



# **CURATIVE TOURISM IN JORDAN AND ITS POTENTIAL DEVELOPMENT**



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## ABSTRACT

The purpose of this study is to find out the components and nature of curative tourism in Jordan by identifying demographic and economic characteristics of curative tourists to Jordan spas and resorts, the problems that the tourists face during their stay in the country, measuring the satisfactions of tourists about the services rendered to them and identifying the possibilities of developing this type of tourism in the kingdom through presenting suggestions and recommendations to the management of the tourist bodies in the country.

The population of the study was represented by a convenient sample of 210 tourists who were enjoying 6 Jordanian curative sites, namely, Al Hammah, Ashounah, the Dead Sea, Afra, Al Barbaitah and Ma'in. SPSS statistical programme version 10.1 was used to analyse the data that were collected for the purpose of this research. Frequencies, percentages, means and standard deviations of the main variables of the study were tabulated, in addition to cross tabulations and analysis of variance (ANOVA) were also analysed to test the research hypotheses and the main research questions. Alfa reliability coefficient was calculated to 93.15%.

The research revealed that the majority of curative tourists to Jordan spas and health resorts were men, who have the age of 50+ years old, live in spa hotels or chalets, stay between 21 and 30 days, have an income level of € 1000-3000, spend between € 141-220 and come (non-Jordanians) from the EU countries, mainly Germany and Austria. Generally speaking, the research results showed an acceptable satisfaction hold by tourists, despite the fact that there were some areas that they were not satisfied with. Major of them include public transportation, cleanliness, prices, accessibility (roads), spa services, entertainment and recreation facilities, etc. curative tourism is still in the introductory stage of product life cycle, where the infra and superstructures are incomplete, lack of clear development and marketing strategies, lack of data base on the sector, lack of attention given by the tourist bodies towards the value and impacts of curative tourism and others.

The research revealed that 20 curative sites of Jordan have been identified and classified according to technical and economic feasibility

for potential development; where 4 sites are classified as of high potential development, 10 of medium potential and 6 have low potential for development (Appendix 2).

Curative tourists to Jordan spas suffer from some problems during their stay in the country, major of them include lack of public transportation; cleanliness; accessibility (roads); modest number of accommodations and unavailability in some sites; treatment services not available in most of the sites; prices are very high in comparison with the services rendered; entertainment programmes and activities are missed; communication facilities are not available in some sites; etc.

Finally, the research suggests an acute strategy and plan to develop the curative sites and upgrade the infra and superstructures, planned and objective marketing campaigns, increase the level of awareness towards natural curative resources and integrate the curative therapy with the medical or clinical treatment through creating an association for spas and a board that can be called “Jordan Health Tourism Board” in that both types can be marketed in one package. The author also recommended further areas to be researched including human resource management of spas and health resorts in Jordan, market analysis and marketing research .

Key words: Jordan, curative tourism, health tourism, spas, hot and mineral springs, wellness, marketing and the Dead Sea.

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## **Dedication**

**This research is dedicated to:**

**My parents for they are the reason that I came to life;**

**My wife for here patience, encouragement and love;**

**My Children: Ghayda'; Raghda'; Basel and Belal;**

**My honest friend Dr Khalid Magablih for his guidance and advice;**

**To all my friends with love!**

**Salem Salameh Harahsheh**

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# CHAPTER 1

## 1. INTRODUCTION

Curative tourist destinations have different therapeutic properties for healing many diseases and maintaining the general fitness of the body by using natural factors such as hot and mineral springs, mud baths and wraps, herbal baths, or by exposing to sun and dry climate and salt lakes like the Dead Sea in Jordan. In addition to these curative properties, these destinations are characterised by less pollution and few population.

People experience stress in work due to the development in modern societies in all aspects of life (which is called the tax of modern civilisation), paid leaves and the world population became elder, which encountered various disease. These reasons brought the need for natural healing powers as an efficient therapy, which has the advantage of less contra effects on the body.

With the international trend towards the concept of going back to the nature for treatment and recreation, scientists, physicians and therapists were studied and explored the natural therapy, which means curing by pure curative resources that are rich in minerals, gases, mud, which are useful for the treatment of many diseases that can come by age life cycle.

Many countries are interested in curative tourism especially those that have curative resources, where they develop their infra and superstructures to cope with the vast international demand. This attention is due to the big importance of curative tourism in completing the medical treatment, which the patient receives in hospitals or medical centres. These because curative therapy helps to achieve a better result from medical treatment, for example, those who had fractures and they were operated in hospitals need to use therapeutic waters to enhance the degree of recovery.

Curative tourism is not limited to spas or health resorts, but also includes others parties such as insurance companies and tour operators to connect the link between curative spas and patients. The purpose is to make an enjoyable stay of the patient or the entertainer by natural attractions, whether archaeological, landscapes, reserves and others, near the curative sites or by making artificial amusements to let the patient feel as a normal human. This in turn has its impact on lifting the morale of the patient and accelerating the time of recovery.

This study aims at identifying the nature and development of curative tourism in Jordan by analyzing the visitors' level of satisfaction with regard to the tourism services rendered to them while being in the country, uncovering the main bottlenecks facing curative tourism and suggesting possible solutions whenever applicable. This will result in developing the curative sites according to international standards. The curative sites will be identified and classified according to certain criteria for tourism development purposes.

## 1.1 The Research Area

The research covers the area of the six major curative sites as represented by five hot and mineral springs and the east coast of the Dead Sea of Jordan. All the studied sites are located in the Jordan Rift valley (JRV) or nearby. Figure (1) shows the map of the studied area. A blue-circled line borders the research area.

## 1.2 The Research Problem

Jordan is one of the main tourist destinations in the Middle East in health tourism in both medical and curative dimensions. There are more than 200 hot and mineral springs in Jordan and the Dead Sea, besides many hospitals and medical centres through out the country, where the cost of medical services is 10 times less than of the world with the similar facilities and quality<sup>1</sup>.

Generally speaking, there is no enough attention paid by the tourism bodies in Jordan in this promising type of tourism and there is no database about the curative sites, their distribution, therapeutic properties and diseases that can be healed, infrastructures and superstructures and the characteristics of tourist (patients), whether they are demographics, social, economic or behavioral. As a result of this, curative tourism in Jordan is still in the introductory stage of product life cycle. There is also very few research written on curative tourism. Therefore, this study comes as an answer to the following questions:

1. What are the main building blocks of curative tourism in Jordan?
2. What are the features of curative tourism in the country?
3. What is the level of satisfaction hold by tourists (patients) to the curative sites against the services rendered to them?

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<sup>1</sup> Magablih, K (2001). *Inbound Health Tourism in Jordan (in Arabic, translated by the author)*, unpublished, p 7.



4. What are the main problems and obstacles that are facing the development of curative tourism in the kingdom?
5. What is the possibility of upgrading curative tourism in Jordan to international standards and then putting Jordan in the right place within the region and worldwide?

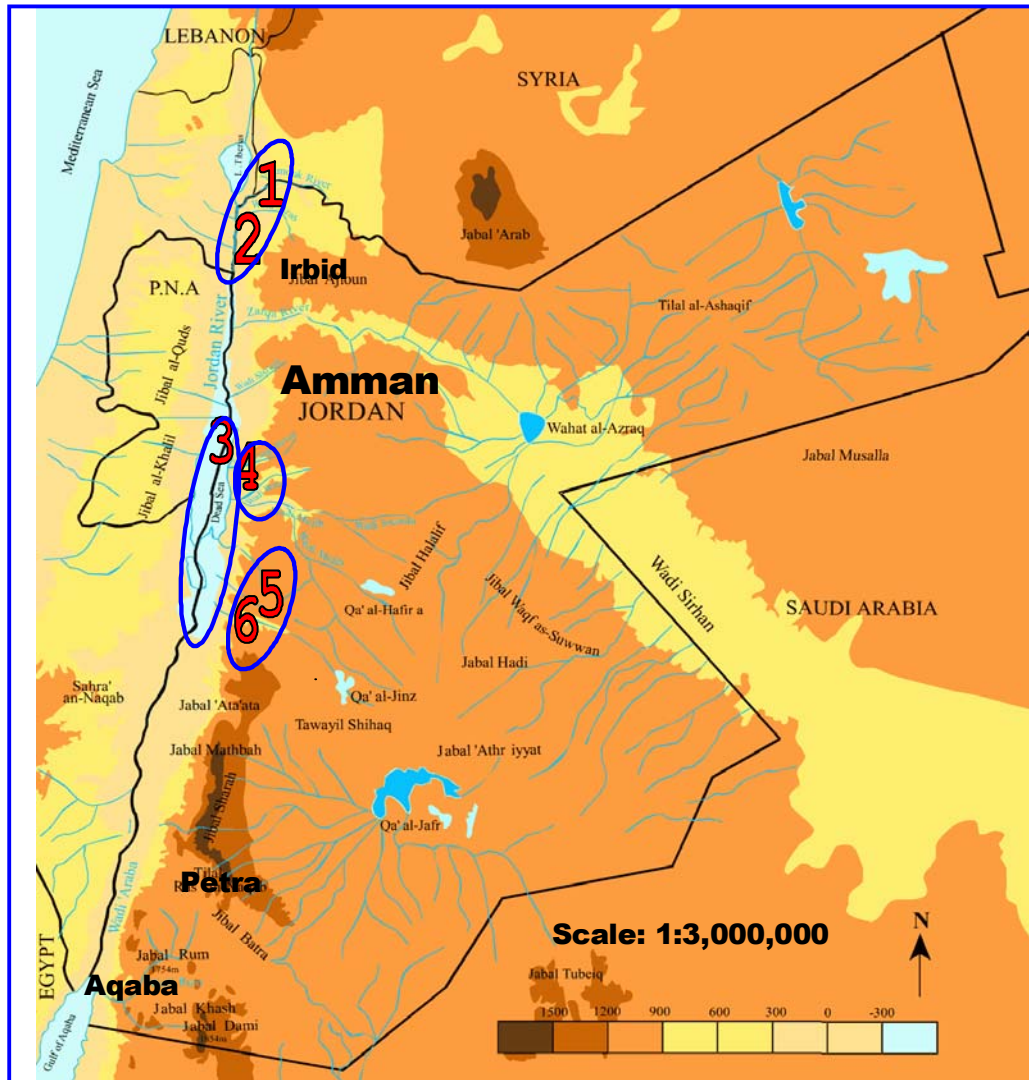


Figure (1.1) Map of the researched area adapted by the author. Source: <http://www.tourism.jo/>

1: Al Hammah; 2: Ashounah; 3: The Dead Sea; 4: Ma'in; 5: Al Barbaitah; 6: Afra.

### 1.3 Research Objectives

This study aims at:

1. Identifying the components and the state of art of curative tourism in Jordan.

2. Analysing the nature of arrivals to Jordan for treatment in natural curative sites by demographic and economic variables such as sex, nationality, age, income and others.
3. Determining the problems and bottlenecks that are facing patients during their stay in the kingdom.
4. Analysing the evaluation of patients about the services rendered to them.
5. Filling the gap of curative tourism literature in Jordan, which lacks so far.
6. Drawing up applicable recommendation and suggestions to the management that concerns of curative tourism in the country for better ways of developing the sector.

## 1.4 The Research Hypotheses

The research is trying to test the following hypotheses:

The first hypothesis deals with the type of accommodation the visitors chose. Therefore, the following hypothesis will be tested:

**H1: Visitors (patients) choose to live in the spot of treatment (in a hotel, chalet, etc.).**

The second hypothesis is about the length of stay, and then the following hypothesis will be tested:

**H0: The average length of stay for curative tourists is low as similar as to other types of tourism in Jordan.**

The third hypothesis deals with the mean of knowledge about the curative sites in Jordan. The following hypothesis will be tested:

**H0: The destination marketing and promotion effort is less than what it would be expected.**

The fourth hypothesis is dealing with the evaluation of visitors towards the services they get during their stay. To know this, the following hypothesis will be tested:

**H0: Visitors evaluate the services rendered to them negatively.**

The fifth hypothesis is about the differences in evaluation of services, in the curative sites, by visitors according to the demographic and economic variables such as sex, nationality, age and length of stay.

**H0: There are no important differences in the evaluation of services by curative tourists according to factors as sex, nationality, age and length of stay.**

Motivation for choosing these hypotheses are these demographic and economic factors have great impact on the planning and marketing activity that is associated with any destination. Therefore, when determining which factors that have such impact, then the planner can have a better understanding and knowledge of which type of tourists that come to the destination, from which generating markets, of what age group and how long they will stay. These factors then can be as an input to the system of destination marketing. For example, if the Jordan tourist planner knows that most of tourist who come to Jordan are women, who have the age of 50 years and plus, from Germany and Austria, for the purpose of treatment and stay for 3 weeks, then he can manage his infra and superstructure to accommodate such tourists and develop new products that satisfy the tourists.

When analysing the hypothesis, the first one is dealing with the type of accommodation and the place, then it is easier to know which type and where they live, then development of accommodations that match the tourists' favourites. The second hypothesis is about the length of stay, which has the economic impact in terms of expenditures, so it easier to know which type o tourists that pay more or less at the destination. The third and the fourth hypotheses are dealing with the evaluation of services rendered to tourists at the destination. This has its impact knowing the shortcomings and bottlenecks and problems that the tourists suffer during their stay, by which it easier to solve these problems that have a negative impact on the image of the destination.

The discussion of the tested hypotheses will be presented later on in chapter 5.

## **1.5 The Importance of the Research**

This study is important in that it is the first that deals with curative tourism in Jordan with deep analysis of the sector in its infrastructures, superstructures, quantity and quality of curative resources, their distribution, etc. in fact the past research in the area was nearly little and was solely about the technical dimension of curative waters, their physical and chemical properties.

Despite the fact that there are no data on the size of curative tourism in Jordan, but it was estimated to be around 100,000 curative tourists a year (7% of the total arrivals)<sup>2</sup>. It is widely recognised that curative tourists stay more than normal tourist, in average they stay between 2 and 4 weeks, then they spend more money that is allocated to accommodation, treatment, food and beverage, transportation, entertainment and others.

More over, it has the impact on the work place by employing many people, where there are, now, 3 hotels that are classified 5-star hotels, 2 that are classified as 4-star hotels and 1 that is classified as 2-star hotel.

Curative tourism has its impact on promoting investments and boosting other related industries as herbs, extracted products from the Dead Sea as crystals, salts, mud and other cosmetics, in addition to bottled mineral waters from mineral springs.

## 1.6 Structure of the Thesis

The thesis is consisting of 6 chapters, which are allocated as follows:

**Chapter 1** includes: the **introduction**; the research area; which was bounded by 6 curative sites; the research problem, which is concerned with finding ways for the potential development of curative tourism in Jordan; the research hypotheses; the research objectives and the importance of the research.

**Chapter 2** is about the **theoretical background** of the research. In this chapter concepts and definition of curative tourism are discussed; the differences between the three types of health tourism (medical, curative and preventive); past research in different countries of the world and in Jordan; the historical development of curative tourism over centuries; the religious, economic and medical dimensions of curative tourism; etc.

**Chapter 3** deals with the **methodology** to reach the research objectives. This includes the sampling techniques and population; data collection methods; the research instrument (questionnaires, interviews and observations) and finally the limitations that encountered the research process.

**Chapter 4** is about background of tourism in Jordan, distribution and properties of curative sites in Jordan, curative tourism infrastructures and superstructures, curative

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<sup>2</sup> Alrai Arabic Daily: 11267, 12-8-2001. *(Translated by the author)*.

tourism development projects, problems that associated with curative sites, suggestions to develop the sector and a SWOT analysis of curative tourism in Jordan.

**Chapter 5** illustrates the findings and discussion of the results of the research and the tested hypotheses.

**Chapter 6** documents the concluded remarks, further areas of future research and recommendation of the study.

# CHAPTER 2

## 2. LITERATURE REVIEW

### 2.1 Concepts and Definitions of Health Tourism

Travel for treatment and recreation became one of the major purposes of tourism. Curative tourism is not exclusive to those who have body disorders, but also include others who want to relax, retrieve vitality and for mental, physical and spiritual fitness.

The term curative tourism has not exactly been raised as an independent concept; instead most of the research was mainly about health tourism. As a result, many scholars have defined health tourism, which implies curative and/or medical tourism in different ways.

Abeles and Kipnis (1998:695)<sup>3</sup> defined health as:

“A condition of social, psychological and physical well-being and many different avenues can be pursued so that this state is achieved”.

This definition emphasises a balanced condition in the whole body, whether it is physical, psychological or spiritual, and is matching the definition that is given by the World Health Organisation (WHO), where health does not mean the absence of disease, instead it is a balance in the whole body, physically, psychologically and spiritually<sup>4</sup>.

The International Union for Official Tourism Organisations (IUOTO) (1973:7)<sup>5</sup> has defined health-care tourism as:

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<sup>3</sup> Abels, D and Kipnis, V (1998). *Bioclimatology and balneology in dermatology: A Dead Sea perspective*. Clinics in Dermatology: 16:595.

<sup>4</sup> Pollock and Williams op.cit. P 165.

<sup>5</sup> The International Union for Official Tourism Organisation (IUOTO) (1973). IUOTO Publications, Geneva, Switzerland, p7.

“The provision of health facilities utilising the natural resources of the country, in particular mineral water and climate”.

This definition is narrow and is exclusive only to mineral springs and climate therapy not the whole natural curative factors, which are part of curative tourism such as salt water, sun, radioactive sand, mineral mud and others.

Suad Imran (in Jallad 1995: 12-13)<sup>6</sup>:

“Curative tourism is a temporary movement, by which the tourist (patient) travels for the purpose of treatment, whether it is medical or therapeutic in healing certain disease or for relaxation and physical up keeping. This movement should be voluntary or by a doctor recommendation”.

This definition has mixed both medical and curative tourism, which in fact is the definition of health tourism. In the next paragraphs the author will distinguish between these concepts.

Goodrich and Goodrich (in Medlik 1995)<sup>7</sup> defined health-care tourism, as:

“An attempt on the part of a tourist facility (e.g. a hotel) or destination (e.g. Baden, Switzerland) to attract tourists by deliberately promoting its health-care services and facilities, in addition to its regular tourist amenities”.

Again this definition mixes up the concepts of health tourism and curative tourism.

Hall (in Clift and Page 1996: 199)<sup>8</sup> defined it as:

“The primary motive for specific forms of special-interest tourism”.

Laws (in Clift and Page: 1996:199)<sup>9</sup> defined health tourism as:

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<sup>6</sup> Jallad, A (2000). *Environment and Curative Tourism (in Arabic, translated by the author)*. Alam Al Kutub, 1st edition, Cairo, Egypt. P 12-13.

<sup>7</sup> Medlik, S., (1995). *Managing Tourism*. Butterworth Heinemann, Oxford. P107.

<sup>8</sup> Clift, S., and Page, J., (1996). *Health and international tourist*. Routledge, London and New York. P199.

<sup>9</sup> Clift, S., and Page, J., op.cit. P 199.

"Leisure taken away from home, where one of the objectives is to improve one's state of health".

Van Sliepen (in Weiler and Hall 1992:151): defined health tourism as<sup>10</sup>:

"(1) Staying a way from home, (2) health (as the) most important motive and (3) done in a leisure setting".

Pollock and Williams (in Gartner and Lime: 2000:165)<sup>11</sup> defined health tourism as:

"Leisure, recreational and educational activities removed from the distractions of work and home that uses tourism product and services that are designed to promote and enable customers to improve and maintain their health and well-being".

This definition introduces a new dimension of health tourism, which is education. This means researchers and students are included in the health tourism process.

Magablih (2001)<sup>12</sup> has defined health tourism and he meant medical tourism.

"Inbound health tourism is the movement of a patient, for the purpose of getting services that help in recovering his ailment or at least in stabilising his medical case, outside his own country for a period of time not less than 24 hours and up to 1 year each time, and the patient has no intent to work or reside permanently".  
He added: "this is a direct and narrow concept of health tourism. The holistic concept includes those healthy people, who accompany the patient to help him during his stay outside his usual residence".

This definition raises the involvement of other parties in the curative tourism perspective (companions).

The IUOTO has also defined the terms of "foreign health tourist, domestic health tourists and health resorts" as:<sup>13</sup>

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<sup>10</sup> Weiler, B., and Hall, M. C. (1992). *Special interest tourism*. Belhaven Press, London, UK. Pp 141-158.

<sup>11</sup> Gartner, W., and Willioams, D., (2000). *Trends in outdoor recreation, leisure and tourism*. CAB Publishing, Wallingford, Oxon, UK. P 165.

<sup>12</sup> Magablih, K op.cit. P3.

<sup>13</sup> IUOTO op.cit.



Foreign health tourist is:

“Any person visiting a country other than in which he has his usual place of residence for health reasons for a period of at least 24 hours (or over night), in which the principal object of the visit is curative, that is, in which the tourist visits the resort in the hope that he will return to his own country of residence in a better state of health”.

Domestic health tourists refer to:

“Visitors spending more than 24 hours (or one night) in health resorts in the country of which they are residents, where the objective of their visit is curative rather than purely for sightseeing, business, leisure or family reasons”.

Health resorts refer to:

“Those resort where accommodation is provided for the use of tourists partaking of a cure at a resort”.

As it appears from these definitions, other visitors, who are going with a health tourist, are excluded. Therefore, it is very important to include all the parties who use the curative waters in order to measure the real economic impact of curative tourism, and this agrees with the definition given by Magablih. The IUOTO has also excluded other types of accommodations when defining health resorts, which are applicable to normal tourists who are not using health resorts.

After presenting different definitions of health and curative tourism, the author can define curative tourism as:

“Travelling for the purpose of treatment from certain body disorder or for relaxation and recreation in natural therapeutic sources such as hot and mineral springs, salt lakes, mud, radio active sand, herbal baths, sun and climate and a like, for a period of time (on average 2-4 weeks) and can be months depending on the type of disease. The patient can be fully or partially under medical supervision, besides he can do certain tourist sports or cultural activities if his case permits”.

In this definition, the author is trying to correct the misconception that was held by many scholars, where they mixed the concepts of health, curative and medical tourism together, where it was not easy to split the concept due to all types of health

tourism are dealing with health up keeping. By the time, then, it is worthy to refer each concept to the right definition.

Jallad (2000:11-12) distinguished between health tourism, medical tourism and preventive tourism as follows:

1. Travel for the purpose of treatment of certain body ailment or for doing a surgery under medical supervision in hospitals or medical centres, and then the patient (tourist) may need to stay some period of time in spas for recovery purposes. This type is called **Medical Tourism**.
2. Travel for the purpose of treatment of certain disease or for convalescence under medical supervision, by using natural curative resources such as thermo-mineral springs, salt lakes, mud and radioactive sand and climatic therapy. This is called **Curative or Therapeutic Tourism**.
3. Travel for the purpose relaxation, recreation, enjoyment, to escape a way from daily tensions and for revitalisation in any health resort or spa without medical supervision, and the tourist has no body ailments. This type of tourism is called **Preventive Tourism (Wellness)**.

## 2.2 Types of Health Tourism

As mentioned earlier in this chapter, many scholars still mix the concepts of curative and medical tourism, and others use the concept of curative tourism in place of health tourism. Therefore, it is worthy to distinguish between these three concepts in more details. Health tourism is like an umbrella to medical, curative and preventive tourism.

**2.2.1 Health Tourism.** It includes all the three types mentioned in the previous section. Health tourism can be defined as travelling for the purpose treatment of certain body diseases under medical supervision or without in hospitals or medical centres or by visiting natural therapeutic resources (for treatment or relaxation) such as thermo-mineral springs or salt lakes for a period of time on average 2-4 weeks but not exceeding one year each time, depending on the case of the patient (tourist).

**2.2.2 Medical Tourism.** Travelling for seeking treatment of certain disease or doing a surgery in hospitals or medical centres during a period of time (2 weeks on average) and can be months under full medical supervision. The patient then can

have a recovery time (convalescence) in certain spas or health resorts and may do certain tourist activities depending on his case.

**2.2.3 Curative Tourism.** It is also called therapeutic tourism, where the patient (tourist) is travelling for the purpose of treatment from certain body disorder, such as skin diseases as psoriasis, and arthritic, rheumatic or respiratory problems, or for relaxation and recreation in natural therapeutic sources such as hot and mineral springs, salt lakes, mud, radioactive sand, herbal baths, sun and climate and a like, for a period of time (on average 2-4 weeks) and can be months depending on the type of disease, for example, psoriasis needs at least 4 to 6 weeks to have a good results. The patient can be fully or partially under medical supervision, besides he can do certain tourist sport or cultural activities if his case permits.

Curative tourism, in general, is very attractive type of tourism in terms of its economic and medical impacts. The duration of stay is on average 2-4 weeks, which is higher any other type of tourism (up to 2 weeks), the average expenditure is also greater (10 times) spent for transport, accommodation, treatment, food and beverage and other tourist activities. For medical impact, it is of great value for healing and preventing many diseases and in revitalisation of health. Curative tourism is estimated to be 5-10% of the international tourism<sup>14</sup>.

## 2.3 Motives for Health Tourism<sup>15</sup>

According to Pollock and Williams (in Gartner and Lime: 2000:166-168), there are contemporary drivers in the health tourism market, which add to the attractiveness of the sector. These include:

**Shifting in consumer values.** Customers became more interested in improving their physical, psychological and spiritual well-being, besides they are seeking non-monetary needs and values such as higher quality of life and self actualisation, and then they find the place in spas and health resorts;

**Increased stress and work load.** The time that is devoted to leisure and recreation shrunk over the last two decades, work load increased (many people work more than 40 hours per week), therefore, vacation comes as a breathing to escape away from work and stress, especially now when the annual paid leave from work is 5 weeks in most modern countries;

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<sup>14</sup> Jallad, A., op.cit. P 15.

<sup>15</sup> Pollock, A., and Williams, P., op.cit. P 166-68.

**Older population.** A large number of elder people over 50 are pensioner or on their way of retirement, especially in the western countries, which increases the chance of having body disorders by time due to stress and age such as rheumatic, arthritic and skin diseases, as a result of this, there is a demand for spas and health resorts to function;

**Health-care costs are escalating.** This is true especially for medical services in hospitals and medical centres all over the world, which in turn acts as a push factor that is met by a pull factor from a more friendly natural therapy in spas and health resorts, as a result, the health tourism “industry” will evolve and prosper due to better positioning and promotional and marketing strategies;

**New attitude towards mental and spiritual activities.** According to Pollock and Williams, more than 33% of Americans were seeking alternative treatments (curative natural factors), therefore, health tourism destinations need to focus on such activities to those who seek natural therapy, which will improve and fulfil the needs and wants of these seekers, whether they are physical, mental or spiritual; finally,

**The emergence of environmentalists.** There are some people who search destinations that have a balance between nature and human beings (sustainability); this is incorporated with activities that serve both the human beings and the nature.

Table 2.1 shows the activity and the motivation for three types of tourism; health, adventure and sport tourism. In this model, health tourism tends to be less active in terms of the tourist participation, and less competitive, where it is not challenging as sport or adventure tourisms. This is true, where health tourism needs tranquillity, calmness and less effort from the tourist, due to the fact that he has certain body problem (patient).

