to deal with physically disabled persons in addition to the proportions and treatment reductions prescribed for them.
3. Stressing the need to implement the provisions and laws relating to the rights of persons with disabilities which stipulated in the Jordanian law in the Jordanian hospitals.
4. Taking into consideration the necessity of improving the level of infrastructure and upgrading it to a high level inside and outside the Jordanian hospitals and ensuring that the facilities are fully adequate to facilitate the process of access for people with disabilities to health services.
5. Focusing on the importance of improving and developing the human resources working in the Jordanian hospitals through organizing training and practical courses on early detection of physical disabilities to treat them in their beginnings, and rise their ability to deal with this segment of society, and to reduce the obstacles of human resources that limit the health services.
6. Providing the necessary financial support for the development of Jordanian hospitals and performing a periodic maintenance of their facilities, in addition to financial support related to examinations and dispensing of medicines for the physically disabled segment to reduce the financial obstacles that prevent them from health services.
7. To Spread the necessary awareness of the rights of persons with disabilities through the various media outlets to increase their awareness of all their health, educational and social rights.
8. To conduct more studies and research aimed at improve and develop the implementation of disabled building code in Jordanian hospitals and public facilities to facilitate the movement of this group of society and supporting it to engage in various fields of life.

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Appendices

Appendix (I)
Numbers of workers in the targeted Jordanian hospitals

Hospital name	**The number of workers**
The Jordanian hospital	2757
Al-Hamaideh hospital	160
Al-Totanji hospital	950
Jordan hospital	950
Al-Nadim hospital	430
Al- Mahabba hospital	75
Al-Bashir hospital	1500
The total	6822

Appendix (II)
Sekaran and Bougie table

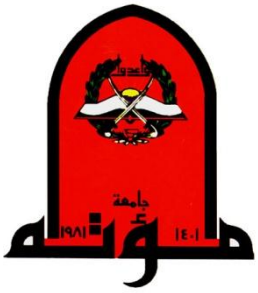
Required Sample Size†

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Appendix (III)
List of arbitrators

Dr. Saloom Al – Jbouri	Mu'tah university
Dr. Ramadan Jbr	Mu'tah university
Dr. akram Al- Awadi	Al-Hussien bin Talal university
Eng. Ibraheem Habash	Ibraheem Habash Office- Amman
Eng. Nahid al- Masri	Nahid Al- Masri Office – Amman

Appendix (IV)
The questionnaire in English language



A Research questionnaire
Study Title

Level of Implementation and Obstacles of the National Building Code for Disabled in Health Buildings

This Thesis Submitted in Partial Fulfillment of The Requirements of the Degree of Master in Engineering Management from Mutah University
Prepared By

Maha Salem Dawas Al-Dahamsheh

Supervised By

Dr. Sultan Tarawneh

Respected workers in the Jordanian hospitals

The researcher is conducting an analytical study entitled " The Extent of Implementation of Disabled Building Code and the Obstacles Facing the wheelchair Users in the Jordanian Hospitals, to complete the requirements for obtaining a master's degree in engineering management from Mu'tah University.

Therefore, I would like kindly to answer the paragraphs of the questionnaire with what you see as appropriate based on your experience and expertise in the Jordanian health sector and hospitals, so that the researcher can obtain the results that are expected to benefit the health services sector in general and the study sample in particular, in order to ensure the progress of health services and their advancement to the best, knowing that the questions and answers that will be included in this questionnaire that reflect your view in the Jordanian health sector and hospitals will be used for scientific research purposes only and in strict confidentiality.

With all respects,,,

The researcher
Maha Salem Al-Dahamsheh

First: procedural definitions of the study variables:

Building code: A set of conditions, provisions and rules related to design and construction that guarantee public safety and health by ensuring durability, stability of buildings and facilities, facilitating access to them, providing a healthy environment, adequate lighting and ventilation, emergency exits, and ease of use.

Building code for people with physical disabilities who use wheelchairs: means the minimum set of requirements that must be met in hospitals, public and residential buildings, and service facilities through which people with disabilities can access them, including: ramps, sidewalks, elevators, signs, parking, health unit spaces in rooms, entrances, exits, corridors, height of the counters, and other details.

This questionnaire aims to collect the necessary data to answer the study questions, which revolve around the extent of application of building code for people with physical disabilities who used a wheelchair, and the most important obstacles facing the implementation of their building code, whether they are legislative, structural, human or financial obstacles.