**Figure 2.1** A conceptual framework of the motivations and activities of participants in adventure, health and sport tourism

	Less active ←	Activity	→ more active
<b>Motivations</b> ↑ Non-competitive  ↓ Competitive	<b>Health Tourism</b> (e.g. spa tourism, health travel, etc.)	<b>Health Tourism</b> (e.g. fitness retreats)	<b>Adventure Tourism</b> (e.g. white-water rafting, SCUBA diving, hiking, etc.)
	<b>Adventure Travel</b> (e.g. yacht chartering)	<b>Tourist Activities</b> which contain elements of health sports and adventure tourism (e.g. cycling, sea-kayaking)	<b>Adventure Travel</b> (e.g. climbing)
	<b>Sport Tourism</b> (e.g. spectating)	<b>Sport Tourism</b> (e.g. lawn bowls)	<b>Sport Tourism</b> (e.g. ocean racing)

Source: Hall, M., (in Collin, B.,: 1992: 142)

## 2.4 Health Tourism Market Segments

According to Pollock and Williams, the following segments can constitute the market for health tourism:

**Sex.** According to some research, females dominate the market with 75%; others think the balance is 60:40% to women (Griffin in Pollock and Williams: 2000: 168)<sup>16</sup>. Women can be of two categories, women who work outside the home and house wives or retired women. Women working outside the home of age between 35 and 55 years have some kind of struggle between their professions and family and personal demands. Their major motives to be involved in health tourism are to escape stress and are concerned more about their appearance and fitness. The other category is those women who have 55 years of age and over and are sitting at home due to retirement or as housewives. They are characterised by having more time and disposable income than the first category. They prefer beauty treatment than massage or stress management programmes that suit to the younger counterparts. They may hesitate to try health tourism in the beginning, but after experience they become loyal customers and repeat visitors.

<sup>16</sup> Pollock, A., and Williams, P., op.cit. P 168.

**Workers.** According to Pollock and Williams (in Gartner and Lime: 2000: 169), when the corporation has healthy employees, the turn over will be less and productivity increases, and in turn, this leads to customer loyalty, which in fact, resulted in more profits to the organisation. It is widely accepted and encouraged, in nowadays businesses, to have seminars and ceremonies or any other corporate activity at spas, where employees can use the spa services and be involved in health tourism.

**Holiday couples.** Women are more involved in health tourism services, and then their partners will follow. When couples go in a holiday, women practice spa services and their males play golf for example and or practice sport therapies.

**Elder people.** As mentioned earlier in this chapter, the age over 50 years have become more dominant in the market of health tourism. They tend to enjoy their retirement age in good health and heal their body ailments that come by age. They enjoy educational and social programmes held at health resorts and spas to learn how to keep up their health and other activities such as diet programmes.

**Families.** According to Whitiam (in Pollock and Williams in Gartner and Lime: 2000: 170), the family segment of health tourism market has increased dramatically in the resent years. This segment is concerned with children facilities that are available in the curative sites such as swimming pools and other playing facilities, while their parents are doing spa health services. Therefore, the health tourism destinations should take into consideration the greater growth in the family segment and then create and introduce health services tailored to the whole family in a funny and playful setting.

**International health tourists.** The health tourism market is affected by the generating countries that have a profound history and experience (Pollock and Williams in Gartner and Lime: 2000: 170). These include mainly, countries that have already established health tourism industries, such as Germany, USA, Japan, UK, France and Italy.

## **2.5 Management and Marketing Implications of Health Tourism**

According to Pollock and Williams<sup>17</sup>, health tourism to function efficiently and effectively, product development, marketing strategies and policies and the focus should be on health rather than sickness investments.

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<sup>17</sup> Pollock, A., and Williams, P., op.cit. P 170-171.

**Product development (private sector).** This can be achieved through the following:

- Good positioning of health-care products by using different channels of distribution.
- Providing a wide range of programmes and activities that satisfy the needs of different market segments.
- Developing natural-based methods of treatment (less emphasis on equipments and technology) and natural materials such as herbs mud, curative water, sun, etc.
- Developing a less-capital investment health spas and resorts that can be used by different segments, for example low income patients.
- Collaboration with experts and professionals in the field of health tourism to develop the health tourism product and finding ways to satisfy the needs and wants of health tourists.

**Marketing strategies and policies (private sector).** There is a big need to communicate the health tourism products (curative therapy, mud, cosmetics, herbs, etc.) in order to create awareness in the customer side. This effort should be done through health tourism destinations with cooperation with the whole health tourism bodies in the country. The marketing campaign should be targeted to the customers directly or through intermediaries such as tour operators or in certain cases to the national insurance funds or insurance companies, by using different ways of promotional techniques.

**Infrastructures and governmental policies.** The private sector can't work alone without the help comes from the public sector. This can include upgrading the infrastructure networks, directing the public to the benefits of natural therapy through the mass media and in certain countries giving financial support to the national tourist organisations for better marketing and promotion of the health tourism products. So the first step is to develop the destination in terms of infrastructure and public policies to enhance the sector.

**Health versus sickness investment orientation.** The core concept should emphasise on health rather than diseases that need treatment. When every body in the health tourism sector recognises the deep meaning of giving health and be a ware of health not as selling insurance policies and making profits by the destination

businesses in the account of the patients. Some professionals<sup>18</sup> in the sector do not like the term “tourist” when referring to health tourism; they mean that they receive patients who need treatment not tourists who seek fun or other purposes. This is in harmony with the marketing concept versus the selling concept, where the former concern about creating the needs of customers and trying to fill them with profit, where as the later is concerned with selling the products or service the business offers regardless whether the customers are satisfied or not.

## **2.6 Major Body Disorders that can be healed by using Curative Waters and health spas:<sup>19</sup>**

1. Neurological diseases.
2. Psychological diseases.
3. Rheumatic diseases.
4. Problems of the joint (arthritis, ankylosis, etc).
5. Senility diseases<sup>20</sup>.
6. Respiratory troubles.
7. Circulatory troubles.
8. Skin and Allergy diseases.
9. Tiredness and Tension.
10. Convalescence.

For curative tourism to work efficiently and effectively, the following requirements should be met:

1. Natural treatment resources (curative waters, mud, sun, sand, climate, etc.).
2. Treatment equipments to support the natural therapy.
3. Specialised and trained physicians and dermatologists.
4. Specialised and trained therapists and medical assistants.
5. Sport facilities.
6. Diet programmes.
7. Healthy accommodations.
8. Effective marketing and promotion programmes.

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<sup>18</sup> Interview with Nader Amr, Marketing and sales manager at Dead Sea Spa and Medical Centre, Jordan, 16-6-2002, Amman, Jordan.

<sup>19</sup> Jallad, A., *ibid*.

<sup>20</sup> Mental infirmity as a consequence of old age, sometimes shown by foolish infatuations.



## 2.7 Spa Tourism

### 2.7.1 Concept and definitions

Before going through the types of spas, it is worthy to explain the origin of the term “spa” and then define the concept of spa. According to Lund (2000:2)<sup>21</sup>, the term “spa” is a Latin abbreviation for: S = salud (health), P = per (through) and A = agua (water). Then the meaning is health through or by using water. The origin of the word “spa” is referred to a Belgian man, Collin le Loup (Jallad: 29, Lund: 103)<sup>22,23</sup>, who was an ironmaster and in 1326 he went to the spring called “Espa” near *Liège* in southern Belgium near the German border, to heal his body from some disease. Espa means a fountain in the Walloon language.

De Vierville (in Lund: 2000: 2) defined a spa in three different ways:<sup>24</sup>

“The spa is the social aspect of using water therapeutically ”.

“The spa is a natural space and place with a perspective on time ”.

“A spa is a space with purpose, through a plan, by purpose, for a period of time ”.

Word Net Dictionary<sup>25</sup> has defined a spa as:

“(1) A resort offering therapeutic baths (often from hot springs), (2) Any luxurious hotel, “(3) Any hotel offering a regimen of healthy food and activities; a health spa”.

On the other hand, Webster Dictionary defined spa as<sup>26</sup>:

“(1) A watering place, watering hole, (2) A health resort near a spring or at the seaside”.

And a resort is:

<sup>21</sup> Lund, J., (2000). *Taking the waters: introduction to balneology*. Geo-Heat Centre Quarterly Bulletin: September:1.

<sup>22</sup> Jallad, A., op.cit. P 39.

<sup>23</sup> Lund, J., op.cit. P2.

<sup>24</sup> Lund, J. (2000), op.cit.

<sup>25</sup> See <http://www.cogsi.princeton.edu/cgi-bin/webwn/>.

<sup>26</sup> See [http://work.ucsd.edu:5141/cgi-bin/http\\_webster/](http://work.ucsd.edu:5141/cgi-bin/http_webster/)

“(1) A vacation spot, holiday resort, playground, (2) Any area where many people go for recreation”.

Then the author can define a spa as:

“A place, where curative services are rendered to visitors by using water therapy (thermo-mineral, salty or fresh waters), mud wraps, herbal baths, beauty treatments, nutritious food, etc”.

### 2.7.2 Types of spas

According to the International Spa association<sup>27</sup>, spas fall into seven categories:

1. **Club Spa.** It is a facility, which offers services on a day-use basis mainly fitness.
2. **Cruise Ship Spa.** It is in a cruise ship that provides spa services, fitness and wellness and cuisine menu choice.
3. **Day Spa.** A spa offering a variety of ministered spa services to customers on a day-use basis.
4. **Destination Spa.** A spa whose sole purpose is to provide health and lifestyle improvement through professionally spa services, physical fitness, educational programmes and on-site accommodations. Spa cuisine is served exclusively.
5. **Medical Spa.** A spa whose primary purpose is to provide comprehensive medical and wellness care in an environment, which integrates spa services, as well as conventional and complementary therapies and treatments.
6. **Mineral Springs Spa.** A spa offering an on-site source of natural mineral, thermal or seawater use in a hydrotherapy treatment.
7. **Resort-Hotel Spa.** A spa owned by and located within a resort or a hotel providing professionally administered spa services, fitness and wellness components and spa cuisine menu choices.

In Jordan, the last three types of spas are applicable. Examples include the Dead Sea Spa and Medical Centre as a medical spa; Mercure Spa at Ma'in hot springs as

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<sup>27</sup> See the International Spa Association: <http://www.experienceispa.com/>, visited 25-11-2001.

a mineral spring spa and Zara Sanctuary Spa at Mövenpick Dead Sea as a resort-hotel spa.

### 2.7.3 Trends of Spa Tourism (Wellness)

The term wellness is widely used in European tourism, where it is assumed that healthy people practice wellness programmes to prevent their health from diseases. According to the International Spa Association of Europe, spas in Europe are still used for curing body ailments rather than for relaxation<sup>28</sup>. Methods of natural therapy vary with the European countries, where in France they practice thalassotherapy<sup>29</sup>; thermal springs in Greece and Kneipp Cure in Germany and Austria<sup>30</sup>.

The concept of “wellness” is relatively new, where it was known for 25 years ago in the United States of America, as a contrast to the term “illness”<sup>31</sup>. It is said. Also, for many years ago: **“prevention is better than cure”**. The core notion behind “wellness” is the idea of prevention, which was expressed earlier in this chapter. Every person is responsible for his or her health by doing regular medical checking, eating health food, quitting smoking and alcohol, losing excessive weight, doing sport exercises such as swimming and walking, relieving tension and managing stress, harmonising life and be aware of the environment. Therefore, the concept of wellness covers the whole dimensions of one’s life, physically, mentally, psychologically and spiritually to sustain the overall health.

According to “Wellness Hotels Austria”, the concept of wellness is based on four major principles<sup>32</sup>:

1. Healthy nutrition that is based on a conscious attitude towards food based on the science of nutrition.
2. Doing regular moderate exercises.
3. Practicing mental training such as tension-relief and stress management programmes as Tai Chi, Qi Gong and passive activities as sauna, bathing, massages, etc.
4. Awareness towards the environment by giving value to the nature and its products such as herbs and by realising the impacts of alcohol and nicotine.

<sup>28</sup> See <http://www.ispa-europe.com/>, visited 22-8-2002.

<sup>29</sup> “Thalassa” is a Greek word that is used for the sea is the name of a treatment that uses the healing elements of the sea: sea air; seawater and sea mud.

<sup>30</sup> The word "Kneipp" refers to a German priest, Sebastian Kneipp (1821-1897), where his concept of therapy was based on five principles: hydrotherapy; herbal therapy; health nutrition; exercise and discipline.

<sup>31</sup> See [http://www.austria-tourism.at/index\\_e.html](http://www.austria-tourism.at/index_e.html), visited 22-8-2002.

<sup>32</sup> Ibid.

In summary, the perception of health was “the absence of disease” as argued by the World Health Organisation (WHO) in 1946 (Pollock and Williams: 165-66), where it defined health as “**A state of complex physical, mental and social wellbeing, not merely the absence of disease or infirmity**”. This whole meaning of health brought a background to the introduction of “wellness” in the 1970s, in which people became more aware and responsible about their health than before. As a consequence, a balance between the needs of the body (physical), the mind and the spirit was asserted not only for the sake of health, but also to overcome the escalating costs in the health care sector (sustainability concept). Health tourism destination became aware of having the aim of keeping guests go back home with a better health shape (fit, healthy, and enlightened) than when they visited the destination (Monteson and Singer in Goodrich and Goodrich in Gartner and Lime: 2000: 166).

## 2.8 Past Research

The author has reviewed certain studies from different countries of the world that are, more or less, related to the research problem in addition to some studies conducted in Jordan on health, medical or curative tourism. To start internationally, the following research was found:

**BTA (1979)<sup>33</sup>**: A conference on the future of the British spas and health resorts, sponsored by the British Tourist Authority in cooperation with the British Spas Federation and the British Resorts Association. In his speech in the opening ceremony, Sir Henry Marking, chairman of BTA pointed that Britain had its history in the spa industry, and the world has learnt from the experience of the British spas and health resorts in that they became as competitors to Britain.

In 1975, the BTA published a study that highlighted the problems and the obstacles that were facing the progress of the British spas. As a result of this study, a group of specialists was sent in 1977 and 1978 to Belgium, Germany and Hungary to learn and benefit from the experience of these countries. The British spas towns got a new local competitor, the British hospitals, which they apply hydrotherapy by using tap water instead of thermo-mineral water, because they thought it was more economical than in health resorts.

According to Marking, to encourage the British people and the foreign visitors to use the British spas became as an acute need. One of the participants said: “it is the doctor’s duty to entertain the patient and let nature affect the cure”. This means the need is essential to go back to nature, as mentioned earlier in this chapter, for treatment by using natural curative factors such as therapeutic water, slat water, mud, climate and sun.

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<sup>33</sup> British Tourist Authority (1979). *The future of British spas and health resorts*. A report of the conference held at Bath on November 1<sup>st</sup>, 1979. BTA publication, pp1-28.

**Johansen, Erlandsen, and Larsen (1991)<sup>34</sup>:** A study on health resorts in Norway and Sweden. The purpose of the study was to compare the development and distribution of health resorts in the two countries, how they were organised, their offers and guest structure. The research showed that Norway and Sweden had similar natural and cultural conditions for health resorts, but the offers were more advanced in Sweden. The offers in Norway were modest, because of a small population size (4 millions) and the product is in an earlier introductory stage. Besides, the case was different in Norway from Sweden, where guest in the Swedish resorts had refundable costs that were paid by the National Insurance Fund “Försäkringskassan”. The authors suggested that the human factor was found to be the most critical issue in the market of health tourism in Norway.

**Lund (1996)<sup>35</sup>:** A study on thermo-mineral springs in the United States. The author stated that these springs have gone through three stages of development: the use by the original citizens, the Indians, as a sacred place, the development by European settlers in the 18<sup>th</sup> and 19<sup>th</sup> centuries and as a place of relaxation and fitness. The research revealed that the main reason why Americans go to spas are to improve their health and appearance, to escape stress, to refresh and to revitalise their bodies and minds. The US spas emphasise on exercise, on reducing stress, on lifting depression and on losing weight. The research identified more than 115 major geothermal spas in the USA, with the majority are located in the volcanic regions of the western states.

**Samsudin et al (1997)<sup>36</sup>:** A study on the potential development of hot springs in Malaysia. The purpose of the study was to identify hot springs that have the potential development for tourism purposes. The springs were classified according to technical and economic criteria. Technical criteria included geological characteristics, water quality, temperature and flow rate. The economic criteria included accessibility, current and potential market (visitors), surrounding attractions and other facilities available. The research revealed 9 hot springs having a high potential for development, 14 having medium potential and 17 having low potential for development. The authors suggested the development process should include more hot springs by working parallel with capitalizing on existing surroundings and attractions and developing commercial tourist activities that serve the health tourism industry such as health spas, outdoor recreational centers as golf courses.

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<sup>34</sup> Johansen, T, Erlandsen, K., and Larsen, S., (1991). *Health resorts in Norway and Sweden*. New Horizons Conference Proceedings: July 2-5, World Tourism Education and Research Centre, University of Calgary, Canada.

<sup>35</sup> Lund, J (1996). *Balneological use of thermal and mineral waters in the USA*. *Geothermics*: 25:1: 103-147.

<sup>36</sup> Samsudin, A et al (1997). *Thermal springs in Malaysia and their potential development*. *Journal of Asian Earth Science*: 5: 12: 275-284.

**Vazquez-Illa (1997)<sup>37</sup>:** A study on spas in Spain. The population of the study was those people who were between 25 and 70 years of age and lived in municipalities of more than 10,000 inhabitants and of medium and higher social class have been identified as a potential market for the Spanish spas. The research showed 23% of the sample (no size) interviewed had not visited any spa. 25% of the sampled population was between 30 and 50 years old. 18% said the prices were high and 25% answered they pay between 5,000 and 10,000 pesetas (€ 30-60) per day included the accommodation. The research revealed that 70% of the visitors to the Spanish spas were old and had any kind of body disorder, where as only 4% were young, 25-30 years old. 13% of the sample visited the spas for entertainment and relaxation and 22% of them were from Madrid with the age between 61 to 70 years.

**Abels and Kipnis (1998)<sup>38</sup>:** A study on the Dead Sea water treatment (the Israeli side) on a sample of 152 patients that had mainly psoriatic diseases. The research reveled that with the period of treatment between 2 and 6 weeks, 49% of the patients showed excellent results and 41% showed moderate improvement. At the age between 26 and 30 years, 9% showed excellent results and 10% showed moderate treatment results, were the highest percentages of improvement.

**Burkhart (2000)<sup>39</sup>:** A study on the German spa of Baden-Baden, its history, geology, chemical and physical characteristics, water production, annual consumption of thermal water, facilities and type of diseases that can be healed. The spa is located in the northern edge of the Black forest west of Stuttgart. It is know since the time of Romans and it is still considered as a foremost centre for natural therapy and social events in Europe. Facilities in the site include the traditional Friedrichsbad, which is used for relaxation healing for more than 100 years; Caracalla is the other relatively new spa. Diseases that can be treated at Baden-Baden include the joint problems such as arthritis and rheumatism, vegetative circulatory disorders, chronical bronchitis, para-nasal sinus problems and others. The second part of past research is dealing with studies that have been conducted in or about Jordan.

**Zaher (1973)<sup>40</sup>:** A report delivered to the Arab Union for Tourism (AUT) on curative tourism and treatment by natural resources such as hot springs and salt lakes

<sup>37</sup> Asociación Nacional de Estaciones Termales, España (1997). *Estudio producto termal* (in Spanish, translated by the author). Publication of Asociación Nacional de Estaciones Termales, Madrid, España, unpublished, pp 1-6.

<sup>38</sup> Abels, D and Kipnis, V, op.cit. Pp 695-98.

<sup>39</sup> Burkhart, S (2000). *Baden-Baden: A famous thermal spa with a long history*. Geo-Heat Bulletin: September: 16-22.

<sup>40</sup> Zaher, A., (1973). *Curative tourism*. A report to the Arab Union for Tourism. Arab Union for Tourism (in Arabic, translated by the author) (14):42-159.

in the world and Arab countries; in addition it illustrated the major curative sites and health resorts facilities.

**Abdel Kader (1985)<sup>41</sup>:** A geological study on the Dead Sea and mineral springs of Jordan. The research discussed the historical and geographical background of the Dead Sea.

**JICA (1988)<sup>42</sup>:** A study by the Japan International Cooperation Agency (JICA) on Afra and Al Barbaitah thermo-mineral springs. This study included chemical and physical characteristics of these springs. The study suggested a development plan of curative and other related facilities in order to increase the number of tourists to these sites in the south of Jordan.

**Salameh, Rimawi and Hamed (1991)<sup>43</sup>:** A study on curative waters in Jordan. This study analysed the chemical and physical characteristics of all curative sites in Jordan including Al Hammah, Ashunah, Ma'in, Zara, Afra, Al Barbaitah, Al Kafra, Wadi Hisban and Al Azraq. The study illustrated the curative properties of these waters and their therapeutic uses.

**Samawi (1994)<sup>44</sup>:** An exploratory study on recreation tourism in Jordan. The author found that the major demographics factors that determine the number of tourists to certain destination were age, marital status, education, profession, family size, income and mode of transport.

**Bisharat and Alawi (1995)<sup>45</sup>:** A study on 420 patients who suffered from psoriasis and treated at the Dead Sea Spa Medical Centre in Jordan. The research revealed that 86% of these patients had a significance recovery with complete clearness from the disease. The treatment was mainly exposing to sunlight and bathing with the Dead Sea water (i.e. climatotherapy).

**Ma'aeyah (1995)<sup>46</sup>:** A master thesis on geography of curative tourism in Jordan. The study concentrated on the geographical distribution of curative sites in the kingdom and the nature and characteristics of the visitors to the se sites.

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<sup>41</sup> Ma'aeyah, A., (1995). *Geography of curative tourism in Jordan (in Arabic)*. A master thesis, University of Jordan, unpublished. P 9.

<sup>42</sup> Ma'aeyah, A., *ibid*.

<sup>43</sup> Ma'aeyah, A., *ibid*.

<sup>44</sup> Ma'aeyah, A., *ibid*. P 10.

<sup>45</sup> Bisharat, Z and Alawi, H (1995). *Treatment of psoriasis at the Dead Sea in Jordan*. Journal of the European Academy of Dermatology and Venereology: 5: October: S104.

<sup>46</sup> Ma'aeyah, A (1995). *Geography of curative tourism in Jordan*. A master thesis (in Arabic, translated by the author), University of Jordan. Unpublished.

**MOP (1996)<sup>47</sup>:** A comparative study between Jordan and Israel on the cosmetic industry of the Dead Sea. The industry started in Jordan in 1986, where as it started in Israel in 1968. Jordan had a sales volume of \$ 4,1 million and Israel had \$16.5 million. The total sale of Jordan was only 24.5% of one Israeli company (i.e. Ahava). In Jordan there were 43 companies for manufacturing cosmetics and other extracts from the Dead Sea waters, while in Israel there were 33 companies. Jordan exports Dead Sea cosmetics to 42 countries in the World, with Europe representing the largest recipient group. The quality of Jordanian raw materials is superior to that of Israel's due to the percentage of magnesium carnallite being higher than that of Israel's. The cost of extracting raw materials is significantly lower in Jordan than in Israel (i.e. \$212 for 1 ton of Jordanian carnallite, where as it was \$750 in Israel; the cost of 1 ton of mud in Jordan was \$253,5, while it was \$1000 in Israel). This resulted in a competitive price of final product from Jordanian side of the Dead Sea to the Israeli products.

**Bisharat (1997)<sup>48</sup>:** A study on 519 patients admitted to the Dead Sea Spa Medical Centre in Jordan. With the follow up of 215 patients, the majority maintained clearance of the disease for longer time. The treatment consisted of exposing to sunlight, bathing with the Dead Sea water, lubricants and olive oil, keratolytic ointments, oil bath and tar ointments.

**Salameh and Rimawi (1997)<sup>49</sup>:** A comprehensive study of all curative waters in Jordan in terms of their physical and chemical characteristics and their geographical distribution. The study showed that Jordan enjoys more than 200 hot and mineral springs in addition to the Dead Sea. Nearly all the curative sites correspond to the international standards (physical and chemical parameters) set by the International Society of Medical Hydrology, the International Association for Spas and Balneology and the German Health Resorts Association.

**Al-Bataina et al (1997)<sup>50</sup>:** A study on measurement of Radon<sup>222</sup> levels in different natural waters samples from various basins of Jordan were collected and analysed. The research revealed that the radon concentration levels range from 3.2 to 5.5 Bg/l with an average of  $3.8 \pm 0.5$  Bg/l. There were no significant differences in the Radon levels among different areas. It is widely recognised that waters include Radon (i.e.

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<sup>47</sup> Ministry of Planning, Jordan (1996). *Dead Sea Cosmetics*. Ministry of Planning publications, pp 1-19.

<sup>48</sup> Bisharat, Z (1997). *Climatotherapy of psoriasis at the Dead Sea Spa Medical Centre in Jordan*. Journal of the European Academy of Dermatology and Venereology: 9: Supplement 1: September: S122.

<sup>49</sup> Salameh, I and Rimawi, O (1997). *Curative waters in Jordan*. Ministry of Tourism Press, Amman, Jordan.

<sup>50</sup> Al-Bataina, B et al (1997). *Radon measurements in different types of natural waters in Jordan*. Radiation Measurements: 28: 591-94.



radio-active waters) are used for the treatment of circulatory, rheumatic diseases as well as revitalisation of the body<sup>51</sup>.

**Kelly (1998)<sup>52</sup>:** An exploratory research on the visitor image of Jordan. The population of the research was represented by visitors to Jerash International Festival for Culture and Arts that takes place on July every year. The author had 2 groups of visitors: intraregional visitors from the Arab countries and interregional visitors, who are coming from other countries. The research revealed that Jordan has a fairly positive image among the visitors. The author perceived that Jordan is facing a particular image challenge, where it should distinguish it self both from and within the region of the Middle East, due to the negative impact of the conflict between Israelis and Palestinians for more than 50 years. The author also recommended that Jordan should invest in its natural resources as alternative types of tourism such as nature reserves, wildlife and eco-tourism.

**Schneider and Sönmez (1999)<sup>53</sup>:** An exploratory study on the potential development of tourism in Jordan, where the author analysed the major development projects that have been implemented with the help of different international cooperation such as the Japan International Cooperation Association (JICA) and the US Agency for International Development (USAID), in addition to the major problems and obstacles that faces the development of tourism in kingdom. Major of these problem include financial supports, where mostly they come from international organizations or countries and are not always available; lack of qualified personnel in the tourism sector; political instability, where the government changes every year, which has a negative impact on the performance of the government in planning and development of the economy; over-regulation and bureaucracy that hurdle the investment in the sector, inefficient infra and superstructures and the attitudes and mentality of Jordanians, in general, of not accepting or devaluating tourism due to traditions and culture.

**MOP (1999)<sup>54</sup>:** A comparative study between Jordan, Israel and Egypt in terms of share of tourism in number of tourists, revenues, revenue/tourist per trip, average length of stay, tourist spending per day, the promotion budget and the type of tourist who came to Jordan (i.e. nationality, age, purpose of visit, etc.). The research reveled that the number of tourists who arrived to Jordan was 1,256,000, to Egypt 3,675,000 and to Israel 2,200,000. Revenues were \$853 million to Jordan, \$3,200 million to Egypt and \$2,800 million to Israel. Tourists significantly spend less per visit to

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<sup>51</sup> Salameh, I and Rimawi, O, op.cit. P 5.

<sup>52</sup> Kelly, Marjorie (1998). *Jordan's potential tourism development*. Annals of Tourism Research: 25: 4: 904-918.

<sup>53</sup> Schneider, I., and Sönmez, S. (1999). *Exploring the touristic image of Jordan*. Tourism Management: 20: 539-542.

<sup>54</sup> Ministry of Planning, Jordan (1999). *The Hashemite Kingdom of Jordan: The tourism cluster*. Ministry of Planning publications, pp 1-19.

Jordan than to Egypt or Israel (i.e. \$682, \$871, \$1273 respectively), but the daily expenditure by tourists in Jordan was higher (more expensive) than of Egypt and Israel (i.e. \$170, 109, 71 respectively). The length of stay in Jordan was shorter than of Egypt and Israel (i.e. 4 days, 8 days and 18 days respectively). In terms of promotion budget, Jordan paid less than Israel (i.e. \$4,62 million, 35 million respectively).

**Afifi and Abu-Irmaileh (2000)<sup>55</sup>:** A study on the most commonly used herbs as folk medicine. 107 herbalists were interviewed and their attitudes and their recommendations were recorded. In addition to that, more than 100 types of herbs were analysed and their medicinal treatments were identified. This study has its relation with curative tourism in that it supports the natural therapy with herbal baths that have the benefit of healing many diseases especially when mixed with curative waters.

**Saqan, Kullab and Ismail (2001)<sup>56</sup>:** An experimental study on Major thermo-mineral springs in Jordan included Al Hammah, Ashounah, Ma'in, Afra and Al Barbaitah. The objective of the study was to measure the level of Radon<sup>222</sup> in these springs. The research revealed widely differences in concentrations of natural radioactive series nuclides. These differences are due to the different origins and depth of waters. The research showed that Jordan has safe radioactive waters and the level of Radon is within the standard safe limits.

**Magablih (2002)<sup>57</sup>:** An exploratory study of medical tourism in Jordan. The purpose of the study was to understand the nature of medical tourism in terms of patient characteristics admitted to Jordan hospitals and their satisfaction towards the services they got, besides the study attempted to find out the problems and bottlenecks that face the patients during their stay in Jordan. The population of the sample was 398 patients who were admitted to Jordan hospitals, mainly in the capital Amman. The study showed that the majority of patients lived in the hospital or furnished apartments, they had 1.5 persons as helping them (companies), the average length of stay was 20 days and they came from Yemen, Libya, Palestine or Saudi Arabia. The author suggested a more control should be on health services, establishing a database system on medical tourism services in the kingdom and coordination between the concerns to promote this promising type of tourism worldwide.

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<sup>55</sup> Afifi, F and Abu-Irmaileh, B (2000). *Herbal medicine in Jordan with special emphasis on less commonly used medicinal herbs*. Journal of Ethnopharmacology: 72: 101-110.

<sup>56</sup> Saqan, S, Kullab, M and Ismail, A (2001). *Radionuclides in hot mineral springs waters in Jordan*. Journal of Environmental Radioactivity: 52: 99-107.

<sup>57</sup> Magablih, K op.cit.

### 2.8.1 Summary and implications past research

There were some problems that were associated with the development of spas and health resorts in different countries of the world, for example the lack of good planning and unfair competition by hospitals in cities that do not have curative waters were among the problems that faced the development of British spas. When reviewing the literature of curative waters, the concept of going back to nature for treatment has been raised by many scholar and practitioners, with keeping in mind that curative therapy is not a substitute to clinical or medical treatment, instead it is a complement.

One important development that can be added to the values of curative tourism is some countries, especially in Europe, pay for their citizens the costs of treatment at spas and health resorts. Curative waters (thermo-mineral and salty) can be studied and classified according to technical and economic feasibility for the purpose of development on a commercial basis. Examples of this approach include thermal springs of Malaysia and this thesis about Jordan curative tourism.

The historical development of spas and health resorts in some countries resulted by the immigration of people to the destination of curative waters. This was the case of the US spas that have been developed as a result of the experiences that held by the European immigrants in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Some of the spas have traditional history in natural therapy such as Baden-Baden in Germany, where it is one of the famous spas of the world.

The majority of visitors to spas and health resorts are old people (50+) and the degree of clearance from disease ranges between 30 % to 90 % depending on the type of ailment, age, place of treatment and the length of treatment. The Dead Sea is superior in its properties and the climate that helps heal many diseases.

Nearly all of the past research on Jordan curative resources was about the geography, geology, physical and chemical properties of curative waters. Hence, this study comes to fill the gap in the literature of curative tourism in Jordan in terms of economic feasibility and marketing activity. Some of the international agencies such as JICA and USAID have helped Jordan in research, financial support and expert for the purpose of developing the tourism sector.

Demographic and economic variables such as age, nationality, sex, income, purpose of visit and length of stay have greater importance in determining the size and market segments of curative tourism. Jordan position in competing with other countries is still weak due to lack of strategic planning, incomplete and inefficient infra and superstructure networks, weak marketing, lack of trained and experienced personnel and managers in the field of spas and health resorts and lack of awareness toward the value of curative natural therapy. In addition to this, the negative image of Jordan as associated with the conflict in the region between Israelis and Palestinians, where the western mass media involves Jordan with the problem due to its geographical proximity to both Israel and Palestine. As a result, Jordan could not distinguish itself

from and with in the region as a safe and secure tourist destination of the Middle East.

Jordan capitalizes much on the historical and archaeological ruins, where it is estimated that this type of tourism accounts for 70 % of the overall inbound tourism to the country. On the other hand, Jordan was neglected some kinds of alternative tourism that would have the possibility to prosper such as health tourism, eco-tourism and wildlife in the desert and the Gulf of Aqaba. Problems that face the development of tourism in Jordan are similar to that of the 3<sup>rd</sup> world. These include over-regulation; bureaucratic system; political instability; less financial support; more payment on defense; lack of efficient infra and superstructure networks and lack of trained and experienced personnel and managers.

## 2.9 Historical Development of Curative Tourism

### 2.9.1 Introduction

Curative tourism has been known since prehistoric epochs. Man has known, by experience that some diseases (as rheumatic and respiratory disorders) can be recovered by moving to certain places characterised by special climate and then they discovered the hot and mineral springs<sup>58</sup>. Romans have been skilled and talent in designing curative baths in that they built sculptures and they added entertainment areas. During the era of Industrial Revolution in Europe, curative tourism became some thing exclusive to wealthy people.

After World War II, this type of tourism was not limited to rich people, but also the middle class as a result of introducing the health insurance and upgrading the level of living standards. Therefore, it was easy for curative tourism to flourish.

In modern history epoch, European countries were aware of this thriving type of tourism followed by USA and Japan as important curative destinations. Good examples of this awareness and development include Poland from Eastern Europe, which has drilled wells and developed spas and hot springs and hotels, and Italy from Western Europe, which expanded its effort in building curative cities (more than 40 cities have curative waters)<sup>59</sup>. These developments brought into a huge tourist income that has its impact in the whole socioeconomic system of the country.

Cities and other curative tourism spas and hot mineral springs have been developed in the current time in that they include centers for health research on the climate and

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<sup>58</sup> Al Roubi, N (1988). *Tourism Theory (in Arabic, translated by the author)*. University Culture Publications, Alexandria, Egypt, p 34.

<sup>59</sup> Al Roubi, N ibid. P 35.

the water physical and chemical characteristics and its impacts on the treatment of diseases. In addition to that, specialisation is now the key factor in the work of spas and other curative sites. Some places are specialised in certain diseases such as rheumatism and others are specialised in skin diseases as psoriasis and so on.

The curative tourist can be a sick person or for recovery purposes or he can be healthy but he wants to be relaxed and escape from the daily routine and tension. One important feature of curative tourist is a longer duration of stay, which in average is between 2 and 4 weeks. Therefore his average expenditure is 10 times the normal tourist<sup>60</sup>. In addition to that, the curative sites are not only dependent on curative tourist, but also they do other related functions, such as selling mineral bottles, salts and crystals, mud and herbs.

### 2.9.2 The Greco-Roman Period

Bathing was an important issue in the Greek culture. According to Panebaker (in Routh, 1996), some scientists and physicians have used thermo-mineral water in treating many diseases<sup>61</sup>. These include Homer, who was the first who praised the qualities of bathing in treating diseases and Hippocrates (460-370), who was the founder of natural therapy. Hippocrates integrated water, earth, air and fire, as the four elements that can be used in determining the case of sickness or health<sup>62</sup>. Then come Asclepiades (ca 124 BCE), who applied hydrotherapy and drinking water on his patients and recommended bathing as a healing element<sup>63</sup>. These thoughts were rapidly accepted by the Romans, which resulted in the development of baths and spas as in England, Germany, Turkey and Russia.

### 2.9.3 Past the Renaissance Era

During this period, baths were abandoned as a result of the departure of the Roman Empire in 476 and the arrival of Christianity<sup>64</sup>. Arabian physicians, in the 10<sup>th</sup> century, have adopted and recommended the use of water in healing many diseases. Major of them include Abu Baker Al Razi (841-926), who used cold water in treating

<sup>60</sup> Al Roubi, N ibid. P 36.

<sup>61</sup> Panebaker, G (1928). *Historical notes on the evolution of Co-therapy: the genesis of radiant light and heat treatment*. Edited in: Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

<sup>62</sup> Adams, F (1886). *The genuine works of Hippocrates*. Edited in: Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

<sup>63</sup> Jackson, R (1990). *Waters and spas in the classical world*. Edited in: Adams, F (1886). *The genuine works of Hippocrates*. Edited in: Behari, R et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

<sup>64</sup> Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

small box and measles<sup>65</sup>. Others as Ibn Sina and Haly Abbas advocated the use of water therapies<sup>66</sup>.

#### 2.9.4 The Medieval Period

In England, water got little attention except for the religious persons (clergy) bathing in Easter Monday<sup>67</sup>. Spain was benefited from the Arabian civilization in the 7<sup>th</sup> century, then after spas started to appear especially in the region of Al Andalus<sup>68</sup>. Hot springs of Poland started to be visited from 1137<sup>69</sup>.

Spas in Europe have come to reality since the 17<sup>th</sup> century in famous places such as Montecatini and Lucca in Italy, Varna in Bulgaria, Vichy and Bourbon-Lancy in France, Bath, Epsom and Tunbridge in England<sup>70</sup>. As mentioned earlier in this chapter, the origin of the word “spa” is referred to a Belgian man, Collin le Loup (Jallad: 29, Lund: 103)<sup>71,72</sup>, who was an ironmaster and in 1326 he went to the spring called “Espa” near Liège in southern Belgium near the German border, to heal his body from some disease. Espa means a fountain in the Walloon language.

#### 2.9.5 The 18<sup>th</sup> and 19<sup>th</sup> Centuries

The existence of accommodations and spas, in Europe and North America, in the places where there are curative waters enhanced the use of water as a natural therapy for healing many diseases. This was true, as a result of the migration of Europeans to North America in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Due to Spas were found first in Europe in the 17<sup>th</sup> century, the migrants transferred the expertise to America, where famous spas and hot springs were developed in the USA such as Bedford Springs, Pennsylvania, White Sulphur Springs, West Virginia and Hot Springs Arkansas<sup>73</sup>.

#### 2.9.6 The 20<sup>th</sup> Century

In America, people lost their interest and attention to mineral water except some drank bottled mineral water, while in Europe, most of the people kept their interest in

<sup>65</sup> Clarke, A (1819). *An essay on warm, cold and vapour bathing with practical observation on sea bathing, disease of the skin, bilious, liver complaints and dropsy*. Edited in: Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

<sup>66</sup> Routh, A et al op.cit.

<sup>67</sup> Bonser, W (1963). *The medical background of Anglo-Saxon England: A study on history, psychology and folklore*. Edited in: Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 552.

<sup>68</sup> Routh, H et al op.cit.

<sup>69</sup> Routh, H et al ibid.

<sup>70</sup> Routh, H et al ibid. P 553.

<sup>71</sup> Jallad, A., op.cit. P 39.

<sup>72</sup> Lund, J., op.cit. P2.

<sup>73</sup> Routh, H et al op.cit.

mineral waters both for drinking and bathing<sup>74</sup>. Later on, dermatologists, Rheumatologists and others have used whirlpools and water wraps in their treatment process<sup>75</sup>. Nowadays, there is an international awareness towards the use of mineral water for health and relaxation purposes. As a result of modern civilization, people, who mostly live in cities, became to suffer from many diseases due to stress and work tensions. Therefore, the need for natural healing powers became essential and then appeared the concept of going back to nature, the environmentalists and others who peruse their efforts to use natural sources to eat, to heal and to enjoy.

## 2.10 Religious, Economic and Medical Dimensions of Curative Tourism

### 2.10.1 The Religious Dimension

Natural therapy has been recognised since the Greek times. Hippocrates<sup>76</sup> (ca 460-377 BC), the founder of natural therapy and climate, advocated the use of thermo-mineral water in healing different diseases. The Greek believed that there were super powers that affect water and give it therapeutic properties. Temples were built around hot springs in Greece and Northern India. People took some Gods as *Burbo*, God of mineral springs and *Eshlibious*, the God of health<sup>77</sup>.

The three religions, Judaism, Christianity and Islam advocated the importance of water in treatment, health and cleanliness.

**2.10.1.1 Judaism.** The Old Testament assured the importance of water in cleanliness. For example, the *Mikvah*, the sacred bath of women after menses shows the reference of using water based on religious background. Other references<sup>78</sup> include, “sprinkle them with water of remission” (Nm 8:7); and “Aaron and his sons shall use it in washing their hands and feet” (Ex 30:18-19). The healing powers of the Dead Sea were known since the periods of Herod the Great (73-4 BC), king of Judea and Queen Cleopatra of Egypt (69-30 BC)<sup>79</sup>.

<sup>74</sup> Spenser, R (1983). *The Spencers on spas*. Edited in: Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 553.

<sup>75</sup> Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 553.

<sup>76</sup> A Greek medical practitioner who is regarded as the father of medicine; author of the Hippocratic Oath).

<sup>77</sup> Salameh, I and Rimawi, O (1997). *Curative waters in Jordan*. Ministry of Tourism Press, p 4.

<sup>78</sup> Routh, H et al (1996). *Balneology, mineral water and spas in historical perspective*. Clinics in Dermatology: 14: 551.

<sup>79</sup> Abels, D and Kipnis, op.cit. P 696.

**2.10.1.2 Christianity.** The water of the River Jordan became as an important part of the Christian religion, where Jesus was baptised and drank by John the Baptist at the eastern edge of River Jordan (9 km north of the Dead Sea). Immersions/bathing (Ablution), which is a ritual ceremony by pouring water accompanied with some readings from the Bible<sup>80</sup>. The site of Baptism, in the eastern bank of then Jordan River, is still used for baptising and visited by thousands of pilgrims all over the world as a sacred place in Jordan<sup>81</sup> (Picture 2.1).



Picture 2.1 The Baptismal pool of Jesus near River Jordan

**2.10.1.3 Islam.** Before doing the five daily prayers, Muslims should wash themselves (part of the body- the hands, the face, the arms, the head and the feet). The Holy Koran and the Prophet Mohammad's *Hadith* emphasise the use of water in cleanliness and health.

“O ye who believe! When ye rise up for prayer, wash your faces, and your hands up to the elbows, and lightly rub your heads and (wash) your feet up to the ankles”. (Holy Koran: 5:6). “And if ye be ill, or on a journey, or one of you come from the closet, or ye have touched women, and ye find not water, then go to high clean soil and rub your faces and your hands (therewith)” (Holy Koran: 4:43).

Water from Zamzam well, in Mecca, is considered for all Muslims health and blessed by God and as a healing factor for many diseases. Examples of *Hadith* include, Prophet Mohammad said: “Water of Zamzam is blessed, it is a food and a

<sup>80</sup> Routh, H et al ibid.

<sup>81</sup> Interview with Zia' Al Madani, supervisor of the Baptismal site, Jordan, 2-6-2002.



cure of ailment” (narrated by Muslim)<sup>82</sup>. Ibn Abbas has narrated also this *Hadith* from the Prophet:”Zamzam is the best water on earth, it is a food and a cure of ailment”<sup>83</sup>.

### 2.10.2 The Economic Dimension

The economic impact of curative tourism is obvious due to long duration of stay spent by curative tourists (2 weeks in minimum), and as a result of this long stay, the average of expenditure is very high in comparison with normal tourists (10 times)<sup>84</sup>, where it can be allocated to transportation, accommodation, food and beverage, treatments and other tourist activities. In addition to that, the multiplier effect of tourism, in general, has its impact in other sectors, for example a spa hotel can foster other industries and services such as building, furniture, transportation, insurance, herbs, cosmetics, mineral mud as well as employment and supporting the government with taxes.

### 2.10.3 The Medical Dimension

Natural therapy is recognised worldwide and curative tourism became a real and important type of tourism. There were different factors that have resulted in this importance and attractiveness of curative tourism. These include: the fact that the world population became elder and elder, paid vacations (5 weeks in most western countries), a higher buying power of the patients and finally and most importantly, in many European countries, the treatment costs are paid by the national insurance funds as in Germany, Sweden, Austria, Belgium, etc. As a result of these factors, the sector is developing and flourishing day by day.

As mentioned earlier in this chapter, curative therapy is not a substitute to medical or clinical treatment, instead it is a complement. The fact is that some diseases could not be healed, until now, by medical treatment such as psoriasis and some kinds of rheumatism.

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<sup>82</sup> Sayed Sabeq (1993). *Fiqeh Assunah*. Vol. 1, Dar el Fikr, Damascus, Syria, 504.

<sup>83</sup> Sayed Sabeq *ibid*.

<sup>84</sup> Al Roubi, N *op.cit*. P 36.

## 2.11 Typical Treatment Elements for Typical Spas or Health Resorts<sup>85</sup>

**Table 2.1** Some typical elements of health-care treatments of some hotels or resorts.

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Medical examinations in the hotel (cholesterol levels, diabetes, blood pressure, etc).
Vegetarian or special diets.
Transvital injections and vitamin-complex treatment.
Daily exercise programmes.
Acupuncture.
Thermal swimming pools (indoor and outdoor).
Underwater massage (balneotherapy).
Body massage.
Cellulite treatment (Cellutron).
Saunas.
Hydrotherapy treatments.
Fango packs (mud).
Special stop-smoking programmes.
Various baths, e.g. eucalyptus bath and Turkish baths.
Herbal wraps and herbal teas.
Use of sun-bed under medical supervision <sup>86</sup> .
Sessions on muscle development and relaxation techniques.
Beauty treatments, such as facials, cream packs, face peeling, etc.

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Source: Goodrich and Goodrich (in Medlik 1995:108).

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<sup>85</sup> Goodrich J and Goodrich G. *Health-care tourism*. Edited in: Medlik, S (1995). *Managing tourism*. Butterworth Heinemann Ltd., Oxford, UK, p 108.

<sup>86</sup> Because exposure to sunlight for a longer time can cause dangerous skin diseases such as cancer.

# CHAPTER 3

## 3. METHODOLOGY

### 3.1 Population and Sample

The population of the study is represented by six Jordanian curative sites. These include: Al Hammah springs, Ashounah wells, The Dead Sea, Al Barbaitah springs, Afra springs and Ma'in springs; and 210 visitors to these curative sites for the purpose of treatment and relaxation. A convenient sample was used due to easiness and simplicity to administer and find<sup>87</sup>. According to Emory and Cooper (1991:248), it is not true that the research is considered representative if it has a large sample size. Therefore, the author has interviewed 210 visitors based on a convenient sampling method. This type of sampling has the advantage of cost effective and easier to conduct in that the researcher has the freedom to interview those whom are convenient to his sample. On the other hand, convenient sampling is considered to be the least reliable non-probability sampling technique<sup>88</sup>, because the respondents are not given zero chance of being randomly selected.

### 3.2 Data Collection Sources

In this study, both types of data sources, secondary and primary, were used.

#### 3.2.1 Secondary Data Sources

Secondary data sources are those that were used by other people such as studies, statistics, maps, books, journals, newspapers, reports, conferences proceedings, etc. They also included studies and development projects on curative tourism in Jordan and other part of the world.

#### 3.2.2 Primary Data Sources

A collection of facts that are gathered from the original sources and are collected especially for the research problem<sup>89</sup>. They include information collected direct from

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<sup>87</sup> Morgan, M (1996). *Marketing for leisure and tourism*. Prentice Hall Europe, p 55.

<sup>88</sup> Emory, W and Copper, D (1991). *Business research methods*. 4<sup>th</sup> edition, Irwin Inc. USA, p 248.

<sup>89</sup> Emory, W and Cooper, D *ibid*. P 286.

people, whether by interviews or questionnaires or observations. In this research, the author used all the three types.

### **3.3 Research Instrument**

#### **3.3.1 Self-Completion Questionnaires**

A structured convenient questionnaire (in English and Arabic languages) was designed and distributed to 210 visitors in five major thermo-mineral springs and the Dead Sea. The questionnaires were distributed between 22-5-2002 and 15-6-2002. The author carried out a pilot test of the questionnaire with the help of academic experts at the Department of Tourism, Yarmouk University in Jordan. Alpha reliability coefficient counted to 93.15%. Data that were collected entered to the computer by using SPSS programme version 10.1 for windows. Data were analysed and findings are presented in chapter 5.

The questionnaire consisted of three types of questions: the first type was about the tourist trip characteristics, which consisted of 15 categories such as accommodation, duration of stay, mean of transport, purpose of visit, etc; the second type was about satisfaction that held by the curative tourist on 22 items on a scale of 4 grades: bad, acceptable, good. The last type of the questions consisted of six demographic and economic variables such as sex, nationality, age, profession, income and expenditure. A copy of the questionnaire is enclosed in the appendices (Appendix 1).

#### **3.3.2 Personal Interviews**

Personal interviewing is a two-way communication between the interviewer and the respondent about a subject matter<sup>90</sup>. They have the advantage of probing the problem in hand in depth, flexibility and control over the respondent response. However, on the other hand, they are money and time consuming, and it is not easy to secure the cooperation of the respondent. Judgmental sampling is a non-probability sampling technique in which the researcher selects the sample based on his or her judgment about the qualities of the respondent in the sample<sup>91</sup>.

Ten in depth judgmental structured and unstructured interviews were conducted with different tourism bodies and managers and therapists at different spas in Jordan. These interviews were administered with Nofa Nasser, Jordan Tourism Board (JTB), Fuad Agabi, Ministry of Tourism and antiquities (MOTA), Dr Zuhair Bisharat,

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<sup>90</sup> Emory, W and Cooper, D *ibid.* P 320.

<sup>91</sup> Zikmund, W (1994). *Business research methods*. The Dryden Press, 4<sup>th</sup> edition, Florida, USA. P 368.

Dermatologist and head of the Dead Sea Spa and Medical Centre, Nader Amr, Marketing and Sales manager, Dead Sea Spa and Medical Centre, Aziz Tamim, Mercure Hotel general manager, Ma'in Spa, Noreddin Owdat, Ashounah Spa manager, Mohammad Migdadi, therapist, Ashounah Spa, Mohammad Shaybi, resort manager, Al Hammah Spa, Ikram Daghistani, director of Investment Department, Water Authority and Zia' Al Madani, director of the Baptismal site.

This type was selected due to specialisation to get in depth information necessary to the research. Questions varied according to the type of interviewees, but in general they were about policies and strategies to upgrade curative tourism in the country, problems and obstacles that hinder the development of the sector, marketing, facilities, infrastructures, superstructures, history of the curative sites, development project, etc.

### **3.3.3 Observations**

This type of research is used to complete the whole picture of the research (questionnaires and interviews). During his visit to the sites, the author has observed many things that are related to the curative tourism development. These include infrastructures, superstructures, guidance signs to the sites, facilities on the sites, the size of tourists (demand), cleanliness, etc. These factors will be discussed in chapter four and five.

## **3.4 Limitations**

Any research encounters certain limitations. Therefore, further research is needed especially in the field of health resorts and human resource development, which the author could not do it because of time constraints and a lack of cooperation of some spas and resorts.

The author could not, also interview some key officials in the tourism bodies of Jordan such as the minister of tourism or the director general for tourism, about strategies and policies on curative tourism and its potential development, nor the director general of Jordan Tourism Board about marketing and promotional strategies and programmes to boost up the sector, etc. This because the time of the field research in Jordan was contradicted with the agenda of these people as a result of a busy work load such as conferences, meetings, travel and so on.

The researcher lives permanently in Sweden and he traveled to Jordan to conduct this study during (May-June). The first month was spent on family and social relations with little time dedicated to contacts with the second supervisor and to set time for

interviews and field study. These can be considered as limitations when one conducts a research in his country of origin.

The researcher also faced some difficulties in distributing questionnaires as a result of non-cooperation from some spas and resorts. They stated reasons for this lack of cooperation such as privacy of patients, language barriers, inappropriate time, and no desire by patients to fill the questionnaires etc. Nevertheless, the author succeeded to collect 210 questionnaires.

It was very hot in Jordan during the time of data collection. In some days, the temperature exceeded to 40 degrees in some sites as the Dead Sea, which lies 412 meters below sea level. The area of research was very big (400 km long and between 30 and 70 km wide). This means that the author was reluctant to rent a car for 2 weeks, which resulted in more costs.

# CHAPTER 4

## 4. CURATIVE TOURISM IN JORDAN

### 4.1 Introduction

As for tourism, Jordan considers it one of the important economic sectors that support the national economy with hard currencies. Tourism sector grew steadily. Jordan has developed the infrastructures and public utilities in tourist and archaeological places. This has led to an increase in the contribution's level of this sector in the GNP to reach 9.2% in the year 2000<sup>92</sup>. This sector encountered a number of problems during the years of the past decade, which led to the slackening of its contribution in the local production. The most important of which is the absence of political stability in the region.

The tourism sector in Jordan is vital to the economy, experiencing an annual steady growth of 7%, while contributing 11% of the gross domestic economy<sup>93</sup>. Jordan offers a wide variety of tourist attractions and activities including the Gulf of Aqaba beach resorts; the Dead Sea and the thermo-mineral springs in the Jordan valley; horse and camel riding; religious sites at Mont Nebo, Jesus Baptismal Site near the River Jordan and the Islamic shrines in the Jordan Valley and ruins from different historical periods. These include Petra as a spectacular Arab Nabateans structure of the 4<sup>th</sup> century AD; Jerash Greco-Roman city of the 1<sup>st</sup> century AD; the Umayyad Arab castles in the Jordan desert from the 6<sup>th</sup> century and fortresses from the Crusaders period of the 12<sup>th</sup> century.