Second: Demographic data for workers in the Jordanian hospitals within the sample of the study

Gender	☐Male	☐ Female		
Age	☐ 20 -30	☐ 31 -40	☐ 41 -50	☐ 51 and more
Academic qualification	☐ Diploma ☐ PHD	☐ Bachelor	☐ Master	☐ Higher Diploma
Job title	☐ Managerial	☐ nurse	☐ Doctor	☐ others
Years of experience	☐ 1 – 3 years	☐ 4 – 9 years	☐ 10 -19 years	☐ 20 years and more

Demographic data (for wheelchair users) in Jordanian hospitals within the study sample

Gender	☐ Male	☐Female		
Age	☐ 20-30	☐ 31 -40	☐ 41 – 50	☐ 51 and more
Academic qualification	☐ Diploma and less ☐ PHD	☐ Bachelor	☐ Master	☐ Higher diploma

First measurement: the extent of implementation of building code for physical disabilities in the Jordanian hospitals						
No.	Paragraph	Strongly agree	Agree	Nutral	Disagree	Strongly disagree
1	The implementation of building code for people with physical disabilities ensures that disabled people from wheelchair users have access to health services in Jordanian hospitals.					
2	The Jordanian building code take into consideration the structural details of people with disabilities in the Jordanian hospitals.					
3	The implementation of the Jordanian building code for the physical disabled helps this segment of receiving appropriate health services in the Jordanian hospitals.					
4	The implementation of the Jordanian building code for people with physical disabilities in the Jordanian hospitals guarantees the fulfillment of public safety conditions and is not subject to harm.					
5	Building code implementation ensures the protection of individual hospital buildings and health centers in emergency case and natural accident.					
6	Regular maintenance of the infrastructure is carried out in the Jordanian hospitals with the employment of monitors to follow up on good use and performance.					
7	Not granting construction permits to the Jordanian hospitals and health centers unless they take into consideration the building code for physically disabled and taking into account their health conditions					
8	The Jordanian building code for the disabled is applied in the Jordanian hospitals taking into consideration the slopes, lounges, stands and all means that facilitate the access of people with physical disabilities to medical services.					

The second measure: the legislative obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals						
No.	Paragraph	Strongly agree	Agree	Nutral	Disagree	Strongly disagree
1	Jordanian laws and legislation taken into consideration the segment of physical disabled when drafting the provisions and laws related to health services in the Jordanian hospitals.					
2	The provisions and laws related to the rights of physically disabled persons which are stipulated in the Jordanian laws, have been placed within the scope of implementation and application in the Jordanian hospitals					
3	. Workers in the Jordanian hospitals aware of the rights of persons with physical disabilities, which the Ministry of Health has legislated for them and their right to treatment in the Jordanian hospitals..					
4	Workers in the Jordanian hospitals are aware of the rights of people with physical disabilities, which have been enacted by the Higher Council for the Rights of Persons with Disabilities.					
5	Workers in Jordanian hospitals are aware of the percentages of discounts and insurance which stipulated in the legislation of the Jordanian law and the Ministry of Health.					
6	Jordanian hospitals regularly organize awareness campaigns about the rights of people with physical disabilities and the duty of society towards them and how to deal with them..					
7	Legislative provisions and laws guarantee easy access to medical services for persons with physical disabilities in the Jordanian hospitals					

The third measure: the physical obstacles that affecting persons with disabilities from wheelchair users in the Jordanian hospitals						
No.	Paragraph	Strongly agree	Agree	Nutral	Disagree	Strongly disagree
1	Informative signs for persons with disabilities are available in a clear line and abundant in all the internal and external facilities in the Jordanian hospitals.					
2	The elevators are available and can accommodate wheelchairs easily in the Jordanian hospitals					
3	The internal and external corridors, are compatible with the movement of wheelchairs in Jordanian hospitals.					
4	. The quality of the floors is commensurate with the movement of wheelchairs to ensure that they are not subject to slipping in the Jordanian hospitals.					
5	Private parking for the physically disabled cars is available near the main entrances with easy to access and exit from them in Jordanian hospitals					
6	Convenience of external berth design and breadth for wheelchairs in the facilities of the Jordanian hospitals.					
7	The slopes for wheelchairs are available, especially near the stairs in the Jordanian hospitals					
8	Water cycles for disabilities are available on each floor with easy to access them in the Jordanian hospitals.					
9	Request for assistive devices are available in the water cycles for the physically disabled in the Jordanian hospitals.					
10	The necessary ventilation is available in the facilities and rooms of Jordanian hospitals.					
11	The necessary lighting is available in the facilities and rooms of Jordanian hospitals.					
12	Electrical doors are used in the entrances to facilitate the entry and exit of the physically challenged					