Although Jordan has signed a peace treaty with Israel in 1994, tourism has not seen as much profit from peace as was expected. As a result of the close proximity of the Palestinian-Israeli conflict, this, in turn affects Jordan's tourism sector severely.

Jordan enjoys a diversified beautiful nature; from the Dead Sea, which lies more than 400 below the sea level up to hills and mountains over 1400 meters to valleys and a wide desert. As a result of this diversity, the country enjoys different climates, which resulted in different types of tourist product accordingly. Historical, cultural, eco-tourism, social (VFF), religious and health tourism (both medical and curative) are among the major types of tourism in Jordan.

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<sup>92</sup> MOTA, Statistics Department, 2000.

<sup>93</sup> Alrai Arabic Daily, op.cit.

From a hydrological point view, Jordan is considered one of the poorest countries in the world in terms of fresh water resources<sup>94</sup>. However, the country is very rich in curative waters such as thermo-mineral springs and the Dead Sea.

Jordan has various natural therapeutic resources, major of them include mineral and hot springs and the salt water and the volcanic mud of the Dead Sea. Most of these springs and the Dead Sea are located in the Jordan Rift valley (JRV), which is part of the Syrian-African Rift Valley that was formed in the 3<sup>rd</sup> geological age. These springs are still used in healing numerous diseases such as arthritic, rheumatic, respiratory, neurological systems and skin diseases mainly Psoriasis. Major curative sites in Jordan include Ma'in, Al Hammah, Ashounah, Afra, Al Barbaitah, Wadi Bin Hammad, and the Dead Sea, the world largest natural spa with distinctive therapeutic properties that are rarely available elsewhere.

Tourism in Jordan is increasing year by year. The number of tourists to Jordan has increased from 1,426,879 to 1,477,697, where as the tourist receipts have decreased from € 790 million to € 764 to the period 2000-2001. The number of classified hotels has also increased from 278 to 298 and the number of beds from 29,002 to 32,001 to the same period<sup>95</sup>. There are no accurate statistics on curative tourism in Jordan, but it is estimated to be 7% (100,000 curative tourists, most of them were Arabs) of the international inbound tourism in 2000<sup>96</sup>.

The government of Jordan through the Ministry of Tourism is doing its best to develop the sector by upgrading the infrastructures and facilitating the investment in curative tourist destinations such as the Dead Sea through tax and customs exempts during the period of constructions. This will has its effect on increasing the length of stay in the country by tourists, which is, in general, 4 days, where as it is 18 and 8 in Israel and Egypt respectively<sup>97</sup>.

## 4.2 Country background

### 4.2.1 Overview

The Hashemite Kingdom of Jordan is bordered by Syria to the north, Iraq to the northwest, Saudi Arabia to the east and south and Palestine and Israel to the west (figure 4.1). The kingdom is about the size of Austria or Portugal (ca 90,000 km<sup>2</sup>) and has a small population of 5 millions inhabitants. Jordan has a climate that made up

<sup>94</sup> Al Rousan, N., Al Zaqrity, M., and Ananzeh, A (2001). *Geography of Jordan (in Arabic, translated by the author)*. Ashorouq Publishing, Amman, Jordan, p 47.

<sup>95</sup> Statistics Department, Ministry of Tourism, Jordan, 2002.

<sup>96</sup> Alrai Arabic Daily op.cit.

<sup>97</sup> Jordanian National Competitiveness Team (1999). *Hashemite Kingdom of Jordan: the tourism cluster*. Ministry of Planning, Jordan.



largely arid desert plateau (75% of the country). The country gained its independence from Great Britain in 1946 and marked by the policies of late King Hussein almost half-century of leadership.

Since taking the power, King Abdullah II has continued his father's liberalisation policies and reinforced Jordan's commitment to the directives of international lenders, who have responded positively by rescheduling debts payments and granting favourable aid terms. This process has built up Jordan's foreign exchange reserves, stabilised its currency and led to a series of bilateral and multilateral agreements that has accelerated a recovery characterised by consistent economic growth. Good examples of these agreements are the free Trade Agreement (FTA) with the United States in 2001 and the Jordan-European Association Agreement with the European Union, which has been signed in 1997, has entered into force on May 1<sup>st</sup>, 2002, replacing the Cooperation Agreement of 1977. In 2000, Jordan also has acceded to the World Trade Organisation (WTO). The main aim of these agreements is to create a free trade area between Jordan and USA (within 10 years) and with the EU (within 12 years) and to establish a common zone of peace and stability through reinforced political dialogue and security cooperation. Furthermore, these agreements intend to establish a social, cultural and human partnership that raises understanding among the people.

#### **4.2.2 Political structure**

Jordan is a constitutional monarchy led by a ruling family that descends from the Hashemite dynasty. King Abdullah II assumed power in February 1999, succeeding his father, the late King Hussein, whose 47 years on the throne made him the longest serving Arab head of state. As a king, Abdullah is also commander-in-chief of the army, navy and air force, and he appoints the prime minister, who recommends candidates for other cabinet appointments. The legislative branch of the Jordanian government consists of the bicameral National Assembly. Its 52-member Senate<sup>98</sup> is selected by the king, while its 104-member House of Representatives is selected by popular vote. The legal system is based on a mixture of Islamic law and French, British and Ottoman codes.

#### **4.2.3 Economic review**

Jordan has a mixed economy, with significant but declining government participation in industry, transportation, communication and more precisely the tourism sector. The country has few natural resources and relies heavily on foreign subsidies and remittances from Jordanian expatriates abroad.

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<sup>98</sup> The election law has been modified last year, where the number of Representatives raised to 104 and the Senates to 52, and the age for electors reduced to 18 instead of 19.



Figure 4.1 Map of the Middle Eastern countries, and the location of Jordan in the heart.

Source: World Site Atlas <http://www.sitesatlas.com/Maps/Maps/MEast.htm>

Jordan suffered from a heavily public debt (\$ 7 billion of 1995) due to the economic crisis after the Gulf war 1990. A new International Monetary Fund (IMF) package was approved in April 1999 that entitled Jordan to an extended fund facility worth \$ 174 million over three years, which intended to target annual GDP growth of 3-4 %, stabilise the inflation rate and strengthen foreign reserves<sup>99</sup>. An IMF review of Jordanian achievements in July 2000 gave the country a generally clean bill of economic health, when Jordan has improved economic condition since the beginning of 1999. But as any other economies of the developing countries, where politics play a vital role in the economy, Jordan economy still suffer from the conflict in the Middle East between Palestinians and Israelis, even if Jordan gets all support from

<sup>99</sup> <http://www.imf.org/>, visited 25-11-2001.

the whole world. The author expects the situation will continue unless peace has been settled.

### **4.3 Jordan Tourist Bodies**

#### **4.3.1 Ministry of Tourism and Antiquities (MOTA)<sup>100</sup>**

The organisational structure of tourism authority in Jordan was not stable since it was established for the first time in Jerusalem in 1953 and then after moved to Amman in the same year, until 1988 where the Ministry of Tourism and Antiquities (MOTA) was established as an independent ministry. In 1960, the first law (Law No. 17) was issued to regulate and organise the work of tourism in the country. In 1965, the second law was issued, whereby the Tourism Authority got 20% of the annual revenues of the tourism sector. Between 1967 and 1988, the Tourism Authority, which became The Department for Tourism, was part of different ministries.

In 1988, the Department for Tourism was upgraded to be the Ministry of Tourism and Antiquities, and then after; Law No. 20 of 1988 was issued. According to this law council for tourism was established “The Higher Council for Tourism” that was chaired by the Minister of MOTA with membership of other 6 ministers and the General Secretary of MOTA, the Executive Director for Royal Jordanian Airlines (RJ), Aqaba Special Economic Zone (ASEZ), General Director of Social Security Directorate and other 3 members from the private sector of tourism (hotels, tour operators, etc.) for the period of 2 years. The main role of the council is to formulate policies of tourism and proposals of laws, agreements, establishing of tourist and hotel training, stating the regulation for licensing. As a result of this structure, MOTA is responsible for policies formulating policies of the sector, control over tourist organisations and activities and upgrading the infrastructure for tourist destinations with cooperation of other related departments of the government.

#### **4.3.2 Jordan Tourism Board (JTB)<sup>101</sup>**

JTB was established in 1998 as an independent public-private sector partnership. The board is chaired by the Minister of MOTA and is represented by members of the tourist organisations in the country such as hotels, tour operators, transportation companies such as the Royal Jordanian and the tourist coaches. The board is run by a

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<sup>100</sup> Ministry of Tourism, Jordan: <http://www.tourism.jo/>

<sup>101</sup> Interview with Nofa Nasser, JTB, 18-6-2002.

general director, who is responsible for implementing general policies and marketing strategies and plans to attract more tourists to the country.

The objective was to promote Jordan worldwide as a tourist destination. The board achieves its objectives (marketing and promotion) through the offices abroad, workshops, trade fairs and brochures. The board has 9 offices abroad as follows: (one in each of the USA, Britain, France, Germany, Belgium, Holland and Saudi Arabia, and two in Spain: one in Madrid and the other in Barcelona). The board intends to open two offices, one in Moscow and the other in Tokyo. The office of Jeddah, Saudi Arabia covers the Golf region. JTB budget for 2001 was € 5.6 million and is expected to be € 7 million in 2003<sup>102</sup>. This will have a positive impact on the marketing and promotional campaigns that will be launched to traditional and new markets.

**Main purposes of the board include:**

1. Marketing and promoting Jordan tourist products worldwide markets through different channels.
2. Trying to put Jordan on the international tourist map by offering competitive and new products such as health, religious and eco-tourism.
3. Increasing the number of tourists to the country by adopting fierce marketing strategies, policies and programmes.
4. Increasing the length of stay of tourists in the country by offering more possibilities and tourist products and by completing the infra and superstructures.

**4.3.3 Hotel and restaurants, tour operators and travel agents and souvenir shops**

Hotels and restaurants in Jordan have their associations, Jordan Hotel Association (JHA)<sup>103</sup> and Jordan Restaurant Association (JRA) and the Association of Jordan Travel Agents (AJTA). A general code of conduct was issued in 1995 to organise the work of all tourist associations in Jordan. These associations take care of their members and defend them in front of the public sector to attain their benefits. They don't have real impact on the development of tourism sector in the country yet.

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<sup>102</sup> Alrai Arabic Daily op.cit.

<sup>103</sup> <http://www.johotels.com/>

#### 4.3.4 Transportation companies

Transportation is of great important in the tourism industry, especially the air transport, which approaches the world from east to west and north to south. Jordan has 3 airlines companies, one is the Royal Jordanian (RJ)<sup>104</sup> for long hauls and the other two are for short hauls with in the region. Jordan has 3 international airports, 2 in Amman and 1 in Aqaba. The Royal Jordanian flies to more than 40 destinations in the 6 continents. Jordan has only one sea outlet in the Gulf of Aqaba on the Red Sea, which has a network of ferries and ships to different countries. The road transport is efficient in Jordan and the kingdom has a good road network within the country and with the neighboring countries. The railway system in Jordan is not efficient and not feasible; only one old train goes once a week between Amman and Damascus. This is due to a small size of the country in terms of distances and population.

#### 4.3.5 Tourist guides and tourist police

The main objective of having tourist police is to secure the tourist sites and to guide official visitors to the kingdom. So they are public sector employees and work within their duties and they don't get money for their guidance. On the other hand, tourist guides are private sector employees where they guide the tourists in the whole country and they get money back for their job. Tourist guides have their own association "Jordan Association for Tourist Guides", which work in cooperation with MOTA to qualify tourist guides and upgrade their profession. Tourist guides are classified into three categories: the first to work in the whole kingdom, the second in one district and the third only in one local site, as it was stated in the code of conduct that was issued in 1966 and adjusted in 1995.

#### 4.3.6 Jordan Medical Tourism Board (JMTB)

This is the recent body that adds to the tourist organisations. It has been established in the middle of 2002 to organise the activity of hospital and medical centers through out the country, where Jordan became as a hub for medical treatment and surgical operations. The board is composed of the following parties: Ministry of Health (MOH), MOTA, JTB, Hospitals, Hospitals Association, travel agents, RJ, hotels and furnished apartments.

According to Al Hinnawi (Alrai Daily: 11646: 2-8-2002), medical tourism has brought \$ 500 (€ 495) in 2001 and the number of patients who arrived to Jordan was 100,000. It is expected that there will arrive 126,000 patients and the receipts to be € 594 million in 2003.

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<sup>104</sup> <http://www.rja.com.jo/>

Unfortunately, this board is focused on the medical services only, and the curative side of health tourism is not included. The author suggests that this board should be reformed to be “Jordan Health Tourism Board”, and in this case it will include all the three types of health tourism as discussed in chapter 2, and it should include other representatives such as insurance companies and spas.

#### **4.4 The History and Importance of Curative Tourism in Jordan**

The history of curative waters in Jordan goes back to thousands of years since the period of Greeks and Romans. This is evident from the mosaic map, from the 5<sup>th</sup> century, of the holy land in St George Church in Madaba of Jordan, shows the Dead Sea, River Jordan, Ma'in Spa, Jerusalem and the Ester shores of the Mediterranean. Excavations were revealed the port on the eastern cost Dead Sea, which was used by King Herod during his visits to Ma'in Spas for treatment<sup>105</sup>. In addition to that, the holy and historical baptismal site of Jesus is excavated in 1996, which is located in the eastern bank of River Jordan (9 km north of the Dead Sea), is still used and visited since the time of John the Baptist (Picture 2.1).

Al Hammah spa is the first curative site in Jordan that was developed in 1964, (Map 4.1), followed by Ma'in in 1981 and Ashounah in 1982, the Dead Sea in 1989, Afra 1996 and finally Al Barbaitah 2002, Wadi Bin Hammad will be developed in 2003. Later on, there will be more details on each of the developed sites (Paragraph 4.8).

The Ministry of Tourism in Jordan has recognised the medical and economic importance of curative tourism based on a number of valuable curative sites such as thermo-mineral springs and the Dead Sea. The government has initiated a committee in 1972 that composed of representatives from deferent departments (Ministry of Tourism, the Central Bank, Ministry of Public Works, Ministry of Municipalities and the Planning Council)<sup>106</sup>. The objective was to study the potential development and exploitation of these curative sites for tourism purposes. To achieve this objective, the committee conducted a technical and economic feasibility study.

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<sup>105</sup> Interview with Ikram Daghistani, head of investment unit at Jordan Valley Authority, 17-6-2002.

<sup>106</sup> Zaher, A. (1973), op.cit.

## 4.5 Ways of using curative waters

Curative waters can be used and applied in three ways:

1. Bathing (external).
2. Inhalation (internal).
3. Drinking (internal).

To maximise the benefits of healing diseases by applying water therapy, curative waters should be applied and used in the same place where they emerge as springs or lakes (Salameh and Rimawi: 1997: 6). In addition to that, a balanced food and the climate and the scenery surroundings have their impact on the degree of disease improvements (psychological effect).

According to Salameh and Rimawi (1997: 6), the mechanism of water therapy can be explained as follows: When one bathes in curative water, parts of the body are submerged into the water, which results in decreasing the weight of the submerged parts and the pressure of one part on the other. In the case the weight lessens as a result of water density, especially salt water, the patients feels as walking on the moon (interview with Dr Bisharat at the Dead Sea Spa and Medical Centre: 5-6-2002), this gives the body freedom and flexibility to move and float, especially the joints and the muscles, which helps in the treatment of joint problems such as rheumatism, arthritis, ankylosis and others. The other thing about water therapy is the water temperature. Hot temperatures resulted in fast blood circulation to the whole body, especially to hard muscles and the limbs, and then make them more lenient.

The third impact of curative waters on the body is the action of the chemical constituents, where the body absorbs through the skin, and then they enter the body cells, which leads to a change in the cell mineral content and hence to change the cells' electric behaviour. The fourth action is through drinking mineral water by taking defined doses of water in time intervals as taking medicine. Many inner organs of the body can be healed by drinking mineral water, major of them include: stomach, intestine, kidneys and the urinary organ. The last action of curative waters is through inhalation by the respiratory system. This includes inhalation of gases and vaporised liquids (aerosols) containing minerals and gases. The effect of inhalation depends on the contents of aerosol minerals and particles, where water contains hydrogen sulphide, for example, kills the bacteria, water containing calcium relieves inflammations, water over saturated with carbon dioxide leads to increasing in the respiratory tract excretions and their discharge.

The preceding physical and chemical characteristics and properties of curative waters do not function alone without the infra and superstructures that should be established if one wants to talk about real curative tourism. Road, fresh water, electricity and

communication networks, sanitation systems, hotels, spas, health resorts, sport courses, as golf and scenery and ambience attractions should be all available to attract curative tourist from different countries. One important thing about curative tourism is the marketing effort should be of high priority, because the original curative waters mean nothing without effective marketing. This is true some countries as Finland and Sweden, for example, they don't have natural curative water, but they have attractive spas that attract many curative tourists (Hartmann: 2002)<sup>107</sup>.

#### 4.6 Characteristics of curative waters

According to the International Society of Medical Hydrology, the International Association for Spas, Health Resorts and Balneology and the German Health Resorts Association (in Salameh and Rimawi: 1997: 9), for the water to be classified as curative water, it must possess the following properties:

1. 20 mg/L, Fe (Iron mineral water).
2. 1 mg/L, I (Iodide mineral water).
3. 1 Mg/L, H<sub>2</sub>S (Hydrogen sulphide water).
4. 18 nCi/L, (Nanocuri) radon (Radon water).
5. 1000 mg/L, CO<sub>2</sub> (carbon dioxide water-acidic water).
6. 1 mg/L, Fluoride (fluoride rich mineral water).
7. The temperature of the discharged water should be at least 5° C above the average temperature of the surroundings.

In Jordan, water is considered curative if its temperature exceeds 27° C.

According to Salameh and Rimawi (1997: 9), the therapeutic characteristics of the water depend on the following factors:

1. The type of positive and negative ions present, which exceed 20 % of the total positive and negatives ions of the water.
2. The presence of an active substance such as iron, sulphur, fluoride or radon.
3. The water temperature.

The treatment by curative waters is based on certain factors: the treatment material, which is the water; the atmosphere at the curative site; the psychological factors such as calmness and tranquility, relaxation and ambience; motion factors such as sports,

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<sup>107</sup> Hartman, J., lecture in the 15<sup>th</sup> meeting of ETM Programme, Madrid: 12-6-2002.



strolling and swimming<sup>108</sup>. The curative waters vary according to their physical and chemical characteristics. Physical characteristics include temperature, acidity, salinity and radioactive substances. The chemical characteristics include: dissolved solids (sodium (Na), potassium (K), magnesium (Mg), ammonium (NH<sub>4</sub>), chloride (Cl), sulphates (SO<sub>4</sub>), halogens (fluoride (F), bromide (Br), and iodide (I); trace and heavy elements: (iron (Fe), manganese (Mn), cadmium (Cd), zinc (Zn), copper (Cu), lead (Pb) and strontium (Sr); gases: carbon dioxide (CO<sub>2</sub>), radon<sup>222</sup> and hydrogen sulphide (H<sub>2</sub>S). As a result, the therapeutic uses vary according to the components of the curative waters.

In Jordan, there are about 200 thermal springs distributed across the country (Salameh and Rimawi: 1997: 10). The major curative sites (20 sites) in Jordan can be divided into 3 development regions, which correspond to the government classification of country development, the northern region (9 thermo-mineral springs and wells), the middle region (5 thermo-mineral springs and wells and the Dead Sea) and the southern region (4 thermo-mineral springs and the Red Sea). These sites are discussed in paragraphs (4.7.1 and 4.7.2).

## **4.7 Geographical Distribution of Curative Waters in Jordan**

### **4.7.1 Thermo-mineral Springs and Wells:**

#### **4.7.1.1 Northern Region:**

##### **4.7.1.1.1 Al Hammah Springs**

Al Hammah springs lie in the northern part of the Jordan Rift Valley on the left basin of Yarmouk River and on cross borders between Jordan, Syria and Israel. The site is some 30 km from the city of Irbid and about 120 km from Amman (Map 4.1).

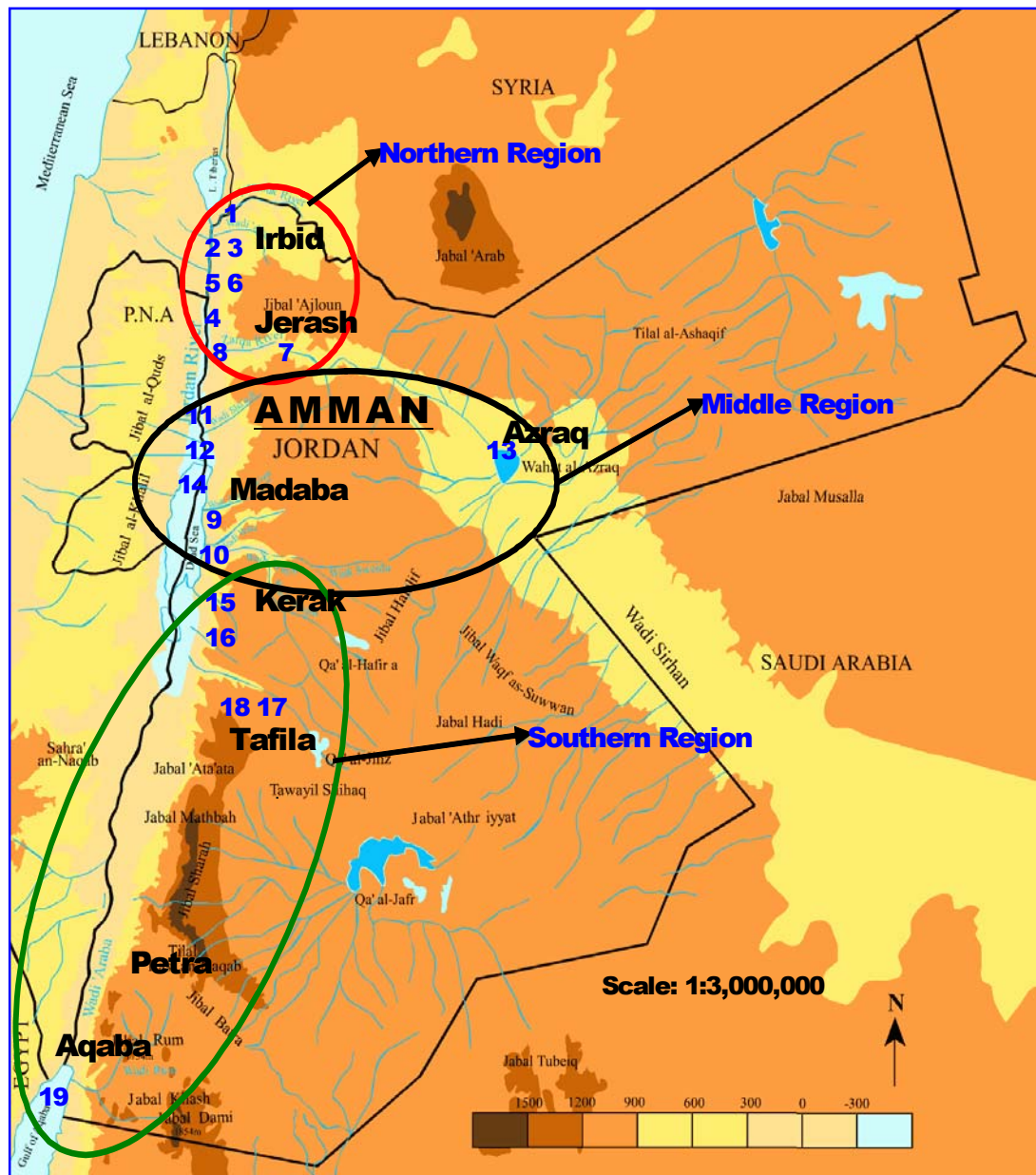
The site hosts 20 hot and sulphur springs<sup>109</sup>, which have varied temperatures up to 63° C and dissolved minerals of 650-885 mg/l. These springs contain a high concentration of hydrogen sulphide and radon<sup>222</sup>. Almaqla is the biggest spring in the site, which has more concentration of hydrogen sulphide and radon gases (Table 4.1). The springs covered by recent basalt rocks, and the water discharges out from the limestone layers, which go back to the Upper Cretaceous Age<sup>110</sup>.

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<sup>108</sup> Salameh, I., and Rimawi, O., op.cit. P 3.

<sup>109</sup> Salameh, I., and Rimawi, O., ibid. P 38.

<sup>110</sup> Al Rousan, N., Al Zaqrity, M., and Ananzeh, A., op.cit. P 61.



Map 4.1 Curative waters in Jordan, adapted by the author. Source: <http://www.tourism.jo/>

1: Al Hammah; 2: Ashounah; 3: Abu Dablah; 4: Waggas; 5: Al Mansheyyah; 6: Abu Ziad; 7: Jerash; 8: Deir Alla; 9: Ma'in; 10: Zara; 11: Al Kafra; 12: Wadi Hisban; 13: Al Azraq; 14: Dead Sea; 15: Wadi Bin Hammad; 16: Wadi Addiraa; 17: Al Barbaitah; 18: Afra; 19: Red Sea.

**Table 4.1 Average physical and chemical characteristics of Al Hammah springs**

Physical parameters	Average	Chemical parameters	Average
Temperature	41.4° C	Sodium Na	135.01
Acidity pH-value	7.13	Potassium K	17.2
Bromide Br	3.3 mg/L	Magnesium Mg	32.8
Radon R <sup>222</sup>	31.5 nCi/L	Calcium Ca	124.5
Carbon dioxide Co <sub>2</sub>	79 mg/L	Chloride Cl	213.8
Hydrogen sulphide H <sub>2</sub> S	9.5 mg/L	Nitrates NO <sub>3</sub>	3.1
Total Dissolved Salts	1117mg/L	Sulphates SO <sub>4</sub>	165.6
Ammonium NH <sub>4</sub>	2.62 mg/L	Bicarbonates HCO <sub>3</sub>	338.1

Source: Salameh and Rimawi (1997: 40)

Al Hammah springs first utilised by the *Jordan Al Hammah Company* in 1964, when a project was established on an area of 4.3 acres. The site is overlooking the Lake Tiberius and the Golan Heights of Syria (Picture 4.1). The project consists of the following facilities<sup>111</sup>:

**Al Hammah Hotel.** The hotel is classified as a 2-star hotel and consists of 10 furnished hotel-rooms besides 15 furnished chalets (Picture 4.2). The hotel can cope up to 80 guests at once. Thermo-mineral water comes to the rooms through pipes if the guest wants relax in the bathtub. Other accommodations in the site include *Sahh el Nowm* Hotel and apartment that are rented privately.

**The restaurant.** It is a 2-star restaurant, which offers food and beverages to the hotel guests and to those who come on a day-basis. The restaurant is located on a terrace above the outdoor pool, which is used, some times, for party activities.

**Therapeutic pools.** The site consists of 5 pools, 4 indoor and 1 outdoor. The indoor pools divided into 4 types: 1 on the main spring, which is called “Al Maqla” (Picture 4.3) that has a temperature of 41.4° C, another one beside is used for children and 2 other pools (Al Balsam and Al Rih) used for both sexes in different time intervals. The indoor pools can be booked for a family for 1 hour with a special price. The outdoor pool is used for both sexes in different time intervals, and is used for swimming purposes (Picture 4.4).

### Therapeutic uses

According to Salameh and Rimawi (1997:40), the water of Al Hammah spa is used in healing the following diseases: arthritis, peripheral circulation troubles, muscle cramp, regulation of gland secretions, activation of ducts of sweat glands, general health revitalisation, inflammation of respiratory system and rheumatism.

<sup>111</sup> Interview with Mohammad Shaybi, resort manager of Al Hammah Spa.

There were some medical experiments that have been conducted on the site to measure the level of disease improvement; one was carried out on 20 patients for 20 days (Hamed, Salameh and Rimawi in Salameh and Rimawi: 1997: 40). The results showed that 45-80 % of the rate of improvement on osteo arthritis, rheumatoid arthritis, degenerative disc and rehabilitation and orthopedic caps.



*Picture 4.1 Overview of the Lake Tiberius and the Golan Heights*



*Picture 4.2 Al Hammah Hotel and Chalets*





Picture 4.3 Almaqla Bath



Picture 4.4 Al Hammah outdoor pool

The site has been bought by *Zara for Tourist Investments Company*, which owns 3 other hotels (Mövenpick) at the Dead Sea, Petra and Aqaba, and now Al Hammah

will be converted to a new spa project, which will be reconstructed from scratch in the end of 2002 (see development studies and projects in paragraph 4.8).

#### 4.7.1.1.2 Ashounah Well

Ashounah spa is located some 30 km west of Irbid and 2 km east of Ashounah city. Water Authority of Jordan has drilled the well on a deep of 970 meters in 1981 in order to excavate for fresh water. Sulphur water discharged 17 meters over the surface and then the Municipality of Ashounah took hand of the well, where they constructed infra and superstructures, and then they leased it to a local investor to manage the project on a commercial basis.

Ashounah spa is close to the archaeological site of Pella (Tabqet Fahl now), Wadi Al Arab Dam and to Al Hammah spa (15 km).

**Table 4.2 Average physical and chemical characteristics of Ashounah Well**

Physical parameters	Average	Chemical parameters	Average (mg/L)
Temperature	52.7° C	Sodium Na	76.1
Acidity pH-value	7.06	Potassium K	4.7
Bromide Br	0.91 mg/L	Magnesium Mg	44.5
Radon R <sup>222</sup>	10.2nCi/L	Calcium Ca	81.8
Carbon dioxide Co <sub>2</sub>	59 mg/L	Chloride Cl	99.6
Hydrogen sulphide H <sub>2</sub> S	5.83 mg/L	Nitrates NO <sub>3</sub>	1.2
Total Dissolved Salts	863 mg/L	Sulphates SO <sub>4</sub>	84.5
Ammonium NH <sub>4</sub>	26.71 mg/L	Bicarbonates HCO <sub>3</sub>	389.3

*Source: Salameh and Rimawi (1997:38)*

Ashounah spa is consisting of the following facilities<sup>112</sup>:

**Chalets.** There are 12 furnished chalets in the site; four of them are double-bedded, besides 6 unfurnished for younger guests (Picture 4.5).

<sup>112</sup> Interview with the spa supervisor and therapist Mohammad Migdadi, 31-5-2002.



Picture 4.5 Ashounah Chalets

**Restaurant.** There is only one restaurant that offers its services to guests and those who come on a day-visit basis.

**Therapeutic pools.** There are 5 pools, 3 of them are outdoor swimming pools and 2 indoor. Two of the pools are designated for children. In addition to that, there are 11 small private indoor pools, which can be used for up to 4 to 5 persons, where one can control the temperature of the inflow water (Pictures 4.6, 4.7 and 4.8).

**A Cooling pool.** Due to the high temperature of water, especially in the summer season, there is an outdoor air-cooling pool that is used to lower the temperature of the therapeutic pools, and then water is pumped again to the pools (Picture 4.9).

**Mini park and terrace.** There is a small park and terrace used for setting and amusing the nature while resting from therapy.

**Kiosks.** There are four kiosks used for selling fast food and soft drinks and alike.

**Emergency clinic and massage room.** In the site, there is a small clinic, which is used for emergency cases, besides there is a massage room that is used upon request.

### Therapeutic uses

Diseases that can be treated by the curative water of Ashounah well include: arthritis, muscle cramp, activations of ducts of sweat glands, general health recovery, pain soothing, rheumatism and restoration of general activity.





*Picture 4.6 Ashounah outdoor swimming pool*



*Picture 4.7 Ashounah indoor swimming pool*





*Picture 4.8 One of the family- indoor pools at Ashounah Spa*



*Picture 4.9 Cooling pool at Ashounah Spa*

#### **4.4.1.1.3 Abu Dablah Spring**

The spring is located 5 km north to the historical and archaeological site of Pella (Tabqet Fahl). The area is covered with travertine and other recent sediments that are underlain by limestone layers of Upper Cretaceous age.

According to Salameh and Rimawi (1997:41), the water of Abu Dablah Spring has two shapes depending on the season of the year. In summer, the water is alkaline earth with prevailing carbonates and chlorides, and in winter, it is alkaline earth with prevailing carbonates and increased portion of chlorides. There is a little H<sub>2</sub>S gas discharged with water. The physical and chemical parameters of this spring are within the international standards; the temperature is 36.6° C, besides it has more concentration in some minerals such as sodium, calcium, chloride, sulphates and bicarbonates.

The site is not developed and is neglected by all the concerns in the tourism industry. There is no infrastructure or any type of superstructures, besides until the time of typing this research, there is any plan to develop the site despite its therapeutic benefits.

Therapeutic uses of Abu Dablah spring are similar to those of Al Hammah springs (Table 4.1).

#### **4.7.1.1.4 Wagass, Al Mansheyyah and Abu Ziad Wells (5, 6, 7 on Figure 4.1)**

Four wells were drilled between Abu Dablah Spring and Ashounah Spa near the villages of Waggas, Al Mansheyyah and Abu Ziad. Based on the these drills, the average temperature of the wells is 51.5° C. Al Mansheyyah and Waggas wells have a total salt contents of less than 1000 mg/L, whereas Abu Ziad Well has more than 1000 mg/L. the therapeutic elements include temperature, salt, hydrogen sulphide, calcium, magnesium, bicarbonates and partially radon and carbon dioxide (Salameh and Rimawi: 1997:42).

The wells are not utilised for curative tourism purposes and there are no plans for development in the near future.

#### **4.7.1.1.5 Jerash Spring**

Jerash spring was used for healing diseases since the times of Greeks and Romans, and the remains of constructions on the site are still preserved. The spring is located to the left bank of the River Jabok (Zarqa nowadays) at an elevation of 220 m above sea level. The site is very close (4 km) to the historical and archaeological Greco-Roman city of Gerasa (Jerash nowadays).

The geology of the site is characterised by sediments that consist of Lower Cretaceous sandstones (Salameh and Rimawi: 1997:47). The physical and chemical analysis of the spring indicates that the water is alkaline with prevailing chlorides in

summer and alkaline earth water with prevailing alkalis and increased portions of chlorides in winter. As a result, the water of the spring when it is mixed with the River Zarqa, red iron oxides precipitate.  $\text{CO}_2$  gas is discharged with the water with a concentration of 120 mg/L. According the international norms of balneology, water of Jerash spring is classified as mineral-carbonic-radioactive-iron water. The temperature of the water is between 27-29° C.

Therapeutic uses of Jerash Spring include blood circulation troubles, muscle cramps, urinary lithaiasis, chronic constipation, rheumatism, arthritis and ankylosis.

The site is not developed, nor infra and superstructures are constructed, despite the fact that the spring lies in a natural and historical sites as River Jabok, Debbin National Park and Jerash city.

#### **4.7.1.1.6 Deir Alla and Mua'ddi Springs**

Deir Alla and Mua'ddi Springs are located on the beds of Zarqa River before it enters to the Jordan Valley and discharges in River Jordan. The temperature of the water is ranging from 28° C to 36° C depending on the season of the year. The source of the water comes from Jurassic and Cretaceous rocks.

The water is alkaline with prevailing chlorides in winter and alkaline earth with prevailing bicarbonates in summer. Iron oxides precipitate as soon as the water mixes with the Zarqa River water. Balneologically, the water is classified as thermo-mineral-iron-carbonic.

The water of the spring is use in healing the following diseases: ankylosis, arthritis, central circulation troubles, chronic constipation, muscle cramps, diuretic, general health keep up, influenza, respiratory system troubles, rheumatism, urinary lithaiasis and urethritis.

No development plans for these springs in the near future; in spite of they are used by many locals to heal their body ailments.

### **4.7.1.2 Middle Region**

#### **4.7.1.1.1 Ma'in Springs**

Ma'in springs are located in a deep valley some 27 km southwest of the Mosaic city of Madaba and 5 km east of the Dead Sea (Figure 4.1). The area holds more than 60 thermo-mineral springs discharge water from the Lower Cretaceous rocks, where the temperature reaches 63° C. Ma'in springs lie somewhat 100-200 m below sea level.

Ma'in spa is located in the warm region of the Jordan Rift Valley; where the average temperature in winter is 15.9° C and in summer it is around 30° C and the annual rainfall is around 200 mm (Appendices 4 and 5).

The main springs in the area of Ma'in spa include Ashallal spring (Picture 4.11), Al Amir spring and Al Mibkharah spring. Ma'in springs have nearly the same characteristics and its water is classified as thermo-mineral-radon waters, where the dissolved salts exceed 2000 mg/L and the temperature ranges between 56 and 63o C.

Ma'in spa has been used for healing diseases since the time of King Herod and Queen Cleopatra, where the archaeological discoveries in the eastern coast of the Dead Sea revealed a harbour that was used by King Herod when he traveled from Jerusalem to Ma'in Spa<sup>113</sup>. The Roman enjoyed the therapeutic properties of Ma'in and the Dead Sea; this is clear in the mosaic map at St George Church in Madaba. In the 60's, a road has been constructed to the springs to start a new development in the site, because it was very difficult to access to the springs.

Ma'in is very close to the Dead Sea and other famous archaeological and biblical places such as Makawer, where John the Baptist lived and killed and Mount Nebo, where it is supposed Moses died and the mosaic city of Madaba.

**Table 4.3 Average physical and chemical characteristics of 3 selected springs at Ma'in Spa**

	<b>Ashallal</b>	<b>Al Amir</b>	<b>Al Mibkharah</b>
<b>Physical Parameters</b>			
Temperature °C	56.6	49.7	61.7
Acidity pH-value	6.33	6.18	6.11
Bromide Br (mg/L)	7.2	7.2	7.4
Radon R <sup>222</sup> (nCi/L)	4.2	20	4.3
Carbon dioxide Co <sub>2</sub> (mg/L)	242	224	427
Hydrogen sulphide H <sub>2</sub> S (mg/L)	0.17	0.17	0.17
Total dissolved salts (mg/L)	2279	2346	2182
<b>Chemical Parameters (mg/L)</b>			
Sodium Na	450.3	433.8	400.2
Potassium K	43.4	49.7	42.6
Magnesium Mg	39.6	4.6	36.95
Calcium Ca	144.7	157.5	140.1
Chloride Cl	764.7	781.7	688.6
Nitrates NO <sub>3</sub>	3.7	3.7	3.1
Sulphates SO <sub>4</sub>	183.8	192	163.7
Bicarbonates HCO <sub>3</sub>	293.5	296.6	270.3

Source: Salameh and Rimawi (1997:18-22)

<sup>113</sup> Interview with Ikram Daghistani, Water Authority, Jordan, 17-6-2002.

### **Tourist facilities at Ma'in Spa**

The current project has been established in 1989 with a four-star hotel and spa to boost curative tourism; especially it was the first facility, in Jordan, that conforms to the international standards. The site is consisting of the following facilities:

#### **Hotel Mercure**

As mentioned earlier, this hotel was established in 1989 under a brand name “Ashtar” and in 2000 it has affiliated to the Accor chain under the name of “Mercure”<sup>114</sup>. It is a four-star hotel that consists of 142 rooms (Picture 4.10), 106 of them are twin guest rooms, 20 double rooms, 12 junior suites and 4 family suites.

#### **Spa Services**

The spa has two separate areas, one for females and the other for males. Mercure spa offers a wide variety of services such as: mud wrapping, jet shower, underwater massage, bubble bath, hydro-jet bed, mud facial, Jacuzzi bath, shower massage table and Dead Sea salt scrub (Pictures 4.12, 4.13, 4.14).

#### **Restaurant and Bar**

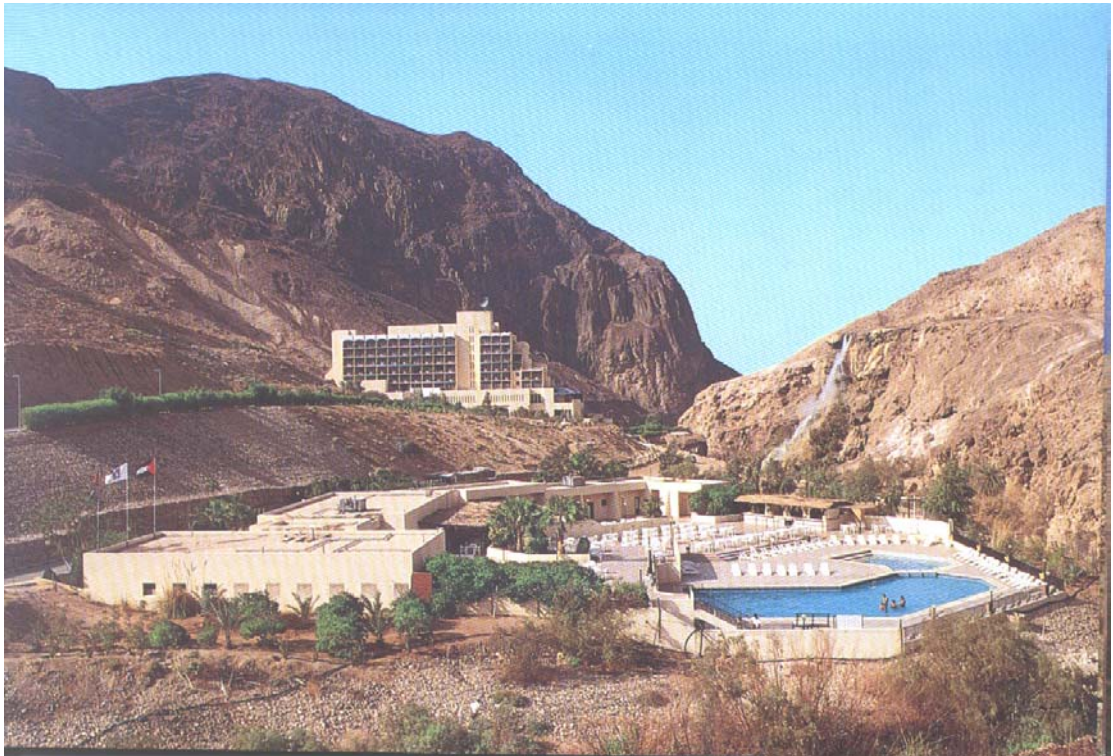
Ashallal restaurant with 200 persons of capacity, the Arabic Café and Al Hanah Bar.

#### **Sport and Leisure Facilities**

Sport and leisure facilities include: swimming pools, Roman baths, thermal waterfalls, Ping-Pong table, health and fitness centre, trekking and hiking tours and excursions to the historical and cultural sites nearby, such as Makawer.

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<sup>114</sup> Interview with Aziz Tamim, Mercure general manager, 2-6-2002.



*Picture 4.10 Mercure Hotel and the Spa village of Ma'in*





*Picture 4.11 Ashallal Waterfall at Ma'in Spa*

### **Therapeutic Uses of Ma'in Springs**

According to Salameh and Rimawi (1997:22), the water of Ma'in springs can be used to heal the following diseases: restoration of general activity, ankylosis, arthritis, cleansing bronchial tubes, central circulation troubles, muscle contractions,

regulation of gland secretions, immunity, influenza, diseases of the locomotor system, pain soothing, respiratory system troubles, rheumatism and skin diseases.

#### **4.7.1.2.2 Zara Springs**

Zara springs are located around 4 km southwest of Ma'in springs and around 2 km east of the Dead Sea coast. To get access to the site one can go through the Dead Sea-Aqaba Highway (Picture 4.15). There are about 60 springs differing in their temperatures (45-62o C) with stable properties. The famous springs in the area are Zara spring No. 40, Zara spring No. 25 and Ashallal spring (Salameh and Rimawi: 1997: 23). The water of the Zara spring is classified as thermo-mineral-radon water with more concentrations of dissolved carbon dioxide and radon, but the total dissolved salts are less than of Ma'in springs. The water is discharged from the layers of the Lower Cretaceous rocks besides basalt rocks in the area.

The therapeutic benefits of Zara springs are nearly the same as of Ma'in springs, but the competitive advantage of Zara springs is they are located immediate on the eastern coast of the Dead Sea. Therefore, they can be utilised within the Dead Sea region, where it will be a unique spa combined with salt and thermo-mineral curative waters.

Zara springs are not developed yet and there are no plans in the near future for development.





*Picture 4.12 Bubble bathing at Ma'in Spa*





*Picture 4.13 Shower Massage at Ma'in Spa*



*Picture 4.14 Underwater Massage at Ma'in Spa*





*Picture 4.15 Zara Springs and in the background is the Dead Sea.*

#### **4.7.1.2.3 Al Kafraïn Wells**

Al Kafraïn is located some 6 km north of the Dead Sea and there are 3 major wells in the area. The source of the water varies, and then the water properties vary too. The temperature ranges between 30 and 43° C. Despite the fact that the total dissolved salts do not exceed 1000 mg/L, the water of Al Kafraïn wells is still considered thermal water with concentration of calcium, sodium, magnesium, bicarbonates and chloride.

The water of Al Kafraïn wells can be used through drinking to heal anemia due the high concentration of iron in the water.

#### **4.7.2.4 Wadi Hisban Springs**

Two wells have been drilled in Wadi Hisban area, which is part of the Jordan Gore that is characterised by a desert climate with an average temperature of 31° C. the annual humidity is around 15% and the annual rainfall reaches 100 mm. Wadi Hisban water is rich in iron and dissolved solids and is considered as thermo-mineral-radon water, where the mean temperature is 32° C and sodium, calcium, chloride and bicarbonates are the major components of the water and radon concentration reaches 23.6 nCi/L. The wells were close and then the water found its way to the surface forming a spring through fissures within the overlying rock formation

Due to similarities in physical and chemical characteristics between Wadi Hisban spring and al Kafraïn wells, therapeutic uses are similar too.

#### **4.7.2.5 Al Azraq Springs and Oasis**

The Al Azraq area represents a ground and surface water basin of 12800 km<sup>2</sup> (14% of the total area of Jordan). The climate is desert, where temperatures vary between day and night, which encountered by varied humidity and rainfalls around the year.

Al Azraq is an oasis in the desert of Jordan that is located around 150 km east of Amman. Other tourist attractions in the area include Al Azraq Castle, where Laurence of Arabia took it as a headquarter during the World War I, when he supported the Arab Revolt under the leadership of Sheriff Hussein Bin Ali. Another attraction is the Al Shoumari Natural Reserve that hosts many wild animals and as a home of migrant birds. The curative elements of Al Azraq springs are temperature is 38.3° C, hydrogen sulphide 1.2 mg/L and radon 26.2 nCi/L.

Therapeutic uses include: arthritis, muscle cramp, inflammations of respiratory system, rheumatism and skin diseases. A medical test was carried out on 12 patients, who were using the water of Al Azraq springs suffering from osteo arthritis, rheumatoid arthritis, degenerative disc and rehabilitation orthopedic caps ((Hamed, Salameh and Rimawi in (Salameh and Rimawi: 1997:46)). The study showed improvement of disease clearance ranging from 45%-80%.

The site is not developed for curative tourism purposes, but there are few accommodation facilities and restaurants.

### **4.7.1.3 Southern region**

#### **4.7.1.3.1 Wadi Bin Hammad Springs**

In the lower reaches of Wadi Bin Hammad, there are many thermal springs issued from the Upper and Lower Cretaceous unites which cover these reaches. The most prominent thermal springs are the upper and lower Hammam Bin Hammad, which issue from Wadi gravels topping the Upper Cretaceous limestones or the limestones themselves. Water temperature varies ranges from 42-51° C, which encountered by variation in water composition.

#### **4.7.1.3.2 Wadi Addiraa Springs (Weidaa)**

There are many springs alongside Wadi Addiraa near the Lisan area of the Dead Sea, where the important spring in the area is Weidaa near Ghor Assafi, which is discharging as a bubbling spring from the Lower Cretaceous sandstones at an elevation of 100 m above sea level. The temperature is around 33° C with a stable concentration of chemical composition. The physical and chemical composition of Weidaa spring is mostly characterised by a carbon dioxide gas that is discharged with the spring water. When the water of the springs is mixed with fresh water in Wadi Addiraa, an iron oxide precipitate.

Water of Weidaa spring can be used to heal peripheral circulation troubles, chronic constipation, muscle contractions, diuretic, general health recovery, rheumatism, urinary lithiasis and urethritis.

#### **4.7.1.3.3 Afra Springs**

Afra springs are located 26 km north of Attafilah and 35 km south of Al Karak (Figure 4.1). The springs are running from the rocks of the Upper and Lower Cretaceous age. The area climate is warm with annual average temperature of 22° C and annual rainfall of 150 mm.

The thermal water of Afra flows from more than 15 springs along the course of Wadi Afra. The water properties of different springs of Afra are nearly the same, yet their rates of flow vary between 50 and 30 l/s, and the temperature of the water varies between 45 and 48° C (Table 4.4).

The water of Afra springs is calcium-sodium-magnesium-bicarbonate-chloride type with some Sulphur. The iron concentration is 1 mg/l, which gives the water the property of healing anemia.

#### **Therapeutic uses of Afra Springs**

According to Salameh and Rimawi (1997: 52), the water of Afra can be used to heal restoration of general activity, arthritis, chronic arthritis, peripheral circulation troubles, muscular contractions, muscle cramp, regulation of gland secretions, gynecological diseases, infertility problems, nervous restorations and rheumatism. A medical test study has been conducted for 20 days on 21 patients with different ages, who suffered from different disease such as osteo arthritis, degenerative disc and post rheumatism. The research showed a recovery clearance of the diseases of 60-80% (Hamed, Salameh and Rimawi in Salameh and Rimawi: 1997: 52-53).

**Table 4.4 Physical and chemical characteristics of Afra Springs**

	<b>Afra 1</b>	<b>Afra 2</b>
<b>Physical Parameters</b>		
Temperature °C	46,6	46,6
Acidity pH-value	7,03	7,12
Bromide Br (mg/L)	0.75	0.85
Radon R <sup>222</sup> (nCi/L)	19.4	18.3
Carbon dioxide Co <sub>2</sub> (mg/L)	98	102
Hydrogen sulphide H <sub>2</sub> S (mg/L)	0.01	0.01
Total dissolved salts (mg/L)	297	306
<b>Chemical Parameters (mg/L)</b>		
Sodium Na	35.7	36.4
Potassium K	2.3	2.2
Magnesium Mg	17.2	17.9
Calcium Ca	46.3	47.2
Chloride Cl	46.3	47.2
Nitrates NO <sub>3</sub>	0.0	0.0
Sulphates SO <sub>4</sub>	56.5	66.2
Bicarbonates HCO <sub>3</sub>	111.8	133.1

*Source: Salameh and Rimawi (1997:51-52)*

#### **Tourist Facilities at Afra Spa**

The Ministry of Tourism has developed the site in 1997 and then it is run by the Military Pensioner Association. There is little for tourist to find at Afra spa except for small pools for swimming (Picture 4.16). There is no any kind of accommodation, a restaurant, showers, electricity (there is a generator motor that is switched off midnight), there is no place to camp, besides access to the pools is very difficult, especially to sick or elder people. Telecommunications are not functioning, surface and mobile.



Picture 4.16 A therapeutic pool at Afra Spa

#### 4.7.1.3.4 Al Barbaitah Springs

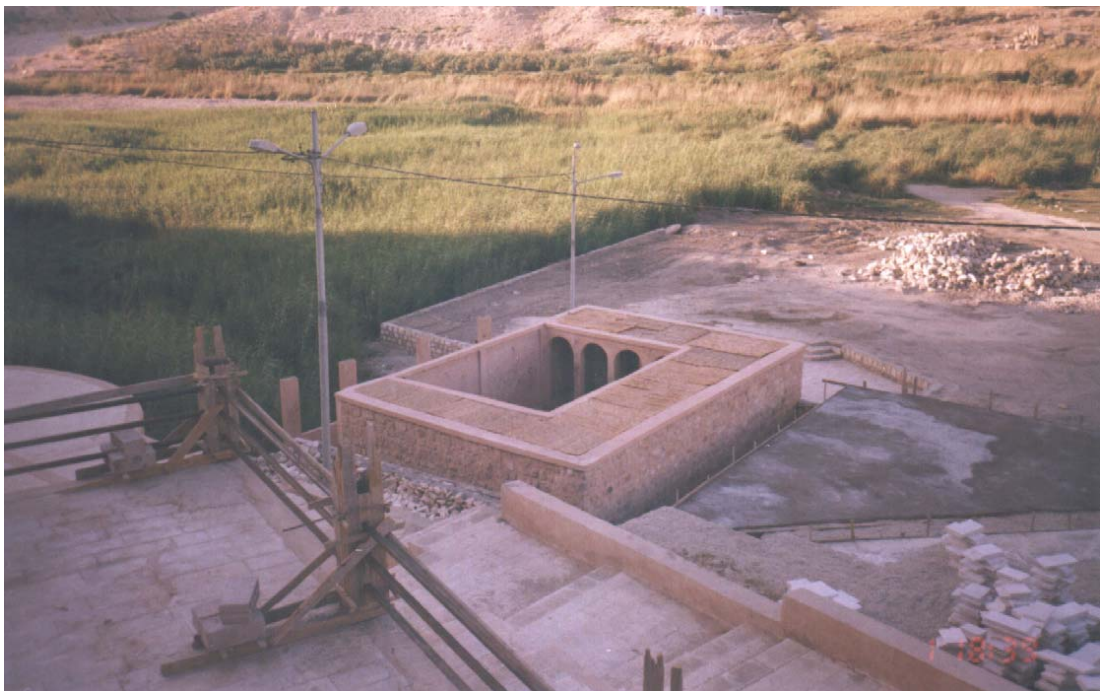
Al Barbaitah springs are located 3 km north of Afra springs and both are some 135 km south of Amman (Appendix 3: distances between Amman and curative sites). The water of Al Barbaitah springs is originated from the Lower Cretaceous sandstone underlying the gravel. Al Barbaitah and Afra springs belong to the same geological unit; therefore the physical and chemical characteristics and the water therapeutic uses are similar (see Table 4.4). The water of Al Barbaitah is classified as alkaline earth with increased portion of alkalis and prevailing chloride (Salameh and Rimawi: 1997: 53).