	people from wheelchair users in the Jordanian hospitals.					
13	Convenience of room door measurements for wheelchair entry and exit users of wheelchairs in the Jordanian hospitals.					
14	The height of the windows is commensurate with the building code for the handicapped users, with the ease of opening and closing them in the Jordanian hospitals.					

The fourth measure: the human resource obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals						
No.	Paragraph	Strongly agree	Agree	Nutral	Disagree	Strongly disagree
1	Hospital staff have sufficient experience about the requirements of people with physical disabilities in the Jordanian hospitals					
2	Ensure that persons with physical disabilities are given the necessary importance in the Jordanian hospitals.					
3	The medical staff has the necessary skill and ability to deal with cases of persons with physical disabilities in the Jordanian hospitals.					
4	The medical staff is working on issuing medical and periodic reports to follow up the cases of those with physical disabilities and their progress in the Jordanian hospitals.					
5	The early tests necessary for early detection of disabilities are carried out in the Jordanian hospitals.					
6	Providing free programs and tests for early detection of physical disability in the Jordanian hospitals.					
7	Availability of a specialized medical staff for the syndrome of persons with physical disability impairment and to assist them during their visit to Jordanian hospitals if there is no accompanying them					
8	Organizing training and qualification sessions for workers in the Jordanian hospitals on how to deal with people with physical disabilities beside to their nursing and treatment profession.					

The fifth measure: the finance obstacles affecting the disabilities of wheelchair users in the Jordanian hospitals						
No.	Paragraph	Strongly agree	Agree	Nutral	Disagree	Strongly disagree
1	The State is working to allocate a budget to provide the necessary financial support to support the segment of the physically disabled in the Jordanian hospitals					
2	Insufficient governmental and material assistance for individuals with disabilities and not supporting it in the Jordanian hospitals.					
3	The hospital administration allocates the necessary budget to carry out maintenance and developments for visitors in general and those with disabilities in particular in the Jordanian hospitals.					
4	Care programs support the cost of treatment for persons with disabilities in the Jordanian hospitals.					
5	Care programs support the costs of medicines in the Jordanian hospitals.					
6	Care programs support occupational therapy for people with physical disabilities who use wheelchairsin the Jordanian hospitals.					
7	The provisions and laws dealing with exemptions or reducing the costs of treatment and providing material support for individuals with physical disabilities in the Jordanian hospitals.					
8	The cost of treatment and medicine for people with disabilities is minimal in the Jordanian hospitals.					

Other suggestion

……

……

Thanks for your cooperations

Appendix (V)
Official letters addressed to hospitals and to facilitate the task of the student

جامعة مؤتة
كلية الدراسات العليا

MUTAH UNIVERSITY
College ofGraduate Studies

الرقم :ك.د.ع/٢٠٨٠/٩٧/٢٠١٧
التاريخ : .....هـ
الموافق: ١٩/١٢/٢٠١٦م

Re.....
Date:.....

السادة مستشفى الجامعة الاردنية المحترمين

تحية طيبة وبعد،،،

فارجو التكرم بمخاطبة من يلزم لتسهيل مهمة الطالبه مها سالم الدهامشة والتي تدرس في جامعة مؤتة ماجستير /ادارة هندسية الرقم الجامعي(620170406015) ، وذلك من اجل الحصول على المعلومات والبيانات اللازمة لتوزيع استبانتها لاعداد دراستها والموسومة بـ" مدى تطبيق كود بناء المعاقين والعقبات التي تواجه مستخدمي الكراسي المتحركة في المستشفيات الاردنية" استكمالاً لمتطلبات الحصول على درجة الماجستير.

شاكرين لكم اهتمامكم وحرصكم على التعاون مع جامعة مؤتة ، لتحقيق أهدافها في خدمة هذا الوطن في ظل حضرة صاحب الجلالة الهاشمية الملك عبدالله الثاني ابن الحسين المعظم يحفظه الله ويرعاه.

وتفضلوا بقبول فائق الاحترام،،،

عميد كلية الدراسات العليا

أ.د. عمر نواف المعايطه

جامعة مؤتة
كلية الدراسات العليا

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مؤتة – الكرك – الأردن
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تلفون :03/2372380-99
فرعي 6131-4050
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البريد الالكتروني
الموقع الالكتروني http://www.mutah.edu.jo/gradest/derasat.htm

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وزارة الصحة

الرقم ص ب/ ١٤٩٨/ ٢٢٥
التاريخ
الموافق ٢٠/٢/٢٠٢٠

مدير مستشفى الجامعة الاردنية

تحية طيبة وبعد ،،،

أرفق طياً صورة عن كتاب مدير إدارة مستشفيات البشير / رئيس لجنة أخلاقيات البحث العلمي رقم م ب أ / لجنة أخلاقيات /٢٠٥٩ تاريخ ٢٠٢٠/٢/٢ بخصوص الموافقة لطالبة ماجستير / ادارة هندسية **مها سالم الدهامشة** إجراء بحث بعنوان :

(مدى تطبيق كود بناء المعاقين والعقبات التي تواجه مستخدمي الكراسي المتحركة في المستشفيات الأردنية)

وذلك عن طريق توزيع الاستبيان المرفق صورة عنه على عدد من مستخدمي الكراسي المتحركة والعاملين في المستشفيات الحكومية التابعة لوزارة الصحة.

أرجو التكرم بالإيعاز لمن يلزم تسهيل مهمة إجراء البحث أعلاه .

وتفضلوا بقبول فائق الاحترام ،،،

مدير مديرية التعليم وتطوير الموارد البشرية

الدكتورة رهام الحمود

هـ م

المملكة الأردنية الهاشمية
هاتف: ٥٢٠٠٢٣٠ ٦ ٩٦٢+ فاكس: ٥٦٨٨٣٧٣ ٦ ٩٦٢+ ص.ب: ٨٦ عمان ١١١١٨ الأردن. الموقع الالكتروني: www.moh.gov.jo

وزارة الصحة

م ب أ/ لجنة أخلاقيات / ٢٠٥٩

الرقم

التاريخ ٢٠٢٠/٢/٣

الموافق

مدير مديرية التعليم وتطوير الموارد البشرية

تحية طيبة وبعد،

اشارة لكتابكم رقم تطوير/خطط/ ١٤٤٣ تاريخ ٢٠٢٠/١/٣٠ بخصوص البحث العلمي المقدم من قبل طالبة الماجستير / مها سالم الدهامشة .

أرفق بطيه قرار لجنة اخلاقيات البحث العلمي والمتضمن الموافقة على اجراء البحث العائد للمذكورة أعلاه.