The site is not ready yet for attracting tourists, where there is no any kind of superstructure; there is only one therapeutic pool with bad shape (Picture 4.17), not showers or toilets and nothing to eat or to sleep. Al Barbaitah springs are under construction, and they need 6 months to 1 year to be ready (Picture 4.18).





*Picture 4.17 the only pool at Al Barbaitah Spa*



*Picture 4.18 Development constructions at Al Barbaitah Spa*

## **4.7.2 Salt waters:**

### **4.7.2.1 The Dead Sea**

#### **4.7.2.1.1 Introduction**

The Dead Sea (D.S) is the world's largest, lowest, saltiest and healthiest natural spa, which is a regional sea between three countries: Jordan, Israel and Palestine. The D.S is 76 kilometers long and between 6 to 16 kilometers wide and its deep ranges from 6 meters in the southern basin to more than 300 meters in the northern one (Picture 4.19). The D.S is famous geographically as the lowest spot on earth, which lies some 400 meters below oceans' level.

The D.S is called so because it is entirely devoid of plant and animal life except for some kinds of bacteria that can adapt to the high salty waters. The D.S is a closed lake, which has no outlet, and the high concentration of salts are caused by a rapid rate of evaporation as a result of dry climate and higher temperatures and because the amount of inflow waters from the Jordan River and other streams are less than the amount of evaporation (Picture 4.20).

The natural elements give the waters of the D.S certain curative properties which are used for the treatment of many chronic diseases as psoriasis, arthritis, rheumatics, asthma, blood circulation problems, urine stones, etc., which were recognized since the days of King Solomon, Herod the Great and Queen Cleopatra over 3000 years ago.

The D.S is important in both tourism and industry for Jordan, Israel and Palestine. In tourism because it is rich in salts and other minerals, which have curative properties and due to the healthy dry and climate with high rate of evaporation that makes a tick layer (haze) that protects from the harms of UVR of the sun. The area also is not populated and very rich in oxygen due to low elevation below sea level, which gives relaxation and calm to visitors. This besides many hot and mineral springs on both sides of the lake that have curative properties that add to the D.S properties.

In industry, both Jordan and Israel have Potassium extracting plants on the southern shores of the D.S by evaporating the waters. This industry helped Jordan to be one of the main exporters of Potash product in the world, which supports the economy by hard money. Other industries include products from the D.S as cosmetics, bath crystals and salts and black mud, which are sold worldwide.



Picture 4.19 A satellite picture of the Dead Sea

Source: [http://www.space.gc.ca/csa\\_sectors/earth\\_environment/radarsat/fimage/image09.asp](http://www.space.gc.ca/csa_sectors/earth_environment/radarsat/fimage/image09.asp)

The Dead Sea has a hot dry climate around the year, where the annual mean temperature is 24° C and it has less mean relative humidity 49-60% due to dry climate and hot temperature (Appendices 4 and 5), and the annual rainfall is around 100 mm, in addition to sunlight around the year, where the Dead Sea enjoys 335 sunny days, with an average of 8.7 hours/day. These characteristics give the Dead Sea unique therapeutic properties, which are almost not found elsewhere. As a result, the patient gets more sunlight, especially those who suffer from skin diseases such as psoriasis. In addition to that, the Dead Sea has 10% more oxygen than any other place on earth due to the elevation under sea level, and the atmosphere is rich in Bromide that is 15 times more any other place, which has a relaxation effect.



Sunlight is very important natural healing factor in the Dead Sea area. In 1991, some studies have been conducted the Ozone layer over the Dead Sea, where the research revealed a thick layer (haze) of 20-35 km over the Sea<sup>115</sup>. This layer is very important to filter out the UVb ray, which is harmful to the skin. Due to the fact that the Dead Sea is located in an elevation of more than 400 m below sea level, the Uva ray comes to the surface, which is needed to heal the skin diseases such as eczema, psoriasis and problems of the joint<sup>116</sup>.



*Picture 4.20 Salt formation at the Dead Sea Coast.*

#### **4.7.2.1.2 The Dead Sea problem**

The Dead Sea is losing nearly 1 meter every year of its level and then the south basin became nearly dry due the heavy usage of water in producing Potash, both by Jordan and Israel and due to high rate of evaporation (Picture 4.19) There were many reasons to this problem include: the fluctuation of rainfall among the years, low inflow rate of waters to the Dead Sea mainly from the Jordan River, Yarmouk River and other streams on both sides of the sea, the increase of the population of the three countries (now it is more than 15 millions inhabitants with an expectancy to reach 25 millions in 2025). But there were two other important reasons to this problem. The first is the water projects which were implemented by both Jordan and Israel during

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<sup>115</sup> Ma'aeyah, K., op.cit. P 43.

<sup>116</sup> Interview with Dr Zuhair Bisharat, Dermatologist and director of The Dead Sea Spa and Medical Centre, 5-6-2002.

the 50 past years. Israel completed its projects in 1954 by drying up the lake of *Houleh* in the north of the Lake Tiberius and constructing canals to carry the waters of Lake Tiberius to the Negev Desert for agricultural uses. Jordan also completed its projects on the eastern part of the Jordan Valley by constructing King Abdullah I Canal in 1961 by transporting waters from Yarmouk River for agricultural and domestic uses, besides Syria had constructed dams on the Yarmouk River which resulted on decreasing the inflow of the waters to the D.S.

These projects resulted in another problem, which is a shortage in fresh waters because these plants were mainly directed towards agricultural uses (75 % of the water uses in both Jordan and Israel go to agriculture, 5 % to industry and 20 % to domestic uses). The second important reason was the Potash Mining Plants of both Jordan and Israel on the southern basin of the D.S and now the southern basin is vanished due its deep was 6 meters as a result of these plants.

In trying to solve the problem, Jordan and Israel have conducted several studies by international consulting companies to transport the waters from The Red Sea (R.S) or The Mediterranean Sea (M.S) as an effort to promote peace cooperation in the region with the help of the international community, but this proposal is still in the thinking stage due to a high cost of constructing such a canal, which was estimated to be more than \$ 5 billion.

#### **4.7.2.1.3 The Dead Sea Healing Factors**

According to Bisharat<sup>117</sup>, the factors that give the healing powers of the Dead Sea its uniqueness include:

1. High rate of oxygen (10 times any other place), due to the elevation of the Dead Sea 400 m below sea level.
2. The climate is dry with high temperature and low relative humidity.
3. Sunny destination (335 days/year with an average of 8.7 hours/day).
4. High rate of evaporation resulted in a thick layer (haze) that filters out the UVb ray of the sun and permits the Uva, which is needed for treatment.
5. High concentration of salts, where it exceeds 10 times of oceans, and the composition of the water is rich in minerals and dissolved salts.
6. The Sea is rich in the black mineral mud that has the effect of absorbing the sunlight, moisturising the skin and activates the blood circulation of the joint.
7. The atmosphere is rich with Bromide that is evaporated with water, which works as a relaxation effect when the patient inhales it.

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<sup>117</sup> Interview with Dr Zuhair Bisharat *ibid*.

8. The water is rich in the natural tar “bitumen”, which works as anti-inflammatory agent against skin allergies, absorbs the UVB ray from the sun and covers the surface of the water with an “oily” layer that smoothens the skin when one swims.
9. The site is far away from pollution and noise, where quietness and relaxation exist, which are required for effective treatment.

**Table 4.5 Chemical characteristics of the Dead Sea water**

Composition	mg/L	composition	mg/L
Sodium Na	34.94	Bicarbonates $\text{HCO}_3$	240.02
Potassium K	7.56	Chloride Cl	208.07
Calcium Ca	15,8	Bromide	5.59
Magnesium Mg	41.96	Sodium chloride $\text{Cl}_2$	87
Sulphates $\text{SO}_4$	0.54	Potassium chloride $\text{Kl}_2$	11.5

Source: Ma'aeyah (1995: 44)

**Table 4.6 some of the Chemical characteristics of the black mud**

Composition	mg/L	Composition	mg/L
Sodium Na	2.5	Bicarbonates $\text{HCO}_3$	0.49
Potassium oxide $\text{KO}_2$	15.82	Chloride Cl	9,7
Calcium Ca	15,8	Bromide	2.24
Magnesium Mg	41.96	Sulphates $\text{SO}_4$	0.54

Source: Ma'aeyah (1995: 45)

### **Tourist facilities at the Dead Sea**

Jordan has started to use the Dead Sea for tourism purposes since 1990, when the first spa has been built there (Dead Sea Spa and Medical Centre), while Israel has started much earlier in 1959. Now, the east coast of the Dead Sea has 3 facilities, five-star hotels, namely, Dead Sea Spa and Medical Centre, Mövenpick Spa and Health Resort (Pictures 4.21-4.25) and Marriott.



Picture 4.21 Indoor salt pool Dead Sea Spa and Medical Centre.

#### 4.7.2.2 The Red Sea (Golf f Aqaba)

The Red Sea is part of the African-Syrian Rift Valley, and so it is within the curative sites in Jordan due its water chemical and physical composition. According to Al Jallad (2000: 175), the sand on the Red Sea coasts is rich in iron, bicarbonates and is radioactive. This besides the area has mostly sunny days of the year and the salinity of the water (43 g/L) is higher than the Mediterranean Sea (39 g/L) but less than of the Dead Sea (290 g/L) of course.

Jordan has a small coast on the Red Sea (35 km), but it is clean and has many tourist activities that take place year round. The area became as a special free economic zone since January 2001. One disadvantage of the area is the harbour is busy and pollution is not regulated. In spite of this, still the Red Sea is an attractive destination for nearly all type of tourism; curative, water sports such as diving, skating, swimming, etc., historical castles. This besides it is close to two of major Jordanian tourist destinations, Petra and Wadi Rum.

Aqaba has a good network of infra and superstructures, in terms of highways, communication, hotels, restaurants, etc., which have a greater impact on boosting tourism there. To the best knowledge of the author, there are no other curative waters in the Golf of Aqaba other than the Red Sea water.





*Picture 4.22 A mineral mud room at the Sanctuary Zara Spa, Mövenpick Dead Sea.*



*Picture 4.23 A panoramic view of Mövenpick Resort Dead Sea Jordan.*





Picture 4.24 A site plan of the Mövenpick Resort at the Dead Sea coast of Jordan.



Picture 4.25 outdoor swimming pool at Mövenpick Resort Dead Sea

#### 4.8 Development Studies and Projects

**Sigma (1997)<sup>118</sup>:** A technical and economic feasibility study on the potential development of the east coast Dead Sea of Jordan. The study proposed a total development project of 33,000 bed units by the year 2010. The development facilities include 12,000 bed units in hotels and tourist villages; 18,000 bed units in weekend and holiday housing and 3000 bed units in tourist youth camps. The development master plan identified 23 potential zones for development alongside the eastern coast of the Dead Sea (60 km long), where they were distributed into 3 major sectors: Suweimah at the north edge of the sea; Zara in the middle and Al Mazra'ah at the south east south coast of the Dead Sea.

**Pacific Consultants International (2000)<sup>119</sup>:** A technical and economic feasibility study of the Dead Sea-Ma'in Spa highway project. The project is about constructing

<sup>118</sup> Sigma Consulting Engineers, Amman, Jordan (1997). *Tourism development project of the east coast of the Dead Sea*. Ministry of Planning publications, pp 1-199.

<sup>119</sup> Pacific Consultants International (2000). *Dead Sea Parkway*. Ministry of Tourism, Jordan, unpublished.

a road of 11,6 km with 2 sides and expected to be ready by 2005. The objective of the project is to shorten the distance between the Dead Sea and Ma'in Spa to nearly 12 km, as it is now more than 50 km, and to connect the Dead Sea with Mount Nebo and Makawer as religious and historical places in Jordan. As a result, the length of stay by tourists can be enhanced and extended for at least one day.

**Zara for Tourist Investments (2001)<sup>120</sup>:** A development plan of Al Hammah spa in the north of Jordan. *Zara for Tourist Investments* has bought the site of Al Hammah recently and they will develop the area from scratch. The project is consisting of building a 4-star spa hotel that will comprise 117 rooms, including 10 family suites; a dining restaurant; a pool-side snack bar and lobby bar; reshaping the current outdoor therapeutic pool (Picture 4.4) to be a leisure pool; an amenity spa incorporating an outdoor sulphur spring pool, hammam, retail outlet, gym and network of treatment rooms. The estimated total cost for the whole project is € 10.5 million and the project will start on November 2002.

**MOTA (2001)<sup>121</sup>:** A development plan of Wadi Bin Hammad springs in the south of the kingdom. The purpose of the project is to utilise the currently neglected springs of Wadi Bin Hammad that are located west of Al Karak and near the Dead Sea (Map 4.1). The project will be ready within 2 years by constructing infrastructure, parking areas, a cafeteria, pedestrian bridge, footpaths, men and women therapeutic pools, changing rooms, showers, a health treatment centre and a sun bathing area. The project does not include any kind of accommodation, which adds to the shortcomings of superstructures in the area. The total cost will be around € 300,000 that will be funded by the World Bank.

**JICA (2001)<sup>122</sup>:** A technical and economic feasibility study on the Dead Sea Panoramic Complex. This project is expected to be ready by 2005. The objective of this project is to embody the historical, geological, religious and the ecological dimensions of the Dead Sea region over history in a museum. The project will be established on an area of 240 acres on an elevation of 300 meters over sea level on the highway) that will be constructed between the Dead Sea and Ma'in Spa (see Pacific Consulting International study above) . Another objective of the two projects is to increase the visitor length of stay.

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<sup>120</sup> Zara for Tourism Investment, Amman, Jordan (2001). *Al Hammah development project*. Unpublished, pp 20-23.

<sup>121</sup> Ministry of Tourism, Jordan (2001). *Wadi Bin Hammad development project*. Unpublished, pp 97-108.

<sup>122</sup> Japan International Cooperation Association (2000). *Dead Sea Panoramic Complex*. Ministry of Tourism, Jordan, unpublished.

The above development projects, with no doubt, will add to the infra and superstructures of curative tourism in Jordan.

#### **4.9 Problems and shortcomings associated with the curative sites**

There were two open-ended questions in the questionnaire of this study. The first was dealing with shortcomings in the site and the other was about suggestions to develop the site.

The following are some notes given by the visitors to question 20 and 21 in the questionnaire (see appendix 1):

##### **Al Hammah springs**

1. Cleanliness.
2. Organisation.
3. Entertainment area.
4. Spa treatment.
5. Public transportation.
6. Drinking water.
7. Expansion or rebuilding.

##### **Ashounah Well**

1. Cleanliness.
2. Organisation.
3. Spa therapy.
4. Public transportation.
5. Drinking water.
6. Better accommodation.

##### **Dead Sea**

1. Better public transportation.
2. More tourist events and activities nearby.
3. Typical Arabian food.
4. Entertainment and leisure.

5. Pharmacy.
6. A better equipped solarium and ventilation.
7. Local telephones.
8. Pool party.
9. More diversified treatment methods for rheumatism.
10. Better equipments in the fitness rooms.
11. A better beach.
12. Shopping mall.
13. More hotels and spas.
14. More promotion.
15. Golf courses.
16. Camping sites.
17. Public spa for low income patients.

### **Al Barbaitah Springs**

1. A camping site.
2. Cleanliness.
3. A pool for females.
4. A restaurant.
5. Accommodation (a hotel rooms or chalets).
6. A parking area.
7. Toilets and showers.
8. Medical clinic (emergency room).
9. Communication services (telephones and cellular telephone coverage).
10. Rehabilitating the road to the site.
11. Cleanliness.

Note: the site is now under development, but the following services will not be available: (a camping site, a parking area, a pool for women, accommodation and restaurant).

### **Afra Springs**

1. Accommodation (hotel rooms or chalet).
2. Restaurant.
3. Electricity to the site (there is a generator motor at the moment).
4. Toilets are far away from the pools.
5. No showers.
6. Lift is needed for disabled or severely sick people (there are stairs with 3 floors high).
7. Rehabilitating the road to the site (narrow).
8. Cleanliness.

9. Communication services (telephones and cellular telephone coverage).
10. Vapour bath for women, the current is for both sexes.
11. Promotion.

#### **4.10 Suggestions for developing curative sites**

According to the suggestions given by the respondents to the research questions and the author's observations, the following suggestions can be summarised:

##### **4.10.1 Infrastructures**

Roads to the curative sites should be rehabilitated and new road networks should be constructed to Afra and Al Barbaitah springs, Wadi Bin Hammad, Ashounah, Jerash spring, Abu Dablah spring and Ma'in springs. The need also is very essential to improve the signing system on the roads to all tourist sites. The telecommunication facilities and services should be provided as telephones, and mobile communication should be covered, which it is not available now. Some of the sites lack electricity, especially Afra spa.

Connecting the curative sites with other archaeological and tourist attractions nearby with road networks, where all the curative sites are located near archaeological cities, nature reserves, national parks, rivers, oases, or religious places. Then it can be a package of four types of tourism; curative, eco or wild, historical and religious tourism.

The road between the Dead Sea and Ma'in springs should be constructed as soon as possible, because, due to geological difficulty, the current distance is about 60 km of rounded road through Madaba, where the real direct distance is 5 km through the valley, but for environmental and scenery reasons, this road can not be implemented. Therefore, the government with the help of the Japan International Bank will construct a road, which will shorten the distance to 12 km.

##### **4.10.2 Superstructures**

The author is agree with the development of Al Hammah Spa according to international standards, which it is intended to rebuild a high priced 4-star spa hotel with all spa services, but one of the shortcomings of this development is the concentration on the international affordable tourists, where a 4-star spa will be priced high and then the local tourists will be screened out due to the majority have

lower income. The author suggests, to solve this problem that will arise by building low cost chalets if land area permits or by buying "*Sahh ennom*" hotel, which is located less than 100 m from the spa, and turn it into hotel rooms or furnished apartment with acceptable prices. By this, Al Hammah will serve both segments of the market, international with high services and prices and the locals with lower prices and acceptable quality of services.

Afra and Al Barbaitah springs should be developed according to commercial purposes, where there is no any kind of accommodations or spa services are existed. They can be developed for the international and the local markets, by building one hotel in each site with 2 to 3 star classifications. This should include most of the spa services such as hydrotherapy, massage, herbal baths, mud baths and wraps, gymnastics, etc. In addition to that, food and beverage services should be included by building a restaurant in each site.

International tourists dominate the Dead Sea area because the current spas and resorts are of higher classification (5 stars) and the services are within the international standards. Therefore, the need for a lower priced lodging and spa services is of high priority to serve the majority of patients and tourists whether they are local or regional. The author suggests that the government should build a public spa near the current facilities of the Dead Sea, since the land is owned by Jordan Water Authority, a government department. As a result those patients or curative tourist, who do not have the ability to enjoy high priced spas, can find it possible to use curative waters medicinally and for relaxation, because now they just swim in the water for some hours and then this is not curative tourism or treatment.

Ashounah spa should be developed according to international standards with spa, lodging and dinning services. This can be done by building a 2 or 3-star spa hotel, a tourist restaurant, spa services such as gymnastic, mud therapy, hydrotherapy, other types of baths and medical check up.

The author pledges support to the development project of Wadi Bin Hammad springs west of Al Karak and near the Dead Sea, due to the acute need for such a project to boost curative and eco-tourism in the area, but any kind of accommodation should be included in the project.

For Jordan to compete in the curative tourism market, the number of hotel rooms should be increased for not less then 10,000 rooms, especially in the Dead Sea, Ashounah, Alhammah, Afra and Al Barbaitah areas. In this case, Jordan will have its position in the market, regionally and internationally.



#### **4.10.3 Tourist attractions and activities**

It is a fortune that all the curative sites are located in or nearby other tourist attractions, where this adds to the value of curative tourism in addition to the climatic characteristics. Therefore, the author suggests that greening the areas around the curative sites is very important, especially in Afra, Al Barbaitah, Ma'in and Ashounah springs, and golf courses can be of great value at the Dead Sea and Ashounah areas.

Cultural and recreational activities should be held within the curative sites region, these could include museums, art exhibitions, exhibition on Jordan history, music and festivals activities, pilgrimage excursions to the Baptism site, excursions to the religious sites such as Mount Nebo, The Jesus Baptismal site, Makawer, the Islamic shrines within the Jordan Valley. Eco-tourism excursion to Wadi Mujib Nature Reserve near the Dead Sea, Ashoumari Reserve near Al Azraq, River Jordan, historical and archaeological excursions to Madaba, Attafilah castle, Al Karak Castle, Um Qais, Jerash and Ajlun.

#### **4.10.4 Organisation**

The need to establish an association of Jordan spas became very essential to upgrade the sector. Jordan can benefit from the experience of other countries such as the UK, Spain, Germany and Poland. This association will help develop the spas according to international norms with help from the International Spa Association, for example, defend the right of its members and finally can market the spa through different channels of distribution such as the Internet.

Concerning the current Medical Tourism Board, which has been established recently this year, it should be reformed to include both types of health tourism; medical and curative. Therefore, the board should be renamed as "Jordan Health Tourism Board".

#### **4.9.5 Marketing**

Maps and brochures on the curative sites are nearly nil, especially maps. Therefore, the JTB should include the curative sites within its marketing campaigns locally, regionally and internationally. It was very hard for the author to find a single map on the curative sites or curative waters of Jordan, he contacted the Royal geographic Centre to get help, but unfortunately they could not help him, because they do not have such maps. As a result, it is not easy to market the country curative tourism if there was no one map that shows the sites or a brochure that talks about the services. The reason, which lies behind this problem is until now, the JTB does not included

curative tourism as a product, despite the fact that the country is very rich in this type of tourism.

Why the JTB does not interested yet, simply because Jordan concentrates on its archaeological and religious attractions (Schneider and Sönmez: 1999: 541)<sup>123</sup>. Jordan has more than ruins to offer; curative tourism, which this thesis highlights it, wild or eco-tourism, where the natural resources of forests, nature reserves, a wide and virgin desert, flora and fauna of the Red Sea, etc.

The need, then to create visitor awareness to Jordan curative sites, the JTB should invest in producing more brochures applicable to curative tourism and targeted to the potential markets in the Arab countries, Europe and America. These brochures should include the needed information for the tourists on curative sites, such as site location; accommodations, type of treatment; a map of the site; prices; disease that can be healed; other tourist attractions nearby and tourist, cultural and social activities that can take place. This can be easily set on the Internet and spread over the whole world.

The author had an experience with the Spanish Spa Association (Asociación Nacional de Estaciones Termales), during his second term of the course in Madrid. The Association has a home page and it produces an annual leaflet on spas, which contains all the necessary information including a map for all spas in Spain and a site map<sup>124</sup>.

The last thing Jordan can do is to reform the current board for medical tourism, which deals only with hospitals and medical centres, by unifying it to include spa tourism and then it can be renamed as “Jordan Health Tourism Board”. In this case, both types of health tourism (medical and curative) can be marketed as a package to target market. It is recognised that curative or therapeutic treatment is not a substitute to medical or clinical, but as a complement, and it should be seen as this.

The JTB with cooperation of the concerned bodies in curative tourism such as MOTA, MOH, hospitals, hotels, spas, associations of diseases and others to come up with a health tourism product (medical and curative) that can be marketed as a package in different language to the target market.

According to the research results, where most of the tourists (55 %) got to know Jordan spas through friends and relatives (Table 5.18), the emphasis should be devoted in the contemporary marketing channels such as tour operators and travel

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<sup>123</sup> Schneider, I., and Sönmez, S. (1999). *Exploring the touristic image of Jordan*. Tourism Management: 20: 593-542.

<sup>124</sup> For more information, see: <http://www.balnearios.org/>.

agents, the insurance companies, the national insurance funds in the western countries, and finally the attractive world web, the Internet. By this, it will be easier to attract more and more health tourists from all over the world.

#### **4.10.6 Statistics**

Generally speaking, Jordan tourist bodies do not document the whole demographic and economic variables of tourists. They only document the country of origin, when tourists arrive to the borders. In this case, it is very difficult for the tourist planner to plan for tourism development in Jordan, if he has not the available information that are needed, such as sex, age, purpose of visit, length of stay, income and expenditure. Another problem that encounters tourism statistics is there is no one authority that takes care on statistics. The police in Jordan point of entries record the nationalities of arrivals, and then they forward it to MOTA.

In fact, there is no statistics on curative tourism, neither local nor inbound. As a result, it was very difficult or more accurately impossible for the author to estimate the current and potential curative tourists to Jordan curative sites. Therefore, the author was reluctant to follow the international estimates of curative tourism, which is between 5 to 7% of the international tourism<sup>125</sup>. In this case, curative tourism in Jordan can be estimated between 75,000 and 100,000 tourists, which matches to the estimates of the MOH<sup>126</sup>.

### **4.11 SWOT analysis of curative tourism in Jordan**

Principally, it is not easy, some times, to distinguish between strengths and opportunities, and weaknesses and threats, where a strength can be seen as an opportunity and a weakness can be a threat, also.

#### **4.11.1 Strengths**

1. Jordan enjoys diversified natural curative resources that including the thermo-mineral spring and the Dead Sea, which has unique properties that can heal many diseases.
2. The geographical location of Jordan in the crossroads between Europe, Africa and Asia, makes the country as a promising tourist destination (Map 4.1).

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<sup>125</sup> Jallad, A., op.cit. P 15.

<sup>126</sup> Alrai Arabic Daily: 11646: 2-8-2002 (translated by the author).

3. Political stability and safety, which Jordan enjoys, encourages tourists to come to the country as a safe destination in the region of the Middle East.
4. The cost of treatment in Jordan is cheaper than other countries in the region and of that in the western countries (it is 10 times cheaper with similar qualities).
5. Jordan enjoys a “curative climate” that is characterised by high temperatures, low rate of relative humidity, sunny days that can exceed 300 days a year. These factors are required for a better and effective treatment results, especially for skin diseases.
6. Curative sites are very close to other tourist attractions, such as archaeological, religious and wildlife sites. This has its impact on the combination of treatment with cultural or historical, spiritual, social and environmental dimensions of curative tourism, which the tourist needs.
7. Jordan is a compacted country that can be toured within some hours, where most of the curative sites are located within 1-2 hours from the airport or Amman.
8. The current hotels or resorts are affiliated to international chains, such as Mövenpick, Marriott, Intercontinental, Accor, Mercure, etc., which sustain the marketing activity on Jordan spas and resorts that can be handled by the chain.

#### **4.11.2 Weaknesses**

1. Curative sites lack sufficient trained staff in all levels of management, whether they are physicians, therapists, managerial, marketing or sales force.
2. High rate of turn over due to low salaries at the curative sites as in the Dead Sea region.
3. Keen competition locally and regionally, especially in the Dead Sea region, between Jordan spas themselves and with the Israelis at the western side of the sea. In this respect, price wars can happen, some times, to secure more tourists.
4. Lack of sufficient number of hotel rooms in Jordan saps and resorts, where the total number does not exceed 2000 room, whereas it is more than 10,000 in the Israeli side.

5. Lack of children facilities at the curative sites, where the family segment is increasingly rapidly worldwide (Whitiam in Pollock and Williams in Gartner and Lime: 2000: 170).
6. Lack of entertainment programmes and activities at the curative sites, where, according to some tourists, who were enjoying treatment at Mövenpick Resort, the tourist feels as he is living in a “prison” in a desert climate of the Dead Sea.
7. Lack of shopping stores at or near the curative sites, where tourists are reluctant to go once a week to Amman, which is located 60 km from the Dead Sea, for example.
8. Lack of awareness on curative tourism due to lack of attention from the tourist bodies as JTB and MOTA on the value of curative tourism.
9. Incomplete and inefficient infrastructure network at the curative sites.
10. Lack of interactive database in different languages on the curative sites in Jordan in terms of their distribution, diseases that can be healed, improvements of treatment, properties of the waters, accommodations, physical and chemical characteristics, etc.
11. Lack of a real beach at the Dead Sea of Jordan.
12. No documentations on the demographic and economic variables of the tourists to Jordan, which hurdles planning and marketing.
13. Lack of government stability, especially MOTA, where the minister is changed frequently, and this is against planning and development.

#### **4.11.3 Opportunities**

1. Curative tourism in Jordan is an upcoming destination with a high potential in growth, where Jordan is surrounded by 7 countries including Israel that have a total population of 130 million inhabitants in addition to the Gulf states (15 million inhabitants) and the rest of the Arab countries ( 70 millions inhabitants), so the total is about 215 million inhabitants. According to the statistics of the Ministry of Tourism in Jordan, the total arrivals from these countries were around 1,150,000 (2001). This means that there is a potential of 57,500-80,500 curative tourists from these countries to Jordan (curative tourism is 5-7 % of the total arrivals).
2. Climate and weather in Jordan is unique for natural therapy, especially the Dead Sea area, where it has a dry climate, high rate of temperature, low rate

of relative humidity and sunny days through out the year, where it is a short come in other countries.

3. The political situation between Israel and Palestine should be seen by the Jordanian planner as an opportunity, not as a threat, where more tourists can be attracted to Jordan curative sites.
4. The Israeli market is potential for Jordan, where at least 150,000 tourists (2001)<sup>127</sup> arrive from Israel to Jordan every year for many reasons; major of them is cheaper prices in Jordan.
5. Jordan has signed economic agreements with the United States and the EU and has been full member with the WTO. This will have a positive impact on the Jordan economy in general, where tourism investment and developments can be boosted.

#### **4.11.4 Threats**

1. The political problem between Israelis and Palestinians has its impact on the development of tourism in Jordan in that Jordan is seen as part of the conflict (this is the current image of Jordan in the west), and due the fact that Jordan could not distinguished itself from and within the region of the Middle East as a safe and stable tourist destination.
2. The water level of the Dead Sea is declining every year (at least 1 m), which will have a negative impact on the ecosystem of the Dead Sea and all the industries within the region including tourism.
3. Price wars and unethical practices within the spa sector in Jordan, encountered by absence of real and clear strategy for marketing and promotion to develop the sector.
4. Five star hotels in Amman became as a new competitor to the spas of the Dead Sea and Ma'in, where they are using the tap water for hydrotherapy instead of thermo-mineral water for it is cheaper and more accessible than other spas.

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<sup>127</sup> Ministry of Tourism, Jordan, Department of Statistics, 2001.

# CHAPTER 5

## 5. DATA PRESENTATION AND ANALYSIS

### 5.1 Discussion of Findings

As mentioned in chapter 3, the sample was a convenient type, which consisted of 210 visitors to 6 curative sites in Jordan. The percentages in the tables below are rounded, which means, some times the total can be more or less 100 %.

#### 5.1.1 Demographic and economic variables

**Table 5.1 Sex (n = 210)**

Variable	Frequency	Percent
Female	91	43 %
Male	119	57 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Here the males were more than females in the sample, and this is different from of the past research in this area, where women dominate the market by 75 % or at least 60 % (Pollock and Williams). This may happen for two reasons, the sample was not randomly selected and the case is different in Jordan (the majority of the sample were Jordanian males 42 % and Arabian Saudis 18 % (Appendix 8), but Table 5.2 shows that 61 % of the foreign tourists were women (Europeans and Americans).

**Table 5.2 Nationality and sex cross tabulation (n = 210)**

Nationality	Sex			
	Female		Male	
	Freq.	% (91)	Freq.	% (119)
Western Europeans	49	54 %	18	15 %
Jordanians	26	29 %	62	52 %
Arabs	10	11 %	35	29 %
North Americans	6	7 %	4	3 %
<b>Total</b>	<b>91</b>	<b>43 % (210)</b>	<b>119</b>	<b>57 % (210)</b>



**Table 5.3 Nationality (n = 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Jordanians	88	42 %
Western Europeans	68	32 %
Arabs	45	21 %
North Americans	10	5 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Here (Table 5.3), the majority of curative tourists were Jordanians with 42 %. The Europeans, as inbound tourists, dominated the market by 32 % mainly from Germany and Austria (14 % and 13 % respectively), the rest, 5%, and come mainly from the United States. This resulted, simply because the majority come to Jordan through the national insurances funds in their countries as of Germany and Austria.

**Table 5.4 Age in years (n = 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Less than 31	37	17 %
32-49	73	35 %
50+	100	48 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

The majority of tourist (patients) fall in the age group of 50+ (48%), which supports the past research (Pollock and Williams), on this subject, that most of the curative tourists lie in this group of age, because it is normal they get body disorders by time and stress.

**Table 5.5 Profession (n = 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Employed	146	70 %
House wife	28	13 %
Pensioner	20	10 %
Student	12	6 %
Unemployed	4	2 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Most of the sample was employed people (70 %), which means that they are facing stress and tension and then they seek treatment and relaxation away from work. In order to know which group of age that matches the type of profession, Table 5.6 documents the cross tabs of age and profession, so it is clear to know the impact of work and the age in body ailments. From the table, the majority (48%) have the age of 50+ and work as (private sector employees, housewives and pensioners), and this is true due to stress in work or one became older or stress at home without work. The second category (14 %) that lies in the age group of 32-37 and work as employees

either private or public, and again this group is younger and they have stress and work load in their life. The third, fourth and fifth categories (11 %, 10 %, and 10 %) fall in the age group of 38-43, 44-49 and 26-31 respectively, have same characteristics of the second category. The rest of the groups lie in different age groups and work in different jobs (8 %).

**Table 5.6 Cross tabulation of age and profession (n= 210)**

<b>Profession</b>	<b>Age (years)</b>	<b>Frequency</b>	<b>Percentage</b>
Private employed, housewives and pensioners	50+	100	48 %
Private and public employed	32-37	29	14 %
Public and private employed	38-43	23	11 %
Private employed	44-49	21	10 %
Public employed	26-31	20	10 %
Others	Different ages	17	8 %
<b>Total</b>		<b>210</b>	<b>100 %</b>

**Table 5.7 Marital status (n = 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Married	168	80 %
Unmarried	42	20 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

In Table 5.7, the majority of respondents in the sample were married (80%). As a result, to some degree they can suffer from stress with their children or counterparts and need to breathe out.

**Table 5.8 Monthly income (€) (n = 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
> 1000	85	49 %
1000-2999	71	34 %
3000 and more	35	17 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Table 5.8 documents the monthly income of the sampled population. As seen from the results, the majority of the respondents have income of less than € 1000 (49 %), but this is not accurate, simply because most of the sample was Jordanians and they have lower income than any other nationalities. When they are excluded from this table, then (n= 125) the results will be different as in table 5.9 below. In this case, the majority of the respondents (non Jordanians) have income between € 1000 and €

2999 (57 %) and those who have income more than € 3000 were 28 %. This is true, because most of them are coming from the western countries and from Suadia Arabia, and these countries have higher levels of income. Based on these results, visitors to Jordan spas are rich and can afford to pay for the services.

**Table 5.9 Monthly income (€) for non Jordanians (n = 125)**

Variable	Frequency	Percent
> 1000	19	15 %
1000-2999	71	57 %
3000 and more	35	28 %
<b>Total</b>	<b>125</b>	<b>100 %</b>

**Table 5.10 Daily expenditure (€) (n = 210)**

Variable	Frequency	Percent
20-100	128	61 %
101-180	57	27 %
181-220	25	12 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Table 5.10 shows the average daily expenditure by curative tourists during their stay in Jordan. Expenses include costs of treatment, accommodation, food and beverage, transportation inside Jordan, entertainment, etc., but not include travel tickets from the country of origin. Here, the majority of the tourists (61 %) spend between € 20 and € 100, but again this is not accurate, because Jordanians are included. Table 5.11 documents the average daily expenditure for non-Jordanians, where 45 % of the sample spends between € 101 and € 180 and 36 % spend between € 61 and € 100, the rest (20 %) spend between € 181 and € 220 per day..

**Table 5.11 Daily expenditure (€) for non Jordanians (n = 128)**

Variable	Frequency	Percent
61-100	46	36 %
101-180	57	45 %
181-220	25	20 %
<b>Total</b>	<b>128</b>	<b>100 %</b>

### 5.1.2 Tourist trip characteristics

**Table 5.12 Type of accommodation (n = 210)**

Variable	Frequency	Percent
Spa hotel	73	35 %
Rented apartment	25	11 %
Spa chalet	21	10 %
Camping	16	8 %
With family or friends	4	2 %
N/A (a day visit)	71	34 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

In Table 5.12, most of the sample lives in the spot of treatment, whether in a spa hotel or a spa chalet (35 % and 10 % respectively). Those who live in rented apartments near the spas account for 11 %. One third of the sample visit the curative sites on a day-visit, therefore, they don't need any kind accommodation there.

**Table 5.13 Length of stay in days (n = 210)**

Variable	Frequency	Percent
Less than 1	71	34 %
1-5	61	29 %
6-10	5	2 %
21-25	34	16 %
26-30	39	19 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

The length of stay that spent by curative tourists is documented in Table 5.13, where the majority of the sample stays between 3 and 4 weeks (35 %), followed by those who stay 1-5 days (29 %). A little bit more than one third of the respondents stay for less than 1 day.

**Table 5.14 Mean of transport in Jordan (n = 210)**

Variable	Frequency	Percent
Private car	125	60 %
Taxi	58	28 %
Tourist coach	10	5 %
Public transport	10	5 %
Tourist car	7	3 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

As seen from Table 5.14, the majority of the respondents in the sample (60 %) use their private cars when visiting curative sites in Jordan. This is true due to the fact that most of the sample was Jordanians and from the neighboring countries. When it comes to international curative tourists, most of them rent a taxi (28 %), and few of

them go by tourist coaches or public transport. This has resulted from a poor public transport network, which the curative sites are missing.

**Table 5.15 The best time to visit the site (n= 210)**

Variable	Frequency	Percent
Spring	74	35 %
Summer	66	31 %
Weekend	42	20 %
Feast holiday	19	9 %
Winter	9	4 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

From Table 5.15, it is clear enough that the majority of respondents prefer to visit curative sites in Jordan either in spring or summer or weekends (35 %, 31 % and 20 % respectively), but still few people prefer to come in winter too (4 %).

**Table 5.16 Do you have any one that accompany you? (n= 210)**

Variable	Frequency	Percent
Yes	147	70 %
No	63	30 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

Most of the curative tourists in the sample have other people who accompany them during their stay to help them or just as a companion such as family or friends (70 %). This agrees with the definition of some researcher that other people who come with the tourist (patient) as companions should be included in the concept of curative tourism, in order to have real facts and statistics about the sector (Magablih: 2001).

**Table 5.17 Number of people accompany the curative tourist (n= 147)**

Variable	Frequency	Percent
5 or more	96	65 %
1	32	22 %
2	10	7 %
4	5	3 %
3	4	3 %
<b>Total</b>	<b>147</b>	<b>100 %</b>

The majority of the respondents have at least some one who accompanies them, 56 % have 5 or more, 22 % have only one person and 7 % have two persons. The rest 6 % have between 3 and 4 persons. Again this has its economic and marketing impact on curative tourism. Those who come with the patient spend money and they can be potential customers in the future after they have tried the curative waters.

**Table 5.18 Knowledge about the site (n= 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Relatives and friends	116	55 %
Doctor's advice/Insurance Fund	50	24 %
Brochures	25	12 %
Tour operators	10	5 %
Broadcast media	6	3 %
Internet	3	1 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

As seen from Table 5.18, the majority of the sampled population did get know about Jordan curative sites through relatives and friend (55 %), which is called in marketing as “word of mouth”. It could be effective if it based on real marketing channels of distribution first, but the case here is different in that out of 116 who answered “relatives and friends”, 100 were Jordanians, Saudis, Palestinians or Egyptians. Therefore, it is true that they know or hear about the sites, but for international tourists, the majority got to know about the sites through doctor's advice or insurance fund in their countries (24 %). This is true for those who come from Germany and Austria, where they get paid for the costs totally or partially. Brochures come third with 12 %, which means a little effort has been dedicated by the Jordan tourist organisations, mainly the JTB. The rest of the channels or means of promotion got less attention, tour operators got 5 %, broadcast media 3 % and internet, which became more famous and attractive in modern marketing, got only 1 %. As a result, the JTB, which is Jordan's tourist body that has the responsibility for marketing and promoting the country as a tourist destination, should invest more and more in different types of marketing and promotion methods to put Jordan on the right place of the international tourist map.

**Table 5.19 Purpose of visit (n= 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Treatment	150	71 %
Relaxation and entertainment	60	29 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

As it is widely known that most of the tourists visit curative sites either for treatment or for relaxation and entertainment to escape stress and work load or they want to maintain a good health, mentally, physically and spiritually. Therefore, the author has chosen only two alternatives (treatment or relaxation and entertainment). Most curative tourist use Jordan curative waters for the purpose of treatment from one or more body ailment (71 %), the rest was relaxation and entertainment.

**Table 5.20 Type of sickness (n= 150)**

Variable	Frequency	Percent
Psoriasis	41	27 %
Arthritis	34	23 %
Rheumatism	12	8%
Ankylosis	12	8 %
Asthma	11	7 %
Others <sup>1</sup>	40	27 %
<b>Total</b>	<b>150</b>	<b>100 %</b>

<sup>1</sup> Other diseases in the sample include: skin allergy, blood pressure, vitiligo, degenerative disc, knee problems, neurodermatitis and eczema.

The majority of patients suffer from psoriasis (27 %), where it is the most common skin disease that affects 2-3 % of the world population. The second disease group is problems of the joint (arthritis, ankylosis and rheumatism), which they allocated for 39 % of the sample. For example, in Sweden, there are 250,000 people suffer from psoriasis<sup>128</sup> (2.6 % of the population), and more than 1 million suffer from some form of rheumatism (around 10 % of the population)<sup>129</sup>. Statistics in Jordan are more or less similar to those of Sweden, but there is no official statistics. Asthma has a fair percentage of 7 % and the rest of the diseases account for 27 %. Skin allergy, blood pressure, vitiligo, degenerative disc, knee problems, neurodermatitis and eczema, are of the other types of diseases that the patients suffer from.

**Table 5.21 Recovery progress (n= 210)**

Variable	Frequency	Percent
Medium	99	47 %
High	46	22 %
Low	5	2 %
N/A Relaxation	60	29 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

In Table 5.21, other purposes than treatment are included (relaxation), which represents 29 % of the sample. In Table 5.22 below are the accurate results of the recovery improvements.

**Table 5.22 Recovery progress without relaxation purposes (n= 150)**

Variable	Frequency	Percent
Medium	99	66 %
High	46	31 %
Low	5	3 %
<b>Total</b>	<b>150</b>	<b>100 %</b>

66 % of the patients showed medium improvements of the diseases and 31 % showed high improvements. Only few showed low improvements (5%). These results agree with Bisharat's study on 215 patients (1997), where 29% of the patients showed

<sup>128</sup> The Swedish Psoriasis Association: <http://www.pso.se/>

<sup>129</sup> The Swedish Rheumatism Association: <http://www.rheumatikerforbundet.org/>



complete clearness of the disease and 60% had a significant and moderate improvement.

**Table 5.23 Methods of treatment (n= 210)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Thermo-mineral water	125	60 %
Combination of (mineral, salt water, mud, sun, etc.)	39	19 %
Salty-mineral water	32	15 %
Others (massage, creams, gymnastic, herbal baths, etc.)	6	3 %
<b>Total</b>	<b>210</b>	<b>100 %</b>

In Jordan curative sites, both thermo-mineral and salt water is used in treatment in addition to other means such as black mud, sun, creams, massage or a combination of these. In Table 5.23, more than half of the respondents enjoy thermo-mineral water (60 %), while a combination of different means account for 19 % and only salt water for 15 %. The rest uses other types such as creams, massage, fitness, herbal baths and a like (3 %).

**Table 5.24 Distribution of tourists in the sample according to curative sites and nationality (n= 210)**

<b>Site</b>	<b>Al Hammah</b>	<b>Ashounah</b>	<b>Dead Sea</b>	<b>Afra</b>	<b>Al Barbaitah</b>	<b>Ma'in</b>	<b>Total</b>
<b>Nationality</b>							
Jordan	21 (70%)	26 (87%)	6 (8%)	12 (60%)	15 (100)	8 (22%)	88 (42%)
Saudi Arabia	9 (30%)			8 (40%)		20 (56%)	37 (18%)
Germany			30 (38%)				30 (14%)
Austria			27 (34%)				27 (13%)
USA		4 (13%)	6 (8%)				10 (5%)
UK			4 (5%)				4 (2%)
Egypt						4 (11%)	4 (2%)
Palestine						4 (11%)	4 (2%)
France			3 (4%)				3 (1%)
Belgium			3 (4%)				3 (1%)
<b>Total</b>	<b>30 (100%)</b>	<b>30 (100%)</b>	<b>79 (100%)</b>	<b>20 (100%)</b>	<b>15 (100)</b>	<b>36 (100%)</b>	<b>210 (100%)</b>

Table 5.24 documents the results of distribution of tourists in the sample (210) to curative sites according to nationality. The majority of tourists at Al Hammah spa were Jordanians and Saudis; at Ashounah spa were Jordanians and some from the United States; at the Dead Sea were Europeans; at Afra spa, Jordanians and Saudis; at Al Barbaitah spa were only Jordanians; and finally, at Ma'in spa, Jordanians and other Arabs dominated the sample.

### 5.1.3 Evaluation of services

The significance degree that is set by the computer (SPSS) is  $\geq 5\%$ , which means there is a difference that has statistical significance. Table 5.25 is used to test the fourth hypothesis.

**Table 5.25 Evaluation of service by tourists (n= 210)**

<b>Variable</b>	<b>Mean</b>	<b>Mean of instrument</b>	<b>Standard deviation</b>
1. Accessibility	2.100	2	0.791
2. Guidance signs	2.190	2	0.706
3. Entrance fees	2.352	2	0.738
4. Treatment prices	2.376	2	0.729
5. Treatment quality	2.209	2	0.621
6. F & B prices	1.790	2	0.734
7. F & B quality	2.371	2	0.614
8. Accommodation prices	2.204	2	0.813
9. Accommodation quality	2.057	2	0.716
10. Efficiency of therapists	1.900	2	0.791
11. Cleanliness	1.847	2	0.735
12. Toilets and showers	1.876	2	0.687
13. Drinking water	1.938	2	0.864
14. Public transportation	1.733	2	0.844
15. Availability of information about the site	1.942	2	0.822
16. Treatment equipments	1.995	2	0.950
17. Parking	1.933	2	0.722
18. Communication facilities	2.071	2	0.891
19. Security and safety	2.790	2	0.430
20. Children playing facilities	1.476	2	0.693
21. Hospitality	2.833	2	0.373
22. Paying with credit cards	2.066	2	0.985
<b>Average for mean</b>	<b>2.047</b>	<b>2</b>	

Here, in Table 5.25, the general evaluation of services by visitors to Jordan spas is acceptable (2.047) and is a little bit over the mean of the instrument (2.00). On the other hand, services (6, 10-17 and 20) fall under the mean of the instrument, and then the visitors were not satisfied with these services. This implies that Jordan should invest in its infra and superstructures to accommodate and satisfy the needs of tourists.

**Table 5.26 One-way ANOVA average test of demographic and economic factors (n= 210)**

Variable	DF	F	Sig. F
Sex	6	16.644	0.050
Age	6	3.456	0.074
Marital status	1	2.317	0.345
Nationality	9	21.383	0.040
Profession	5	4.805	0.058
Length of stay	4	43.682	0.037

Table 5.26 documents the one-way ANOVA test to measure the differences in evaluation of services between curative sites according to factors such as sex, age, marital status, nationality, profession and length of stay. Sex, nationality, length of stay and to some degree profession have differences of statistical significance in evaluation of services in that the significance degree is  $\geq 5\%$ . Marital status has no differences of statistical significance except for treatment prices. Generally speaking, age has no differences that have statistical significance, but some services have significance differences in evaluation. These include treatment prices; prices of food and beverage; prices and quality of accommodation; efficiency of therapists; toilets and showers; drinking water; transportation; treatment equipments; parking; communication facilities; children playing facilities and paying with credit cards services.

## 5.2 Hypotheses testing

The first hypothesis deals with the type of accommodation the visitors choose to live. Therefore, the following hypothesis is tested:

### 5.2.1 H1: Visitors (patients) choose to live in the spot of treatment (in a hotel, chalet, apartment, etc.).

Based on the information of Table 5.12, the majority of tourists were living in hotels, chalets or apartment in the curative sites (35%, 10% and 11% = 56%). Therefore, the asserted hypothesis (H1) is accepted.

The second hypothesis is about the length of stay, and then the following hypothesis is tested:

### 5.2.2 H0: The average length of stay for curative tourists is low as similar as to other types of tourism in Jordan.

Table 5.13 documents the results of length of stay spent by curative tourist in Jordan spas. The majority of patients stay between 21-30 days (35%). Some stayed between

1 and 5 days, which accounts for 29% of the sample. The rest stayed less than 1 day (a day visit) with 34 % and the majority of them were Jordanians, and only 1% stay between 6-10 days. However, the average length of stay for other types of tourism in Jordan is 4 days<sup>130</sup>; then, curative tourists stay more than other types of tourist. Therefore, the null hypothesis is rejected.

The third hypothesis deals with the mean of knowledge about the curative sites in Jordan. The following hypothesis will be tested:

**5.2.3 H0: The destination marketing and promotion effort that is dedicated by JTB is less than what it would be expected.**

To test this hypothesis, results from Table 5.18 are examined. The majority of tourists did get know about Jordan spas through friends and relatives (55%). Despite the fact that this means that Jordan spas are well known, especially within the region, but this means, also, that other modern methods of marketing and promotion are not adopted enough. This is true when only 5% of the tourist come to Jordan through tour operators, 3% through broadcast media (TV, Radio, etc.) and 12% through tourist brochures. An interesting number of tourist come to know about Jordan spas through their doctor or through the Insurance Funds in their countries (24%), where Jordan is cheaper than any other destinations in the region with acceptable services. This resulted through direct contacts between spas (such as Dead Sea Spa, Mövenpick Resort and Ma'in Spa) and hospitals or insurance funds in Europe. Therefore the null (H0) hypothesis is accepted.

The fourth hypothesis is dealing with the evaluation of visitors towards the services they get during their stay. To know this, the following hypothesis will be tested:

**5.2.4 H0: Visitors to Jordan spas evaluate the services rendered to them negatively.**

Table 5.25 shows the descriptive results of visitors' evaluation of services rendered to them during their stay at Jordan spas. Out of 22 services, 9 got less than the mean of instrument (2.00). These include food and beverage prices; efficiency of therapists; cleanliness; toilets and showers; drinking water; public transportation; availability of information about curative sites; parking and children facilities. Nevertheless, the average mean for satisfaction (2.047) is a little bit over the mean of instrument (2.00); visitors to Jordan spas are quite satisfied with services rendered to them. Then, the null hypothesis (H0) is rejected. This means also the services that got low evaluation should be enhanced and upgraded in order to build a positive image of Jordan spas.

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<sup>130</sup> Ministry of Planning, Jordan op.cit.

The fifth and last hypothesis is about the differences in evaluation of services, in the curative sites, by visitors according to the demographic and economic variables such as sex, nationality, age and length of stay. The following hypothesis is tested:

**5.2.5 H0: There are no important differences in the evaluation of services by curative tourists according to factors as sex, nationality, age and length of stay.**

To measure the differences in the evaluation between curative sites according to certain demographic and economic factors such as sex, age, nationality, marital status, profession and length of stay, ANOVA one-way test has been applied and the results are presented in Table 5.26. There are differences that have statistical significance exist between the services and demographic factors such as sex, nationality, and length of stay and to some degree profession. This can be said to the fact that the western tourists were used to higher standards of services at their countries, and then they are not satisfied with the services that rendered to them in Jordan spas, because they expected more than what they got.

Other factors such as marital status and age, generally, there are no differences existed between the sites except for some services such as prices; quality of accommodation and food and beverage; transportation; communication facilities toilets and showers; drinking water; parking; children playing facilities and paying with credit cards. As a result, the Null hypothesis (H0) is rejected and the alternative hypothesis is accepted, which implies differences that existed between sites on evaluation of services according to some demographic and economic factors.

### **5.3 Research results**

The study comes up with the following results:

1. Jordan enjoys natural curative resources, which are rare elsewhere, and have higher qualities due to its distinctive climate, but they lack many services, efficient infra and superstructures, qualified human resources, effective marketing and promotion.
2. The major curative spas that have international standards are concentrated in one area, the Dead Sea and Ma'in, and the other areas are nearly neglected.
3. The majority of visitors to Jordan spas were men, who have the age group of 50+, married, have income level between € 1000 and € 2999 and spend € 61-100.

4. Most of the visitors live in hotels, chalets or furnished apartments in or near the curative sites.
5. The length of stay for curative tourists in Jordan is between 3 to 4 weeks, which is higher than of any other type of tourism.
6. Curative tourists evaluate the service rendered to them at Jordan curative spas positively, except for some services such as prices of accommodation, food and beverage or treatment, quality of food, accommodation, transportation, efficiency of therapists.
7. There exist differences of evaluation by tourists between curative sites, which have statistical significance according to factors of sex, nationality and length of stay.
8. The marketing and promotional effort that is paid by JTB toward curative tourism is modest, where most of the tourists got know about the sites through friends and family, not through modern marketing methods.
9. The majority of foreign curative tourists come from the EU countries, mainly from Germany and Austria, through a doctor advice or the national insurance funds in their countries.
10. Psoriasis and problems of the joint, such as arthritis, ankylosis and rheumatism are of the major diseases that are healed in Jordan curative waters.
11. The research revealed that 20 curative sites in Jordan have been identified and classified according to technical and economic feasibility for potential development. The author found that 4 sites are classified as of high potential development, 10 of medium potential and 6 have low potential for development (Appendix 2).
12. The tourist bodies in Jordan lack a clear vision and tourism strategies concerning curative tourism. They mean medical tourism (hospitals and medical centres) when they are talking about health tourism. This is true, after they have established a new board that takes the responsibility to promote and market hospitals and surgery operations in the country, and at the same time nothing was done to include curative tourism in the board's vision and strategy.
13. There is, still, no database on the resources of curative tourism in Jordan, by which researchers, tourists, patients and other concerns can refer and benefit

from. For example, there is no any kind of organisation or association for spas, no statistics on the sector, any brochures and maps about the sits, etc.