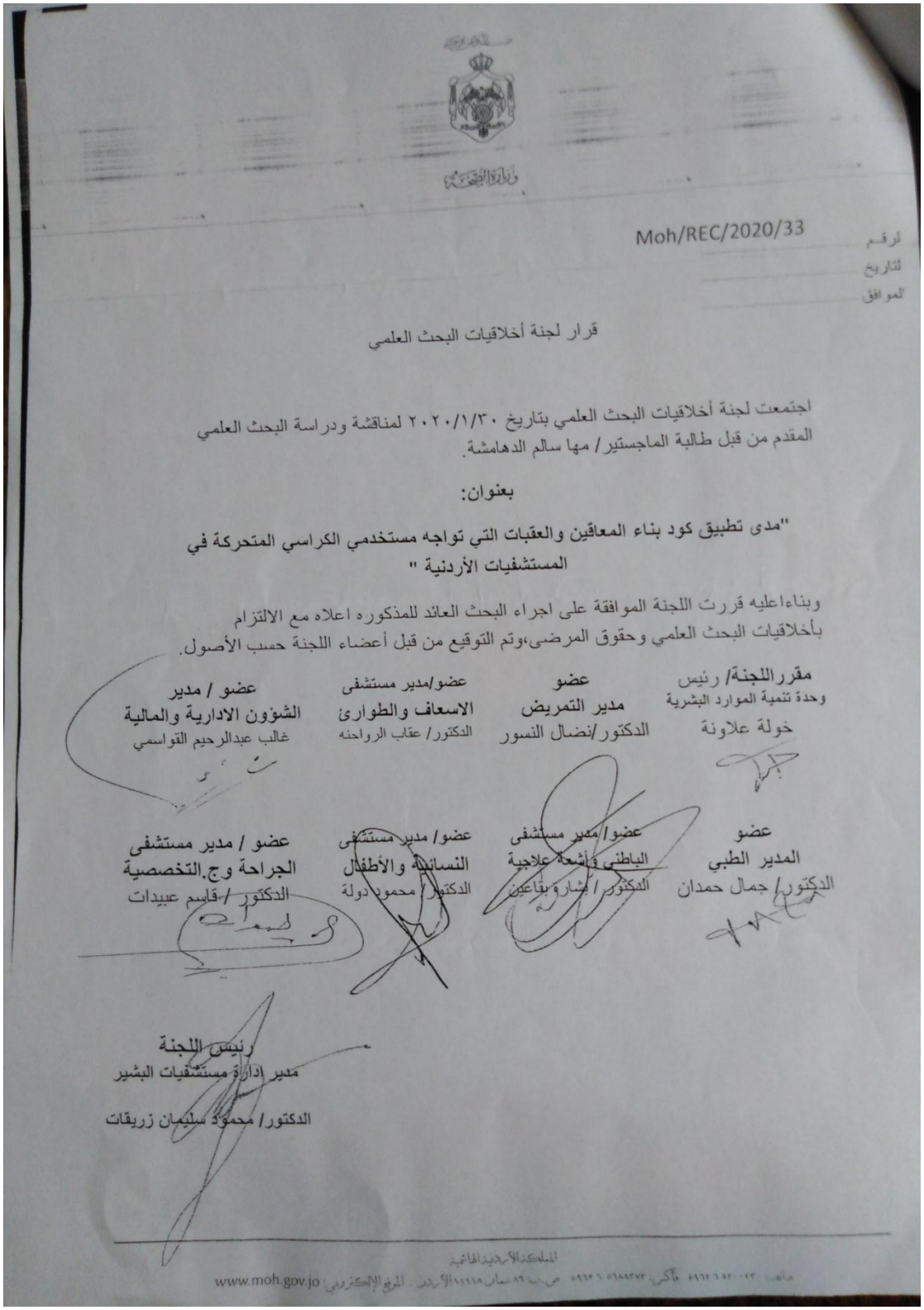
للاطلاع واجراءاتكم لطفا.

واقبلو فائق الاحترام ،،،،

مدير ادارة مستشفيات البشير

الدكتور محمود سليمان زريقات

خ ع



وزارة الصحة

الرقم Moh/REC/2020/33

التاريخ

الموافق

قرار لجنة أخلاقيات البحث العلمي

اجتمعت لجنة أخلاقيات البحث العلمي بتاريخ ٢٠٢٠/١/٣٠ لمناقشة ودراسة البحث العلمي المقدم من قبل طالبة الماجستير/ مها سالم الدهامشة.

بعنوان:

"مدى تطبيق كود بناء المعاقين والعقبات التي تواجه مستخدمي الكراسي المتحركة في المستشفيات الأردنية "

وبناءاعليه قررت اللجنة الموافقة على اجراء البحث العائد للمذكوره اعلاه مع الالتزام بأخلاقيات البحث العلمي وحقوق المرضى،وتم التوقيع من قبل أعضاء اللجنة حسب الأصول.

مقرراللجنة/ رئيس وحدة تنمية الموارد البشرية خولة علاونة	**عضو** **مدير التمريض** الدكتور/نضال النسور	**عضو/مدير مستشفى** **الاسعاف والطوارئ** الدكتور/ عقاب الرواحنه	**عضو / مدير** **الشؤون الادارية والمالية** غالب عبدالرحيم القواسمي
عضو **المدير الطبي** الدكتور/ جمال حمدان	**عضو/مدير مستشفى** **الباطني واشعة علاجية** الدكتور/ بشار بقاعين	**عضو/ مدير مستشفى** **النسائية والأطفال** الدكتور/ محمود دولة	**عضو / مدير مستشفى** **الجراحة وج.التخصصية** الدكتور/ قاسم عبيدات

رئيس اللجنة
مدير إدارة مستشفيات البشير

الدكتور/ محمود سليمان زريقات

المعلومات الشخصية

الاسم: مها سالم الدهامشة
الكلية: الهندسة
تخصص: ادارة هندسية
هاتف: 0779520533