14. The infra and superstructures of curative tourism is still modest in comparison with other countries in the region as Israel and Egypt.
15. The political situation in the region between Palestinians and Israelis hurdles tourism development in Jordan, in general, and curative tourism is no exception.
16. The Dead Sea and Ma'in spas are characterised by foreign tourists segment, because they are working according to international standards. On the other hand, the rest of the spas are visited often by Jordanians and Arabs, more or less.
17. Improvements in disease clearance have two facets: the whole sample: 47% medium improvements and 22 high improvements, but for non-Jordanian tourists: 66% medium improvements and 31% high improvements.
18. The majority of tourists visit Jordan spas for the purpose of treatment (71%) and the rest is for relaxation and entertainment (29%).



# CHAPTER 6

## 6. CONCLUSION AND RECOMMENDATIONS

### 6.1 Conclusion

Jordan is still in the early stages of product development of curative tourism. The country has started its interest in developing curative sites in 1964, when the first site, Al Hammah, in the north of the country, began to receive visitors. This initiative was followed by new developments in 1982, in other two sites in Ashounah near Al Hammah, and Ma'in near the Dead Sea. The Dead Sea was neglected until 1989, when the Dead Sea Spa Hotel has been established on the northeastern coast of the Dead Sea, while Israel started developing the western coast in 1959. Recently, in 1997, Afra springs were developed by the Ministry of Tourism. New spas and resorts have been built in certain places, especially on the Dead Sea coast; these include Mövenpick Health Resort, Marriott Jordan Valley Resort in 1999 and 2002 respectively. Albarbaitah springs are under construction and they are expected to be ready in the next spring. New development projects include one 5-star hotel on the Dead Sea coast, a 4-star resort and spa in Al Hammah and development of Wadi Bin Hammad springs, and they are expected to be ready in the year 2003.

Jordan enjoys more than 200 thermo-mineral springs besides the Dead Sea and the Red Sea, where a unique climate with warm dry weather and sunny days exceed 300 days a year. Curative sites in Jordan are lacking many things, major of them include infra and superstructures, where some sites have very old and narrow roads such as Afra and Al Barbaitah, Wadi Bin Hammad, etc., the signing system is not effective and misleading some times. More over, the lodging sector in the curative sites is much far modest, where the capacity is 1:10 in comparison with Israel or Egypt.

Jordan has the ability to compete in the market of curative tourism due its distinctive resources, but the accommodation should be raised first to the level not less than 10,000 rooms. Hotels and other types of accommodation should be built in the major curative sites, which this research has been conducted, with more emphasis in low cost facilities to serve the majority of low-income tourists.

Marketing is very important element to raise the value of curative resources, where having unique resources as those of Jordan is not enough alone, there should be a

communication channel with the target market through different means. Therefore, the Jordan Tourism Board (JTB), as a marketing organisation, should invest in effective and efficient marketing to attract more tourists through different channels, which may include familiarisation trips to journalists and tour operators, where they can come to Jordan to see the status quo of curative tourism and its facilities. The media has a big impact on the creating a destination image, where journalists can write in the printed media in their countries and then affect the people there. Tour operators play, also, an effective role in creating and recovering destination images. If they adopt certain destination, the tourists will follow. Other means include advertising in the generating country mass media, the Internet, which is growing very fast and finally have a direct contacts with associations, insurance funds and insurance companies.

Curative tourists to Jordan spas suffer from some problems during their stay in the country, major of them include lack of public transportation; cleanliness; accessibility (roads); modest number of accommodations and unavailability in some sites; treatment services not available in most of the sites; prices are very high in comparison with the services rendered; entertainment programmes and activities are missed; communication facilities are not available in some sites; etc.

## **6.2 Further areas of research**

Due to time constraints, the author could not explore the human resource and management dimension on curative sites of Jordan, therefore, it is recommended to cover this dimension in future research, where the human factor has a great effect in tourism industry in general, because, simply it is intangible service. Research can be on the qualifications of personnel as working in the curative sites in all levels of management.

Another area of research could be a market research on curative tourism in Jordan, this include studying the current market and potential markets, SWOT analysis, a marketing plan, etc.

The last areas that can be of value to study are other products that have relation to curative tourism. These include salts, mud, crystals and other extracts from the Dead Sea, mineral water from the hot springs that can be bottled and herbs, which Jordan has a considerable amount of herbs through out the country that can be packed and sold worldwide, such as herbal teas, herbal shampoos, herbal medicine, etc.

### 6.3 Recommendations

Based on the suggestions set by curative tourists, observations of the author and the SWOT analysis, the author recommends the following:

1. Government spa on the Dead Sea should be built for the public, where most of the people have low level income.
2. Development of Jerash spring, where it can add to the attractions of the old Greco-Roman city.
3. Development of Zara springs on the Dead Sea coast.
4. Implementation of the highway between the Dead Sea and Ma'in.
5. Public access to patients with low-income top spas that are classified 4 and 5 stars. As on the Dead Sea and Al Hammah in the near future after development (4 star spa).
6. Upgrading the infrastructure (highways and the signing system).
7. "Fierced" promotion and objective marketing (to the potential markets, new markets, etc.).
8. Connection between curative tourism and other types that have direct relation as religious and historical, etc.
9. Implementation of the Red-Dead canal or a pipeline to maintain the eco-system of the Dead Sea.
10. Connection between hospitals and spas to complete the treatment that the patient receives in hospitals with a natural therapy in spas.
11. Establishment of an association for spas as that of Spain.
12. The Medical tourism Board should be reformed to "Health Tourism Board" to include the three types of health tourism (i.e. medical, curative and preventive).
13. Public awareness of the benefit of natural therapy in consonance with the international trend towards a concept of going back to nature for treatment and food.

14. Diversification and better positioning of tourist products. More emphasis on alternative types of tourist products such as curative tourism, eco-tourism, etc.
15. Greening the area around the curative sites to give scenery surroundings.

In summary, there is a need for comprehensive planning to secure the balanced provision of accommodation, infrastructures and spa services. There is also a particular need to increase the accommodation in the Dead Sea, Ashounah and Al Hammah areas with low priced accommodations (2-3 star hotels and chalets).

More attention should be given to improve the standards of services according to international norms. Transport should be improved and the canal that links the Red Sea with the Dead Sea should be implemented as soon as possible to secure the Dead Sea from an environmental disaster that will affect all sectors in the area.

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# Appendices

**Appendix 1****Questionnaire for the field study****Master Thesis in European Tourism Management 'Curative Tourism in Jordan and its Potential Development'**

Dear Visitor,

The objective of this questionnaire is to measure the level of visitor satisfaction to Jordan spas and mineral and hot springs in an attempt to improve the quality of services according to international standards. Your answers will be kept secretly except for research purposes.

Wishing you a pleasant stay!

We are looking forward to your cooperation by completing this questionnaire through your right answers!

**Kindest regards**

Salem Harahsheh  
M A in European Tourism Management  
**Bournemouth University**  
United Kingdom

Questionnaire No. (       )

Date:       -       - 2002

Site Name: .....

## **I Data on the Tourist Trip:**

### **7) Where do you stay in Jordan during your treatment period?**

- ☐ In the spot of treatment (hotel)      ☐ In the spot of treatment (chalet)  
☐ With family and friends      ☐ Rented apartment      ☐ Camping      ☐ N/A (a day visit)

### **8) Duration of stay in days:**

- ☐ 1 - 5      ☐ 6 - 10      ☐ 11 - 15      ☐ 16 - 20      ☐ 21 - 25      ☐ 26-30      ☐ more than 30

### **9) Port of entry to Jordan:**

- ☐ Air      ☐ Sea      ☐ Land      ☐ N/A (Jordanians)

### **10) Mean of transport in Jordan:**

- ☐ Tourist coach      ☐ Tourist car      ☐ Taxi      ☐ Private car      ☐ Public transport

### **11) In your opinion, what is the best time to visit the site?**

- ☐ Winter      ☐ Spring      ☐ Summer      ☐ Autumn  
☐ Week end      ☐ Feast vacation

### **12) Do you have any body, who accompanies you during your treatment period?**

- ☐ Yes      ☐ No

### **13) If the answer is yes, how many?**

- ☐ 1      ☐ 2      ☐ 3      ☐ 4      ☐ 5 or

### **14) How did you know about the site?**

- ☐ Relatives and friends      ☐ Tour operators/travel agents      ☐ Broadcast media  
☐ Printed media      ☐ Brochures      ☐ Internet      ☐ Insurance Fund/ Doctor advice

### **15) What is the purpose of your visit?**

- ☐ Treatment      ☐ Relaxation and entertainment      ☐ Others, specify.....

### **16) If the purpose of your visit is treatment, what is the type of your sickness?**

- ☐ Psoriasis      ☐ Asthma      ☐ Arthritis      ☐ Rheumatism      ☐ Ankylosis  
☐ Others, please specify.....      ☐ None (relaxation)

### **17) How do you evaluate your recovery progress?**

- ☐ Low      ☐ Medium      ☐ High      ☐ N/A (relaxation)

### **18) What is the type of treatment you receive?**

- ☐ Thermal water      ☐ Salt water      ☐ Mud      ☐ Climate and sun  
☐ Equipments      ☐ Herbal baths      ☐ A collection of the above  
☐ Others, specify .....

### **19) What are the curative spas that you have visited in Jordan?**

- ☐ Alhammah      ☐ Ashounah      ☐ The Dead Sea  
☐ Ma'in      ☐ Afra      ☐ Others (Barbaitah, Wadi Bin Hammad, Azraq, etc.)

### **20) In your opinion, what does the site lack for?**

.....

### **21) Your suggestions to develop the site:**

.....

## II Satisfaction about the Services

**22) Please evaluate the followings about the site:**

Item	Evaluation	Bad	Acceptable	Good
1. Accessibility				
2. Guidance signs to the site				
3. Entrance fees				
4. Treatment prices				
5. Treatment quality				
6. Food and beverage prices				
7. Food and Beverage quality				
8. Accommodation prices				
9. Accommodation quality				
10. Efficiency of therapists				
11. Cleanliness				
12. Toilets and Showers				
13. Drinking water				
14. Transportation				
15. Availability of information about the site				
16. Treatment equipments				
17. Parking				
18. Communication facilities (interpreters, phones, faxes, Internet, mail, etc.)				
19. Security and safety				
20. Children playing facilities				
21. Hospitality				
22. Paying with credit cards				

## III Demographic and Economic Variables:

**1) Sex:**

☐ Female      ☐ Male

**2) Nationality:**

☐ Jordan      ☐ Saudia Arabia      ☐ Germany      ☐ Austria      ☐ USA  
☐ France      ☐ UK      ☐ Belgium      ☐ Palestine      ☐ Egypt      ☐ Others .....

**3) Age (years):**

☐ Less than 20      ☐ 20-25      ☐ 26-31      ☐ 32-37      ☐ 38-43      ☐ 44-49      ☐ 50 or more

**4) Profession:**

☐ Public sector employee      ☐ Housewife      ☐ Pensioner  
☐ Student      ☐ Private sector employee      ☐ Unemployed

**5) Marital status:**

☐ Married      ☐ Unmarried

**6) Monthly income in Euros (€):**

☐ less than 500      ☐ 500 - 999      ☐ 1000 - 1999      ☐ 2000 - 2999      ☐ 3000 and more

**7) Average daily expenditure in Euros (€):**

☐ 20-60      ☐ 61-100      ☐ 101-140      ☐ 141-180      ☐ 181-220      ☐ more than 220

**Thank you for your cooperation!**

## Appendix 2

### Potential development for curative sites in Jordan according to technical and economic feasibility

Site	Criteria	Geo-physical	°C	Superstructure	Accessibility	Current market	Potential market	Surrounding attractions	Development status	Potential for development
1. Al Hammah		G	M	L	G	M	G	Gadara ruins, River Jordan, Yarmouk, Islamic Shrines	Developed	H
2. Ashounah		G	H	P	M	M	G	Pella, River Jordan, Wadi Arab Dam, Islamic Shrines	Developed but not efficient	H
3. Dead Sea		G	L	M	G	G	G	Baptismal site, Mount Nebo, Islamic Shrines, Ma'in	Developed but not enough	H
4. Ma'in		G	H	M	P	G	G	Madaba, Macareous, Dead Sea.	Developed	M
5. Jerash		G	L	P	P	P	M	Jerash, Zarqa River, Debbin National Park.	Undeveloped and neglected	M
6. Al Azraq		G	M	P	G	L	M	Azraq Oasis, Azraq Castel, Ashoumari Nature Reserve.	Undeveloped	M
7. Afra		G	M	P	P	P	M	Al Hisa Valley, Attafilah Castle	Developed but not complete	H
8. Al Barbaitah		G	M	P	P	P	M	Al Hisa Valley, Attafilah Castle	Under construction	M
9. Zara		G	H	P	M	P	M	Dead Sea, Ma'in	Undeveloped and neglected	H

<b>10. Wadi Bin Hammad</b>	G	M	P	P	P	P	M	Dead Sea, Al Karak Castle, Wadi Al Mujib Nature Reserve	Undeveloped	M
<b>11. Red Sea</b>	G	L	G	G	G	G	G	Golf of Aqaba, Petra, Wadi Rum, Aqaba Castle, marine flora and fauna	Developed	H
<b>12. Wadi Addiraa</b>	G	L	P	P	P	P	P	Dead Sea	Undeveloped and neglected	L
<b>13. Hisban</b>	G	L	P	P	P	P	P	Dead Sea, Baptismal site	Undeveloped and neglected	L
<b>14. Al Kafrain</b>	G	M	P	P	P	P	P	Dead Sea, Baptismal site	Undeveloped and neglected	L
<b>15. Abu Dablah</b>	G	M	P	P	P	P	M	Pella ruins, Wadi Al Arab Dam, River Jordan	Undeveloped	M
<b>16. Deir Alla</b>	G	L	P	P	P	P	M	Zarqa River , River Jordan, Islamic shrines	Undeveloped	M
<b>17. Mua'ddi</b>	L	L	P	P	P	P	P	River Jordan, Zarqa River, Islamic shrines	undeveloped	M
<b>18. Waggas</b>	G	H	P	P	P	P	P	River Jordan, Islamic shrines	Undeveloped and neglected	L
<b>19. Al Mansheyah</b>	G	H	P	P	P	P	P	King Abdullah I Canal, Islamic shrines, River Jordan	Undeveloped and neglected	L
<b>20. Abu Ziad</b>	G	H	P	P	P	P	P	King Abdullah I Canal, Islamic shrines, river Jordan	Undeveloped and neglected	L

Notes: G = Good; M = Medium; L = Low; P = Poor; H = High, Temperature: High = more than 50° C; Medium = 35-49° C; Low = less than 35° C.



### Distances between Amman and the curative sites of Jordan (km)

**1,2,3,4,5,6,7,8 the distance is counted to the north coast of the Dead Sea, where curative facilities are located. Adapted by the author.**

## **Appendix 4**

### **Climatic parameter of curative sites in Jordan (winter)**

<b>Site</b>	<b>Parameter</b>	<b>C° (mean)</b>	<b>Rainfall (ml)</b>	<b>Relative Humidity (%)</b>	<b>Sunlight (days)</b>
<b>Al Hammah</b>		<b>12.2</b>	<b>79.7</b>	<b>69</b>	<b>5.4</b>
<b>Ashounah</b>		<b>14.5</b>	<b>76.4</b>	<b>73</b>	<b>6</b>
<b>Dead Sea</b>		<b>15.9</b>	<b>22.3</b>	<b>60.7</b>	<b>7</b>
<b>Ma'in</b>		<b>15.9</b>	<b>55.7</b>	<b>70</b>	<b>6</b>
<b>Al Barbaitah</b>		<b>14</b>	<b>29.7</b>	<b>64.7</b>	<b>6.2</b>
<b>Afra</b>		<b>9.8</b>	<b>39</b>	<b>63.7</b>	<b>6.2</b>

*Source: Jordan Meteorology Department, 2002.*

## **Appendix 5**

### **Climatic parameter of curative sites in Jordan (summer)**

<b>Site</b>	<b>Parameter</b>	<b>C° (mean)</b>	<b>Rainfall (mm)</b>	<b>Relative Humidity (%)</b>	<b>Sunlight (hour/day)</b>
<b>Al Hammah</b>		<b>27.5</b>	<b>0</b>	<b>55.7</b>	<b>11</b>
<b>Ashounah</b>		<b>29.4</b>	<b>0</b>	<b>50</b>	<b>11.5</b>
<b>Dead Sea</b>		<b>31.1</b>	<b>0</b>	<b>50.7</b>	<b>13</b>
<b>Ma'in</b>		<b>30,4</b>	<b>0</b>	<b>45</b>	<b>11.2</b>
<b>Al Barbaitah</b>		<b>26.3</b>	<b>0</b>	<b>40.7</b>	<b>11</b>
<b>Afra</b>		<b>25.1</b>	<b>0</b>	<b>39.7</b>	<b>11</b>

*Source: Jordan Meteorology Department, 2002.*

## **Appendix 6**

### **Tourism key indicators 1998-2001**

<b>Indicator</b>	<b>2000</b>	<b>2001</b>
<b>Total arrivals</b>	<b>1,426,000</b>	<b>1,477,697</b>
<b>Tourist receipts</b>	<b>€ 717</b>	<b>€ 695</b>
<b>Tourist payments</b>	<b>€ 347</b>	<b>€ 417</b>
<b>Hotel beds</b>	<b>28,143</b>	<b>32001</b>
<b>Travel agents</b>	<b>397</b>	<b>397</b>
<b>Tourist guides</b>	<b>685</b>	<b>685</b>
<b>Air companies</b>	<b>3</b>	<b>3</b>
<b>Tourist cars</b>	<b>285</b>	<b>285</b>
<b>Tourist busses</b>	<b>297</b>	<b>297</b>
<b>Souvenir shops</b>	<b>173</b>	<b>173</b>
<b>Hospitals</b>	<b>84</b>	<b>N/A</b>
<b>Spas and health resorts</b>	<b>6</b>	<b>6</b>
<b>Total tourist nights (hotels)</b>	<b>3,290,649</b>	<b>2,685,782</b>
<b>Average length of stay (days)</b>	<b>2.3</b>	<b>1.8</b>

*Source: Ministry of Tourism and Antiquity, Statistics department, 2002.*

**Appendix 7 (SPSS)****Sex**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	91	43.3	43.3	43.3
	male	119	56.7	56.7	100.0
	Total	210	100.0	100.0	

**Appendix 8****Nationality**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Jordan	88	41.9	41.9	41.9
	Saudia Arabia	37	17.6	17.6	59.5
	Germany	30	14.3	14.3	73.8
	Austria	27	12.9	12.9	86.7
	USA	10	4.8	4.8	91.4
	France	3	1.4	1.4	92.9
	UK	4	1.9	1.9	94.8
	Belgium	3	1.4	1.4	96.2
	Palestine	4	1.9	1.9	98.1
	Egypt	4	1.9	1.9	100.0
	Total	210	100.0	100.0	

**Appendix 9****Age in years**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 20	2	1.0	1.0	1.0
	20-25	15	7.1	7.1	8.1
	26-31	20	9.5	9.5	17.6
	32-37	29	13.8	13.8	31.4
	38-43	23	11.0	11.0	42.4
	44-49	21	10.0	10.0	52.4
	more than 50	100	47.6	47.6	100.0
	Total	210	100.0	100.0	

**Appendix 10****Profession**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public sector employee	41	19.5	19.5	19.5
	House Wife	28	13.3	13.3	32.9
	Pensioner	20	9.5	9.5	42.4
	Student	12	5.7	5.7	48.1
	Private sector employee	105	50.0	50.0	98.1
	Unemployed	4	1.9	1.9	100.0
	Total	210	100.0	100.0	

**Appendix 11****Marital Status**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	168	80.0	80.0	80.0
	Unmarried	42	20.0	20.0	100.0
	Total	210	100.0	100.0	

**Appendix 12****Montly income in Euros**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 500	85	40.5	40.5	40.5
	500-999	19	9.0	9.0	49.5
	1000-1999	36	17.1	17.1	66.7
	2000-2999	35	16.7	16.7	83.3
	3000 and more	35	16.7	16.7	100.0
	Total	210	100.0	100.0	

**Appendix 13****Daily expenditure Euros**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-60	82	39.0	39.0	39.0
61-100	46	21.9	21.9	61.0
101-140	19	9.0	9.0	70.0
141-180	38	18.1	18.1	88.1
181-220	25	11.9	11.9	100.0
Total	210	100.0	100.0	

**Appendix 14****Where do you stay during your treatment period?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid in the spot of treatment (hotel)	73	34.8	34.8	34.8
in the spot of treatment (chalet)	21	10.0	10.0	44.8
With family and friends	4	1.9	1.9	46.7
Rented apartment	25	11.9	11.9	58.6
Camping	16	7.6	7.6	66.2
N/A (a day visit)	71	33.8	33.8	100.0
Total	210	100.0	100.0	

**Appendix 15****Duration of stay in days**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid less than 1	71	33.8	33.8	33.8
1-5	61	29.0	29.0	62.9
6-10	5	2.4	2.4	65.2
21-25	34	16.2	16.2	81.4
26-30	39	18.6	18.6	100.0
Total	210	100.0	100.0	

**Appendix 16****Point of Entry to Jordan**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Air	77	36.7	36.7	36.7
	Land	41	19.5	19.5	56.2
	Sea	4	1.9	1.9	58.1
	N/A (Jordanians)	88	41.9	41.9	100.0
	Total	210	100.0	100.0	

**Appendix 17****Mean of transport in Jordan**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tourist coach	10	4.8	4.8	4.8
	Tourist car	7	3.3	3.3	8.1
	Taxi	58	27.6	27.6	35.7
	Private car	125	59.5	59.5	95.2
	Public transport	10	4.8	4.8	100.0
	Total	210	100.0	100.0	

**Appendix 18****What is the best time to visit the site?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Winter	9	4.3	4.3	4.3
	Spring	74	35.2	35.2	39.5
	Summer	66	31.4	31.4	71.0
	Week end	42	20.0	20.0	91.0
	Feast vacation	19	9.0	9.0	100.0
	Total	210	100.0	100.0	

**Appendix 19**

Do you have any one accompanying you?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	147	70.0	70.0	70.0
No	63	30.0	30.0	100.0
Total	210	100.0	100.0	

**Appendix 20**

If yes, how many?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	32	15.2	15.2	15.2
2	10	4.8	4.8	20.0
3	4	1.9	1.9	21.9
4	5	2.4	2.4	24.3
5 or more	96	45.7	45.7	70.0
None	63	30.0	30.0	100.0
Total	210	100.0	100.0	

**Appendix 21**

How did you know about the site?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Relatives and friends	116	55.2	55.2	55.2
Tour operators/travel agents	10	4.8	4.8	60.0
Broadcast media	6	2.9	2.9	62.9
Brochures	25	11.9	11.9	74.8
Internet	3	1.4	1.4	76.2
Doctor's advice	50	23.8	23.8	100.0
Total	210	100.0	100.0	



**Appendix 22**

What is the purpose of your visit?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Treatment	150	71.4	71.4	71.4
	Relaxation and entertainment	60	28.6	28.6	100.0
	Total	210	100.0	100.0	

**Appendix 23**

What is the type of your sickness?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Psoriasis	41	19.5	19.5	19.5
	Asthma	11	5.2	5.2	24.8
	Arthritis	34	16.2	16.2	41.0
	Rheumatism	12	5.7	5.7	46.7
	Ankylosis	12	5.7	5.7	52.4
	Others	40	19.0	19.0	71.4
	None (relaxation)	60	28.6	28.6	100.0
	Total	210	100.0	100.0	

**Appendix 24**

How do you evaluate your recovery progress?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	5	2.4	2.4	2.4
	Medium	99	47.1	47.1	49.5
	High	46	21.9	21.9	71.4
	N/A (relaxation)	60	28.6	28.6	100.0
	Total	210	100.0	100.0	

**Appendix 25**

What is the mean of treatment that you receive?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Thermal water	125	59.5	59.5	59.5
	Salt water	32	15.2	15.2	74.8
	Climate and sun	8	3.8	3.8	78.6
	a collection of the above (salt water, sun, mud, etc.)	39	18.6	18.6	97.1
	Others (creams, massage, etc.)	6	2.9	2.9	100.0
	Total	210	100.0	100.0	

**Appendix 26**

What are the curative Spas that you have visited before in Jordan?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Al Himmeh	24	11.4	11.4	11.4
	Ashouneh	22	10.5	10.5	21.9
	Dead Sea	72	34.3	34.3	56.2
	Ma'in	68	32.4	32.4	88.6
	Afra	16	7.6	7.6	96.2
	Others (Barbaitah, Wadi Bin Hammad, Azraq, etc.)	8	3.8	3.8	100.0
	Total	210	100.0	100.0	

**Appendix 27****Evaluation of services****Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Accessibility	210	1.00	3.00	2.1000	.79140
Guidance signs to the site	210	1.00	3.00	2.1905	.70670
Entrance fees	210	1.00	3.00	2.3524	.73830
Treatment prices	210	1.00	3.00	2.3762	.72969
Treatment quality	210	1.00	3.00	2.2095	.62170
Food and Beverage prices	210	1.00	3.00	1.7905	.73459
Food and Beverage quality	210	1.00	3.00	2.3714	.61492
Accommodation prices	210	1.00	3.00	2.2048	.81316
Accommodation quality	210	1.00	3.00	2.0571	.71657
Efficiency of therapists	210	1.00	3.00	1.9000	.79140
Cleanliness	210	1.00	3.00	1.8476	.73571
Toilets and showers	210	1.00	3.00	1.8762	.68749
Drinking water	210	1.00	3.00	1.9381	.86449
Transportation	210	1.00	3.00	1.7333	.84453
Availability of information about the site	210	1.00	3.00	1.9429	.82228
Treatment equipments	210	1.00	3.00	1.9952	.95094
Parking	210	1.00	3.00	1.9333	.72239
Communication facilities (interpreters, phones, faxes, Internet, mail, etc.)	210	1.00	3.00	2.0714	.89102
Security and safety	210	1.00	3.00	2.7905	.43076
Children playing facilities	210	1.00	3.00	1.4762	.69303
Hospitality	210	2.00	3.00	2.8333	.37357
Paying with credit cards	210	1.00	3.00	2.0667	.98570
Valid N (listwise)	210				